

Service Bulletin

JAGUAR

Daimler

Date JANUARY 1984
Sheet 1 of 9
Bulletin JD.01/84

AMENDMENT

Would all recipients please note that Item 51 was used in both JD 07/83 and JD 08/83. No confusion should occur as they refer to different subjects, but a note could be made in the Index for clarification.

ITEM 01

ALL MODELS

MIDDLE EAST MARKETS

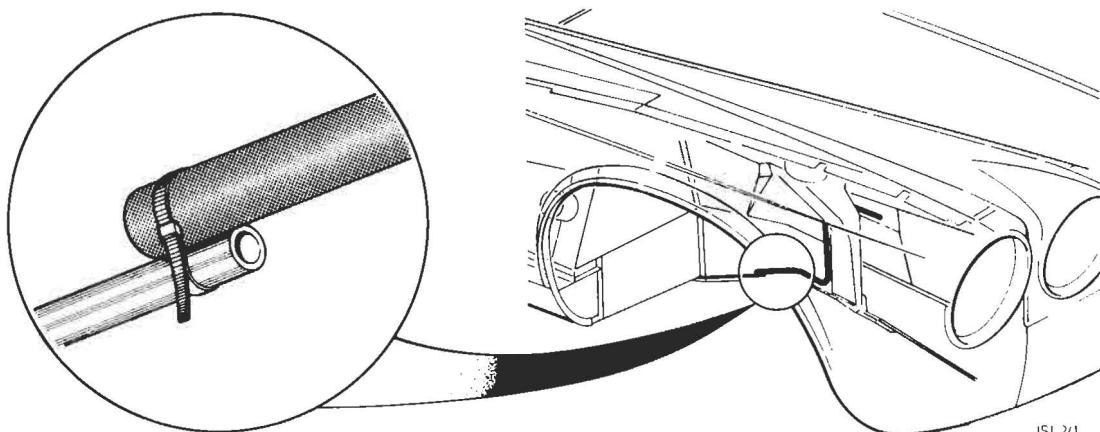
(Bahrain, Kuwait, Lebanon, Oman, Qatar,
Saudi Arabia, United Arab Emirates)

17. EVAPORATIVE LOSS SYSTEM

To comply with new emission legislation all models destined for the above markets will be fitted with an evaporative loss system as currently fitted to North American, Australian and Japanese vehicles.

For saloon models only, the breather pipe from the fuel tanks to the carbon canister will be disconnected for transit purposes.

The flexible breather pipe situated to the rear of the right hand wheel arch must be connected to the steel bundy pipe at P.D.I.



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A full operating description of this system is detailed in the Workshop Manual, Section 17.

ITEM 02

44. RECONDITIONED BORG WARNER TRANSMISSIONS

ALL 6 CYL. MODELS

Further to Technical Parts Bulletin No. J5 — J21 Dec. 1983.

Since the introduction of the Borg Warner Model 66 automatic transmission, a number of modifications have been made to improve the performance and reliability of the unit.

All of these modifications have now been incorporated in the reconditioned Model 66 transmission. On the Model 65 reconditioned transmission, Model 66 improvements have been incorporated where practicable.

Listed below are the major improvements which have now been introduced on all reconditioned Model 65 and 66 Borg Warner transmissions.

MODEL 65 and 66

Torque Convertor

(a) Bronze/Steel Thrust Washer

Previously produced in aluminium it was susceptible to wear which gave excessive end float and debris contamination of the transmission.

(b) Torrington Needle Roller

Two locating tags have been added to inhibit rotation of the torrington race thrust washer.

Stator Support

To give added strength and support the splines on the pump adaptor and stator support have been increased in length.

NOTE: The torque convertor for Model 65 reconditioned transmissions is not interchangeable with O.E. or earlier reconditioned Model 65 transmissions.

MODEL 66 ONLY

Sungear Shaft and Output Shaft

Failures of sungear shafts at low mileage are attributed mainly to abnormal use of the transmission. None the less the material of the sungear shaft has been changed to a stronger material. During the development of this material change isolated failures of the output shaft were experienced, and this also resulted in an alternative material being specified.

It must be emphasized that failures of the sungear or Output shaft at P.D.I. or low mileage, have been as a result of driver abuse of the transmission.

Fitting Instructions

A fitting instruction label is attached to every transmission, and must be strictly adhered to. The information on this label was taken from Bulletin JD 04/82 which should be referred to when fitting an automatic transmission.

Assembly of Transmission to Engine

When fitting a transmission to the engine, the correct transmission support must be used. Failure to do so could result in the torque convertor moving out of mesh with the oil pump. As it is possible to mount the transmission to the engine in this condition, the convertor drive tangs will break when the engine is started.

Cables and Pressures

It is most important that the pressures in the transmission are correct. It is known that low mileage transmissions are being replaced because of clutch/band wear/slippage due to incorrect pressures.

A pressure gauge must be fitted to every transmission, to ensure that the minimum pressure and INCREASE IN PRESSURE is to specification.

The crimp on the kickdown cable should be used as a guide, and NOT as the sole means of setting pressure.

The part numbers of the uprated transmission and parts are quoted in Technical Parts Bulletin No. J5 – J21 Dec. 1983.

ITEM 03

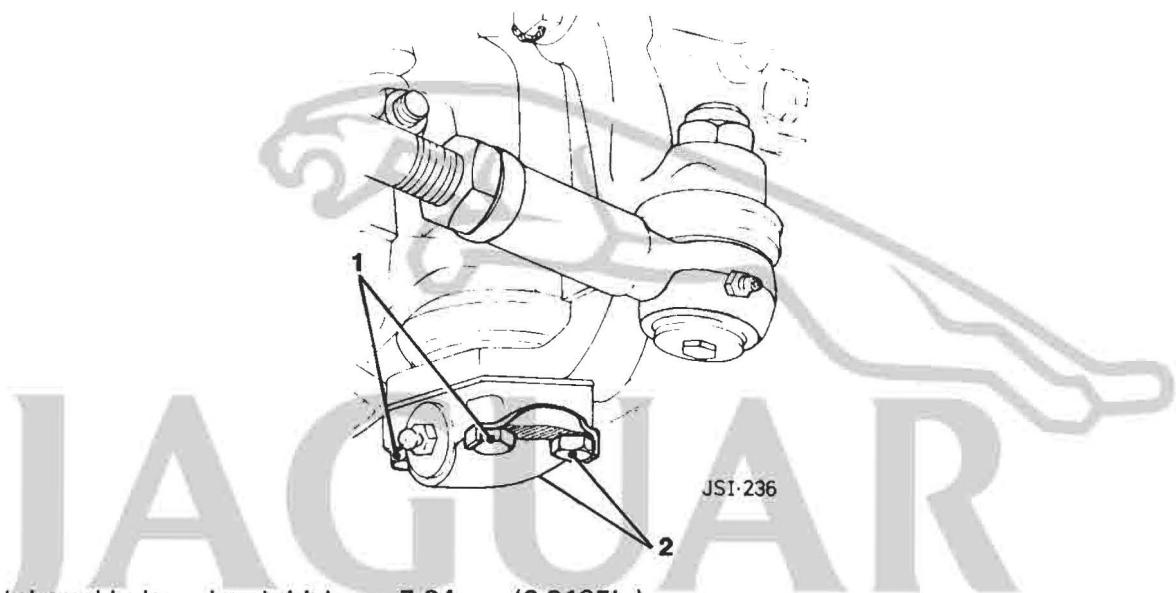
60. LOWER BALL JOINT SECURING BOLTS

ALL MODELS

The bolts securing the lower ball pin cap to the stub axle carrier may on some vehicles be in a mixed condition, i.e. the head of the bolts are of different thicknesses 7.94mm (0.3125in) and 4.76mm (0.1875in).

The bolts with a head thickness of 7.94mm (0.3125in) are fitted on production to the inboard holes of the lower ball pin cap.

It is important that if any of these bolts are removed during service, they should be replaced in the correct position – see diagram.



1. Inboard bolts – head thickness 7.94mm (0.3125in)
2. Outboard bolts – head thickness 4.76mm (0.1875in)

ITEM 04

70 FRONT AND REAR BRAKE PADS

XJS AND SALOONS

As advised in Jaguar Service Bulletin JD.01/83 item 4, semi metallic brake pads were introduced at the following VIN's:

354035 – Series III
109447 – XJS

The semi metallic pads may be used in VEHICLE SETS ONLY as a retrospective fit on Jaguar vehicles, with 4 pot caliper front brakes, built prior to the above VIN's.

However, if non metallic brake pads are required for vehicles PRIOR to the above VIN's then the following part numbers should be ordered:

GBP 224 – Front non metallic brake pad
GBP 209 – Rear non metallic brake pad

ITEM 05**74 FRONT WHEEL ALIGNMENT****LIMOUSINE**

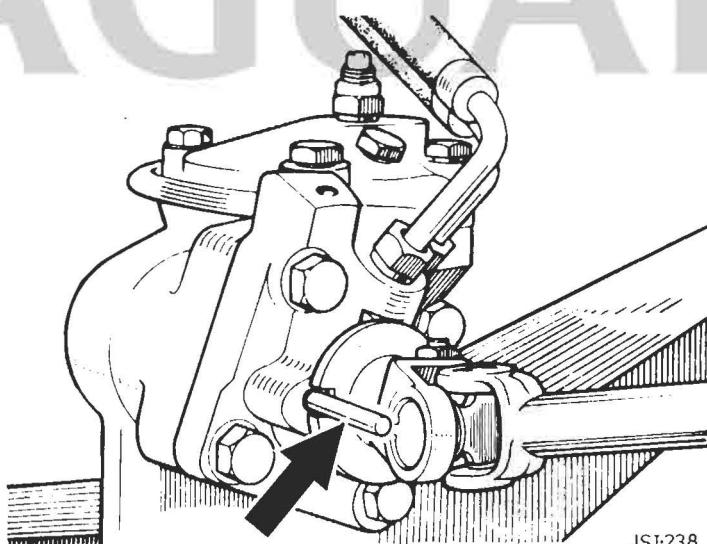
It is essential that the following instructions are observed when checking the front wheel alignment, otherwise steering irregularities may result.

IMPORTANT: The centre tie rod is set to a fixed length of 0.417m (16.4325in) and must not be used for setting the wheel alignment.

Each wheel must be individually adjusted by the outer tie rod to give half the total toe-in of 0–3.2mm (0–1/8in).

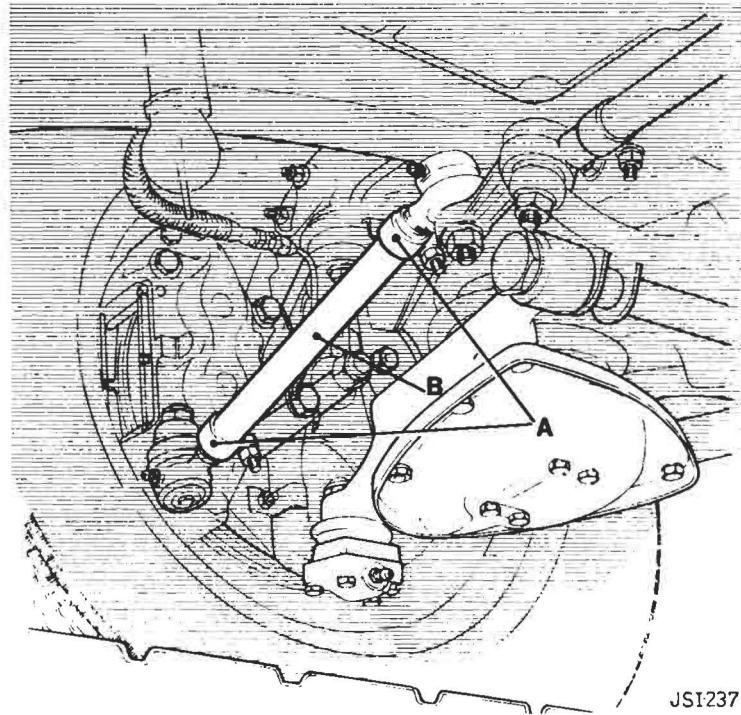
Procedure

1. Inflate all tyres to the recommended pressures.
2. Set the front wheels in the straight ahead position.
3. Centralise the steering unit by adjusting the position of the steering wheel, until the cut out in the centralising plate, on the input shaft, aligns with the hole in the steering box (Fig. 1). Check by inserting a 6.4mm (1/4in) rod suitably bent into the steering box.



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4. Use light beam equipment to check wheel alignment.
5. Adjust the outer tie rod by loosening the clamps (A Fig. 2) at each end of the centre tube (B Fig. 2). The rod length is adjusted by rotating the centre tube (B Fig. 2).
6. When the correct wheel alignment figure is achieved, i.e. half the total toe-in of 0–3.2mm (0–1/8in), secure the clamps.



7. Repeat the operation for opposite side.
8. Recheck the wheel alignment after pushing the vehicle forward until the wheels have turned half a revolution.

ITEM 06

76 WIND NOISE AND WATER LEAKS

SERIES III & XJ-S

This Bulletin item has been compiled to enable workshop personnel to identify areas which may give rise to wind noise and/or water ingress on current Jaguar vehicles.

Code for materials to be used in rectification:

A	=	Seelastrip
B	=	Seelastic Expandite SR 51
C	=	3M's Drip Chek Sealer Regular
D	=	Kent Quik Leak Chek Clear
E	=	Arbrosil 1081

1. Water ingress via bulkhead plenum chamber – Series III & XJ-S (Fig. 1)

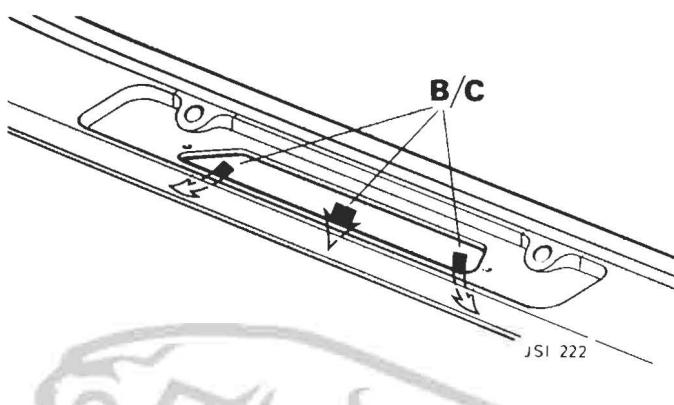
If the seams in this chamber are inadequately sealed, water can enter the vehicle footwells whenever the vehicle is exposed to heavy rainfall.

NOTE: If any water lies in the chamber, the drain tube should be checked for distortion or blockage.

Rectification

1. Remove plenum grille (Series III Workshop Manual Operation 80-15-29, XJ-S Workshop Manual Operation 84-15-12 – Items 1–7).
2. Apply sealant B or C by brush into all seams inside the chamber (Fig. 1).
3. Replace grille.

NOTE: In extreme instances, it may be necessary to remove fan boxes for access
 (Workshop Manual Operation 80-20-15 Heater Cars
 82-25-13 R/H)
 82-25-14 L/H) A/C Cars



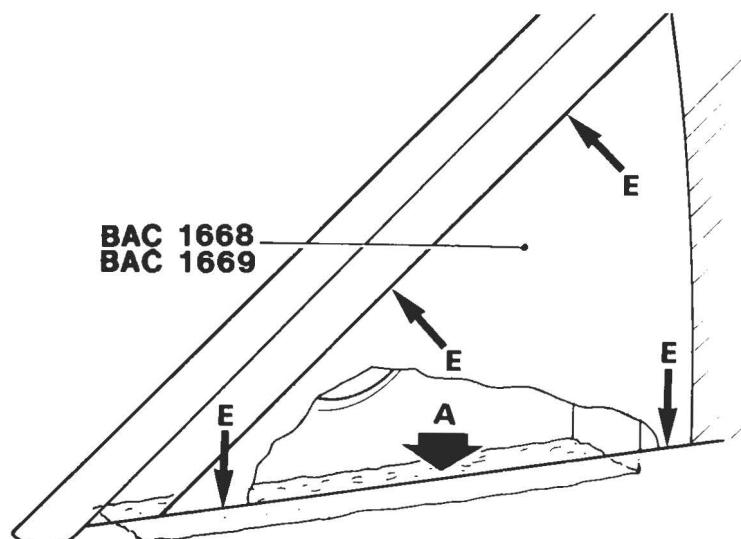
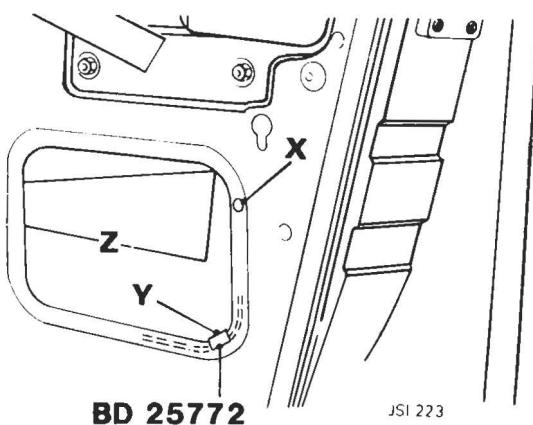
2. Water ingress on to front door trim casings – Series III only

This problem may be caused by any or all of the following:

- A Poor sealing of finisher BAC 1668 or BAC 1669 (Fig. 2A)
- B Tears in the polythene water curtain.
- C Water running along door warning light harness and seeping on to the trim pad (Fig. 2B)

Rectification

- A
 - i. Lower window fully and remove outer weather strip BAC 1298 R/H BAC 1299 L/H.
 - ii. Remove finisher BAC 1668 and/or BAC 1669.
 - iii. Apply sealant A into the door channel (Fig. 2A) refit finisher and apply sealant E around the edge (Fig. 2A) wipe off surplus and refit weather strip.
- B
 - i. Examine the water curtain and repair any tears, ensure that the curtain is hanging correctly.
 - ii. Check all securing bolts, regulator mountings, etc. for seepage. Dry off any doubtful bolts and apply sealant D around the heads.
- C
 - i. Remove the clip securing the wires to the door at "X" (Fig. 2B) fit clip BD 25772 at "Y" and attach the harness so that it is secured below the orifice "Z".

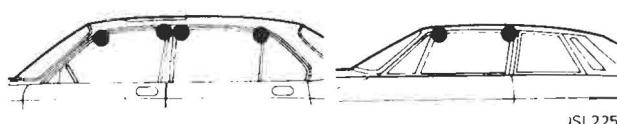
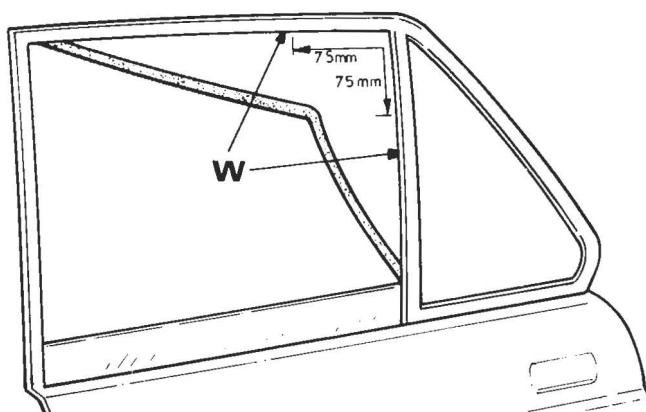


3. Water ingress and wind noise glass channels – All Doors – Series III & XJ-S (Fig. 3)

In most instances this is caused by gaps behind the window seals (BAC 1562 Series III, BD 46041 XJ-S), particularly at top corners.

Rectification

- A Remove glass seal at points marked "W" (Fig. 3).
- B Apply sealant "E" into the channel corner and spread a bead 75mm (3in) from the corner in sufficient quantities to allow extrusion when the seal is refitted. Carefully clean off any surplus sealant.

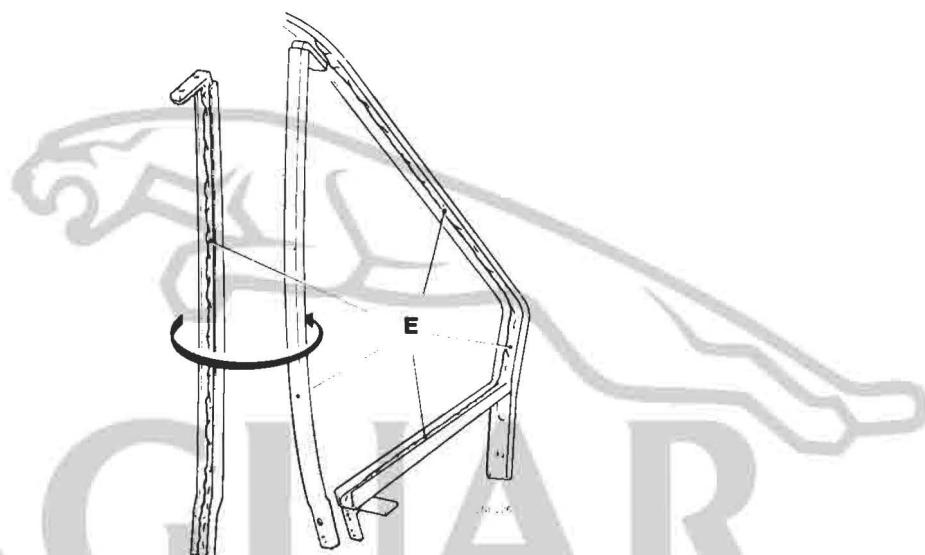


4. Water ingress and wind noise via rear door quarterlight – Series III only (Fig. 4)

Problem identification and rectification in this area is fully covered in Service Bulletin JD 04/83, Item 34. However, it is most important that ADEQUATE sealant is applied around the quarter light, especially at the base.

Rectification

- A Refer to previous Bulletin and apply sealant "E" as directed in sufficient quantities to ensure that the excess will extrude when the quarter light is refitted.
- B Following assembly, wipe off all surplus sealant.



5. Water ingress drip channels – Series III & XJS

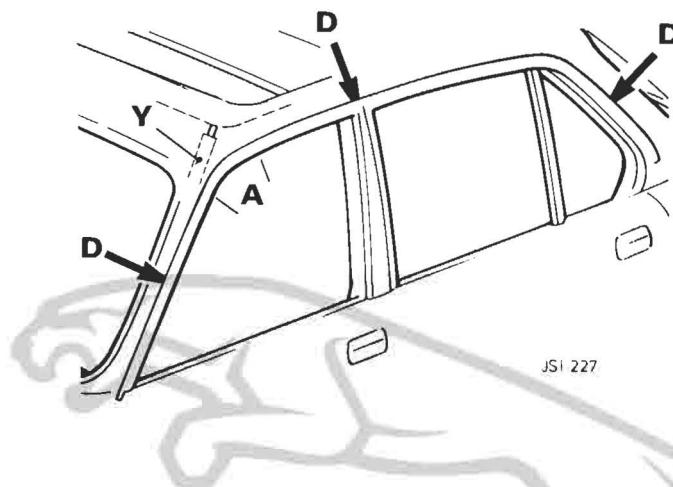
- i. Remove drip rail finishers BAC 2480/2481/2482/2483 for access.
- ii. Apply sealant "D" by tube or brush along the seams of the drip channel (Fig. 5).

NOTE: Sunroof cars only – if after corrective action water is still entering the car at point "A", this may be due to a porous or badly fitted drain tube hose. This can be proved by partly opening the sunroof and pouring water into the drain outlet. If a fault exists, water will seep into the car as indicated.

Rectification

- A Remove headlining (Workshop Manual Operation 76-64-01). Leave in car but remove to allow access to forward sunroof drain tubes.
- B Identify fault, i.e. badly fitted or split hose, at point "Y" (Fig. 5).
- C If the hose requires replacing, remove front wheel arch rear stone guard.
- D Feed a length of wire down the drain tube so that it protrudes from the wheel arch.
- E Pull out the faulty hose, leaving the wire in position.

- F Slide a new drain hose over the wire to ensure correct routing.
- G Remove wire and fit hose on to sunroof. Drain.
- H Refit headlining, etc.



6. Water ingress via seams at "A" post waist – Series III

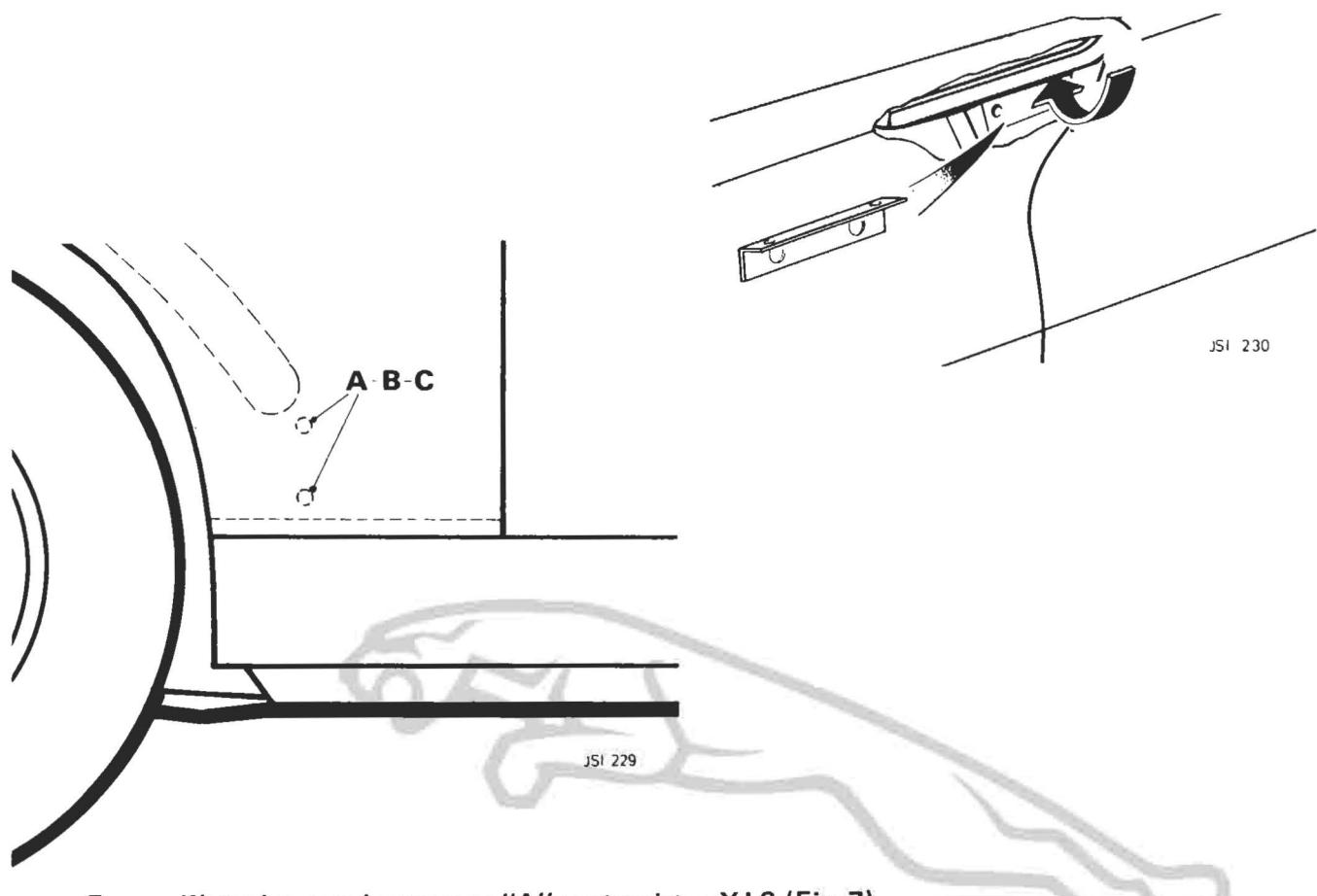
This problem may occur if there is an open seam at the base of the drip rail which allows water to enter the car interior via the "A" post box section.

Rectification

Apply sealant "E" along the seams identified in Fig. 6, allow to dry and water test vehicle.

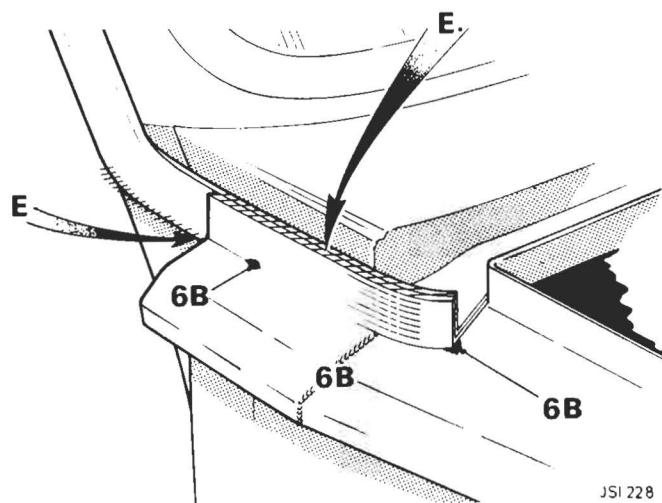
If a leak is still apparent, adopt the following course of action:

- A Remove the "A" post draught welt.
- B Remove trim from footwell at base of "A" post (BD 43251 – RH, BD 43252 – LH, BAC 9906 – RH VDP, BAC 9907 – LH VDP).
- C Examine interior of the box section whilst water is "poured" down drip rails.
- D Refer to Fig. 6A and 6B for possible leak areas, and rectify using one of the following methods:
 - i. Leakage from point 6A – remove front wheel arch stone guard and apply sealant "A", "B", or "C".
 - ii. Leakage from point 6B – remove front wing (Workshop Manual Operation 77-28-29) and apply sealant "A", "B", or "C".



7. Water ingress via seams at "A" post waist — XJ-S (Fig. 7)

Identification and rectification of water leaks in this area have been detailed in Service Bulletin JD 07/82 Item 53.



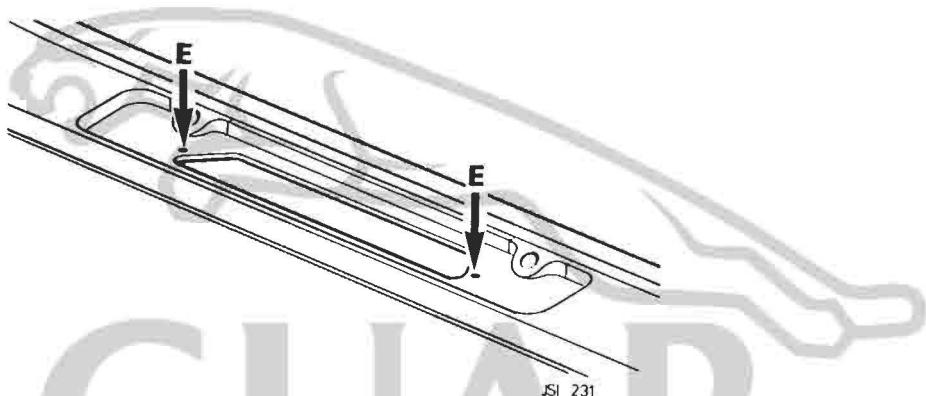
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8. Water ingress via plenum grille mounting pin holes – Series III only (Fig. 8)

This may arise due to inadequate sealing around the two mounting pin holes, allowing water to enter the vehicle via the double skin.

Rectification

- A Remove plenum grille (Workshop Manual Operation 80-15-29).
- B Remove two plastic inserts BD 26989.
- C Apply sealant "E" by brush to seal around the holes.
- D Allow ten minutes to dry and reassemble.

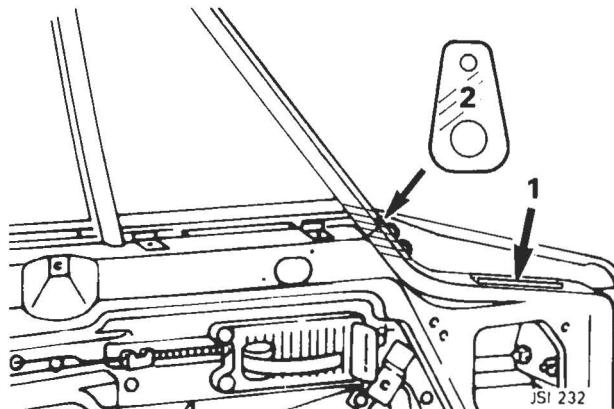


9. Water ingress and/or wind noise between door and "A" post at waist – XJ-S only (Fig. 9)

This may arise due to incompatible sealing surface between the window/door frame joint and the aperture seal, or distortion of the aperture seal by the door waist drain channel.

Rectification

- A Remove and discard the door drain channel and plug the three redundant holes in the door, and paint as necessary (1 Fig. 9).
- B Test the vehicle to establish if the fault has been rectified.
- C If the fault is still apparent, remove the peardrop seal (2 Fig. 9).
- D Apply a proprietary body filler to the joint, DRESS OFF WHEN HARD TO ENSURE A GOOD PROFILE, refit screw and paint as necessary. This action, if properly carried out, will eliminate water leaks in this area.

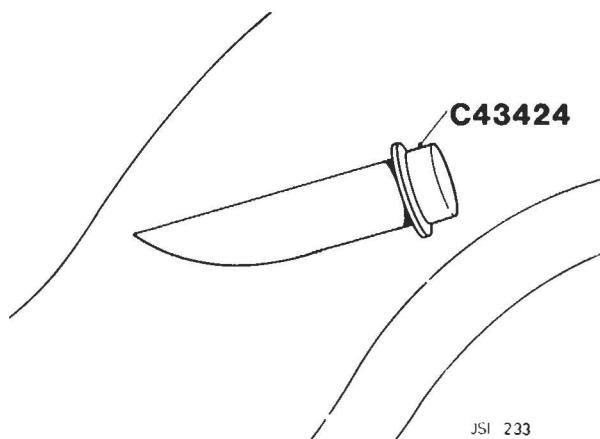


10. Water ingress via handbrake cable tube — XJ-S only (Fig. 10)

This complaint is caused by inadequate sealing of the cable exit, and/or blanking cap not being fitted. This area should be examined if water ingress is apparent in rear footwells only.

Rectification

- A Check the sealing cap of the tube from which the cable exits, and rectify any leaks.
- B Check the plug C43424 for security over the blanking hole and rectify as necessary to ensure complete sealing.



11. Water ingress via windscreens – Series III only (Fig. 11)

This complaint is caused by poor adhesion of Betaseal to screen and/or aperture.

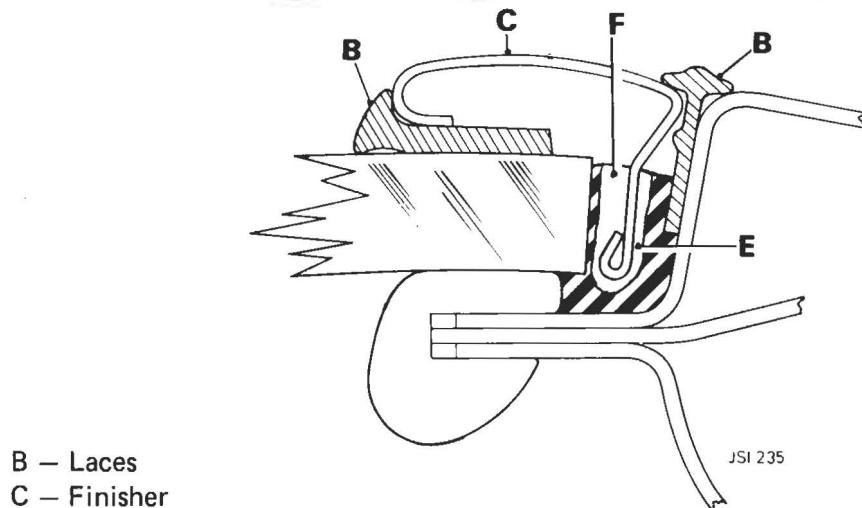
Rectification

Major repair of this fault is detailed in Service Bulletin JD 05/81 Item 35. However, local rectification of small leaks may be carried out using the following method:

- A Identify area of leakage
- B Remove inner and outer lace.
- C Remove the relevant bright finisher.
- D Carefully cut a section of Betaseal from the suspected leak area, prime and apply new Betaseal.

NOTE: PAINT DAMAGE BY SHARP IMPLEMENTS MUST BE AVOIDED AT ALL COSTS as any damage may only become apparent at a later date in the form of rust bleed.

- E A further section of Betaseal will have to be cut out to allow re-fitment of the bright finisher.
- F Apply new Betaseal. Refit finisher. Re-fit laces.



B — Laces
C — Finisher

12. Wind noise and/or water ingress via door seals above waist – Series III & XJ-S

This may be caused by:

- i. Collapsed or damaged door seal.
- ii. Incorrect profile match of door to aperture.

Rectification

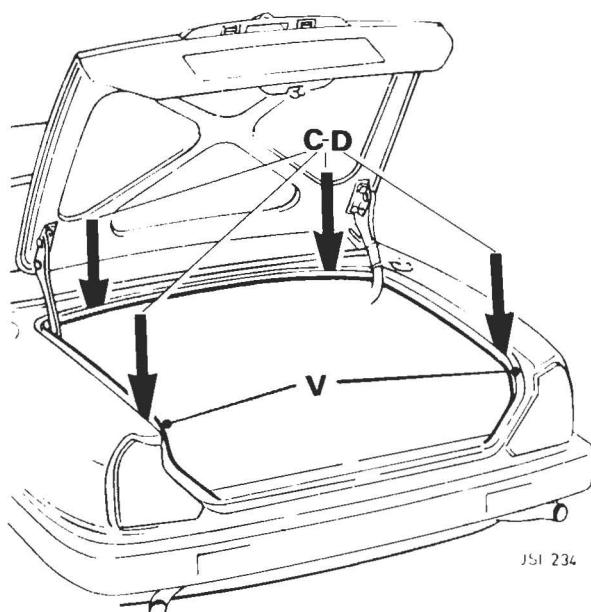
- A Replace any damaged seals.
- B Avoid reprofiling of doors by bending window frames; sluggish electric window operation may result.
- C Where possible adjust by moving door striker or hinges to obtain adequate sealing.

13. Water ingress into boot – Series III (Fig. 13)

This problem is caused by porosity in the channel seams or a badly fitted boot seal.

Rectification

- A Apply sealant "C" or "D" to all seams around the boot channels. Allow to dry and paint as necessary (Fig. 13).
- B If a leak is apparent between the seal and boot lid at point "V", this is due to overstretching the seal when fitting. The old seal should be discarded and a new seal fitted, taking care to avoid stretching on curves.



JSI 234

79 REFINISH PAINT COLOUR APPROVALS

ALL MODELS

Service have introduced a programme in which current O.E. paint suppliers are submitting samples of their approved refinish paints for comparison and re-validation with O.E. master colour panels.

Suppliers must demonstrate an ability to produce refinish paints which can provide the trade with a consistent colour match on repaired areas, when applied correctly using manufacturers data sheets.

The first of these revalidations has been completed, and Service approval confirmed on all of the Ault and Wiborg acrylic refinish colours listed in this bulletin.

Tudor White	BLVC 215
Black	373
Grosvenor Brown	298
Rhodium Silver	396
Cobalt Blue	286
Sapphire Blue	307
Racing Green	281
Coronet Gold	306
Claret	310
Silversand	280
Clarendon Blue	326
Cirrus Grey	320
Cranberry	316
Antelope	321
Sage	314
Regent Grey	315



The approved paint will be in ready mixed form, labelled "Jaguar Colour Matched" and bear a date coded batch number.

The Ault and Wiborg recommended thinner for use with this paint is Z 2404.

Samples of all subsequent batches will be tested to ensure colour consistency.

NOTE: Two other manufacturers also supply refinish paints for use on Jaguar T.P.A. vehicles, this Bulletin does not affect that approval, and Service anticipate giving full colour revalidation to these products upon completion of colour match tests.

ITEM 08**86 V12 H.E. DISTRIBUTOR VACUUM ADVANCE**

**XJ12 H.E./XJS H.E.
European Spec. only**

Reports have been received on V12 H.E. engines of:

- (a) Poor idle
- (b) "Pinking" at low engine speeds

This is attributed to excessive ignition vacuum advance at idle, even though the vacuum advance system is within the specification as quoted in Bulletin JD.08/82, which on 'B' Emission engines is $21.5^\circ \pm 6.5^\circ$ before T.D.C. at 500 rpm.

It is known that if the ignition advance at idle exceeds 24° B.T.D.C. THERE IS A POSSIBILITY that engine performance MAY be affected.

Therefore, if an abnormal engine condition exists such as described above, and the ignition advance exceeds 24° B.T.D.C., the problem may be overcome by replacing the vacuum regulator EAC 4012 with vacuum regulator Part Number EAC 5157 (as fitted to 'A' Emission engines). This regulator has a brown coloured body and will reduce the vacuum advance at idle by 3° .

ITEM 09**86 ELECTRICAL AERIAL**

SERIES III/XJS 'HE'

To improve electric aerial harness connections, and reduce the number of connections in the circuit, the short link harness between the aerial motor and timer relay has now been deleted from VIN's:

364848 – Saloon
112690 – XJS

Aerial motor leads are now fitted with Rists Slimlock Lucas Connectors, which enables direct coupling to the relay unit.

Should replacement of an aerial be required on vehicles prior to the above VIN's, the above modification MUST be implemented.

NOTE: On saloon models the link harness will require taping back to the main harness.
On XJS models, the link harness is separate and should be removed and discarded.

Aerial connections direct to the relay unit are as follows:—

Blue/white (UW) cable to relay terminal – 4
Blue/red (UR) cable to relay terminal – 5

Parts Division stock is to the latest condition, aerial part number is unchanged.

Service Bulletin

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Daimler

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ITEM: 11

00 AKM 9006 SERVICE MANUAL

S.III

An updated version of AKM 9006 Service Manual for S.III Models in English language, is now available from Jaguar Parts Operations. Unlike the original Manual this is available only as a complete book. Individual books within the manual are not available separately. Individual books for Edition 1 of the Manual may still be purchased from Jaguar Parts Operations while stocks last.

ITEM: 12

03 PROPSHAFT REPAIR TIMES

XJS CABRIOLET

Please add the following Repair Operation Times to your XJS Repair Time Schedules:

		V12	3.6
47-15-01	Propeller Shaft - Renew	2.34	0.95
47-15-10	Propeller Shaft - Overhaul	3.40	2.00

No other Repair Times are affected.

AKM 4412/83 - English
AKM 4051/83 - Italian
AKM 4446/83 - Dutch
AKM 4447/83 - French
AKM 4448/83 - German
AKM 4494/83 - Spanish

ITEM: 13

12 CRANKSHAFT FRONT SEAL

S.III XJ6/LIMO

A new crankshaft front seal incorporating a PTFE sealing lip has been introduced on all 3.4 and 4.2 litre engines from Engine Nos:

8A 16541 - S.III 3.4
8L 203238 - S.III 4.2
7M 5211 - Limo.

The new seal is available under Part No. EAC 8815 and is supplied on a mandrel which should not be removed until immediately prior to fitting the seal. This seal should now be used for all XK crankshaft front seal replacements and should be fitted in conjunction with a new distance piece (Part No. C40147) and 'O' ring. When fitting the new seal please note the following and refer to Repair Operation 12.21.14 in the Workshop Manual:

- 1 This seal is designed to operate without an oil flinger behind the seal and it will therefore be necessary to remove this where fitted. As the flinger cannot be withdrawn from the crankshaft with the timing cover in place, cut into the notches with suitable metal shears and discard the segments.
- 2 Fit the seal dry, as supplied, taking care to avoid contact with the sealing lip. Do not degrease the seal as this will damage the material.
- 3 When fitting the new distance piece lubricate with clean engine oil. Do not use grease.
- 4 When refitting the sump, apply a small bead of RTV sealant compound to both sides of the sump face at the seal aperture joint, and torque the sump fixing nuts and bolts to 20 nm (15 lb ft).

ITEM: 14

12 CYLINDER HEAD GASKET

S.III XJ6 3.4

To overcome instances of external coolant seepage from the cylinder head/cylinder block joint, an improved cylinder head gasket, Part No. EAC 8349, has been introduced on 3.4 litre engines from Engine No. 8A 16376.

ITEM: 15

12 ENGINE REAR MOUNTING SPRING

S.III XJ6

Due to instances of a 'knock' from the prop shaft area caused by excessive movement of the transmission rear mounting, a revised gearbox rear mounting spring has been introduced. This spring, Part No. C45902/1 is now painted black and replaces the previous plastic coated spring, Part No. C45902. It was introduced at VIN 442669.

ITEM: 16

12 ENGINE STALL

S.III XJ6 4.2

ALL MARKETS EXCEPT USA, AUSTRALIA,
CANADA, JAPAN, SWEDEN, SWITZERLAND

Further to Service Bulletin JD 08/84 Item 65, the modification incorporating the supplementary air valve to overcome engine stall, has now been introduced on production built vehicles from VIN 443387.

ITEM: 17

19 ELECTRONIC CONTROL UNITS.III V12/XJS V12
(EMISSION "B" ONLY)

To improve the reliability of the fuel injection system, a new digital microprocessor electronic control unit has been introduced on S.III V12 and XJS V12 emission "B" models only from VINs:

441593 - S.III V12
127879 - XJS V12

Interchangeability with the previous type control unit is not affected.

A further Service Bulletin will be issued advising part number allocation and parts stock availability.

ITEM: 18

51 DIFFERENTIAL PINION SEALS.III/XJS 3.6/LIMO

Further to Service Bulletin JD 08/85 Item 57, the new pinion seal, Part No. JLM 527, has now been introduced on all remaining GKN axle ratios from unit number 85N 5701 and progressively introduced at Jaguar from VINs:

129526 - XJS 3.6
446153 - S.III
200821 - Limo

ITEM: 19

76 GEAR LEVER GAITERS.III XJ6

To prevent gear lever 'sizzle' on manual transmission XJ6 vehicles, a revised gear lever gaiter, incorporating a rubber 'O' ring and retaining ferrule, was introduced on 1986 M.Y. vehicles. This gaiter is available under Part No. BBC 8602.

ITEM: 20

79 PAINT RECTIFICATION-CRAZING/CHECKINGALL MODELS

This Bulletin has been prepared primarily to provide Jaguar Dealers/Importers with guidelines for use when carrying out paint rectification on vehicles affected by crazing/checking.

Jaguar are aware of the need for the refinisher to repair first time, any damaged paint work, so the correct approach and diagnosis is vital if this is to be achieved. This is particularly important where major rectification is necessary as errors can prove costly.

GENERAL POINTS

- 1 Film build depth is critical on thermo-plastic acrylic (T.P.A.) finishes. Jaguar recommend 150-200 microns total film at original exterior, however refinishers can allow up to 250 microns on a sound substrate.
- 2 Refinishers must use recommended materials from Jaguar approved suppliers.

United Kingdom and Europe:- Inmont, I.C.I., Ault and Wiborg, Sikkens, Dupont, Berger, P.P.G. United Kingdom and Glasurit.

U.S.A. and Canada:- Inmont/Rinshed-Mason, I.C.I/C.I.L. Ltd, Sikkens and Dupont.

Australia:- Spartan and Dulux

R.O.W:- Approved supplier materials from the above via importers or local agents. These materials may be marketed under an alternative trade name.

- 3 Paint supplier data sheets must be referred to with regard to viscosity, application, surface preparation and spray booth temperatures.

DEFINITION:

Crazing/checking can be categorised into three types, of which one or two may be present on a vehicle.

1 Fuel Crazing

Forms a local run pattern of fine crazing due to fuel spillage onto newly applied paint.

2 Fine Cracking/Checking

Evident on early cars, emanating from around the front and rear screens of direct glazed thermo-plastic acrylic (T.P.A.) vehicles. Small areas of fine crazing/checking are usually apparent adjacent to the cracking. Material and process changes have eliminated this problem.

3 General Crazing/Checking

Mainly affecting horizontal panels, this fault may develop in the post - warranty period if the paint film deteriorates. This fault is caused by excessive film build, incompatible materials, temperature changes, etc.

DIAGNOSIS

- 1 Define the extent of the fault, i.e. local, extensive, fine or heavy crazing.
- 2 Examine the film build thickness of the existing finish.
- 3 Take into consideration the vehicle colour prior to deciding the extent of rectification, e.g. to achieve a satisfactory colour match on certain metallics, local repair may have to be extended to envelop a section of the vehicle.
- 4 Where the crazing is severe define the depth by flattening locally and examining with a magnifying glass.
- 5 ALWAYS REMEMBER THAT WHEREVER POSSIBLE THE ORIGINAL FINISH I.E. ELECTROCOAT AND PRIMER-SURFACER SHOULD BE LEFT INTACT. WHERE A FAULT IS SEVERE BUT CONFINED TO HORIZONTAL SURFACES, IT MAY BE ADVANTAGEOUS TO SAND OFF TO A SOUND SUBSTRATE INSTEAD OF COMPLETELY STRIPPING TO BARE METAL.
- 6 The alternatives to a complete strip should always be given consideration when refinishing, as an incorrect process from bare metal will almost certainly promote future problems.

RECTIFICATION

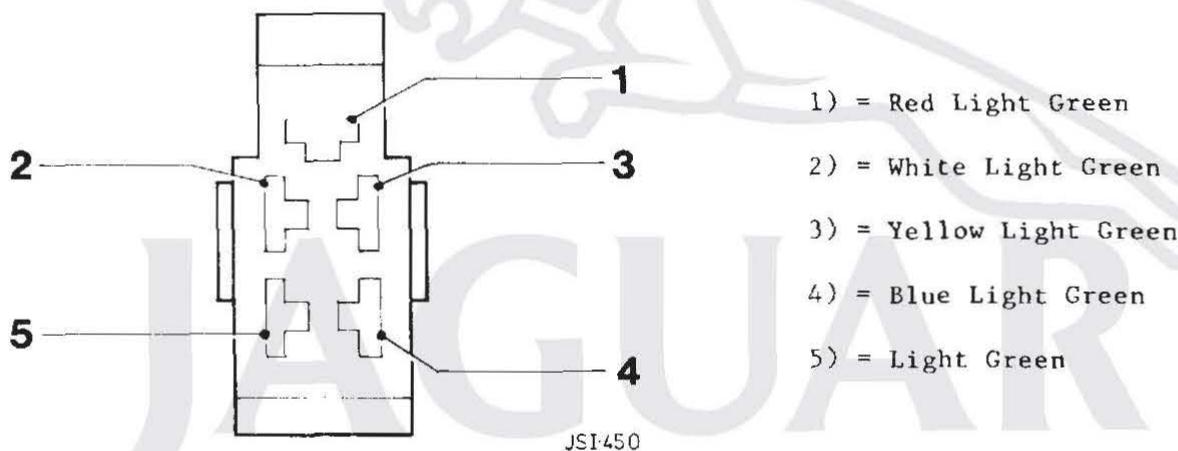
- 1 Local fine crazing/checking.
P1200 wet flat, compound and polish.
 - 2 Fine cracking/checking (around screens)
Where this fault is evident and emanates from the screen apertures, remove the outer lace and wet flat with P800 to remove all traces of the fault. Apply an approved paint process to the affected areas.
NOTE: where the cracking affects the top of the aperture a complete roof panel respray may be necessary.
 - 3 Local Heavy Crazing (Fuel Spillage etc)
Wet flat locally, P800, to remove the fault and apply an approved paint process.
 - 4 Extensive Crazing affecting the colour coat.
Use one of two methods:
 - a) Wash off the colour with acrylic thinners avoiding any spillage or runs onto adjacent panels.
or
 - b) Sand off the colour mechanically finishing off with a P600-P800 wet flat.
Following preparation apply an approved paint process.
 - 5 Extensive Heavy Crazing of indeterminate depth.
 - a) Apply a chemical stripper to remove all paint to bare metal. NOTE: strippers are most effective if used in two stages:
 1. Colour Removal
 2. Primer and surfacer removal.CAUTION: DO NOT APPLY STRIPPER WITHIN 25mm of PANEL EDGES, CHANNELS, GLASS OF TRIM FINISHERS.
 - b) Remove the paint with a scraper and/or steel wool.
 - c) Wash off the stripped vehicle with solvent (SBP 3 or similar) activating with steel wool to remove any residues.
 - d) Flat off paint from the panel edges and around the finishers. Blow off with an air gun and wash the complete vehicle with solvent.
 - e) Apply a phosphoric acid metal conditioner to the manufacturer specifications. This will remove surface contamination and etch the metal surface to assist paint adhesion. NOTE: this operation is most important.
 - f) Wash off the activated conditioner with clean water and dry off thoroughly with chamois leather and air gun.
 - g) Ensure the prepared surface remains uncontaminated by fingermarks etc, and apply an approved 2 pack etch primer to the bare metal.*
 - h) It is essential that a suitable primer-surfacer is applied within one hour of the etch-primer or blistering may occur.*
 - i) Following preparation apply an approved paint process.
- * NOTE: These operations must be carried out in a temperature controlled spray booth.

Following the conversion on Pre XJS HE Models, of the windscreen wiper system using Service Kit AEU 1731 and motor assembly AEU 1738 (Service Bulletin JD 11/81 Item 83 refers), several Dealers have experienced the problem of the circuit fuse continually blowing.

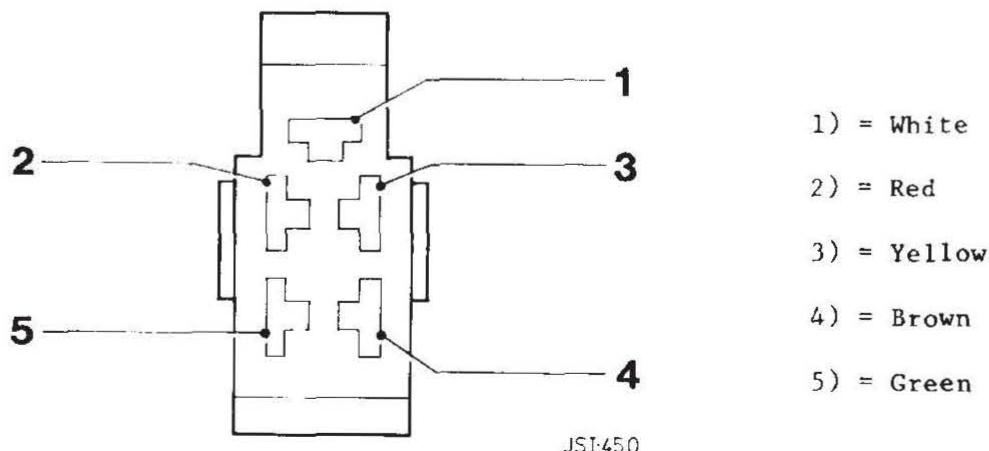
Investigations have identified that certain AEU 1731 kits were equipped with an incorrect adaptor harness which caused a short circuit to occur when fitted.

Parts stock of this component has now been checked and suspect stock removed. In the event that stock may be held by Dealers, kits should be checked to ensure that the correct harness has been supplied. To clarify this, Dealers should check the colours of the wiper motor plug connector wires.

Correct Condition



Incorrect Condition



Kits identified with the incorrect harness included, should be returned through the normal Parts D.Y. Return System.

ITEM: 22

86 ALTERNATORS.III V12

A revised A133-75 amp alternator and alternator harness have been introduced on S.III V12 Models from VIN 425413.

The revised alternator incorporates a single eyelet connector which replaces the previous Lucas terminals.

For introduction details on:- S.III XJ6 Air Con Models, Service Bulletin JD 04/85 Item 30 refers.

XJS V12 models, Service Bulletin JD 09/85 Item 69 refers.

ITEM: 23

88 SPEEDOMETER TRANSDUCERS.III/XJS

Instances of electronic speedometer signal transducers becoming loose and possibly detached from the transmission housing, have been identified in Service.

Production procedures have now been corrected and security of the unit assured from VINs:

444581 - S.III
128950 - XJS

To ensure that transducer units are secured correctly on vehicles prior to the above vehicle identification numbers, Dealers will be required to check all new vehicles at P.D.I. and those in service at the next service interval.

The knurled locking ring may be GENTLY tightened using a suitable adjustable spanner. Do not overtighten as this will result in damage to the transducer unit.

Service Bulletin

JAGUAR

Daimler

Date: JUNE 1986
Sheet: 1 of 5
Bulletin: JD 06/86

An error has been noted regarding the new part number quoted for spark plugs on V12 in the USA, Australia, Canada and Japan.

The amended version of Sheet 2 of 3 - Service Bulletin JD 05/86 - is included with this Bulletin and is clearly identified "Issue 2".

Will Service personnel concerned please remove and destroy the original copy and replace with the amended sheet.

ITEM: 40

19 FUEL INJECTION ECU

XJS CABRIOLET

Fuel metering problems caused through incorrect vacuum signals, have been encountered on XJS Cabriolet Models due to the vacuum hose between the in line reservoir and electronic control unit (ECU) becoming kinked. To prevent the possibility of kinking, the hose length has been reduced. This change was introduced at:

VIN 132619

ITEM: 41

19 FUEL TANK ELEMENT

ALL MODELS

To overcome the need to replace complete fuel tank element assemblies in instances where the element float is at fault, the element float is now serviced separately under Part No. JLM 772.

19 ELECTRONIC CONTROL UNITS.III V12/XJS V12
EMISSION C & F ONLY

To improve the reliability of the fuel injection system, a new digital microprocessor electronic control unit (16CU) has been introduced on S.III V12 and XJS V12 emission 'C' and 'F' models from VINs:-

451794 - S.III
130835 - XJS

Markets Affected

Emission 'C' standard equipment - North America

Canada

Japan

Australia

Emission 'F' standard equipment - Switzerland
Austria

Emission 'F' optional equipment - Germany

Interchangeability with the previous type control unit for emission 'A' and 'C' specifications is unaffected.

For introduction of the new digital microprocessor unit on emission 'B' V12 Models, Service Bulletin JD 02/86 - Item 17 refers.

Lucas Feedback Monitor Test Equipment (Emissions'A', 'C' and 'F' only)

Due to the introduction of the new microprocessor ECU, modifications have been carried out to the Lucas Feedback monitor test equipment, to cater for the previous 6CU type and the latest 16CU units.

Part No. YWB 130 has been allocated to identify the latest test equipment. Modification of test equipment already in service is being arranged through Lucas agencies worldwide, and should now be completed.

Operator instructions regarding Feedback monitor test procedures have been revised for use on vehicles equipped with both 6CU and 16CU ECU assemblies. The revised test procedures are detailed as follows:

- 1 Run the engine until it reaches normal operating temperature. If the engine is already hot, run it for at least 2 minutes before commencing tests.
- 2 Check the ignition timing and idling speed.
- 3 Disconnect the Lambda disable plug from the harness socket, otherwise the Lambda sensors will not function while vehicle is in 'Park' or 'Neutral'.
- 4 Connect the Feedback monitor to the fuel setting diagnostic connector.
- 5 Confirm which model ECU is fitted and select the appropriate switch position.
- 6 Lamp 2 in row A or B should be alight together with lamp 2 or 3 in the other row.

7 If indications in 6 are incorrect:

- (a) Remove the blanking plug from the electronic control unit to expose the idling fuel setting adjuster.
- (b) Slowly turn the adjuster until the correct indications are obtained. If the fault still persists, suspect engine fuelling controls, including the Lambda sensors, ignition system and engine mechanical condition.
- (c) Fit new blanking plug.

If correct setting cannot be obtained:

- (a) It is possible that the engine has idled for too long resulting in the Lambda sensors becoming temporarily contaminated (i.e. sooted). In cases of slight contamination, the Lambda sensors may be cleared by increasing the engine speed whilst the vehicle is stationary. However, if this does not improve the situation or the contamination is deemed more severe, the vehicle should be driven on the road to clear the sensors.
- (b) The electrical circuit can be affected during the switching in/out of the auxillary electric cooling fan which can affect the test readings. To prevent this the auxillary fan should be disconnected during the test programme.

Test Procedure for Suspect Lambda Sensor

Disconnect the pressure regulator vacuum pipe and temporarily seal off the manifold vacuum take off. The Feedback monitor unit indicator(s) should move towards 'rich' (i.e. lamp 2 to lamp 1 or/and lamp 3 to lamp 2 or 1).

If the indicators do not change suspect the Lambda sensor(s) and/or ECU and associated circuits.

Reconnect the pressure regulator vacuum pipe.

Disconnect the Feedback monitor unit and ensure all connections are secure.

ITEM: 43

19 MANUAL CHOKE
POOR COLD START/WARM START

LIMO
RIGHT HAND DRIVE

To overcome complaints of poor AED operation, a Service fix has been developed to enable the fitment of a manual choke. It is intended that this kit should only be fitted to vehicles where detailed rectification has failed to overcome the complaint. It cannot be over emphasized that the engine should be correctly tuned in order to obtain the optimum performance from the AED, e.g. ignition timing, condition of the contact breaker points, carburettor settings, C.O. readings, float levels etc.

Should the detailed attention to the above areas and the replacement of the AED not overcome the complaint, then a manual choke may be fitted.

Warranty Complaint Code 2K3Y
S.R.O. 19-90-02
Labour allowance 3.3hrs
Kit Part No. JLM 602

Part No. JLM 602 comprises of the following items:-

Part No.	Description	Qty
AB 606031	Self Tapping Screw	4
BCC 3397	Mounting Bracket	
C 15787	Bulb	
C 17432	Grommet	
C 30075/2	Spring Washer	2
C 45099	Ratchet Strap	2
C 45491	Gasket - Air Cleaner to Carburettor	2
C 7221	Gasket - Carburettor to Space	2
CAC 5866	Hose - Y Piece to Front Carburettor (355 mm)	
CAC 5866	Hose - Front to Rear Carburettor (145 mm)	
CAC 5867	Hose - Breather Pipe to Rear Carburettor (240 mm)	
CAC 5867	Hose - Breather Pipe to Front Carburettor (180 mm)	
CBC 1460/1	Choke Cable	
DAC 4324	Choke Switch Assembly	
DAC 4331	Harness	
EAC 3215/1	Hose Clip	6
EAC 5866	Hose - Y Piece to Rear Carburettor (406 mm)	
EAC 5920	Aluminium Spacers	2
EAC 5967	Throttle Connecting Lever Assembly	
EAC 5968	Choke Connecting Lever Assembly	
EAC 6829	Carburettor - Front	
EAC 6830	Carburettor - Rear	
EAC 8813	Lever Stop Bracket	
FW 104/T	Washer	2
JLM 607	Solderless Nipple	
JLM 608	Lens Assembly (Amber)	
JLM 9566	Bolt	
NH 605041	Nut	2

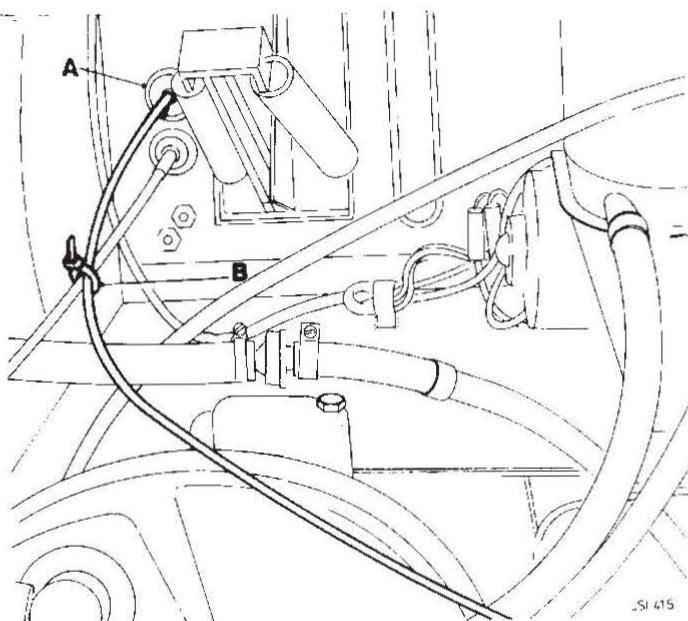
Limousine Choke Modification Procedure

Disconnect the battery earth lead and remove the following items:

Air cleaner, carburetors, spacers, gaskets and AED assembly. Retain the 'Y' piece, vent tube, vacuum elbow and adaptor for re-use.

1. Lever the stop plate from the throttle linkage and remove the hot air pick up pipe from the pick up plate on the rear exhaust manifold and the throttle bracket on the inlet manifold. Refit the two nuts to secure the throttle bracket.
2. Remove the blanking plug from the bulkhead, fitted between the offside bonnet hinge and the inner wing valance (A Fig 1).

FIG 1



From the parts supplied fit:-

Carburettor Assembly

1. Position the throttle, choke connecting rods and levers to the carburetors. Fit the carburetors using gaskets and spacers supplied, ensuring that the smaller diameter of tapered hole in the spacer faces towards the carburetor, and the distributor vacuum hose clip is fitted to the front right hand stud. Secure with nuts and spring washers.
2. Cut the hoses to length, fit and secure to the carburetor using the 'Y' piece from the displaced assembly (Fig. 2), ensuring that they do not and can not foul the operating cams.

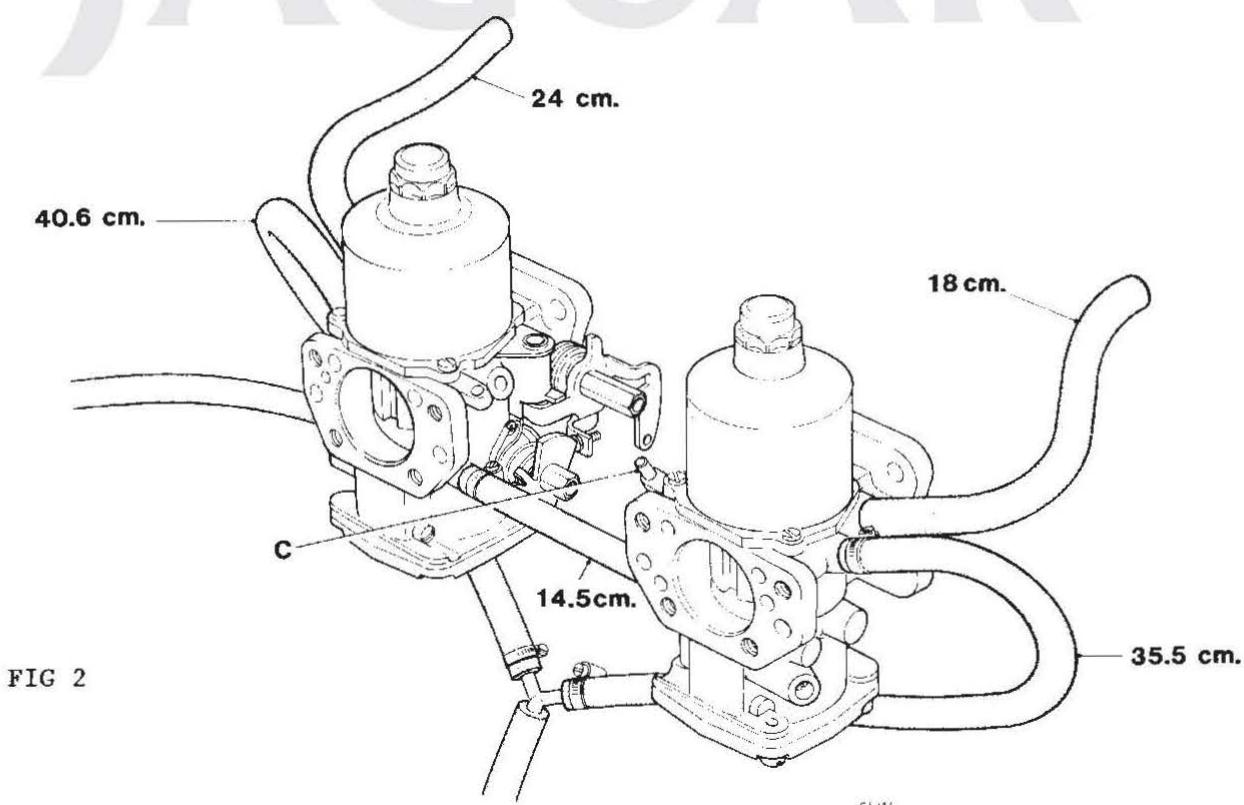


FIG 2

3. Fit and secure the lever stop plate ensuring that the two plain washers are located between the lever stop and support bracket to allow adequate clearance for throttle spring. Fit bolt and nut to lever stop plate and adjust for full throttle.
4. Remove the vacuum hose from the distributor, shorten to 35.5 cm (14 ins) long and refit, route through the securing clip located on the front carburettor and attach to the vacuum take off point using the rubber elbow and adaptor from the displaced assembly.
5. Position and tighten the throttle, choke operating levers and link rods to the carburetors.
6. Remove the 'P' clip securing the transmission dip stick tube and relocate the tube away from the throttle linkage to the rear of the bracket. Refit and secure the 'P' clip.

Choke Cable

1. Locate the choke cable mounting bracket to the rear of the facia panel (B Fig C) and secure with the 4 screws provided. Under no circumstances use longer screws as damage will be caused to the wood veneer.
2. Fit the grommet (A Fig 1) and position the choke cable assembly through the support bracket. Secure with the nut supplied. Feed the cable through the grommet and using a ratchet strap, secure to the bonnet release cable 20.0 cm (8 ins) from the bulkhead (B Fig 1).

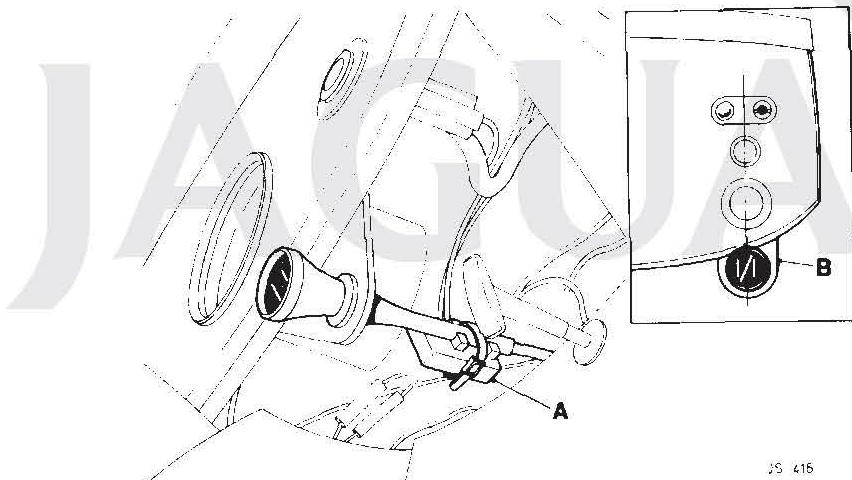


FIG 3

3. Locate the choke cable through the ferrule in the front carburettor (C Fig 2) and through the solderless nipple (which must be located in the lower hole in the choke operating cam). Ensure that the choke cable is in the fully closed position before tightening the securing screw.
4. Refit the air cleaner assembly using new gaskets.

Choke Warning Light

1. Drill a 12 mm (0.472 in) diameter hole through the switch panel, midway between the cigar lighter and the fuel tank changeover switch (Fig 4) and locate the choke warning light. Care must be taken when drilling the hole in the trim panel to prevent damage.

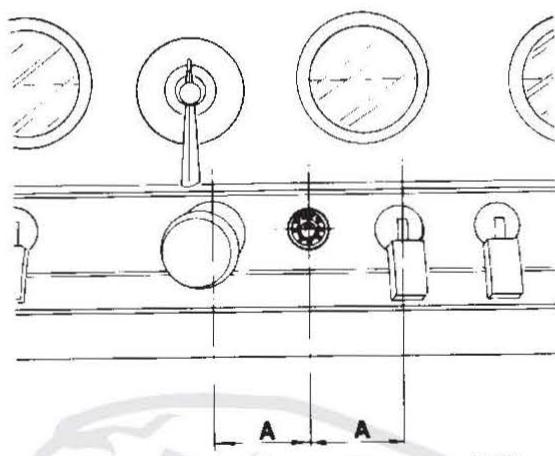


FIG 4

2. Fit and secure the operating switch to the choke cable with a ratchet strap (A Fig 3) and connect the warning light link harness between the switch and warning light.
3. Remove the lower green cable from the right hand fuse block. Fit the 'piggy back' connector on the warning light harness to the fuse block. Refit the green cable to the spare connection on the 'piggy back' connector and fit the earth lead to the common earthing point on the right hand side.
4. Connect the battery, start and run the engine until normal operating temperature is reached. Slacken the front carburettor throttle linking rod and ensure that the adjusting screws contacting the choke operating cams are clear. Restart the engine, balance and adjust the idle speed to 750 rpm. Retighten the throttle linking rod and adjust the choke operating screws to ensure that they just contact the choke operating cams. Using suitable equipment, check and adjust the CO reading.

ITEM: 44

79 CLEAR OVER BASE PAINTS.III/XJS

A change of paint technology from thermo-plastic acrylic to clear over base enamel is to be introduced on S.III and XJS vehicles from June 1986. Introduction VIN numbers will be released at a later date.

C.O.B. technology has become well established in the automobile industry in recent years for use on metallic finishes. Jaguar will be extending this technology to encompass solid colours.

A Paint Manual offering in depth guidance on C.O.B. repair, is to be released in the coming months. This Bulletin precedes the Manual by providing information relevant to C.O.B. launch, plus selected paragraphs from the manual.

Identification of Paint Finish

At the time of C.O.B. launch, there will be 17 new colours (see table one) intermixed with T.P.A. vehicles whilst the body supply pipeline is purged. As Dealers will receive vehicles of similar colour in differing paint finishes, correct identification is vitally important should paint rectification need to be carried out. This is achieved in any of the following ways:

1. Identification by an orange label bearing C.O.B. printed in black letters, attached to the inside of the front screen for removal by the Dealer.
2. Checking the paint colour code stamped onto the underbonnet VIN plate against the codes detailed in this Bulletin.
3. Lightly sanding a small discreet area with fine flattening paper. If the paper is not discoloured the surface has been clearcoated.

Rectification

Jaguar have liaised with a number of paint companies to provide a comprehensive range of refinish materials and technical support for C.O.B. and T.P.A. Approved suppliers, products and markets are listed in table two.

Repair Process

1. Always refer to the relevant supplier data sheets when carrying out rectification.
2. Always spray out a test panel in colour and clear when matching for panel or local repair.
3. When carrying out a local repair where it is not feasible to spray out a complete panel, i.e. a roof, rectify using the following method:
 - a) Thoroughly clean the complete panel with solvent.
 - b) Mask up the surrounding panels.
 - c) Flat the defective area locally, spirit wipe and prime any breakthrough.
 - d) When the primer is dry, wet or dry flat.
 - e) Key the whole of the panel with Scotchbrite Ultrafine and water soluble compound.
 - f) Thoroughly clean and dry the panel and move the vehicle into a spray booth.

- g) Spirit wipe, tack rag wipe.
- h) Apply basecoat in single wet overlapping coats allowing 5 mins. between coats, or according to the paint manufacturer's data sheets.
- j) Tack off after basecoat has flashed off for 20 mins.
- k) APPLY TWO COATS OF TWO PACK CLEARCOAT OVER THE COMPLETE PANEL, FLASHING OFF BETWEEN COATS.
- l) Stove, force or air dry as required to the manufacturer's instructions.
4. Always ensure the basecoat has flashed off properly before applying clearcoat. Failure to do so can result in clearcoat sinkage and a subsequently dull finish.
5. Where a small panel or panels offering a convenient break line are to be rectified, it may be feasible to basecoat the complete panel, particularly where a good match as been obtained.

TABLE ONE

<u>Paint Colour</u>	<u>Sales Colour Code</u>	<u>BLVC/JBC</u>
Nimbus White	NDJ	700
Grenadier Red	CEH	332
Jaguar Racing Green	HEN	701
Westminster Blue	JFG	712
Jet Black	PDH	333
Bordeaux Red Metallic	CEK	340
Crimson Metallic	CEV	714
Solent Blue Metallic	JEW	715
Arctic Blue Metallic	JFE	337
Tungsten Metallic	JEX	718
Talisman Silver Metallic	MDF	336
Dorchester Grey Metallic	LDP	342
Sovereign Gold Metallic	GDF	341
Satin Beige Metallic	AFV	711
Silver Birch Metallic	MDJ	716
Alpine Green Metallic	HES	709
Moorland Green Metallic	HET	717

TABLE TWO

<u>Market</u>	<u>Supplier</u>	<u>Basecoat</u>	<u>Clearcoat</u>
Europe	I.C.I.	P422 2K Basecoats P420 2K Acrylic	2 Pack P190-435 1 Pack P190-390 Local Repair Only
Europe	Ault & Wiborg	Aultragem	2 Pack Z4375
Europe	Dupont	Centari 600	2 Pack 120S 2 Pack AX1060
Europe	Sikkens	Autobase Autocryl	2 Pack clear 2 Pack clear
Europe	Berger	2K Standocryl Metallic Basislack	2 Pack Klarlack 2 Pack Klarlack
Europe	Inmont	Dia-Mont	Diamontop
Europe	P.P.G.	Acryline	2 Pack Acryline
Europe	Glasurit	Glasomax 54 Glassodur 21	Glassodur M.S. Top Clear 923-85
U.S.A.	Dupont	Lucite Cronar	580S Cronar Clear
U.S.A.	Rinshed-Mason	Miracryl 2	MC 1000 Clear
U.S.A.	Sikkens	Autobase Autocryl	2 Pack 2 Pack
Canada	Inmont	Dia-Mont	D7600 Clear
Canada	Dupont	Hi-Tech	Hi-Tech 680S
Canada	C.I.L.	2K Basecoat	2000-600 Clear
Canada	Sikkens	Autobase Autocryl	2 Pack Clear 2 Pack Clear
Australia	Spartan	Eurobase 131 Eurocryl	Eurobase Clear 124-2468
Australia	Dulux	Dulux 354 2K Acran Enamel	2K Clearcoat 455-30900

R.O.W. Represented by the above via importers or local agents. The materials may be marketed under an alternative trade name.

Service Bulletin

JAGUAR

Daimler

Date: JULY 1986
Sheet: 1 of 9
Bulletin: JD 07/86

ITEM: 45

17 EMISSION 'F'
AUSTRIA, GERMANY AND SWITZERLAND

S.III 4.2/ALL V12

To satisfy legislative market requirements a revised engine specification for the above markets has been introduced. This incorporates an emission type 'F' engine with stellite seat valves and emission equipment changes to suit unleaded fuel.

A summary of the emission equipment by market is tabulated below:

	A	B	C	D
Germany				
S.III 4.2	X	X	X	
S.III V12/XJS V12	X	*		X

	A	B	C	D
Austria, Switzerland				
S.III 4.2	X	X	X	X
S.III V12/XJS V12	X	X	X	X

A - Underfloor Catalyst B - Downpipe Catalyst
C - Air Injection D - Oxygen Sensor
* - To rationalise build. Fitted to first cars only; not required on subsequent builds.

The engine idle and ignition setting should be checked against the following values:

S.III 4.2	Idle speed 750 - 850 rev/min
Austria, Germany and Switzerland	Ignition Timing 16-18° BTDC at 800 rev/min with vacuum disconnected
S.III V12/XJS V12	Idle speed 650-850 rev/min.
Austria, Germany and Switzerland	Ignition Timing 15-17° BTDC at 3,000 rev/min with vacuum disconnected

These changes have been introduced from engine numbers:

8L 209816 - S.III 4.2
7P 55737 - S.III V12
8S 43250 - XJS V12

Further details and part numbers will be issued as parts are available.

74 ALLOY ROAD WHEELSSIII/XJS

A small batch of vehicles fitted with alloy road wheels and Pirelli tyres, recently despatched from the factory, are subject to reports of white staining of the protective lacquer.

This has been caused by the solvent used by the supplier to clean the wheel prior to application of the balance weights not being to specification.

This staining should be removed at P.D.I. stage, by buffing the area with a pad lightly moistened with Ethyl Methyl Ketone (MEK).

When using this chemical the following precautions MUST be strictly adhered to:

- * Highly flammable - DO NOT USE whilst standing near a naked flame or smoking.
- * DO NOT INHALE - Only use in a well ventilated area.
- * Avoid contact with the skin and eyes - wear protective clothing, e.g. gloves, glasses, etc.

76 SEAT BELT SLIDER BARXJS

To assist occupants with the fitting of XJS seat belts, Jaguar have carried out a modification to the fixed anchorage point. A bar has been installed which is secured to the sill at its forward position and is located in an aperture situated in the heel board panel at its rear location.

The seat belt has a stitched loop which passes over the slider bar prior to fitment into vehicle. This loop allows fore and aft movement of the seat belt to be achieved.

100% fitment to Coupe models is assured from VIN 131010.

The Cabriolet will also be fitted with this modification from early August on 1987 M.Y. vehicles (introduction VIN to be advised).

NOTE: This is an Engineering Design modification and cannot be fitted to pre-modification vehicles.

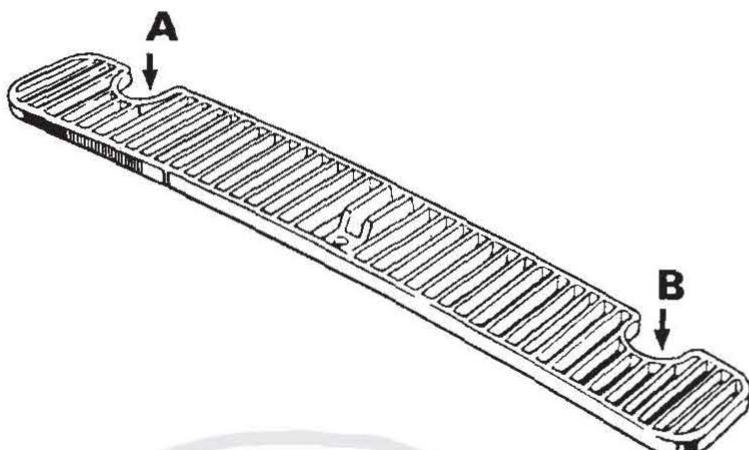
To fasten the seat belt pass a hand back along the sill, grasp the belt and pull forward. Transfer the belt to the other hand, pull across the body and fasten in the normal manner.

80 PLENUM GRILLES.III

The plenum grille is located by two push fit retention pegs (see illustration) located in two friction bushes.

It is possible to damage the plenum grille using an incorrect method of removal, i.e. levering the grille free at the extreme ends.

To avoid damage, use a screwdriver with a narrow blade covered with cloth (preventing damage to grille paintwork), inserted at location A or B, between the plenum grille and panel. Gently lever the grille forward and up until the retention peg is free of the bush.



JSI-477

Repeat the above procedure for the remaining retention peg location to complete removal.

ITEM: 49

82 MK III AIR CONDITIONING UNITS.III V12/XJS

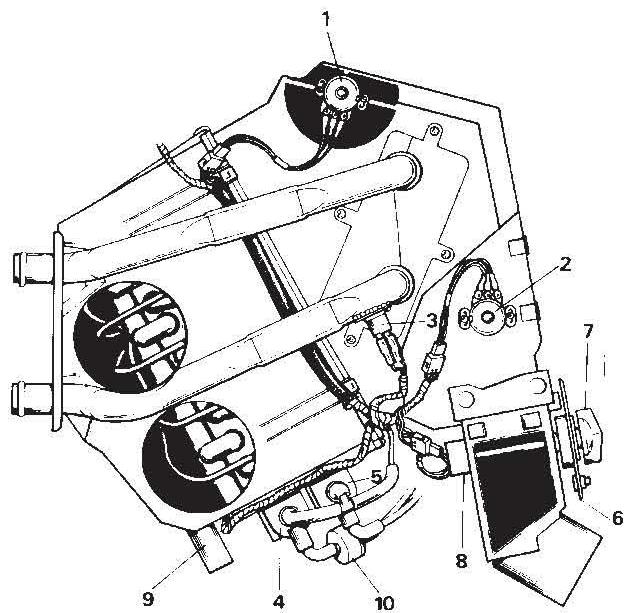
Jaguar will be introducing a new air conditioning system for the above models shortly. The following information is provided to allow technicians to develop an early appreciation of its features and functions prior to the release of further documentation.

The concept of this sophisticated air conditioning system has been developed to increase performance and reliability. To achieve this, mechanical components are kept to a minimum.

ELECTRONIC CONTROL MODULE

The control module is a computer at the heart of which is a digital micro-processor. It receives data signals from driver operated switches, then by comparing this data with data received from various temperature sensors and feedback sensing devices, it calculates the output voltages needed to operate the blower motors, flap servo motors, compressor and vacuum solenoids to achieve the temperature requirement selected for the vehicle.

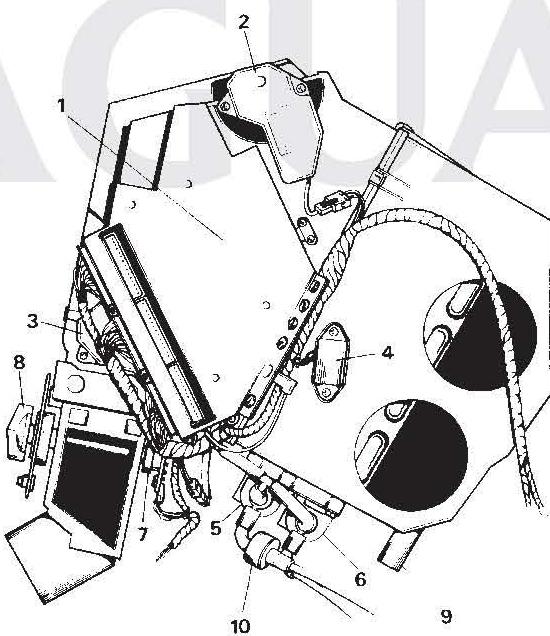
Although the control module cannot be repaired in service, a set of test pins are accessible for testing the various circuits by the use of a digital multimeter. GREAT CARE MUST BE EXERCISED WHEN USING THE TEST METER. THE CONTROL MODULE WILL BE IRREPARABLY DAMAGED SHOULD ANY OF THE TEST PINS BE MOMENTARILY SHORTED TOGETHER. This technique should only be used until the new Jaguar Diagnostic System is available, which is designed to test Mk.III Air Conditioning fully and comprehensively.



JAG2182

- | | |
|---------------------------------|--|
| 1. Upperfeed Back Potentiometer | 6. Differential Temp Control |
| 2. Lowerfeed Back Potentiometer | 7. Temp. Demand Control |
| 3. Water Temp. Switch | 8. Temp. Demand Potentiometer |
| 4. Recirc. Vacuum Solenoid | 9. Condensate Drain Tube |
| 5. Water Valve Vacuum Solenoid | 10. Recirc. Solenoid Vacuum Restrictor |

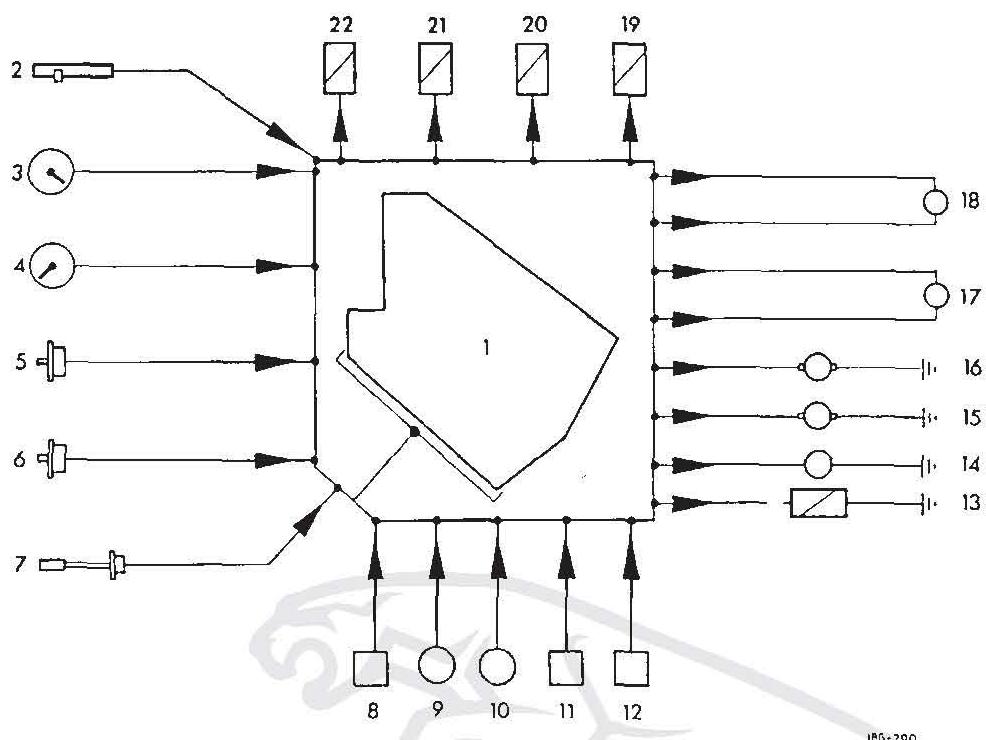
FIG 1 AIR CON UNIT LH SIDE



JAG2183

- | | |
|--------------------------------|--|
| 1. Control Unit | 6. Defrost Vacuum Solenoid |
| 2. Upper Servo Motor | 7. Mode Switch |
| 3. Lower Servo Motor | 8. Mode Control |
| 4. Evaporator Sensor | 9. Condensate Drain Tube |
| 5. Centre Vent Vacuum Solenoid | 10. Centre Vent Solenoid Vacuum Restrictor |

FIG 2 AIR CON UNIT RH SIDE



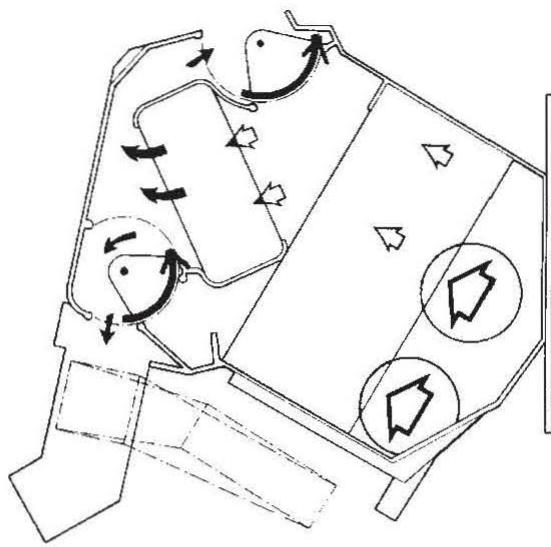
- | | |
|------------------------------------|---------------------------------|
| 1 Control Module | 12 Blower Motor Feedback |
| 2 Differential Temperature Control | 13 High Speed Relay |
| 3 Temperature Control Switch | 14 Compressor Clutch |
| 4 Mode Control Switch | 15 Blower Motor |
| 5 Ambient Temperature Sensor | 16 Blower Motor |
| 6 In Car Temperature Sensor | 17 Servo Motor |
| 7 Evaporator Temperature Sensor | 18 Servo Motor |
| 8 Coolant Temperature Switch | 19 Defrost Vacuum Solenoid |
| 9 Flap Feedback Potentiometer | 20 Recirculation Flaps Solenoid |
| 10 Flap Feedback Potentiometer | 21 Centre Vent Solenoid |
| 11 Blower Motor Feedback | 22 Water Valve Vacuum Solenoid |

FIG 3

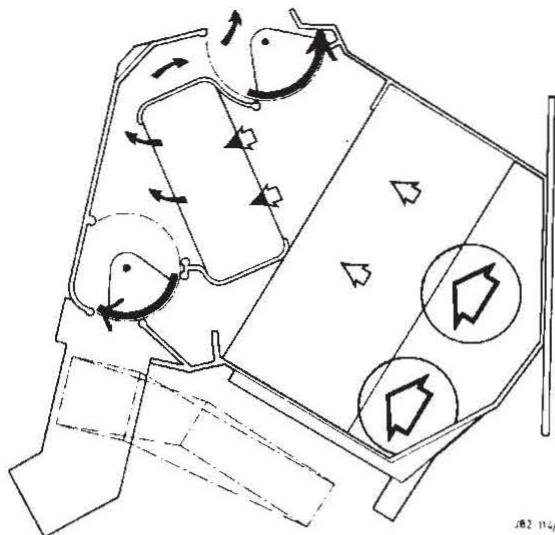
TEMPERATURE DISTRIBUTION SYSTEM

The air conditioning unit case consists of three parts, the rear of which carries the evaporator, the front is then split in two to enable the rotary flaps to be inserted.

The method used to achieve the required air temperature is known as a series parallel system. All the air into the unit passes through the evaporator, then depending on the position of the flaps either passes through the heater matrix to be heated, or bypasses the heater matrix completely, or a combination of both to achieve the air temperature required. The system employs two flaps that are driven to the required position (determined by the control system) by servo motors and gear box assemblies. The motor can rotate in either a clockwise or anti-clockwise direction depending on the direction of current flow through the motor.



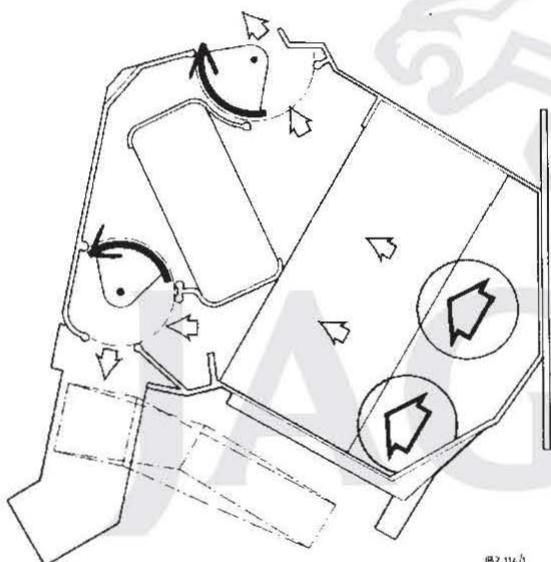
JB2 114



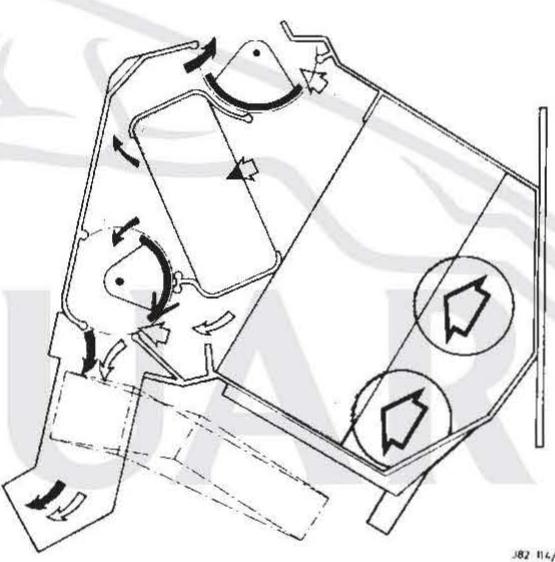
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FIG 4 FULL HEATING

FIG 5 DEFROST



JB2 114/1

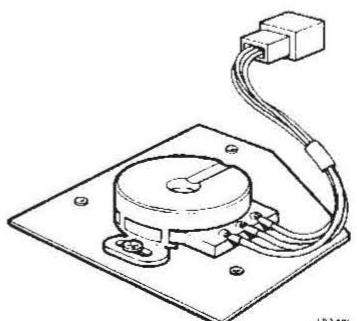


JB2 114/3

FIG 6 FULL COOLING

FIG 7 AIR BLEND

The flap positions are monitored by 2K2 ohm feedback potentiometers which supply voltage signals to the control module indicating the flap positions.



JB2 185

FIG 8 FEEDBACK POTENTIOMETER

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TEMPERATURE SELECTOR

The temperature requirement is selected by the setting of a 2K2 ohm potentiometer which is coupled to the temperature control switch. 5 volts is supplied to the potentiometer from pin 43 of the control module. The output voltage is from zero to 2.885 volts, which represents a range of temperatures from 19° to 29°C (66 to 84°F). The rotation of the potentiometer is restricted internally to 180° travel.

TEMPERATURE SELECTOR SWITCH - AUTOMATIC OVERRIDE FUNCTION

Incorporated within the temperature selector switch is the facility to override the automatic function. This enables the temperature to be manually selected and is achieved by pulling the left hand knob.

Engaging the manual override mode and dialling the temperature switch within the range available, allows the occupants to select the desired temperature of air entering the passenger compartment. This is permanently maintained regardless of the ambient temperature.

TEMPERATURE DIFFERENTIAL CONTROL

The slider control can be used to adjust the temperature of the air being delivered through the fascia end vents.

When the control is at the full right position, the air being delivered to the fascia end vents will be slightly cooler than that at the footwell vents.

Moving the control to the left, reduces the temperature of the air to the fascia end vents, at the full left position the air is at its coolest. This control does not affect the set in-car temperature and is most effective during 'NORM' (normal) operation of the air conditioning system.

When the system is in a heating mode, this control allows warmer air to the feet than to the face.

A 10K ohm slide potentiometer used for this purpose is coupled to the thumbwheel. Its supply voltage is from pin 7 and the signal voltage is then fed to pin 28 of the control module.

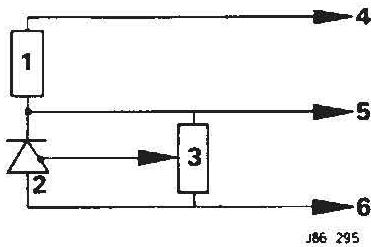
TEMPERATURE SENSORS

There are three temperature sensors fitted into the system, the ambient temperature sensor, the in-car temperature sensor and the evaporator temperature sensor. All three sensors are electrically identical, but the evaporator temperature sensor is physically different and is not interchangeable with the other two.

An input of 5 volts is supplied to the sensors from pin 43 of the control module. The temperature sensing voltage from the sensor is then fed back into the control module. At 0°C (32°F) the sensing voltage should be 2.732 volts and with a temperature rise or fall of 1°C (1.8°F) the sensing voltage should rise or fall by 0.01 volts; for example, if the temperature should rise to 5°C (41°F) from zero, the voltage will rise by 0.05 volts to 2.782 volts.

The sensor is a semi-conductor device similar to a zenor diode in as much as it allows current to flow in reverse bias. The current flow through the device varies with temperature and is very accurate over a wide range. The sensor assembly has a built in potentiometer which is preset and should not be adjusted.

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1. Resistor
2. Semi conductor
3. Potentiometer
4. Pin 43 control module
5. Sensing voltage Pin 43 ambient, Pin 5 evap. sensors
6. Earth Pin.

FIG 9 SENSOR DIAGRAM

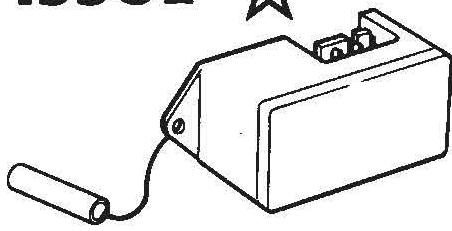


FIG 10 EVAPORATOR SENSOR



FIG 11 AMBIENT SENSOR

COOLANT TEMPERATURE SWITCH

A water temperature switch is fitted to the lower side of the heater inlet pipe. Its contacts are open at temperatures below 40°C, this prevents the fans from operating until relatively hot coolant is flowing from the engine.

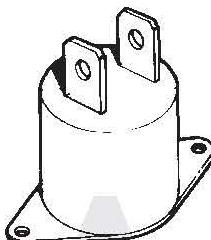


FIG 12 COOLANT TEMPERATURE SWITCH

MODE CONTROL SWITCH

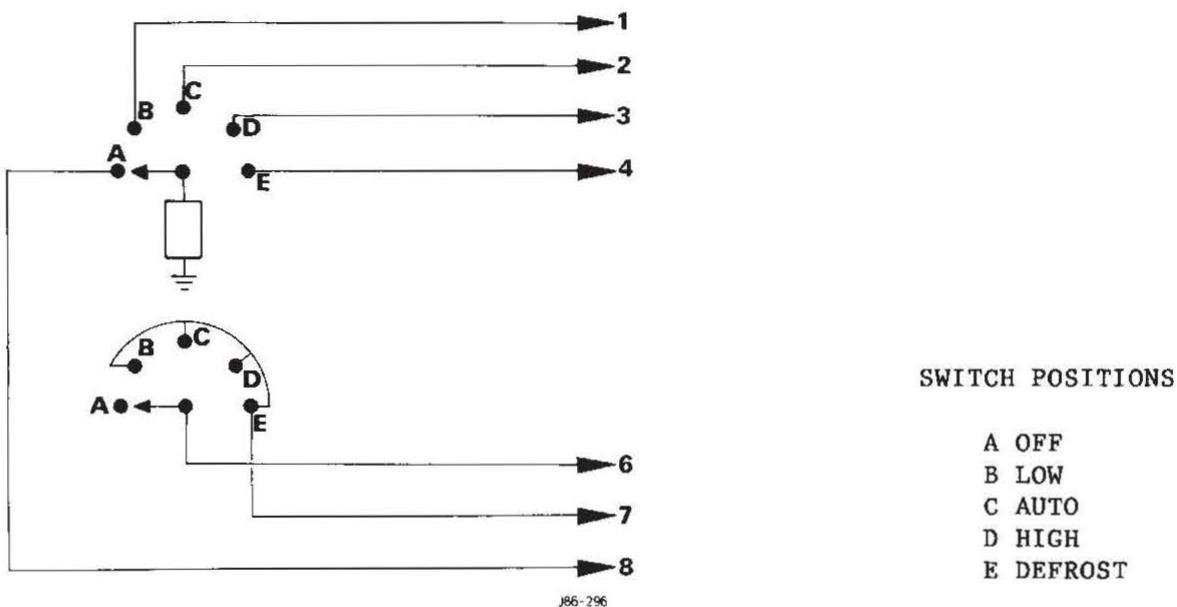
This main control switch provides inputs to the control module giving information regarding the requirements of the operator.

The switch has five position:- OFF, LOW, AUTO, HIGH AND DEFROST.

In the OFF position the system is not operational, but a signal from the switch is sent to the control module to ensure the flaps in the fan motor assemblies are closed, preventing outside air from entering the system.

In the LOW, AUTO and HIGH positions, information regarding the range of fan speeds is received by the control module from the control switch, temperature selector and the various sensors. Should a low fan speed be selected the control module will maintain the speed of the fan motor within a range of low speeds depending on the temperature requirement of the vehicle. There are no steps between the fan speeds. The fan speeds are electronically controlled, and by selecting LOW, AUTO or HIGH a level of speed in the range selected is received dependent on the vehicle requirement.

When DEFROST is selected the fans are electronically controlled to operate at maximum speed, the screen vents open, maximum heating is obtained and the lower level flaps fully close (this operation can take up to a maximum period of 30 seconds).



1. Pin 13 control module
2. Pin 14 control module
3. Pin 15 control module
4. Pin 27 control module

5. Pin 1 control module
6. Pin 12 control module
7. Pin 44 control module
8. Pin 9 control module

FIG 13 MODE CONTROL DIAGRAM

BLOWER MOTOR SPEED DRIVE CONTROL

Mounted in the outlet of the blower motor units are heatsink assemblies, each of which consist of an interference suppressor diode (11 Fig.14) a feedback isolation diode (8 Fig.14) and a power transistor (9 Fig.14).

The unit is supplied with positive battery voltage via an ignition controlled fuse. With the fan motor running at high speed the relay (12 Fig.14) is energised with a voltage from pin 16 of the control module, thus closing the relay contacts. The negative circuit is therefore completed via the relay contacts.

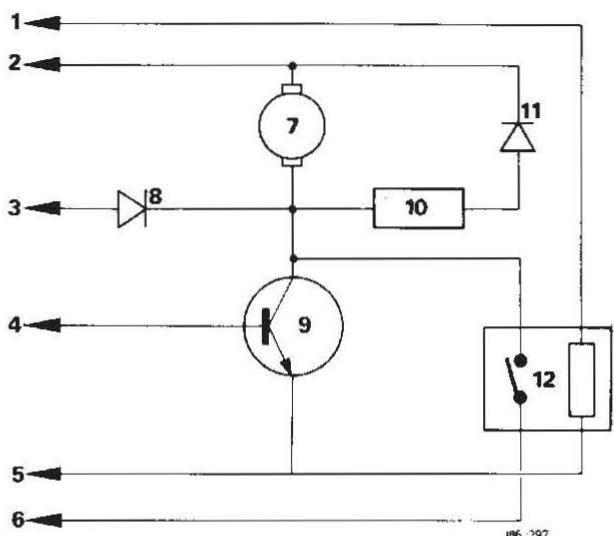
On all the other fan speeds the negative circuit for the fan motor is via the power transistor and the control module.

The feedback diode (8 Fig.14) enables the control module to sense the voltage at the negative terminal of the fan motor and so calculate the speed of the blower motor.

VACUUM SYSTEM

The components operated by the vacuum solenoids are:-

1. Defrost/Demist flaps which are held closed by vacuum. Identified by a green supply tube.
2. Recirculation/Fresh air flaps which are held closed by vacuum. Identified by a blue supply tube.
3. Centre vent, which is opened by vacuum. Identified by a black supply tube.
4. Water valve which is closed by vacuum. Identified by a red supply tube.



- | | |
|--------------------------------|----------------------|
| 1. Pin 16 control module | 7. Blower motor |
| 2. + battery supply | 8. Feedback diode |
| 3. Pin 22 or 33 control module | 9. Power transistor |
| 4. Pin 31 or 32 control module | 10. Resistor |
| 5. Pin 45 control module | 11. Protection diode |
| 6. Earth | 12. High speed relay |

FIG 14 BLOWER MOTOR DIAGRAM

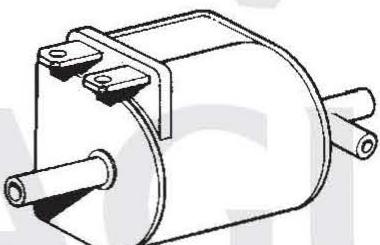


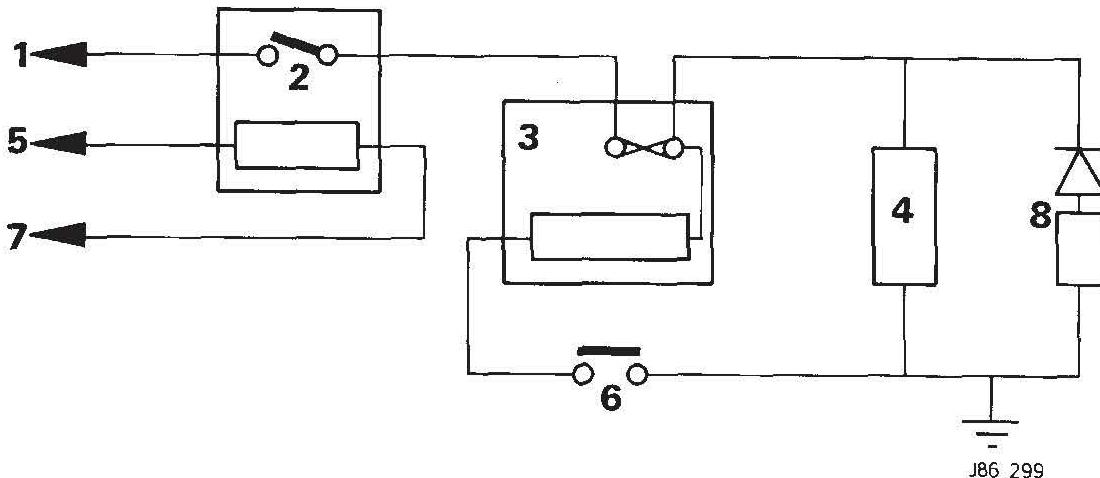
FIG 15 VACUUM SOLENOID

The vacuum supply to the recirculate/fresh air flaps and the centre vent have built in restrictors so that the operation of these flaps is slowed down to avoid the risk of the system hunting due to the rapid change caused by fast operation time. The recirculation flaps can take up to 30 seconds to change state.

COMPRESSOR CLUTCH CONTROL

The output from pin 20 of the control module is used to energise the compressor clutch relay (2 Fig.16) which will result in the relay contacts closing, allowing battery voltage to the clutch via the thermal fuse (3 Fig.16).

The control module has protection circuits built in to protect the micro-processor from damage in case of incorrect connections which may be made to the compressor clutch relay.



- | | |
|----------------------------|--------------------------------|
| 1. Positive Battery Supply | 5. Pin 20 Control Module |
| 2. Clutch Relay | 6. Superheat Switch |
| 3. Thermal Time Fuse | 7. Negative Pin Control Module |
| 4. Compressor Clutch | |

FIG 16 COMPRESSOR CLUTCH DIAGRAM

HIGH SIDE LOW PRESSURE (HSLP) SWITCH

Together with the introduction of the Mk III unit, a new compressor clutch protection system will be introduced.

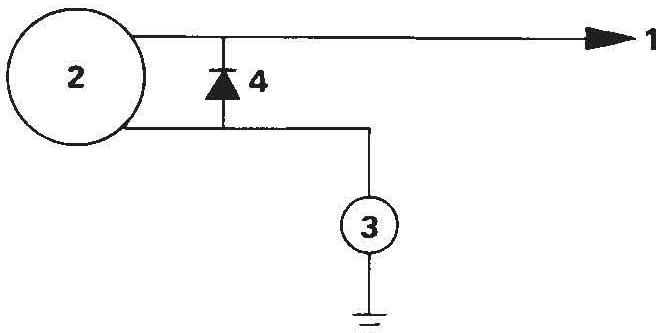
The thermal fuse and superheat switch are deleted and replaced by a high side low pressure switch (HSLP). The superheat switch design was such that it detected pressure drop and superheated refrigerant vapour on the low pressure line. The HSLP switch is designed to monitor pressure drop on the high side line. At a low pressure condition of $25 \text{ psi} \pm 5 \text{ psi}$, the HSLP switch contacts, which are normally closed, open circuit, thus breaking the earth circuit to the compressor clutch coil; resulting in the clutch drive disengaging.

Where a definite fault is present in the air conditioning system e.g., low refrigerant, restriction, etc., the HSLP switch will remain open circuit until such time as the problem is corrected.

Following rectification and recharging of the system, the HSLP switch will return to a closed state, once again completing the clutch circuit.

The need for the thermal fuse has been obviated with this system and significant benefits are gained especially where a transient fault occurs.

This condition has been experienced in service, and in some instances has resulted in vehicles being returned several times to a Dealer for the fuse to be replaced; although at the time the air conditioning system appeared to be fault free.



J86-510

- 1. Clutch Relay
- 2. Compressor Clutch

- 3. HSLP Switch
- 4. Diode Suppression

FIG 17

SOME VEHICLES MAY STILL BE EQUIPPED WITH THE SUPEHEAT SWITCH/THERMAL FUSE SYSTEM FOLLOWING MK III LAUNCH. THE OPERATIONAL DETAILS ARE AS FOLLOWS:

SUPERHEAT SWITCH AND THERMAL FUSE

A superheat switch is included in the compressor clutch circuit to provide a compressor protection system. The superheat switch and thermal fuse guards against a low refrigerant charge or blockages causing extreme superheated refrigerant vapour conditions resulting in compressor damage. The thermal fuse is a sealed unit containing a heater and a meltable fuse. The superheat switch is located in the rear of the compressor in contact with the suction side refrigerant vapour. With a low refrigerant charge or a blockage, the pressure drops and the temperature rises. This condition closes the superheat switch contacts, which completes the thermal fuse heater circuit, melts the fuse, disconnects the battery supply to the compressor clutch winding and the thermal fuse heater. The compressor ceases to operate and damage from insufficient lubrication will be avoided.

The thermal fuse melts at 157 to 182°C.

Time taken 2 minutes - 14V system voltage.
5.5 minutes - 11.5V system voltage.

The heater resistance, cold 8 to 10 ohms.

CAUTION: After a thermal fuse melt, establish and rectify the cause before replacing the thermal fuse unit complete.

FAULT FINDING

WARNING: THE MICRO-PROCESSOR IS AN EXTREMELY SENSITIVE AND EXPENSIVE UNIT, AND SHOULD ONLY BE TESTED USING A DIGITAL TYPE MULTI-METER WITH NO LESS THAN A 3.5 DIGIT DISPLAY, AND A RESISTANCE OF NO LESS THAN 2 MEGS OHMS ANY OTHER FORM OF MULTI-METER WILL IRREVERSIBLY DAMAGE THE MICRO-PROCESSOR.

THE CONTROL PINS ARE MOUNTED VERY CLOSE TOGETHER, THEREFORE, THERE IS A HIGH RISK OF SHORTING TWO PINS TOGETHER WHEN USING A TEST PROBE.

TWO PINS SHORTED TOGETHER EVEN MOMENTARILY, WILL CAUSE IRREPARABLE DAMAGE TO THE CONTROL MODULE.

To avoid shorting two pins together an insulated sleeve or shroud must be fitted over the probe so that it overlaps the end of the probe by approximately 3 mm (9.125 ins). The insulation stripped from a piece of cable will provide a suitable sleeve.

Always allow time for servos to come to rest.

An automatic check will require setting all sensors to a known condition, ie in workshop area at 24°C (75°F) for at least 30 minutes.

Sensor inputs will relate to ambient temperature, ie at 24°C (75°F), sensor voltage readings will be 2.97V (1mV = 1°C (33.8°F)).

This technique should only be used until the new Jaguar Diagnostic System is available, which is designed to test Mk.III Air Conditioning fully and comprehensively.

SYSTEM OFF

POWER SUPPLY ON

	Pin No	Voltage
Ignition in	1	11 - 14V
Recirc Input	9	2 - 6V
Grounds:	2	0 - 40mV
	6	0 - 40mV
	10	0 - 40mV
	38	0 - 40mV
	45	0 - 40mV
From On/Off Switch	44	0 - 12mV
To ON/OFF Switch	12	10 - 13.3V
Set in Manual by shorting pin	19	To Ground
Select Low On Mode Switch		
Maximum Temperature Demand		
Low Input	13	150 - 350mV
Clutch Output (Evap Sensor below 2.720V)	20	0.6 - 11.4V
Medium Input	14	3 - 5V
High Input	15	3 - 5V
Defrost	27	3 - 5V
From On/Off Switch	44	10.3 - 13.3V
Output	43	4.73 - 5.2V
Recirc output	3	0 - 200mV
High Speed Relay	16	0 - 200mV
Water Valve Vacuum Solenoid	17	0 - 200mV
Centre Vent Vacuum Solenoid	18	0 - 200mV
Select Norm (Med or Auto) On mode Switch		
Low Input	13	3 - 5V
Medium Input	14	150 - 350mV
High Input	15	3 - 5V
Defrost Input	27	3 - 5V

Select High On Mode Switch
Maximum Temperature Demand
Ensure Servos Are Stationary

	Pin No	Voltage
Low Input	13	3 - 5V
Medium Input	14	3 - 5V
High Input	15	150 - 350mV
Defrost Input	27	3 - 5V
Select Defrost		
Low Input	13	3 - 5V
Medium Input	14	3 - 5V
High Input	15	3 - 5V
Defrost Input	27	150 - 350mV
Temperature & Diff Potentiometer Ranges		
Temperature Demand (Maximum)	35	2.665 - 3.105V
Temperature Demand (Minimum)	35	0 - 200mV
Diff Demand (Maximum)	28	4.750 - 5.250V
Diff Demand (Minimum)	28	0 - 200mV
Set Temperature Demand to Mid Range	35	1.43 - 1.45V
Select Norm		
Recirc Input	9	3 - 5V
Servo Drive Lower Flap	37	4V
Servo Drive Lower Flap	41	4V
Servo Drive Upper Flap	40	4V
Servo Drive Upper Flap	42	4V
Recirc output	3	0 - 500mV
Reference voltage	7	2.875 - 2.895V
Defrost Output	11	0 - 500mV
High Speed Relays	16	0 - 500mV
Lower Feedback Potentiometer	29	0.60 - 0.90V
Upper Feedback Potentiometer	30	1.15 - 1.45V
Coolant Temperature Input	21	260 - 460mV
Defrost Output	11	0 - 500mV
Clutch Output (Evaporator above 2.745V)	20	10.3 - 13.3
RH Blower Feedback	33	10 - 13V
LH Blower Feedback	22	10 - 13V
RH Blower Control	32	0 - 0.5V
LH Blower Control	31	0 - 0.5V
Water Valve Solenoid	17	0 - 500mV
Centre Vent Solenoid	18	0 - 500mV
Select Low On Mode switch		
Minimum Temperature Demand		
Set Diff to Mid Range	28	2.45 - 2.55V
Servo Stopped	37	4V
	40	4V
	41	4V
	42	4V
Lower Feedback	29	0 - 0.2V
Upper Feedback	30	0 - 0.2V
Set Temperature to Mid Position	35	1.43 - 1.45V
Servo Stopped	37	4V
	40	4V
	41	4V

	Pin No	Voltage
Lower Feedback	42	4V
Upper Feedback	29	0.57 - 0.87V
Set Temperature to Maximum	30	0.60 - 0.9V
Lower Feedback	35	2.665 - 3.105V
Upper Feedback	29	0.979 - 1.279V
Set Diff to Maximum	30	1.518 - 1.818V
Lower Feedback	28	4.750 - 5.20V
Upper Feedback	29	0.979 - 1.279V
	30	1.340 - 1.640V

Blower Test

Set Diff To Minimum	28	0 - 200mV
Set Temperature to Minimum	35	0 - 200mV

Note: After setting allow servos to come to rest.

Typical voltage figures are in the brackets.

Mode Switch Position	RH Control Pin No 32	LH Control Pin No 31	RH Feedback Pin No 33	LH Feedback Pin No 22
Low	1 - 2V (1.77V)	1 - 2V (1.7V)	4 - 6V (5.8V)	4 - 6V (5.63V)
Med	2 - 3V (2.28V)	2 - 3V (2.27V)	3 - 5V (3.7V)	3 - 5V (3.4V)
High	1 - 2V (1.17V)	1 - 2V (1.19V)	1 - 2V (1.22V)	1 - 2V (1.27V)

Set Temperature to Mid Point	Pin No	Voltage
	28	1.43 - 1.45V

Mode Switch Position	RH Control Pin No 32	LH Control Pin No 31	RH Feedback Pin No 33	LH Feedback Pin No 22
Low	1 - 2V (1.24V)	1 - 2V (1.27V)	6.5 - 9V (8.7V)	6.5 - 9V (8.7V)
Med	1 - 2V (1.4V)	1 - 2V (1.41V)	6.9 - 9V (7.5V)	6.5 - 9V (7.5V)
High	2 - 3V (2.2V)	2 - 3V (2.2V)	3.0 - 5V (4.1V)	3.0 - 5V (4.0V)

Set Temperature to Maximum	Pin No	Voltage
	28	2.88 - 3.10V

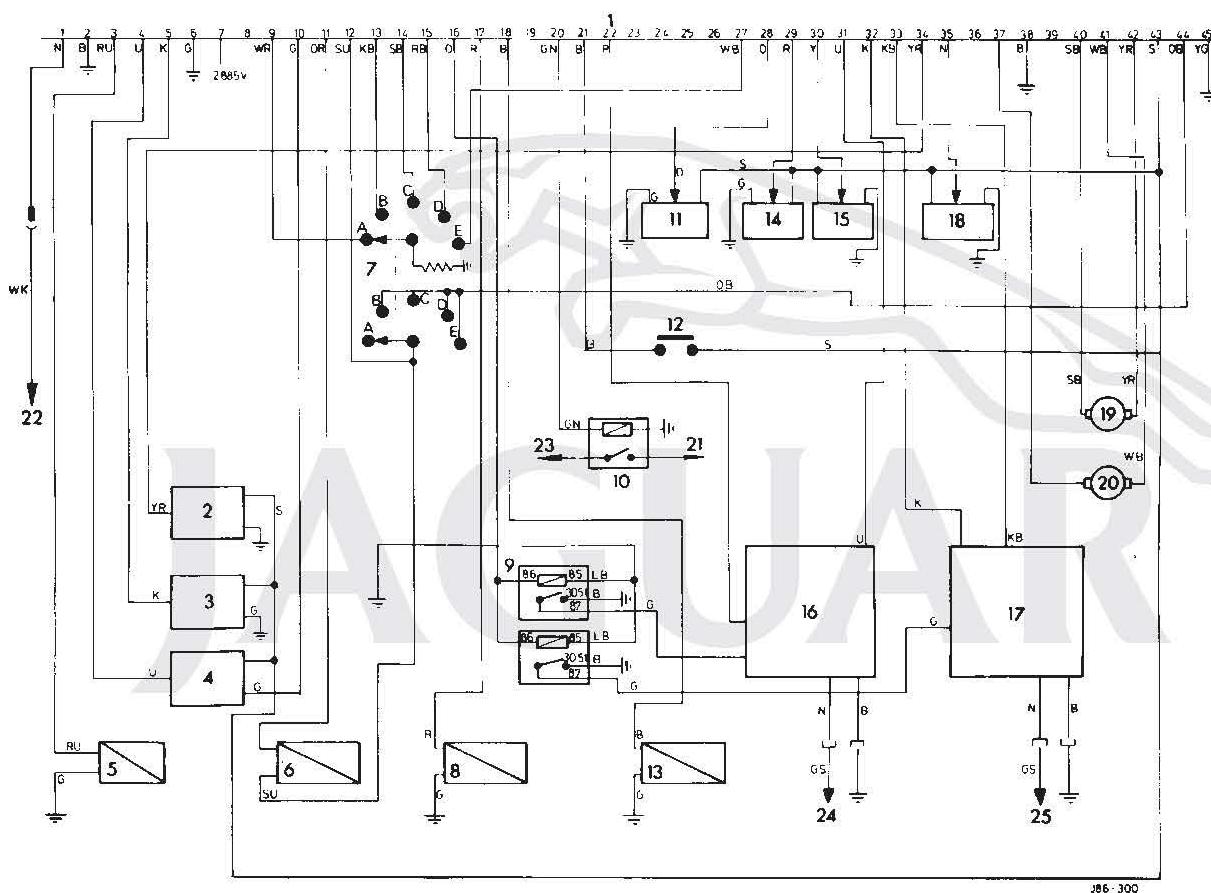
Mode Switch Position	RH Control Pin No 32	LH Control Pin No 31	RH Feedback Pin No 33	LH Feedback Pin No 22
Low	1 - 2V (1.67V)	1 - 2V (1.63V)	6.5 - 9V (6.25V)	6.5 - 9V (6.1V)
Med	2 - 3V (2.17V)	2 - 3V (2.1V)	3.0 - 5V (4.25V)	3.0 - 5V (4.2V)
High	2 - 3V (2.3V)	2 - 3V (2.3V)	3.0 - 5V (3.7V)	3.0 - 5V (3.5V)

	Pin No	Voltage
Open The Water Temperature Switch Leads		
Set Temperature to Mid Point	35	1.43 - 1.45V
RH Control	32	0 - 0.5V
LH Control	31	0 - 0.5V

Short the Water Temperature Switch Leads

Select Low On Mode Switch

	Pin No	Voltage
Clutch Output	20	9.3 - 12.3V
RH Control	32	1 - 2V
LH Control	31	1 - 2V
Set Diff to Minimum	28	0 - 200mV
Set Temperature to Minimum	35	0 - 200mV
Recirc Output	3	9.3 - 12.3V
High Speed Relays	16	0 - 200mV
Water Valve Solenoid	17	9.3 - 12.3
Centre Vent Solenoid	18	9.3 - 12.3
Defrost output	35	0 - 500mV
Select Defrost On Mode Switch	27	150 - 350mV
High Speed Relays	16	9.3 - 12.3V
Lower Feedback	29	2.709 - 3.100V
Upper Feedback	30	1.714 - 2.014V
Select Off On Mode Switch	44	0 - 1V
Recirc Output	3	9.3 - 12.3V



- | | |
|---------------------------------|---------------------------------------|
| 1 Control module | 13 Centre vent vacuum solenoid |
| 2 Ambient temperature sensor | 14 Lower servo feedback potentiometer |
| 3 Evaporator temperature sensor | 15 Upper servo feedback potentiometer |
| 4 In car temperature sensor | 16 LH blower motor assembly |
| 5 Recirculation vacuum solenoid | 17 RH blower motor assembly |
| 6 Defrost vacuum solenoid | 18 Temperature demand control |
| 7 Mode control switch | 19 Upper servo |
| 8 Water valve vacuum solenoid | 20 Lower servo |
| 9 High speed relays | 21 To compressor |
| 10 Compressor clutch relay | 22 To fuse |
| 11 Differential control | 23 To fuse |
| 12 Coolant temperature switch | |

FIG 18 AIR CONDITIONING WIRING DIAGRAM

ITEM: 50

84 WINDSCREEN WASHER FLUIDS.III/XJS

Between the months of October and April, commencing October 1986 windscreen washer fluid bottles will be filled with a solution giving frost protection to -15°C.

This will apply to all markets except Canada which will continue to be shipped dry between the above period.

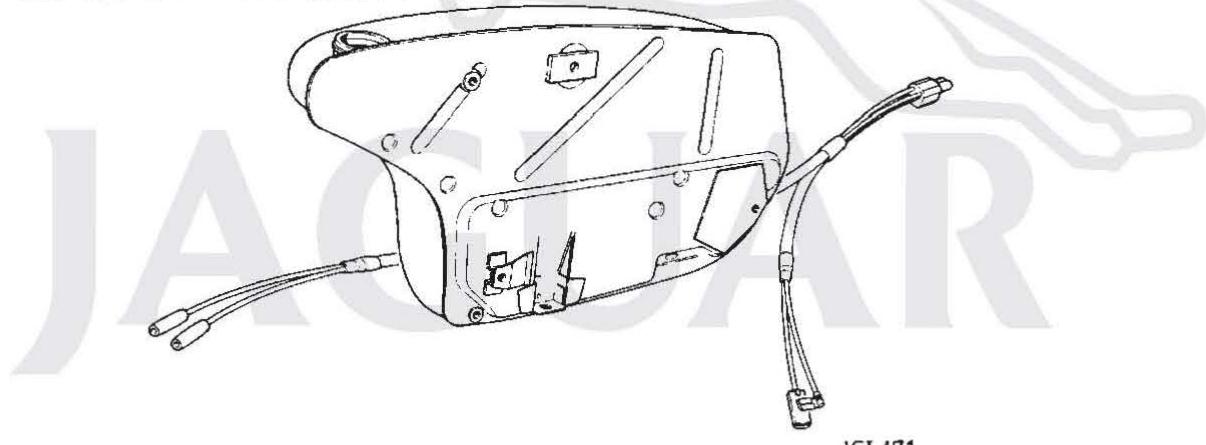
The inclusion of fluid providing protection to -15°C is possible with the introduction of new paint technology.

ITEM: 51

86 FUEL TANK ELEMENT/RECIRCULATION VALVE HARNESSS.III

Due to service network demand, the fuel tank element and recirculation solenoid valve link harness, Part No. DAC 1744, is now available through the Parts Division.

DAC 1744 is routed/clipped beneath the fuel tank and is utilised on both R/H and L/H side tank assemblies.



JSI-471

ITEM: 52

86 ELECTRIC AERIAL RELAYXJS (FROM VIN 123281)

Instances of water entering past the boot lid seal have been experienced on XJS models.

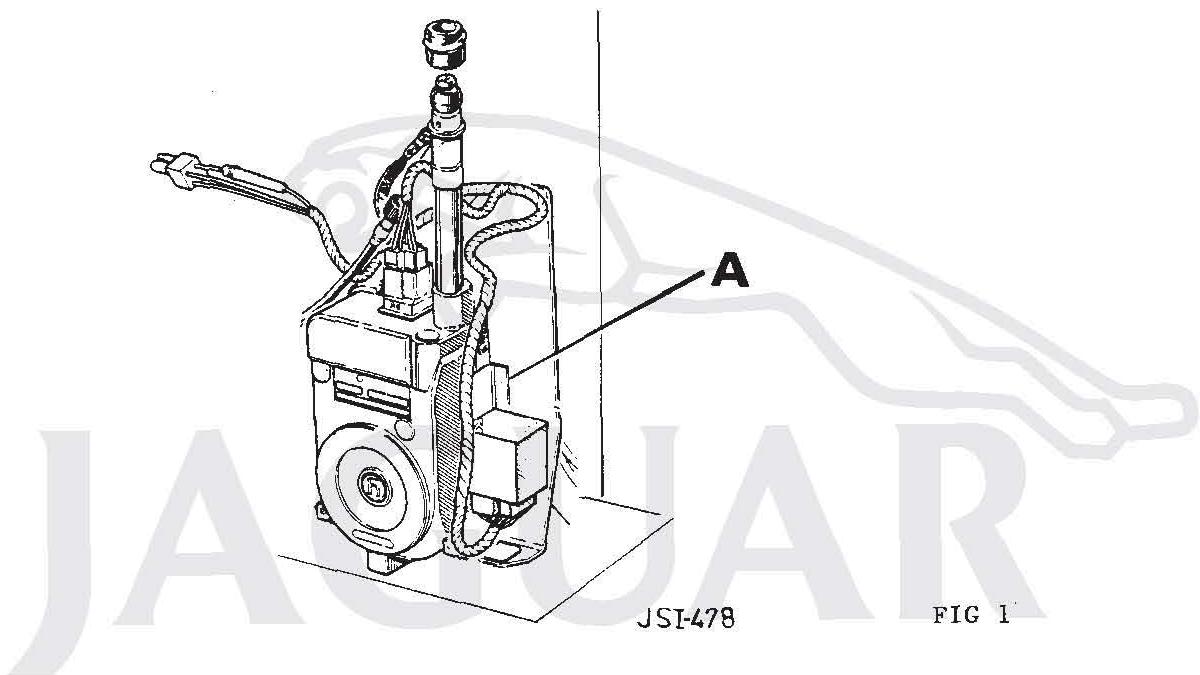
Action is being taken to prevent these leak paths and modifications will be advised in a future Bulletin issue.

As a result of water entry, vehicles equipped with the Hirschmann Electric Aerial Assembly, from VIN 123281 (JD-07 Item 55 refers), have experienced contamination of the aerial relay, causing aerial operation to be affected.

To prevent this, relay assembly DAC 1820 has now been inverted. This ensures that the relay terminals are positioned downwards and are therefore not vulnerable to water splash. Introduced at VIN 132955.

Vehicles in service prior to the safe VIN, where water ingress has affected the aerial relay, may be modified accordingly:

- a) Disconnect the battery and remove aerial trim panel.
- b) Release the excess relay harness from the clips beneath the inner wing panel.
- c) Remove the relay from the mounting bracket lug, invert and relocate onto lug.
- d) Ensure the harness is routed as Fig. 1 and is clear of the mounting bracket (A).



1112F

Service Bulletin

JAGUAR
Daimler

★ 2nd ISSUE ★

Date: SEPTEMBER 1986
Sheet: 1 of 5
Ref: JD 09/86

ITEM: 60

12 OIL COOLER

ALL V12 MODELS
ALL MARKETS EXCEPT: USA, CANADA & JAPAN

A new "full flow" oil cooling system has been introduced on V12 models to improve oil cooling. This system incorporates revised oil cooler, external and internal oil pipes. New part numbers are detailed in Jaguar Parts Technical Information Volume J6 Number J7, Item 33.

This system was introduced at the following VINs:

		VIN	ENG. NO.
Germany Only	S.III	454124	7P 55661
	XJS	131556	8S 42379
Other Markets	S.III	461921	7P 56372
	XJS	133486	8S 44317

ITEM: 61

12 POOR HOT START

XJS V12
USA/CANADA/JAPAN/AUSTRALIA/MIDDLE EAST

To overcome instances of poor hot start after heat soak, a thermal vacuum valve has been introduced to replace the fuel rail temperature sensing switch. This modification is intended for all V12 models but has been introduced initially on XJS in the above markets from VIN: 133461.

Further introduction points will be advised when available.

In addition to this, hot starting performance can be significantly improved by cranking with the throttle partially open, and customers complaining of this problem should be advised to use half throttle when starting after a hot soak condition.

V12 vehicles suffering poor starting after heat soak may be modified in accordance with the following instructions:

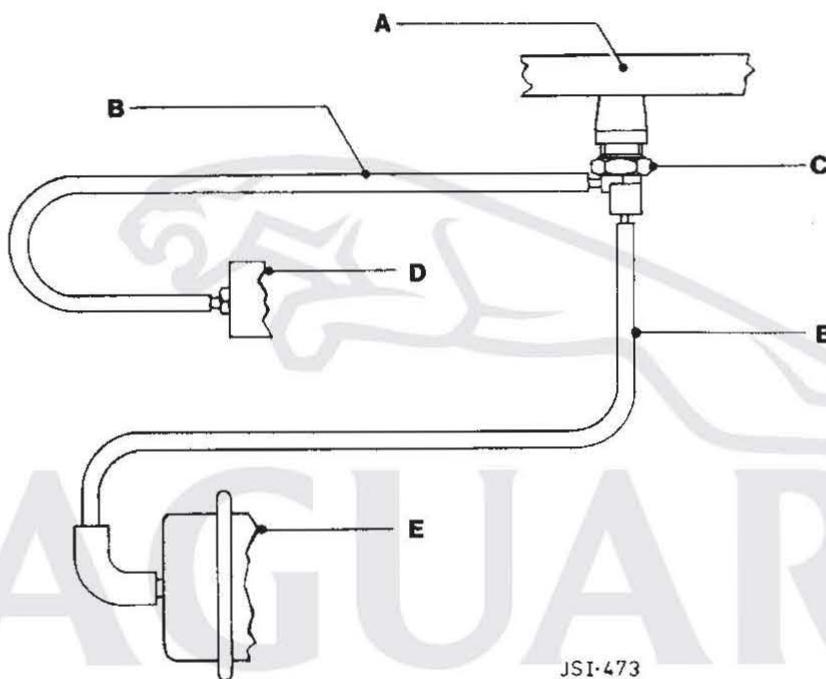
Parts required

EAC 5086 Thermal Vacuum Valve
EAC 8022/30 Vacuum Hose

★ 2nd ISSUE ★

Procedure

Remove and discard fuel rail temperature switch. Join wires together and tape back harness. Remove vacuum hose from outlet fuel pressure regulator to inlet manifold and discard, retaining the elbow and connector. Fit thermal vacuum valve to the fuel rail and cut 2 x 380mm (15") lengths of vacuum hose. Connect vacuum hoses as shown below.



JSI-473

A = Fuel Rail

B = Vacuum Hose

C = Thermal Vacuum Valve

D = Inlet Manifold

E = Fuel Pressure Regulator

Labour Allowance: 0.3 hr

Complaint Code: 7W5Y

ITEM: 62

17 EMISSION CONTROL

XJ6 2.9/3.6

Should attention to the throttle potentiometer, idle speed actuator or air-flow meter be required the following setting techniques may be undertaken until relevant JAGUAR DIAGNOSTIC SYSTEM (J.D.S.) software becomes available, which will render these procedures obsolete.

ADJUST THROTTLE POTENTIOMETER 3.6 MODEL ONLY.

Disconnect the throttle potentiometer multi-plug connector LI15. Slacken the screws securing the throttle potentiometer or, if a new throttle potentiometer is being fitted do not fully tighten the securing screws. Connect an ohm-meter across the pins with the G/Y and K/P leads on the throttle potentiometer connector LI15. The resistance reading of the throttle potentiometer should be approximately 5 K ohms. Turn the body of the potentiometer against the spring pressure until the needle of the ohm-meter just begins to register a lower resistance reading but still remains at 5 K ohms. Tighten the throttle potentiometer securing screws. Check the setting by opening the throttle to see if the resistance reading of the ohm-meter drops as soon as the throttle begins to open. Disconnect the ohm-meter from the throttle potentiometer multi-plug connector. Reconnect the throttle potentiometer connector to the cable harness.

ADJUST THROTTLE SWITCH 2.9 MODELS ONLY.

Disconnect the throttle switch cable harness multi-plug connector BI15. Slacken the screws securing the throttle switch. Connect an ohm-meter to the throttle switch terminals 1& 2. Turn the switch until a zero reading is obtained on the ohm-meter. Tighten the screws securing the throttle switch. Open and close the throttle to ensure the switch is correctly set. Disconnect the ohm-meter from the throttle switch and reconnect the switch to the cable harness multi-plug connector.

SETTING THE IDLE SPEED ACTUATOR 3.6 MODELS ONLY.

Run the engine until normal operating temperature is reached then switch the engine off. Disconnect the coolant thermister multi-plug connector LI20 at the thermostat housing. Connect a 100 ohm 1/4 watt resistor across the two cable harness multi-plug connections. Ensure the leads of the resistor do not touch any metal parts of the vehicle. Switch the ignition "ON" and wait 10 seconds. The idle speed stepper motor should now be fully wound in. Verify by holding the motor and feeling for vibration. With the ignition still "ON" disconnect the idle speed stepper motor multi-plug cable harness connector LI17. Remove the resistor from the thermister cable harness connector and reconnect the connector LI20 to the thermister. Start the engine and if necessary adjust the idle speed actuator air bypass screw with a 7/32 allen key to 550 to 600 rev/min. Reconnect the multi-plug connector LI17 to the idle speed stepper motor. Recheck the engine idle speed; it should now be 675 to 725 rev/min.

SETTING THE IDLE SPEED ACTUATOR 2.9 MODELS ONLY.

Run the engine until normal operating temperature is reached then switch off engine. Locate and release the 3 pin test socket BI7 situated under the battery tray. Using a jumper lead short the Blue and Slate wire of the connector to earth. Start the engine and if necessary adjust the idle speed actuator air bypass screw using a 3/16 allen key to 500 to 550 rev/min. Switch off the engine. Disconnect the lead shorting the Blue and Slate lead to earth. Recheck engine idle speed; it should be 625 to 675.

EMISSION SETTING ALL MODELS GROUP 3

Start and run the engine at idle speed. Check C.O. and H.C. reading on a gas analyser. This should be read between 1.0 to 1.5 C.O. level. 800 max H.C. level. If the readings on the analyser do not conform to the figures specified above remove the tamper proof plug and adjust the mixture adjustment screw on the air flow meter until the specified figures are achieved using an allen key on 3.6 models or a flat blade screwdriver on 2.9 models. Fit new tamper proof plug.

EMISSION SETTING ALL 2.9 MODELS GROUP 2

Locate test socket BI7 at the side of the battery and connect a analogue voltmeter into the sockets W/B and Y/N leads. Start and run the engine to normal operating speed. Check the reading on the voltmeter to identify if the reading is high or low. If the reading is high (12v) remove the tamper proof plug and turn the airflow meter clockwise. If the reading is low (0v) turn the screw anti-clockwise. Adjust the airflow meter until the needle of the voltmeter swings consistently from high to low. Check the C.O. reading to ensure the reading is between 0% to 0.25%. Disconnect the voltmeter. Fit new tamper proof plug.

EMISSION SETTING ALL 3.6 MODELS GROUP 1 & 2

Check the feedback monitor has the adaptor harness attached and is switched to "LOW". Locate and release the 3 pin connector LI41 from the bottom of the battery tray. Connect the feedback monitor to the connector. Start and run the engine at idle speed. Check the lights in row "A". Remove the tamper proof plug and adjust the airflow meter adjustment screw using an allen key until the light is interchanging between 2 and 3. The idle fuel is now set. Check the C.O. reading on the engine analyser which should be 0% to 0.2%. Disconnect the feedback monitor and clip the harness connector into clip on the battery tray. Fit new tamper proof plug.

AIR INJECTION CHECK

Check the feedback monitor has the adaptor harness attached and is switched to "LOW". Locate and release the 3 pin connector LI41 from the bottom of the battery tray. Connect the feedback monitor to the connector. Disconnect the multi-plug connector LI20 from the coolant sensor and bridge the harness connector with a 2K2 ohm resistor. Start and run the engine at idle speed. Observe the air pump clutch is engaged and a fully weak indication is registered on the feedback monitor. Check and ensure the C.O. reading is 0% to 0.2%. Open the throttle to ensure the air pump clutch disengages between 2500 to 3000 rev/min. Allow the engine to revert back to idle speed. Disconnect the 2K2 ohm resistor and reconnect the multi-plug to the coolant sensor. Check the idle speed is 675 to 725 rev/min and the C.O reading is 0% to 0.2% level. Disconnect the feedback monitor and clip the harness connector into clip on the battery tray.

GROUP CHART FOR EMISSION

GROUP	EMISSION	MARKET	MODEL
1	A	U.S.A	3.6
2	A	JAPAN	2.9 & 3.6
2	A	SWITZERLAND	2.9 & 3.6
2	A	SWEDEN	3.6
2	A	AUSTRIA	2.9 & 3.6
2	A	GERMANY	2.9 & 3.6
2	D	AUSTRALIA	2.9 & 3.6
2	E	CANADA	3.6
3	B	UK & EUROPE	2.9 & 3.6
3	D	MIDDLE EAST	2.9 & 3.6
3	F	R.O.W.	2.9 & 3.6

ITEM: 63

76 REAR SEAT/SQUAB FITXJS COUPE

To prevent resulting poor rear seat fitment after removing the protective plastic covering, the rear seat must first be removed from the vehicle. Subsequent seat refitment must maintain a good fit between cushion and squab and around seat belt buckles.

NOTE: This procedure is taken into account in the PDI time allowance.

ITEM: 64

77 PLASTIC WELDING REPAIRSXJ6 2.9/3.6

Introduction: To aid economy on XJ6 2.9/3.6 Models, a polymer moulding front spoiler, painted to vehicle original finish using the C.O.B. system, is fitted to the vehicle.

When considering the vulnerability of this spoiler in extended service life, it is deemed important by Jaguar Service that vehicle repairers are made aware that this spoiler can be repaired.

This Bulletin Item has been divided to enable Workshop Technicians to quickly identify relevant sections:

- 1) Material (Polymer) type
- 2) The weld process
- 3) Plastic welding equipment (See appendix 'A' for details of welding)
- 4) Plastic welding temperature
- 5) Plastic welding preparation procedure
- 6) Observations to be noted when welding
- 7) Weld tips and their applications
- 8) Common plastic welding problems
- 9) Refinish of plastic repairs
- 10) Safety requirements
- 11) Welding equipment and material suppliers

1) Material (Polymer) Type

The spoiler is a thermoplastic material (polypropylene elastomer compound). This material, in common with other thermoplastics, softens when heated; therefore it can be successfully repaired using a welding process.

2) The Welding Process

Thermoplastics are welded with electrically heated guns that require a compressed air source, or a cylinder of nitrogen gas. This process is known as "hot gas" welding. The principle consists of passing compressed air or gas over an electrically heated element, the heated air is then directed onto the welding rod and the surface of the material to be welded. The welding rod is then 'fed' into the fracture or break.

3) Plastic Welding Equipment

Details of general purpose welding guns are shown in Appendix 'A'. The guns, operating from a compressed air or gas source, will only weld efficiently if the air is properly filtered and free from water. The operating pressure range is between 2-6 psi. The use of nitrogen water gas (WP-NIT) will aid in the welding of some plastics and reduce oxydization as polypropylene.

Tests have shown that these materials can be welded quite successfully with dry air. Welding guns with built-in compressors can be used, with welding tips removed, as hot air 'blowers' for drying polyester fillers, shrinking P.V.C. trims and the removal and attachment of adhesive decorative strips. Heavy duty models are also available with 'fish tail' attachments for softening under-body protective coatings.

4) Thermoplastic Welding Temperatures (Polypropylene)

Polypropylene welding temperature is 300°C. In the case of certain hot air guns a temperature scale is supplied which enables the hot air temperature to be set with the potentiometer. An example scale fitted to the Leister-Kombi 'Triac' hand welding tool is shown below. The scale is calibrated according to the type of welding tip to be used. The potentiometer guide numbers 1 to 10 are set against the required welding temperature.

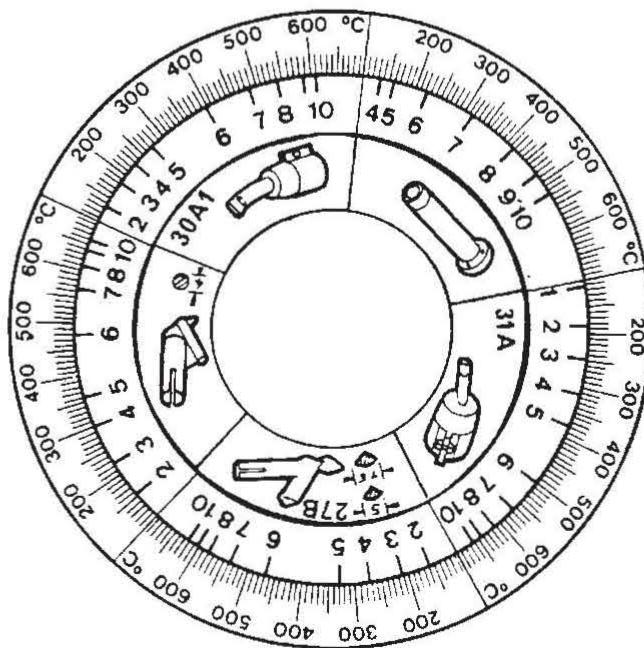


FIG 1.

5) Plastic Welding Preparation Procedures

To ensure a good weld, it is necessary to:

- i Prepare the fracture by sanding/scraping all paint or other finisher materials (also remove all traces of die agents such as silicon).
- ii Drill a small diameter hole at each end of the crack to arrest any further cracking.
- iii Cut a 'V' shaped channel along fracture as surface preparation for weld.
- iv Select a suitable welding rod (see Appendix 'B')
- v Practice welding methods and experiment with the tacking and high speed tips before actually beginning to repair the damaged part.

NOTE: Before proceeding with the repair, allow the gun and rod to attain the correct welding temperature (the gun should be allowed 2 mins. approx. to heat up).

6) Observations to be Noted When Welding

- i Small beads of 'juicing' should form along each side of the weld where the rod meets the base material.
- ii The welding rod should hold its basic shape.
- iii Neither the rod or base material should char or discolour.
- iv Never stretch the rod over the weld, the length of the rod should match that of the weld.
- v Hold the rod at 45° angle when welding.
- vi A suitable welding speed is 15 cm/min (6 in/min).
- vii Be sure to fill 'V' gap with sufficient material so that refinish filler can be kept to a minimum.

7) Welding Tips and Applications

Speed Tip: Used for long fractures. Pre-heats round rod welds faster and automatically feeds rod once the rod is fused to material.

Tacking Tip: Used for tack welding long fractures to hold material in correct alignment.

Both above tips are recommended for all repairs on the plastic apron.

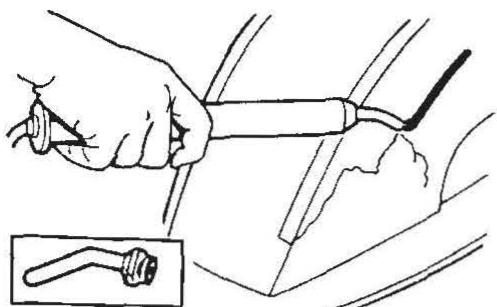


FIG 2

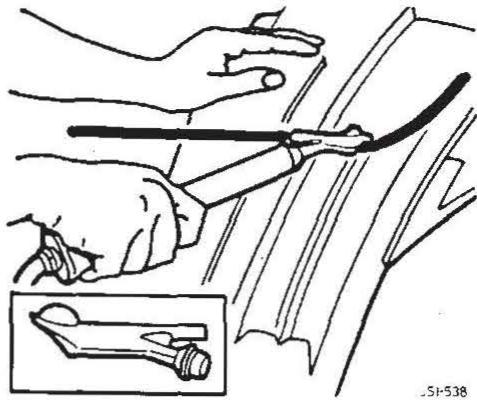


FIG 3

LSI-538

8) Common Plastic Welding Problems and Causes

i Uneven Welding Bond:

- Cause - Uneven pressure when "feeding in" the welding rod
- Welding rod stretched.
- Uneven heating.

ii Poor Bonding: Cause -

- Incorrect preparations.
- Poor welding techniques.
- Wrong welding speed.
- Incorrect welding rod selected.
- Incorrect welding temperature.

iii Carbonisation of the Repaired Area:

- Cause - Welding temperature too high.
- Uneven welding speed.
- Base material too cold.

iv Penetration Problems:

- Cause - Poor preparation.
- Insufficient gap.
- Welding rod too thick.
- Welding speed too high.

v Porous Weld: Cause -

- Porous welding rod.
- Welding speed too rapid.
- Welding rod too large.
- Welding rod stretched.

vi Warping:

- Cause - Shrinking of base material.
- Overheating.
- Incorrect preparation of the workpiece.
- Parts fixed under tension.

9) Refinishing

On completion of weld repair the following procedure should be carried out to obtain original finish:

- i Flat weld repair using a power sander or hand, using a sanding block (remove residue with solvent wipe).
- ii Fill deeper scratches, indentations or similar marks with a plastic filler. Allow to dry for 20-30 mins in an ambient temperature of about 20°C.

- iii Dry flat to achieve good surface finish using P600 (400 GPM) abrasive paper or Scotch-Brite.
- iv Solvent wipe to remove residue prior to application of primer.
- v Apply two coats of flexible sealer over the repaired area and all exposed plastic.
- vi Use primer and C.O.B. paint finish as per Jaguar recommended process/application.

10) Safety Requirements for Plastic Welding

- i When heating any synthetic or resin based plastics, a face mask and gloves should be worn.
- ii "DO NOT USE OXYGEN OR OTHER FLAMMABLE GASES FOR WELDING".

11) Welding Equipment and Material Suppliers

As previously outlined in this Bulletin Item there are two types of welding guns generally available for plastic welding purposes:

Type and Manufacturer of Welding Guns and Accessories:

Type A) A single element gun complete with a built-in mini compressor (Leister-Triac Hot Air Welding Tool).

Manufacturer: Karl Leister
CH-6056 Kgiswil
Switzerland
Telephone: 665464
Telex 866404

Type B) A Single element gun working from a compressed air or gas supply (Seelye Electric Plastic Welder Unit).

Manufacturer: Seelye Inc.,
9700 Newton Avenue
South Minneapolis
Minnesota 55431,
U.S.A.
Telephone: 881-2658.

Both Manufacturers supply complete welding kits for automotive plastic repairs. These kits include:

- i Weld Gun/Unit
- ii Welding Tips
- iii Colour Coded Welding Rods
- iv Air Regulator - (Seelye Equipment only)
- v Pressure Gauge "
- vi Welder Stand
- vii Carrying Case (Equipment Storage Box)
- viii Complete Set of Instructions

APPENDIX 'A'

General Purpose Electric Plastic Welding Guns

Type A:

Single element gun working from a compressed air or gas source. The welding temperature range is obtained by the heating element wattage and adjusted by an air regulator. A temperature measuring instrument is required. Interchangeable welding tips can be fitted.

Type B:

Single element gun complete with a built-in mini compressor. The welding temperature range is accurately controlled by a potentiometer. Interchangeable welding tips can be fitted.

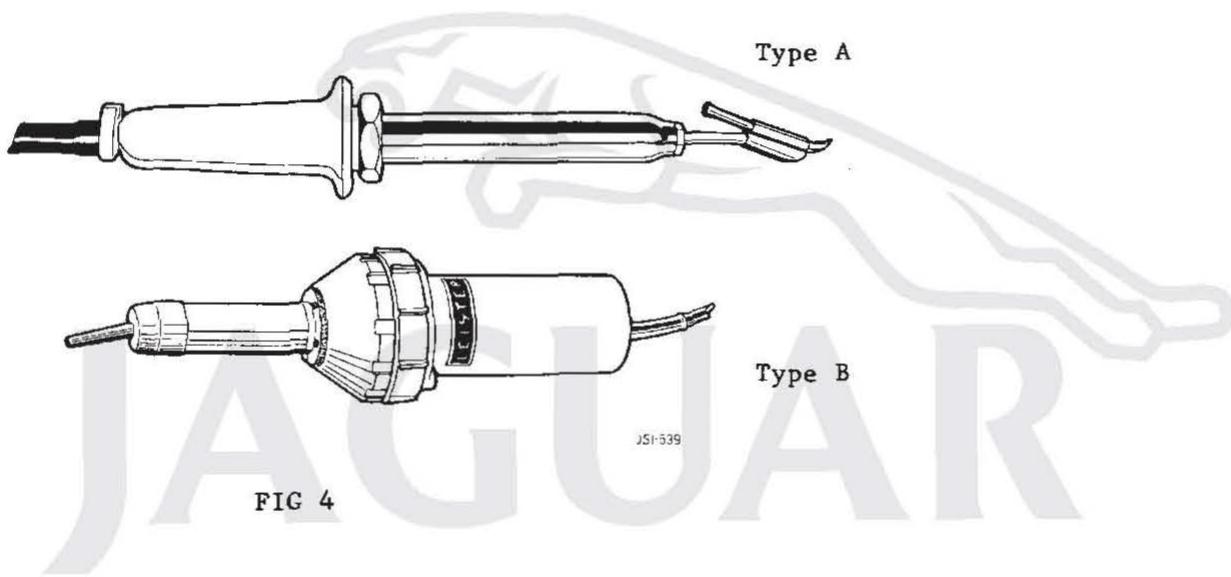


FIG 4

APPENDIX 'B'

Welding Rods:

The front spoiler is manufactured from a polypropylene elastomer compound (PP/EPDM). Plastic welding rods for this material can be obtained in three colours:

- i Beige)
- ii Natural) Select suitable rod Re: Finished colour
- iii White)

Service Bulletin

JAGUAR
Daimler

Date: OCTOBER 1986
Sheet: 1 of 14
Ref: JD 10/86

The following errors have been noted on previous Bulletins:

1. The temperature range was incorrectly quoted on the temperature selector and a fuller explanation required regarding the temperature differential control for the Mk.III air conditioning unit.
2. The markets receiving the new 'full flow' oil cooling system were omitted from that item.

The amended versions of Sheet 4 of 9 - Service Bulletin JD 07/86 and Sheet 1 of 5 - Service Bulletin JD 09/86 are included with this Bulletin and are clearly identified "Issue 2".

Will Service personnel concerned please remove and destroy the original copy and replace with the amended sheets.

ITEM: 65

03 REPAIR TIME CORRECTIONS

XJ6 2.9/3.6

Please make the following corrections to your new XJ6 2.9/3.6 Repair Time Schedules, Publication Numbers JJM 10 01 05 and JJM 10 12 05.

Publication JJM 10 01 05 - Repair Operation Times:

12-65-48/20 As 12-65-48 (vehicle fitted with Air Conditioning)
Auto 3.6 should read 7.45

17-10-12 Part Throttle Orifice Control Housing - Renew
3.6 should read 0.35

47-15-01 Propshaft - Renew
Repair Times should read 0.80, 0.80, 1.05, 1.05

82-25-42 Heater Matrix Feed Pipe Gasket - Renew
Repair Times should read 1.30, 1.30

82-25-43 Heater Matrix Return Pipe Gasket - Renew
Repair Times should read 1.30, 1.30

82-25-44 Heater Matrix Pipe Gasket - Matrix Set - Renew
Repair Times should read 1.40, 1.40

86-65-57 Stop Light Switch - Adjust
Should be re-numbered to 86-65-56

Publication JJM 10 12 05 - Paint Repair Times:

The page footers have unfortunately been transposed between those pages showing Repair Times and those pages not showing Repair Times. The result is that a Repair Type 3 (local respray) can apparently be claimed for refinishing a panel. The policy remains that a local respray cannot be claimed against an exterior panel and the Repair Type 3 should be removed from page 5 and added to pages 8, 9 and 10. On page 7 the Repair Type 3 allowance should be marked for use on Section 79-N only.

Please ensure that these corrections are made to all copies of Publication Numbers JJM 10 01 05 and JJM 10 12 05 held at your premises.

ITEM: 66

03 MK.III DELANAIR AIR CONDITIONING

XJS

The following Repair Times apply to the Delanair Mk III Air Conditioning System as fitted to the XJS range from VIN 134286.

Where operations are duplicated the new Repair Time will apply from VIN 134286. Where no new Repair Time is listed the time has not changed, i.e. Blower Motor - Renew, or no longer exists, such as Thermostat - Renew.

Op No.	Description	Time (hrs)
82-20-02	Ambient Temperature Sensor - Renew	0.50
82-20-03	"In Car" Temperature Sensor - Renew	0.40
82-20-10	Temperature Control Switch - Renew	1.00
82-20-11	Air Flow Control Switch - Renew	1.00
82-20-41	Fascia Ventilator Centre Flap Servo - Renew	2.00
82-20-42	Demister Flap Servo - Renew	2.00
82-20-54	Face Level Temperature Differential Control Handle - Renew	0.90
82-20-57	Face Level Temperature Differential Control Potentiometer - Renew	0.90
82-20-58	Blower Motor High Speed Relay - Left Hand - Renew	0.50
82-20-59	Blower Motor High Speed Relay - Right Hand - Renew	0.50
82-20-60	Lower Servo Motor Feedback Potentiometer - Renew	0.60
82-20-61	Upper Servo Motor Feedback Potentiometer - Renew	7.15
82-20-62	Upper Flap Motor and Gearbox Assembly - Renew	7.10
82-20-63	Lower Flap Motor and Gearbox Assembly - Renew	0.65
82-20-64	Evaporator Temperature Sensor - Renew	0.55
82-20-65	Electronic Control Module - Renew	0.60
82-20-66	Centre Vent Vacuum Solenoid - Renew	0.35
82-20-67	Recirculation Vacuum Solenoid - Renew	0.35
82-20-68	Defrost Vacuum Solenoid - Renew	0.35
82-20-69	Water Valve Vacuum Solenoid - Renew	0.35
82-20-71	Water Temperature Switch - Renew	0.30
82-25-01	Expansion Valve Renew	2.05
82-25-10	Heater Matrix - Renew	1.65
82-25-20	Evaporator Unit - Renew	8.10
82-25-21	Heater/Cooler Unit - Renew	7.45
82-25-42	Heater Matrix Feed Pipe Gasket - Renew	1.35
82-25-43	Heater Matrix Return Pipe Gasket - Renew	1.35
82-25-44	Heater Matrix Pipe Gasket - Matrix Set - Renew	1.40

No other Repair Times are affected.

ITEM: 67

03 MK III DELANAIR AIR CONDITIONINGS.III V12

With the introduction of the Delanair Mk.III Air Conditioning System to S.III V12, the following Repair Times apply from VIN 467377.

Where operations are duplicated the new Repair Time will apply from VIN 467377. Where no new Repair Time is listed the time has not changed, i.e. Blower Motor - Renew, or no longer exists such as Thermostat - Renew.

Op No.	Description	Time (Hrs)
82-20-02	Ambient Temperature Sensor - Renew	0.30
82-20-03	"In Car" Temperature Sensor - Renew	0.45
82-20-10	Temperature Control Switch - Renew	1.35
82-20-11	Air Flow Control Switch - Renew	1.35
82-20-43	Demister Duct Outlet - Renew	0.45
82-20-54	Face Level Temperature Differential Control Handle - Renew	1.25
82-20-57	Face Level Temperature Differential Control Potentiometer - Renew	1.20
82-20-58	Blower Motor High Speed Relay - Left Hand - Renew	0.35
82-20-59	Blower Motor High Speed Relay - Right Hand - Renew	0.40
82-20-60	Lower Servo Motor Feedback Potentiometer - Renew	0.35
82-20-61	Upper Servo Motor Feedback Potentiometer - Renew	0.50
82-20-62	Upper Flap Motor and Gearbox Assembly - Renew	0.50
82-20-63	Lower Flap Motor and Gearbox Assembly - Renew	0.70
82-20-64	Evaporator Temperature Sensor - Renew	0.40
82-20-65	Electronic Control Module - Renew	0.65
82-20-66	Centre Vent Vacuum Solenoid - Renew	0.30
82-20-67	Recirculation Vacuum Solenoid - Renew	0.30
82-20-68	Defrost Vacuum Solenoid - Renew	0.30
82-20-69	Water Valve Vacuum Solenoid - Renew	0.30
82-20-71	Water Temperature Switch - Renew	0.35
82-25-10	Heater Matrix - Renew	1.65
82-25-20	Evaporator Unit - Renew	5.40
82-25-21	Heater/Cooler Unit - Renew	4.95
82-25-42	Heater Matrix Feed Pipe Gasket - Renew	1.35
82-25-43	Heater Matrix Return Pipe Gasket - Renew	1.35
82-25-44	Heater Matrix Pipe Gasket - Matrix Set - Renew	1.50

No other Repair Times are affected.

ITEM: 68

12 REAR CRANKSHAFT SEALV12 MODELS

Further to Service Bulletin JD 07/85 Item 48, Loctite Superfast 573 Flange Sealant is now available from Parts Division. Part No. JLM 9822.

ITEM: 69

12 OIL BY-PASS PIPE

S.III 6 CYL/LIMO

To overcome problems of oil leakage from the oil by-pass pipe 'O' ring due to temperature ageing, particularly on catalyst equipped vehicles, an improved 'O' ring EAC 8840 (Viton) has replaced C19869 (Neoprene) from engine numbers:

8L 216061 - S.III 4.2
8A 16891 - S.III 3.4
7M 5296 - Limo.

ITEM: 70

18 CHECK OPERATION OF THE INERTIA SWITCH

XJ6 2.9/3.6

The following procedure for checking the operation of the inertia switch is to be performed at every 7,500 miles (12,000 km) service interval.

The inertia switch is located in the driver's footwell. Ensure all doors except for the driver's door are closed. Sit in the driving position. Close and lock the driver's door by pressing the door lock latch down, this will also lock the other doors. Switch 'ON' the ignition. Raise the test/reset button, which protrudes through the top of the inertia switch cover. Observe that the doors unlock and the instrument display is switched 'OFF'. Reset the inertia switch by depressing the button. Observe that the instrument display is illuminated. Lock and unlock the doors to ensure the central locking still functions. Switch ignition 'OFF'.

If the inertia switch fails to unlock the doors or switch the instrument display 'OFF', report the fault for a JDS investigation.

ITEM: 71

44 GM400 AUTOMATIC TRANSMISSION

S.III V12/XJS V12

To overcome oil ejection problems under extreme operating conditions, a revised GM400 automatic transmission incorporating a deeper oil sump and revised dipstick assembly has been introduced from engine numbers:

7P 56895 - S.III V12
8S 45527 - XJS V12

The volume of transmission fluid remains unchanged. The revised dipstick can be identified by a brown handle.

Service interchangeability is affected. It must be ensured that the correct dipstick for the transmission is used.

Details of part numbers will be issued when parts stock is available.

ITEM: 72

76 SUNROOFS.III

This bulletin is additional to previous publications, but where it is necessary, previously issued information will be repeated. Past Bulletins have identified sunroof problems and recommended service rectification processes. THIS BULLETIN IDENTIFIES ALTERNATIVE SUNROOF PROBLEMS, THE FITMENT OF A SLIDING PANEL SEAL AND RISER BLOCK KIT, JLM 849 TO PREVENT THE PANELS STICKING IN THE CLOSED POSITION AND THE SETTING PROCEDURES FOLLOWING COMPONENT REPLACEMENT.

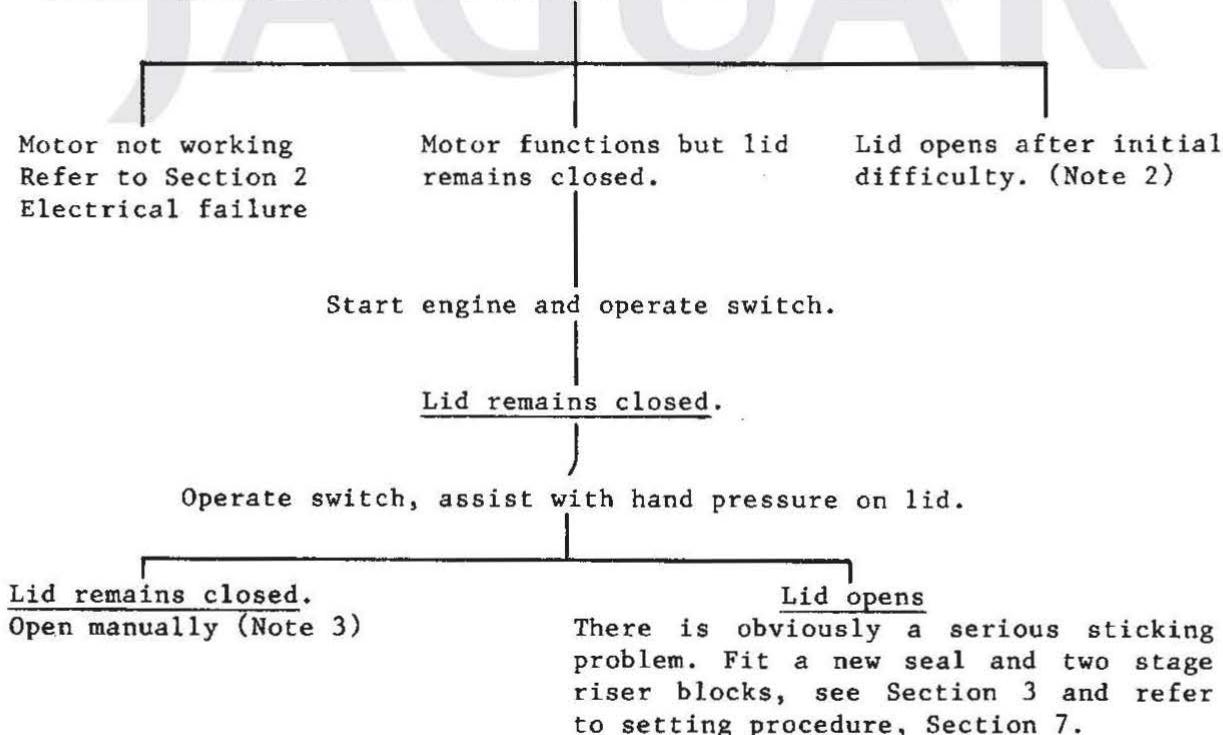
Workshop personnel should identify the problem and then refer to the following appropriate section(s). Component settings are detailed in section 7.

Sections:

1. Lid fails to open.
2. Electrical failure.
3. Fitment of JLM 849.
 - a) Sliding Panel Seal.
 - b) Modified Riser Blocks.
4. Noisy Operation - Not Vibration.
5. Vibration.
6. Rattles and Creaks.
7. Setting Procedures and Profile Adjustment.
8. Sunroof Motor/Wheelbox/Drive Gear - Renew.

SECTION 1. LID FAILS TO OPEN.

Switch ignition on, operate sunroof switch intermittantly. (Note 1)



NOTE 1. When the switch is operated intermittently, motor effort will be audible. If this cannot be detected then an electrical failure is indicated, refer to Section 2.

NOTE 2. Thoroughly clean the seal and aperture with solvent SBP 3 or similar. DO NOT USE PAINT THINNERS. After cleaning smear the seal lightly with lubricant, e.g. Hellering or similar.

NOTE 3. Where a sunroof motor has failed and the panel is stuck partially open, manual operation can be carried out by attaching the small handle (A Fig 1) supplied with the tool kit, to the shaft protruding from the base of the sunroof motor.

To gain access to the motor, remove the boot front trim panel by releasing two quarter turn fasteners. (Details are given in the Driver's Handbook).

CAUTION: Where manual operation is to be carried out on a sunroof stuck in the FULLY OPEN or CLOSED position, it is important that the handle is rotated in the correct direction or damage to the motor wheelbox may result.

NOTE: Direction of rotation when viewing from UNDERNEATH the motor.

To open - rotate handle anti-clockwise.
To close - rotate handle clockwise (Fig 1).

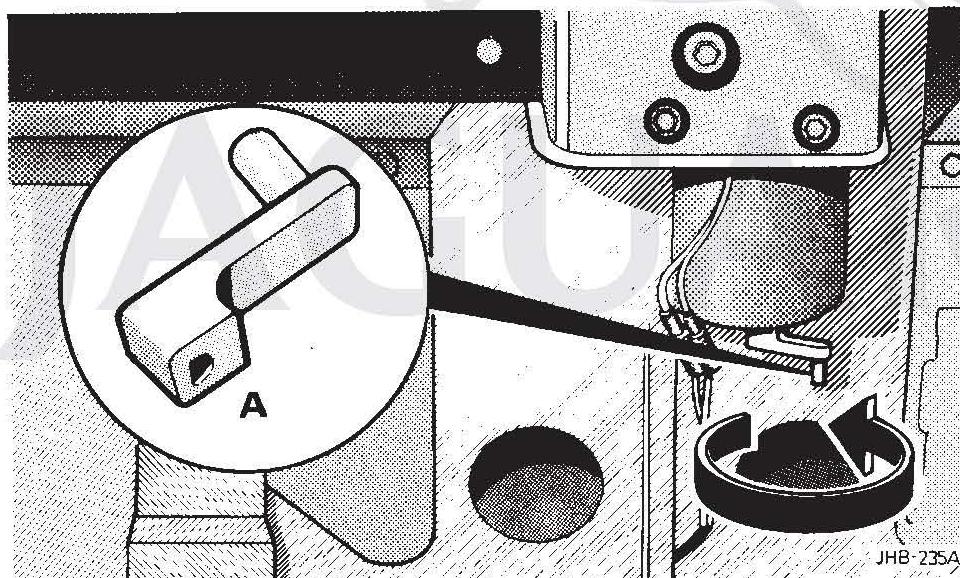
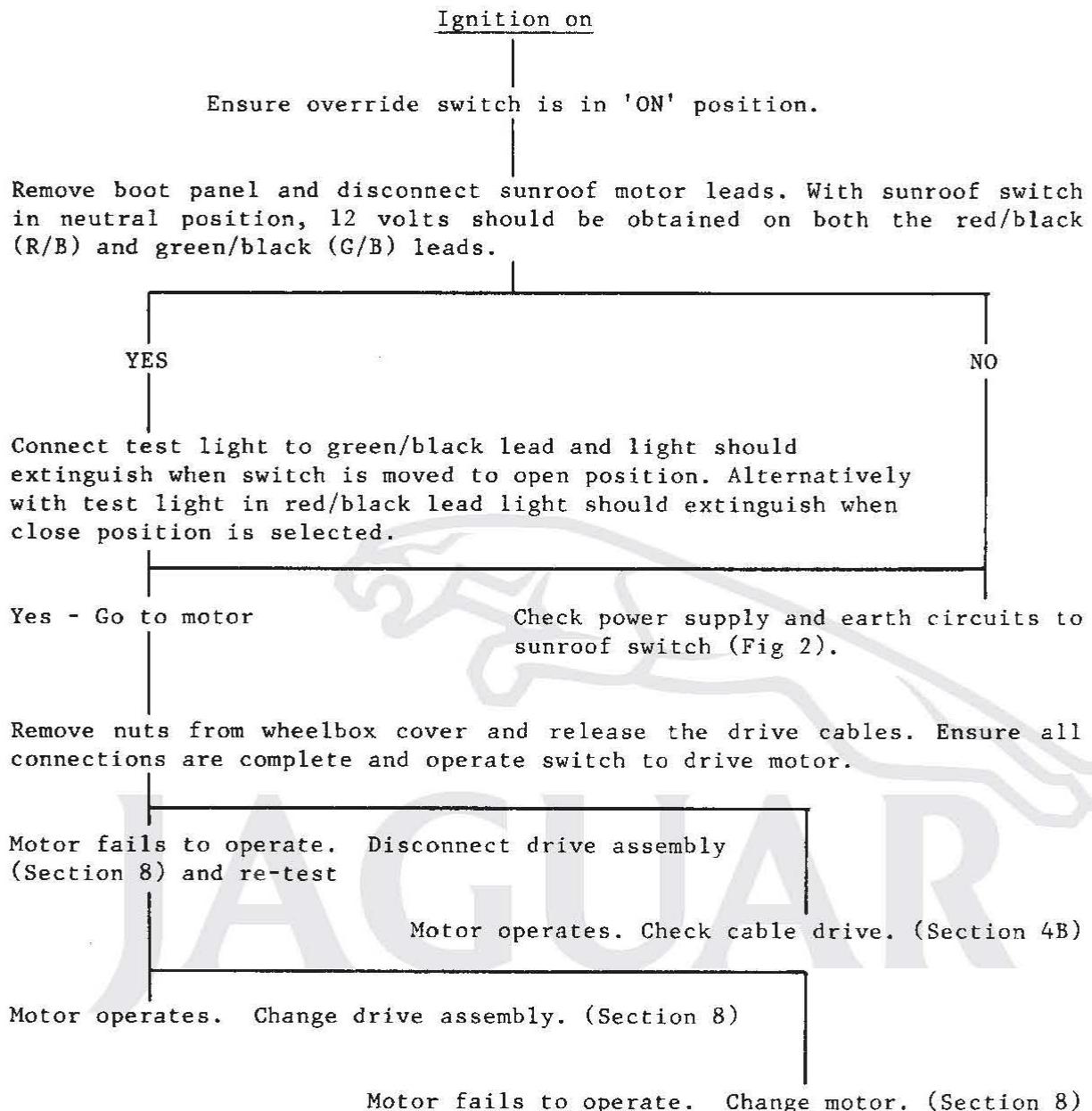


FIG 1

If the sliding panel cannot be moved because the motor has seized, then the following emergency action can be taken.

1. Remove the rear seat cushion and squab, refer to operation 76-70-37/38 in Service Manual.
2. Remove the two nuts securing the wheelbox cover, remove the cover.
3. Remove the rack tubes from the wheel box.
4. Grasp the sliding roof panel and move it in the desired direction.

SECTION 2. ELECTRICAL FAILURE



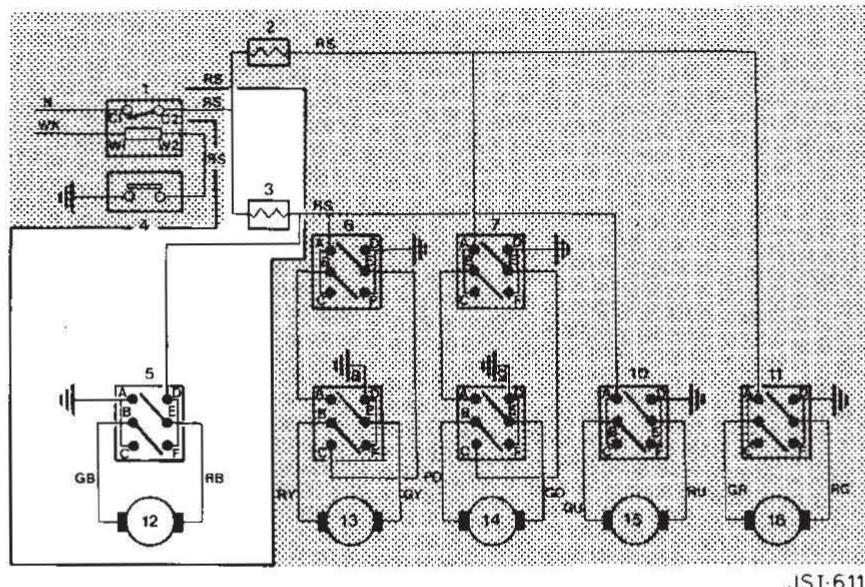


FIG 2

Key to Fig 2

- 1. Window lift relay.
- 2. Thermal circuit breaker.
- 3. Thermal circuit breaker.
- 4. Master switch.
- 5. Sun roof switch.
- 6. LH rear window switch.
- 7. RH rear window switch.
- 8. LH rear window switch.
- 9. RH rear window switch.
- 10. LH rear window switch.
- 11. RH rear window switch.
- 12. Sun roof motor.
- 13. LH rear window motor.
- 14. RH rear window motor.
- 15. LH rear window motor.
- 16. RH rear window motor.

SECTION 3. FITMENT OF KIT JLM 849

NOTE: Kit JLM 849 comprises:
BCC 2421 Panel Seal 1 off.
JLM 1156 Riser Block 2 off.

Investigations have identified a possible foul condition between the sliding panel and the black riser blocks when the sunroof is fully closed. To aid initial lid movement, Kit JLM 849 should be fitted. Fitting instructions for the new seal are contained in para. 3A, and for the two stage riser blocks in para. 3B.

NOTE: Correct setting is critical, refer to Section 7.

3A. Fit Modified Seal.

1. Open the sunroof panel 15 to 23 cm (6 to 9 in).
2. Remove the four screws from the front flange of the panel.
3. Move the sunroof to the closed position, lifting the front of the panel.
4. Lift the panel clear of the vehicle by pulling forward to release the two spring clips at the rear of the panel.
5. Remove the screws securing the two nylon lifting brackets and remove the brackets (A Fig 3).
6. Remove the screws securing the two wind deflector brackets and remove the brackets (B Fig 3).
7. Remove the screws and remove the seal retaining brackets (C Fig 3).

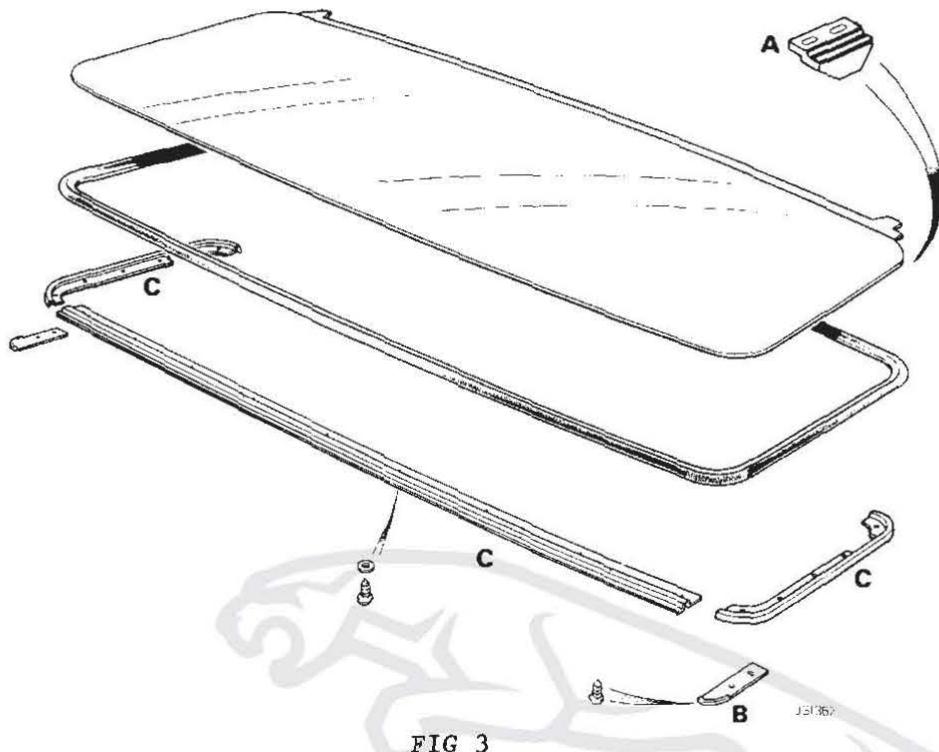


FIG 3

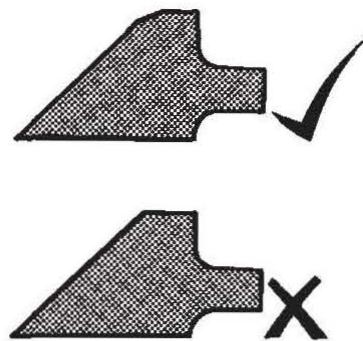
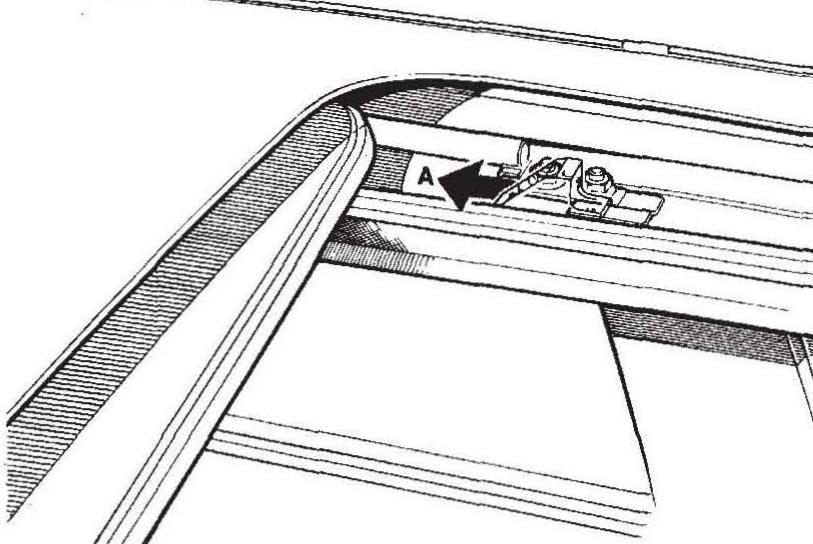
8. Remove the seal at the front and sides of the panel, and from the channel at the rear.
9. Apply soft soap to the seal channel at the rear of the panel.
10. Insert the new seal into the channel ensuring that it is fully seated.
11. Position the seal at the front and sides of the panel.
12. Refit the seal retaining brackets and secure with the screws.
13. Refit the sliding roof panel.

Repair Operation Number 76-82-15.
Repair Operation Time 0.95 hrs.

3B. Fit Two Stage Riser Block.

1. Fully open the sliding roof panel.
2. Release the blocks from their mounting clips by pushing towards the rear of the vehicle (A Fig 4).
3. Fit new two stage blocks.

NOTE: Refer to Section 7B for setting procedure.



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FIG 4

SECTION 4. NOISY OPERATION - NOT VIBRATION

When the sunroof operates satisfactorily but is noisy during movement, locate the source, i.e. from roof or motor.

3A. Noise From The Motor.

If a high pitched whine is evident it may emanate from the rubber cap fitted over the driveshaft extension.

1. Remove the cap and operate the motor. If the noise has ceased fill the cap with grease and refit.
2. If the motor is noisy with the cap removed, replace the motor as detailed in Section 8.

3B. Noise From The Roof (Lubricate Rack).

1. Remove the roof sliding panel for access, refer to Section 3A.
2. Fully close the under panel.
3. Remove the rear seat cushion and squab, refer to operation 76-70-37/38 in Service Manual.
4. Remove the nuts securing the wheelbox cover and remove the cover.
5. Move the racks away from the housing.
6. Remove the black plastic riser block.
7. Bend back the lock tabs and remove the two nuts, lockplates, spring plates and rack mounting plate.
8. Mark the position of the rack stop. Remove the two nuts securing the rack stop and remove the stop from the rack tube.
9. Withdraw the rack from the tube and clear of the vehicle.
10. Grease the rack as necessary and insert it into the tube. Ensure that the rack enters the second tube adjacent to the motor wheelbox.
11. Refit the rack stop and secure with two nuts.
12. Refit the rack plate, spring plates, lockplates and secure with the two nuts. Bend up the locking tabs.
13. Refit the riser block.
14. Fully close the under panel by hand.
NOTE: Ensure that full travel of the sliding roof is obtained.
15. Refit the racks to the wheelbox housing. Fit the cover and secure with the nuts.
16. Operate the sunroof electrically to ensure that the fully open and closed positions can be obtained.

Repair Operation Number 76-82-43 Rack Cable (Vehicle Set).

Repair Operation Time 1.15 hrs.

Jaguar Cars Limited 2005

SECTION 5. VIBRATION DURING OPERATION

Check the sliding panel undertray for excessive side play and reset if necessary as follows:

1. Remove the sliding panel for access, refer to Section 3A.
2. Release front mounting bracket securing nuts and rear mounting setscrews sufficiently to allow movement of the brackets (Fig 5).
3. Ensure the undertray is fully forward onto the stops.
4. Slide the brackets in towards the centre line of the vehicle, and tighten the mounting brackets.
5. Lightly grease both panel slides.
6. Operate the sunroof electrically, open and closed, to test the movement.
7. If the vibration persists, check the drive cable and motor lubrication as detailed in Section 4.

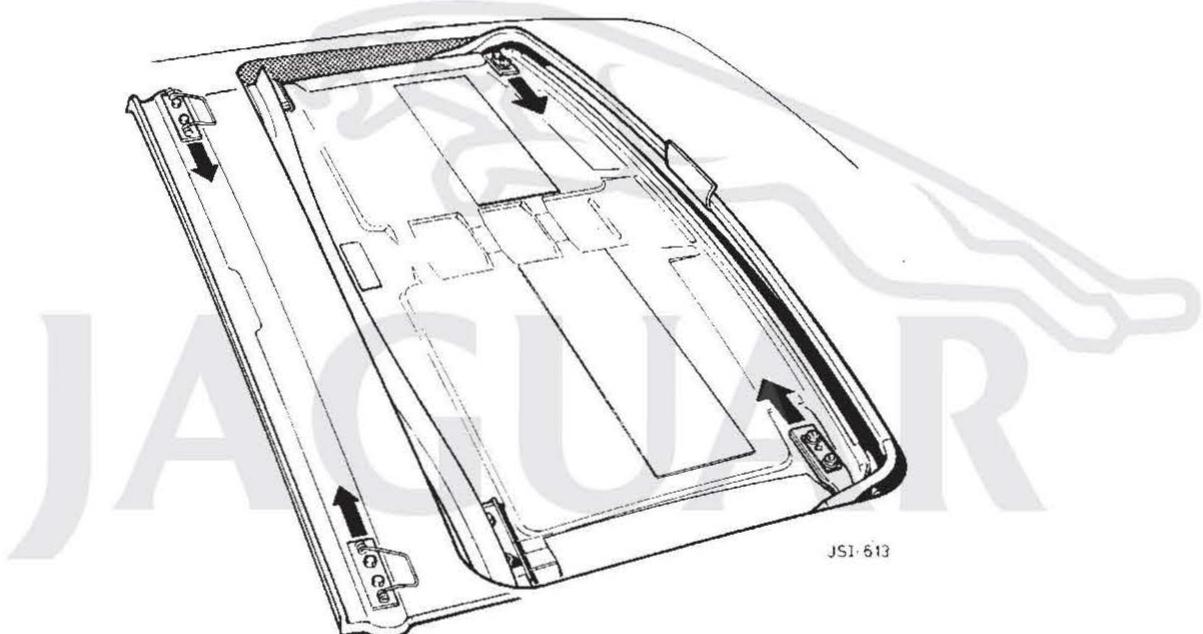
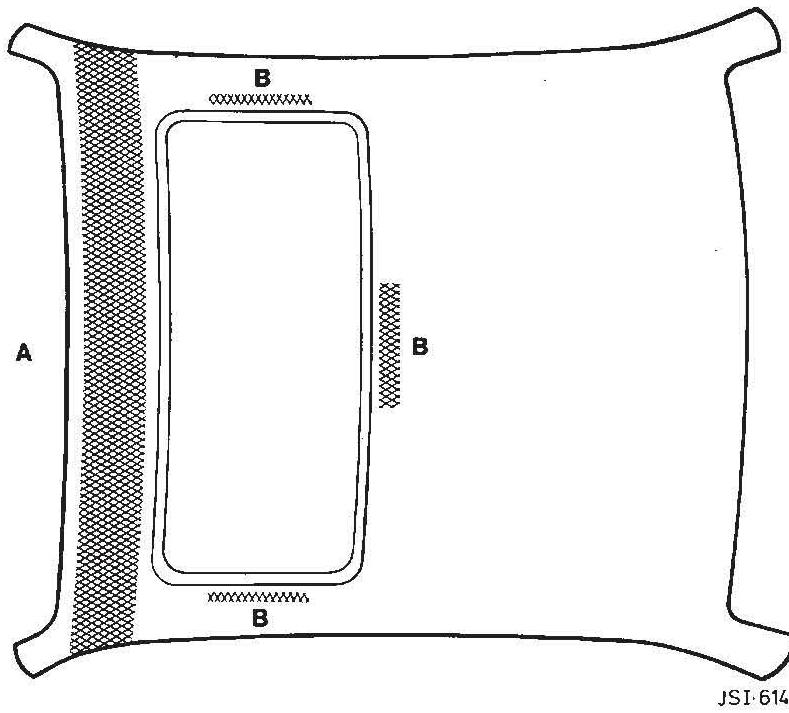


FIG 5

SECTION 6. CREAKS AND RATTLES**CREAKS.**

Sunroof creaks are identified in JD 01/86, Item 4. From information received it is recognised that the foam strips specified may need to be complemented with additional packing to rectify a severe creak.

1. Fully open the sliding roof panel.
2. Carefully displace the aperture flange finisher.
3. Remove the headlining retaining clips from the aperture flange.
4. Remove both sunvisors and the interior mirror and mounting.
5. Gently pull down the headlining sufficiently to insert foam packing (Fig 6).
Material A - 16.5 cm x 100 cm x 4 mm self-adhesive foam rubber.
Material B - BAC 1982 - 3 off.
6. Reverse operations 1 to 4.



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FIG 6

RATTLES.

Loose mounting nuts and screws can cause sunroof rattles, however as access for rectification will involve headlining removal, establishing the correct location of the noise is very important.

Access to Sunroof Mountings.

1. Remove the sun visors, interior mirror, reading lights (where fitted), passenger grab handles, roof aperture flange finisher and necessary door finishers, side cantrail trim rolls and rear seat cushion and squab.
2. Move the rear seat belt inertia mechanism (where fitted) away from the rear parcel shelf.
3. Remove the rear parcel shelf trim panel, rear quarter trim panels, headlining rear trim roll and headlining. Lower the headlining into the vehicle whilst nuts/screws are tightened.
NOTE: The use of thread lock adhesive is recommended.
4. Reverse items 1 to 3.

SECTION 7. SETTING PROCEDURE

This section contains four different operations as follows:

- A. Sliding Panel - Front Profile Adjustment.
- B. Sliding Panel - Riser Block Setting.
- C. Sliding Panel - Rear Profile Adjustment.

7A. Sliding Panel - Front Profile Adjustment.

1. Limited front profile adjustment can be attained by releasing the four drive screws in the sliding panel front flange and using the hole clearance to effect adjustment.
2. Any significant front profile adjustment will entail alteration of the underpanel mountings (B Fig 7).
NOTE: Adjustments for panel centralisation are achieved by releasing A Fig 7.

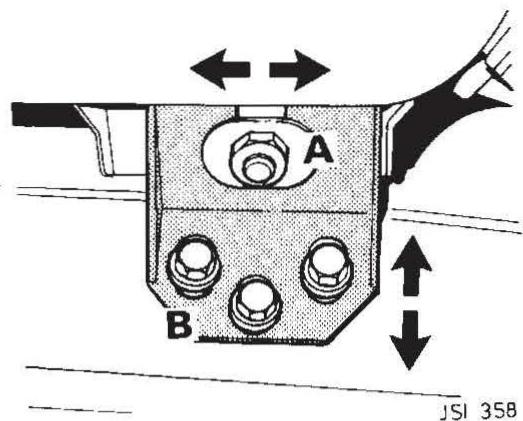


FIG 7

7B. Sliding Panel - Riser Block Setting.

1. Mark the riser blocks with a suitable material, e.g. Tipp-ex correction fluid (Fig 8).

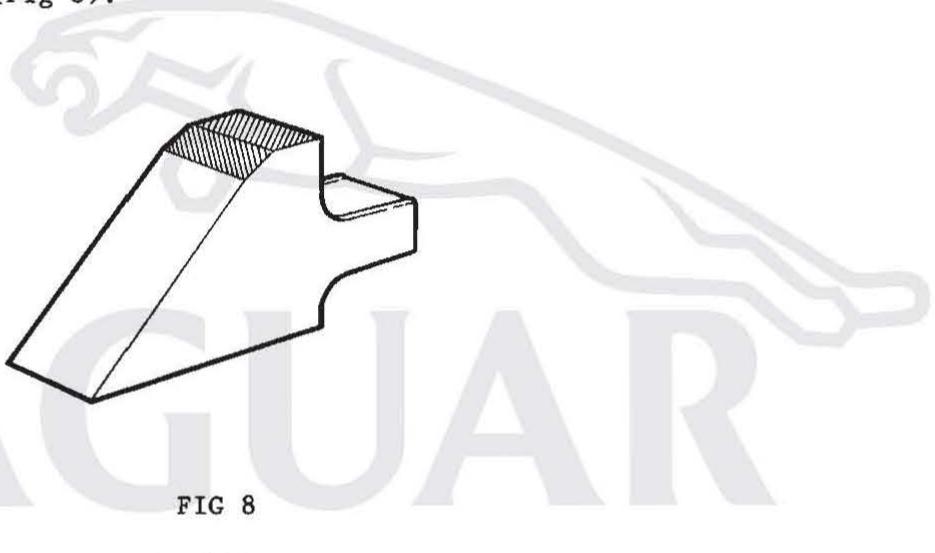


FIG 8

2. Fully close and then open the lid.
3. Examine the marking on the riser blocks from contact with the sliding lid brackets. The marking should indicate an overlap of 2 mm onto the top level surface (Fig 9).

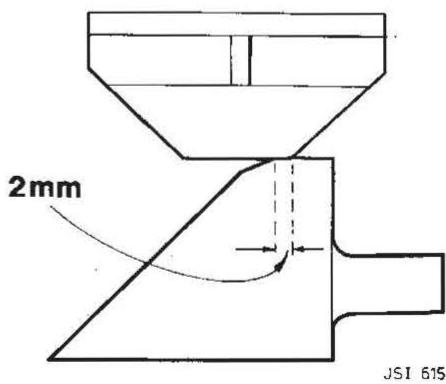


FIG 9

4. Should re-positioning be necessary, release the nuts on the rack cable mountings to a degree where the ramp brackets will slide.
 5. Re-position the brackets, tighten the nuts and re-apply marking fluid, operate the sunroof and check the markings. Repeat the operation if necessary.
- NOTE: In extreme circumstances adjustment of the white sliding panel riser block (A Fig 3) may be necessary to obtain the correct setting. This will entail sliding panel removal for access.

7C. Sliding Panel - Rear Profile Adjustment.

1. To lift the panel, remove the riser blocks and adjust the screw in the base as necessary.
CAUTION: Over adjustment of the screw will cause the panel to stick.
2. To lower the panel, remove the spacers from the panel rear riser brackets (A Fig 3). This will entail panel removal for access.
NOTE: When adjustments are completed, check that the riser block overlap is correct.
3. Major height adjustment will necessitate alteration of the underpanel mountings. Refer to front profile adjustment, operation 7A and B Fig 7.

SECTION 8. SUNROOF MOTOR/WHEELBOX/DRIVE GEAR

1. Remove the rear seat cushion and squab, refer to operation 76-70-37/38.
2. Remove the two nuts securing the wheelbox cover and remove the cover.
3. Remove the racks from the housing.
4. Remove the four nuts securing the motor mounting bracket to the rear bulkhead (A Fig 10).
5. Open the boot lid and remove the front trim panel to gain access to the motor.
6. Disconnect the electrical harness (B Fig 10).
7. Remove the motor and mounting bracket assembly.
8. Remove the three hexagon headed screws securing the motor to the bracket (C Fig 10) and remove the motor.

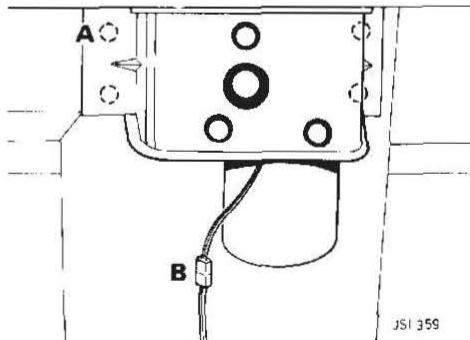


FIG 10

Motor - Renew

9. Reverse operations 1 to 8.

Wheelbox/Drive Gear - Renew

10. Remove the four screws securing the wheelbox to the motor (A Fig 11).
11. If the drive gear, AEU 3020 (Fig 11) is to be renewed it should be done prior to the refitting of the wheelbox.
12. Refit or renew the wheelbox AEU 1564 (Fig 11), securing with the four screws.

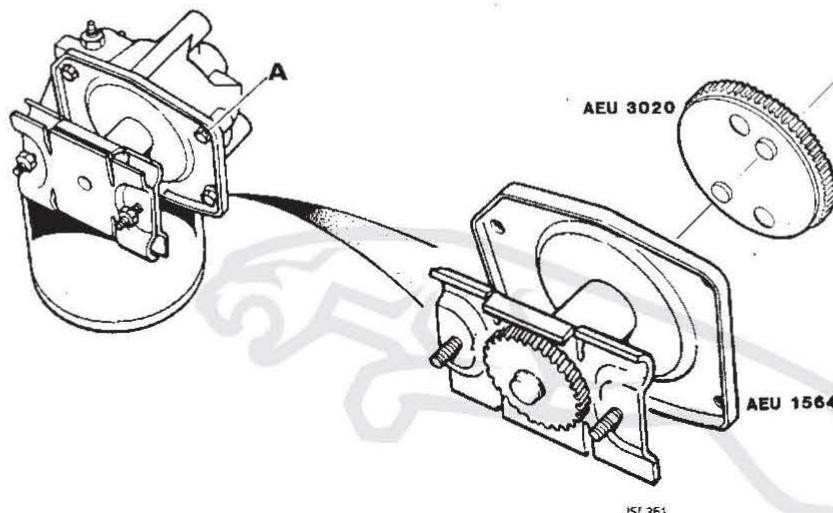


FIG 11

Description	Repair Operation No	Repair Times
Motor	86-76-01	0.80 hrs
Wheelbox	76-82-45	0.85 hrs
Drive Gear	76-82-44	0.80 hrs

ITEM: 73

76 WATER INGRESS - BOOT INTERIOR

XJS

Where it is required to rectify water ingress into the boot of an XJS vehicle, ensure that all drain tubes are connected and examine the sealing of the areas identified in this Bulletin. Where indicated, use of compressed air will quickly confirm any leak paths. Resealing should be carried out with recommended materials.

Area 1: Rear Wheel Arch Seams

- a) Test for leaks using compressed air, Fig 1.
- b) Apply sealant where indicated, Fig 2. e.g. 3m Drip-Chek Regular with gun applicator.
- c) Apply sealant along the double seam of the wheel arch flange - inner to outer panel joint (clear R.T.V. sealant) Fig 3.

Area 2: Seams behind and below Rear Lamp Clusters

- a) Test for leaks using compressed air.
- b) Seal seams at inside with 3m Drip-Chek Regular, Fig 4.
- c) Seal seams at outside with body caulking compound, Fig 4.

Area 3: Boot Lid Paint Drain Holes

- a) Seal with body caulking compound, Fig 5.

Area 4: Side Bumper Mountings:

- a) Remove three nuts from the mounting studs and apply R.T.V. sealant to the studs before refitting. Add further sealant after tightening.
- b) Older vehicles:- Brush off any loose material and apply sealant without disturbing the nuts. This will prevent consequential rectification caused by corroded studs.

Area 5: a) Boot Channel Seams

Seal the areas indicated with clear R.T.V. sealant, Fig 6
e.g. Kents Quik Leak Chek Clear or 3m Drip-Chek Clear.

b) Relay Bracket Mountings

Ensure the rubber sealing washers are correctly positioned on each setscrew. Renew washer if damaged.

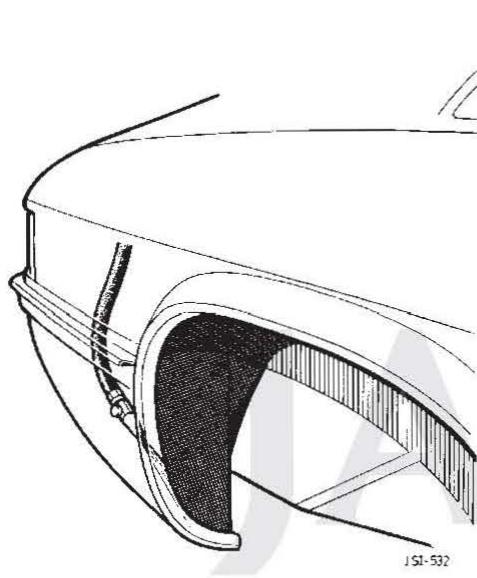


FIG 1

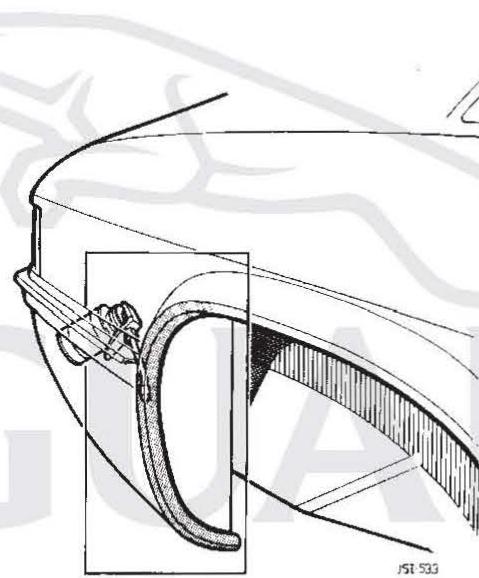


FIG 2

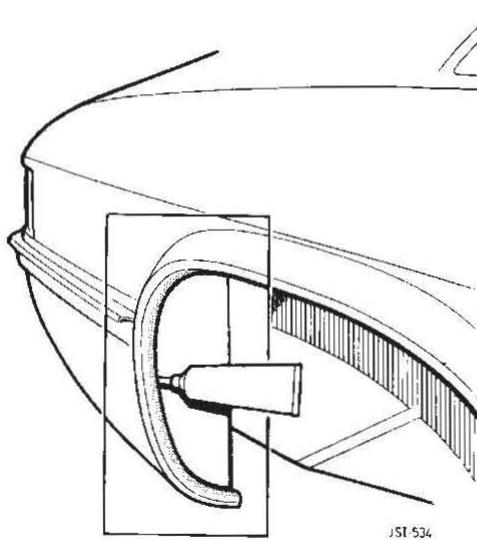


FIG 3

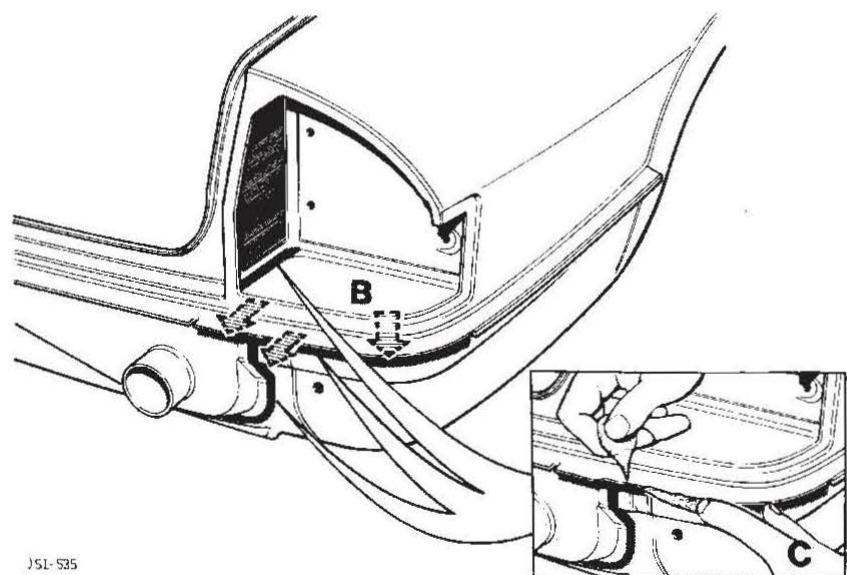


FIG 4

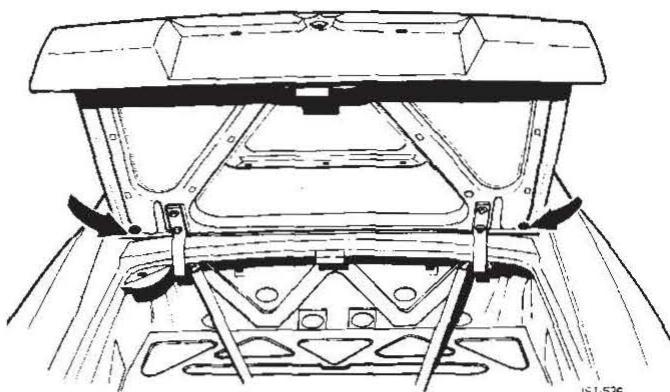


FIG 5

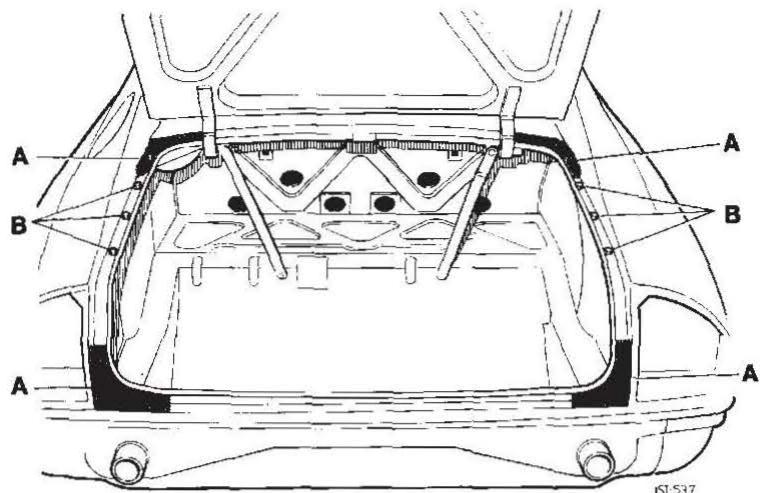


FIG 6

ITEM: 74

82 MK.III AIR CONDITIONING**S.III V12/XJS V12**

The following are the introduction VIN Numbers for Mk.III air conditioning:

MODEL

VIN

S.III V12 RHD	467377
S.III V12 LHD	467653
S.III V12 Canada	467579
XJS V12 (except RHD V12 Cabriolet)	134286
XJS V12 RHD Cabriolet	134698

ITEM: 75

**86 RECOMMENDED BATTERY FEEDS FOR SERVICE FITTED
NON JAGUAR ACCESSORIES****XJ6 2.9/3.6**

The following positions exist within the vehicle from which it is possible to obtain a battery feed. There are no other approved fused feed positions within the vehicle and under no circumstances must any other point be used within the vehicle's electrical wiring to obtain a feed.

1. Bulkhead Battery Post

This may be used to obtain a feed from either side of the bulkhead (engine compartment or inside the vehicle). It is imperative that an in-line fuse is fitted as close as possible to the battery post whilst still remaining accessible to the customer.

2. Accessory Plug for Cigar Lighter Socket

A 10A fused feed is accessible via the cigar lighter socket if the cigar lighter is replaced by an accessories plug. It is recommended that this feed is only used for accessories which are temporarily connected (i.e car vacuum cleaner).

3. Earth Points

When additional earth leads are to be fitted, only use the existing earth connection points (black cables) on the vehicle. DO NOT drill holes the bodywork to use as an earth connection.

CAUTION: UNDER NO CIRCUMSTANCES MUST THE LOGIC EARTH POINTS (BLACK/PINK CABLES) BE USED.

86 SPARK PLUGS

ALL V12 MODELS
(AUSTRALIA, CANADA AND JAPAN)

The NGK BR7 EFS spark plug EAC 8554 has replaced EAC 9186 for the above markets, from engine numbers:-

7P 56622 - S.III V12
 8S 44731 - XJS V12

This brings these markets into line with the change already introduced in Europe.

86 INSTALLATION OF 'IN CAR ENTERTAINMENT' UNITS

XJ6 2.9/3.6
(ALL MARKETS EXCEPT U.K. AND NORTH AMERICA)

Introduction

Two door and two heelboard mounted loudspeakers are fitted to Jaguar 2.9/3.6 models supplied to R.O.W. markets.

Four door and two heelboard mounted loudspeakers are fitted to all models supplied to European markets and R.O.W. taking Jaguar Sovereign and Daimler models.

The door units are designed to reproduce the middle and high end of the musical spectrum, whilst the heelboard mounted units provide the bass frequency response. The door speakers are connected in series with audio filters (consisting of a simple capacitor) to limit the unit from operating outside the designed frequency range. The bass speakers have no audio filter and receive the full range of audio frequencies from the radio cassette player.

Check that the speakers installed in the vehicle are of the correct impedance for the radio cassette which is to be fitted (Fig.1). If non standard speakers are used, care must be taken to obtain a satisfactory phasing/impedance arrangement. Maximum power handling capacity of the speakers (20 W) must not be exceeded.

RADIO SYSTEMS REQUIRING MORE THAN 10 AMPS SUPPLY MUST NOT BE FITTED USING THE EXISTING HARNESSSES.

Read the radio/cassette manufacturer's literature to identify each cable attached to the unit. In most cases the cables will be labelled (i.e. RH speaker +).

If a two channel output radio is to be installed, the bass speaker must only be connected in parallel with either the front or rear speakers as desired.

If any problems arise during the fitment of the radio or there is any doubt about the radio required contact Jaguar Service for further advice.

SPEAKERS AVAILABLE

MARKET SPEAKER \	6 SPEAKER SYSTEM	4 SPEAKER SYSTEM
LH BASS	6 Ω	6Ω
LH REAR	8 Ω + 47μF CAPACITOR	_____
LH FRONT	8 Ω + 47μF CAPACITOR	4 Ω + 47μF CAPACITOR
RH REAR	8 Ω + 47μF CAPACITOR	_____
RH FRONT	8 Ω + 47μF CAPACITOR	4 Ω + 47μF CAPACITOR
RH BASS	6 Ω	6 Ω

JHB40-165

FIG 1

Preparation

Prior to fitting a radio cassette player the following items of trim must be removed to gain access to the wiring harness.

1. Remove the front ashtray from the centre console
2. Manual transmission - Slacken the gear lever lock-nut, remove the gear lever knob and lock-nut. Remove the wing nuts securing the rear of the veneer panel and carefully lift the panel.
 Automatic transmission - Using a screwdriver release the gear shift rubber surround/selector finisher locating clips and carefully remove the finisher. Move the selector lever to the rearward position. Remove the wing nuts securing the rear of the veneer panel and carefully lift the panel.
3. Locate the radio earth strap and aerial lead and position through the aperture in the mounting bracket.
4. Locate the two yellow multi-plug connectors (a round 3 pin PM4 connector and a rectangular 15 pin PMHD connector) positioned on the left-hand side of the gear selector.
 NOTE: On automatic transmission models the connectors may be hidden beneath other connectors.
5. The connectors can be identified as follows:
 The 3 pin round connector has the following colour coded cables:
 - P1) Brown/white.
 - P2) Light green/orange.
 - P3) Black.

The 15 pin rectangular connector has the following colour coded cables:

- | | |
|-----------------------|----------------------|
| 1) Red/slate. | 8) Pink/red. |
| 2) Light green/black. | 9) Red/brown. |
| 3) Yellow/blue. | 10) Red/green. |
| 4) Pink/yellow. | 11) Red/white. |
| 5) Pink/light green. | 12) Red/purple. |
| 6) Pink/white. | 13) Red/light green. |
| 7) Pink/orange. | |

6. Remove radio mounting bracket from the radio aperture and replace with the bracket designed for the radio to be fitted.

7. New harness extensions (Part No's DBC 3368 and DBC 3369) will shortly be available and should be connected as follows:

DBC 3368 is a harness containing 13 colour coded and labelled cables and should be connected to the 15 pin yellow multi-plug connector.

DBC 3369 is a harness containing 3 colour coded and labelled cables and should be connected to the 3 pin yellow multi-plug connector.

Prior to the availability of these harnesses, remove the two connectors from the main harness by cutting off as close as possible to the rear of the connectors.

8. Position the two cable harnesses forward along the centre console and up behind the radio console until they protrude through the radio aperture.

9. Refer to Figs 2 and 3 to identify the function of each cable.

POWER CABLE FUNCTION CHART			
PIN No.	CABLE COLOUR	FUNCTION	CABLE SIZE (mm ²)
P1	NW	BATTERY + VE	0,5
P2	LGO	AUXILIARY	2,0
P3	B	EARTH	2,0

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FIG 2

CABLE FUNCTION CHART			
PIN No.	CABLE COLOUR	FUNCTION	CABLE SIZE (mm ²)
1	RS	REMOTE SEEK	
2	LGB	M.P.U. INPUT 'AC'	
3	YU	RADIO ILLUMINATION (12V)	
4	KY	RH REAR DOOR SPKR	
5	KLG	RH REAR/FRONT DOOR SPKR COMM.	
6	KW	RH FRONT DOOR SPKR	
7	KO	RH BASS SPKR	
8	KR	RH BASS SPKR	
9	RN	LH REAR DOOR SPKR	
10	RG	LH REAR/FRONT DOOR SPKR COMM	
11	RW	LH FRONT DOOR SPKR	
12	RP	LH BASS SPKR	
13	RLG	LH BASS SPKR	
14	-		
15	-		

ALL CABLES 0.5

JHB40-164

FIG 3

Installation of a combination radio/cassette player with post amplifier fader and a separate amplifier

NOTE:

- 1 Only units with a Post Amplifier fader can be installed. Contact the manufacturer of the radio/cassette player for information on the type of fader fitted.
- 2 The amplifier must not fade with the other speakers and the door speaker output must remain live with the fader control.
- 3 The majority of post amplifier fader control circuits provide two outputs per channel (i.e. 4 speakers) using two pairs of cables. Two of the cables in the two pairs of wires are connected together inside the radio/cassette player to give four direct loudspeaker connections and provide correct phasing of the loudspeakers.

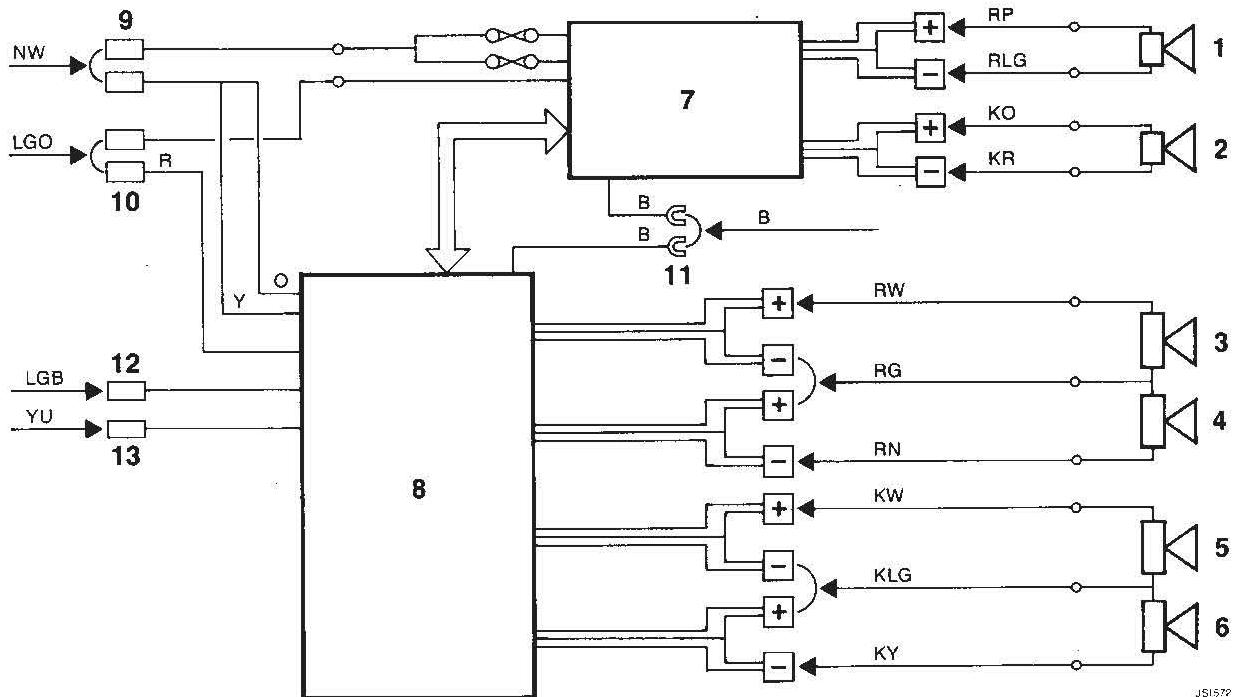


FIG 4.

Key to Fig 4

- | | |
|------------------------------|---------------------------------------|
| 1) Left-hand bass speaker. | 8) Radio/cassette player. |
| 2) Right-hand bass speaker. | 9) Battery feed + VE. |
| 3) Left-hand front speaker. | 10) Auxiliary. |
| 4) Left-hand rear speaker. | 11) Earth. |
| 5) Right-hand front speaker. | 12) M.P.U. Input 'AC' (auto. aerial). |
| 6) Right-hand rear speaker. | 13) Radio illumination. |
| 7) Amplifier. | |

Colour code key.

N) Brown	U) Blue
R) Red	K) Pink
P) Purple	G) Green
S) Slate	W) White
Y) Yellow	B) Black
O) Orange	L) Light

1. Using a resistance meter, probe the connections on the radio/cassette player between each speaker cable pair to find the two cables, one from each pair which are internally connected. Either of these two cables can then act as the vehicle loudspeaker system common return (Fig 4, colour codes RG and KLG).
NOTE: On a four speaker system these leads are not used.
2. On a number of radio/cassette players, the centre cable (which is internally connected to power fader) is easily identifiable as only three cables emerge from the unit.
3. Connect the two common right-hand speaker cables together. Repeat the procedure for the two left-hand speaker cables.
4. Connect the speaker cables as shown in Fig 4, using suitable connections.

5. Connect the bass speaker cables to the amplifier as shown in Fig 4, using suitable connections.
6. Using suitable connections connect the power and earth leads as shown in Fig 4.
7. Connect the aerial sensor lead to the M.P.U. input 'AC' (light green/black) cable using suitable connections.
8. Connect the radio illumination lead to the yellow/blue cable using suitable connections.
9. Connect the main earth lead and the aerial lead to the radio.
10. Check the correct operation of the radio/cassette player.
11. Carefully slide the radio into the mounting bracket located in the aperture.
12. Check that the cables are not trapped and that the in-line fuses are located alongside the gear selector.
13. Refit the gear selector veneer panel, rubber surround/finisher and the ashtray assembly.

Installation of a combination radio/cassette player with post amplifier fader

NOTE

- 1 Only units with a post amplifier fader can be installed. Contact the manufacturer of the radio/cassette player for information on the type of fader fitted.
- 2 The majority of post amplifier fader control circuits provide two outputs per channel (i.e. 4 speakers) using two pairs of cables. Two of the cables in the two pairs of wires are connected together inside the radio/cassette player to give four direct loudspeaker connections and provide correct phasing of the loudspeakers.

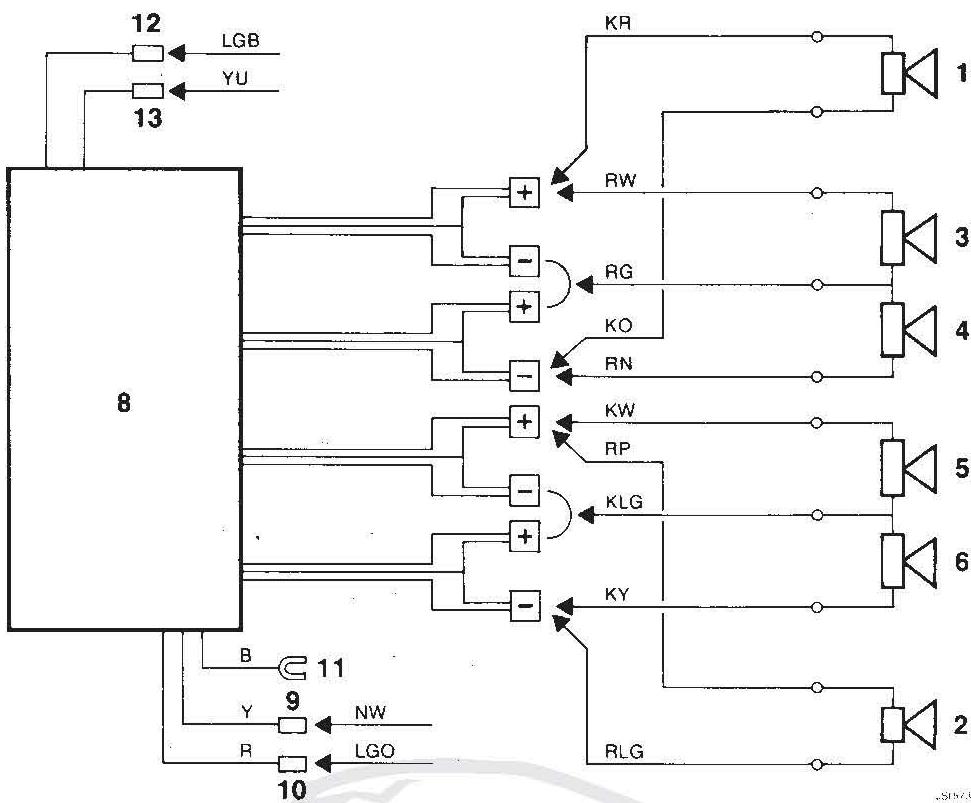


FIG 5.

Key to Fig 5

- | | |
|------------------------------|---------------------------------------|
| 1) Left-hand bass speaker. | 7) Not applicable. |
| 2) Right-hand bass speaker. | 8) Radio/cassette player. |
| 3) Left-hand front speaker. | 9) Battery feed + VE. |
| 4) Left-hand rear speaker. | 10) Auxiliary. |
| 5) Right-hand front speaker. | 11) Earth. |
| 6) Right-hand rear speaker. | 12) M.P.U. input 'AC' (auto. aerial). |
| | 13) Radio illumination |

Colour code key.

N) Brown	U) Blue
R) Red	K) Pink
P) Purple	G) Green
S) Slate	W) White
Y) Yellow	B) Black
O) Orange	L) Light

1. Using a resistance meter probe the connections on the radio/cassette player between each speaker cable pair to find the two cables, one from each pair which are internally connected. Either of these two cables can then act as the vehicle loudspeaker system common return (Fig 5 colour codes RG and KLG).

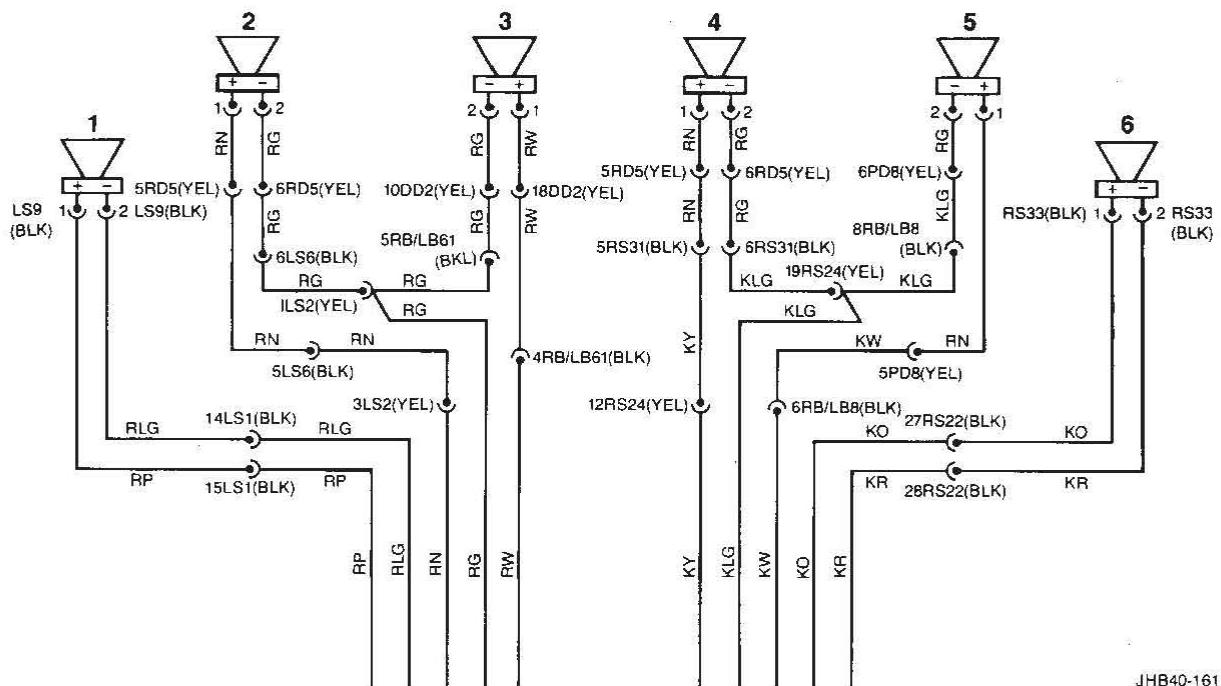
NOTE: On a four speaker system these leads are not used.

2. On a number of radio/cassette players, the centre cable (which is internally connected to the power fader) is easily identifiable as only three cables emerge from the unit.

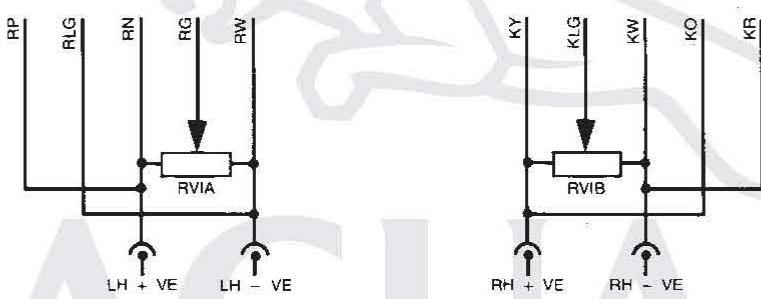
3. Connect the two common right-hand speaker cables together. Repeat the procedure for the two left-hand speaker cables.
4. Connect the speaker cables as shown in Fig 5, using suitable connections.
5. Connect the bass speaker cables across the full output of the amplifier as shown in Fig 5, using suitable connections.
6. Using suitable connections connect the power and earth leads as shown in Fig 5.
7. Connect the aerial sensor lead to the M.P.U. input 'AC' (light green/black) cable using suitable connections.
8. Connect the radio illumination lead to the yellow/blue cable using suitable connections.
9. Connect the main earth lead and the aerial lead to the radio.
10. Check the correct operation of the radio/cassette player.
11. Carefully slide the radio into the mounting bracket located in the aperture.
12. Check that the cables are not trapped and that the in-line fuses are located alongside the gear selector.
13. Refit the gear selector veneer panel, rubber surround/finisher and the ashtray assembly.

Installation of a radio/cassette player which does not incorporate a post amplifier fader

1. On units which do not incorporate a power fader, or if a separate power fader is required, connect the speaker leads as shown in Figs 6 or 7.
2. If a power fader is required, i.e. no front/rear fader is in the radio system, insert a suitable high power fader into the circuit as shown in Fig 6 using suitable terminations.



JHB40-161



6 SPEAKER SYSTEM
WITH POWER FADER

JHB40-162

FIG 6

Key to Fig 6

- | | |
|-----------------------------|------------------------------|
| 1) Left-hand bass speaker. | 4) Right-hand rear speaker. |
| 2) Left-hand rear speaker. | 5) Right-hand front speaker. |
| 3) Left-hand front speaker. | 6) Right-hand bass speaker. |

Colour code key.

N) Brown	U) Blue
R) Red	K) Pink
P) Purple	G) Green
S) Slate	W) White
Y) Yellow	B) Black
O) Orange	L) Light

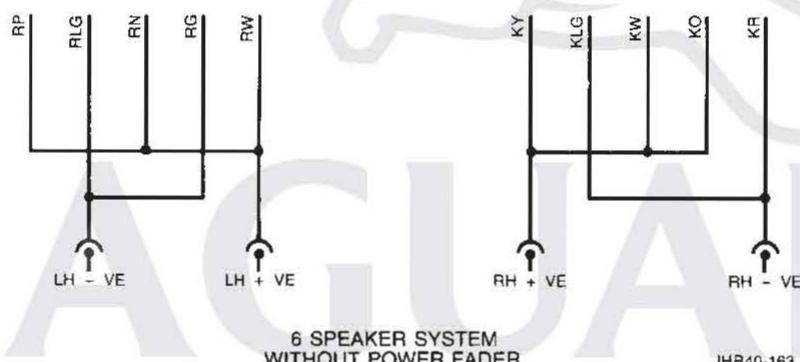
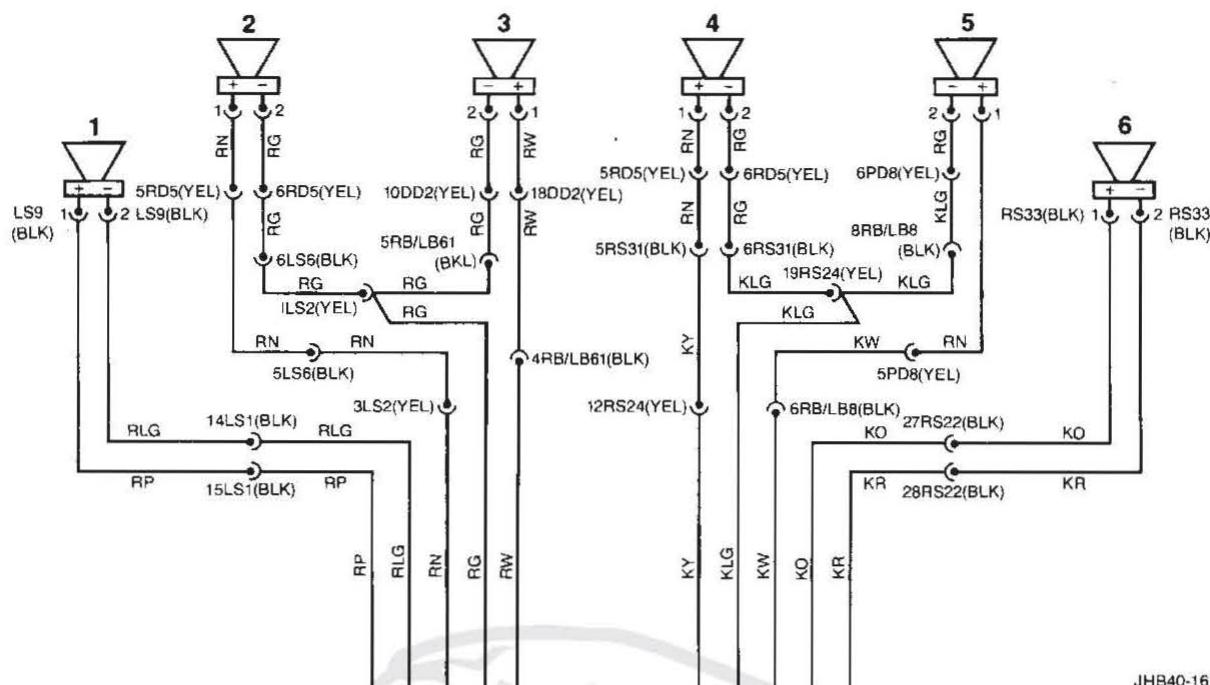


FIG 7

Key to Fig 7

- 1) Left-hand bass speaker.
- 2) Left-hand rear speaker.
- 3) Left-hand front speaker.
- 4) Right-hand rear speaker.
- 5) Right-hand front speaker.
- 6) Right-hand bass speaker.

Colour code key.

N) Brown	U) Blue
R) Red	K) Pink
P) Purple	G) Green
S) Slate	W) White
Y) Yellow	B) Black
O) Orange	L) Light

3. Locate the power fader in a position which is easily accessible to the driver or passenger.

NOTE: Do not cut the wood veneer panels in order to fit the power fader.

4. Using suitable connections connect the power and earth leads as shown in Fig 5.
5. Connect the aerial sensor lead to the M.P.U. input 'AC' (light green/black) cable using suitable connections.
6. Connect the radio illumination lead to the yellow/blue cable using suitable connections.
7. Connect the main earth lead and the aerial lead to the radio.
8. Check the correct operation of the radio/cassette player.
9. Carefully slide the radio into the mounting bracket located in the aperture.
10. Check that the cables are not trapped and that the inline fuses are located alongside the gear selector.
11. Refit the gear selector veneer panel, rubber surround/finisher and the ashtray assembly.

Installation of Clarion radio cassette players

1. Disregard operations 6 to 9 in the preparation procedures.
2. Feed the power and speaker cables through the radio aperture and back along to the connectors alongside the gear selector.
3. Connect the multi-plug connectors.

On the E920 unit when fitted to a six speaker system, observe the following procedure:

- a) Remove pin 6 kw from the radio side of the 15 way PMHD connector. Remove the terminal and reterminate with an additional kw cable connected to pin 6. The new cable added should then be terminated and inserted into pin 4 in the same connector.
- b) Remove pin 11 rw from the same 15 way PMHD connector. Remove the terminal and reterminate with an additional rw cable connected to pin 11. The new cable added should then be terminated and inserted into pin 9 in the same connector.
4. Connect the main earth lead and the aerial lead to the radio.
5. Check the correct operation of the radio/cassette player.
6. Carefully slide the radio into the mounting bracket located in the aperture.
7. Check that the cables are not trapped and that the inline fuse is located alongside the gear selector.
8. Refit the gear selector veneer panel, rubber surround/finisher and the ashtray assembly.

Service Bulletin

**JAGUAR****Daimler**

DATE: DECEMBER 1986
SHEET: 1 OF 4
BULLETIN: JD12/86

ITEM: 83

03 REPAIR OPERATION TIMES

XJ6 2.9/3.6

Please add the following repair time to your XJ6 2.9/3.6 Repair Time Schedule, Part No. JJM 10 01 05.

Op. No. 86-50-03 Radio - Renew Time 0.65 hrs.

No other repair times are affected.

ITEM: 84

03 R.O.T. AMENDMENT

XJS

A mistake has been highlighted in the XJS Repair Operation Times, Publication No. AKM 4412/83.

The mistake concerns operation 86-55-12 Hazard Warning Flasher Unit - Remove and Refit. Please alter the repair time columns to read as follows:

Up to VIN No. 105047	After VIN No. 105048	3.6
0.25	0.45	0.45

No other repair times are affected.

ITEM: 85

17 PURGE CONTROL SYSTEM

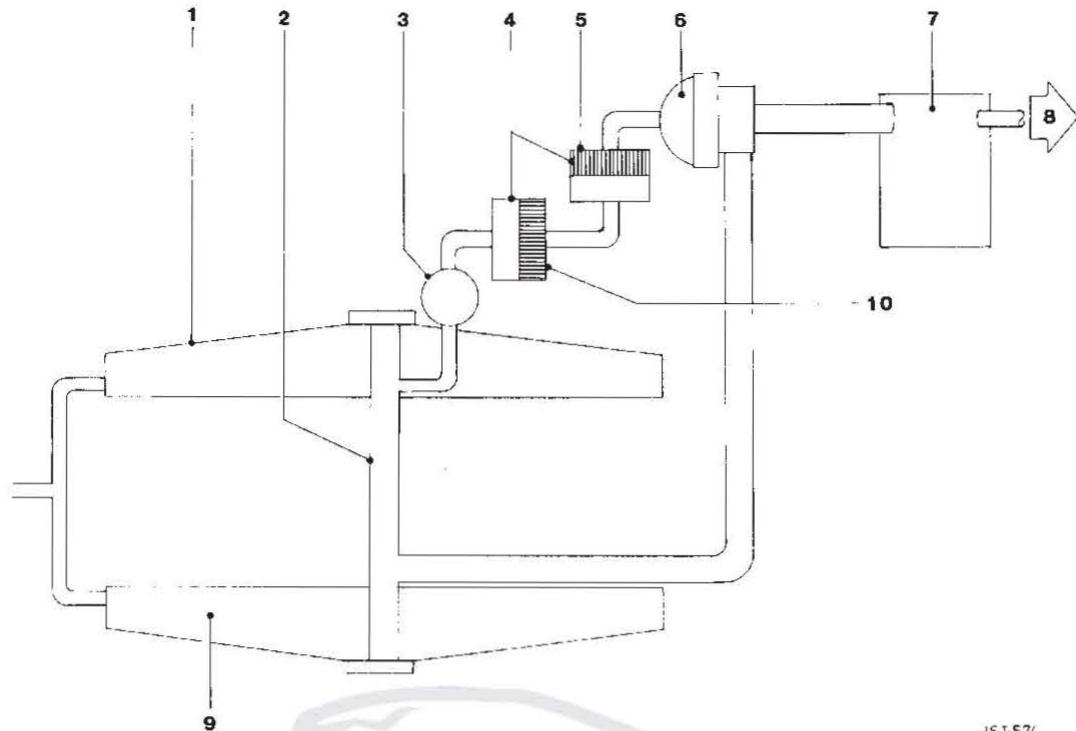
XJS V12

USA/CANADA/JAPAN/AUSTRALIA/MIDDLE EAST

A revised purge control system with vacuum operated switching replacing electrical switching has been introduced on XJS V12 models providing a more stable idle condition when manouevring at low speeds (see Fig.1 on next page for schematic layout). This modification effectively delays carbon canister purging for a few seconds as engine speed increases just off idle, preventing a possible over-rich mixture.

The modification was introduced at VIN 133461 in conjunction with the fuel rail vacuum valve and will also be incorporated on V12 saloons in the future.

Part number details will be advised when parts are available.



JSI-574

FIG.1

- | | |
|---|---|
| 1. L.H. Inlet Manifold | 6. Purge Valve |
| 2. Purge Pipe | 7. Charcoal Canister |
| 3. Thermal Vac Valve | 8. To Fuel Tank |
| 4. Delay Valves | 9. R.H. Inlet Manifold |
| 5. Grey Disc colour code facing
towards charcoal canister. | 10. Red Disc colour code facing
towards charcoal canister. |

ITEM: 86

33 CLUTCH DRIVE PLATE

XJS 3.6/XJ-SC 3.6

A new clutch plate incorporating a revised friction material and thicker segments, as used on XJ6 2.9/3.6 models, has been introduced to provide improved wear characteristics. This clutch plate (EAC 8595) was introduced on XJS 3.6 models at Engine No. 9D 103570.

ITEM: 87

57 STEERING GEOMETRY

XJ6 2.9/3.6

When checking steering geometry the vehicle must be in the mid-laden position. To achieve the mid-laden position, Special Tools JD.133 Camber Tie Down Links (front) and JD.145 camber tie down links (rear) must be fitted to the vehicle whilst it is resting on turntables.

When fitting the tie down links it is advisable to fit JD.145 camber tie down links (rear) first. The rear links are fitted from the top rear of the rear bump stop to around the halfshaft. For this operation assistance will be required to pull the vehicle down.

The front camber tie down links JD.133 are fitted through the bottom of the front spring pan up through the spring and the dowel of the tool locates in the slots in the suspension turret top.

NOTE: ENSURE THAT THE DOWEL IS FULLY SEATED IN THE SLOT IN THE SUSPENSION TURRET.

The nuts at the bottom of JD.133 are then tightened to maximum thread travel to achieve the mid-laden position.

The vehicle is then settled on the turntables and the geometry check undertaken.

NOTE: ON NO ACCOUNT MUST A SELF-LEVELLING VEHICLE BE STARTED UP WHILST THE TIE DOWN LINKS ARE FITTED OTHERWISE IRREPAIRABLE DAMAGE MAY OCCUR.

<u>Steering Geometry:</u>	<u>Front</u>	<u>Rear</u>
Camber Angle	0 ~ 0.5°	-0.5° - 1.0°
Castor Angle	3.5 ~ 4.5°	-
Wheel Alignment	Parallel ~ 3.2mm toe in	Parallel to 0.3° toe out

ITEM: 88

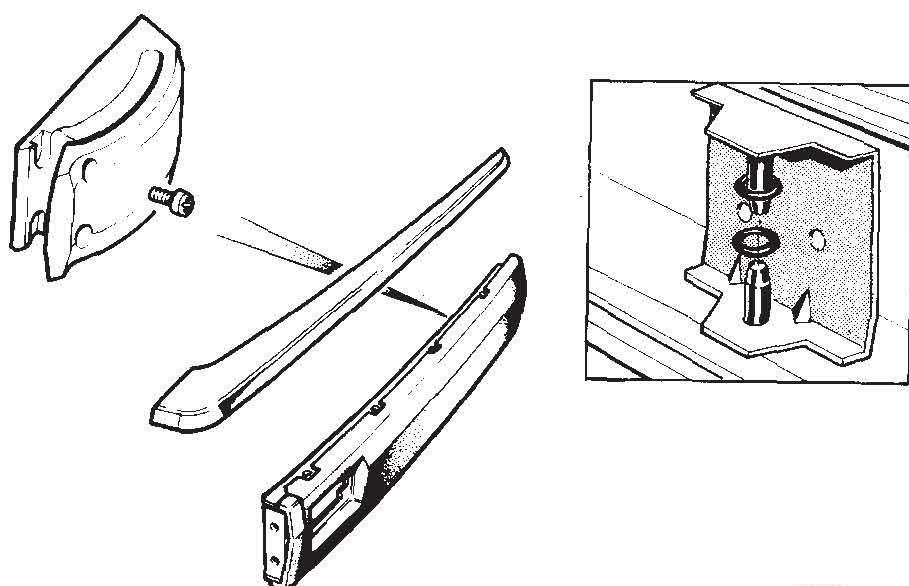
76 REAR BUMPERSXJ6 2.9/3.6 (EUROPEAN MARKETS)

Investigations reveal that rattles from the rear bumper side blades on XJ6 2.9/3.6 models are due to excessive tolerance between the side beam mounting bracket pin and the side bumper locating bracket.

To eliminate the rattle, fit a rubber 'O' ring KRC 1152 to each beam mounting bracket pin.

All vehicles manufactured from VIN 501766 have been modified to this condition.

To rectify early vehicles, remove the bumper assembly, add rubber 'O' rings as indicated in the illustration and refit to the vehicle.



JSI-618

76 COACHLINESXJ6 2.9/3.6

To rectify an omission in the XJ6 2.9/3.6 Complaint Code Book, Mechanical Paint Codes for use when replacing coachlines on XJ6 have been introduced.

The codes are: 9FP Coachlines R.H.
 9FQ Coachlines L.H.

Repair Operation No. 76-43-66

Repair Time (Panel Set) 0.25 hrs.

Please note, these codes apply only to coachline faults. Where a coachline is replaced following paint rectification, the replacement time is included in the paint time.

79 PAINT COMPLAINT CODESS.III/XJS/XJ6 2.9/3.6

There are two panel descriptions omitted from the Paint Complaint Codes issued for clear over base vehicles.

Please enter: Body Panels against Code "G"
 Exterior Floor Panels against Code "Y"

82 AIR CONDITIONING HSLP SWITCHS.III/XJS V12

Dealers have experienced a problem in Service where in some instances a vehicle has been returned several times for the air conditioning thermal fuse to be replaced, although at the time the air conditioning system appeared to be fault free.

The thermal fuse and superheat switch system has now been deleted and replaced by a high side low pressure switch (HSLP) from Vins:

471857 - S.III XJ6
471852 - S.III V12
136646 - XJS V12
T.B.A. - XJS 3.6

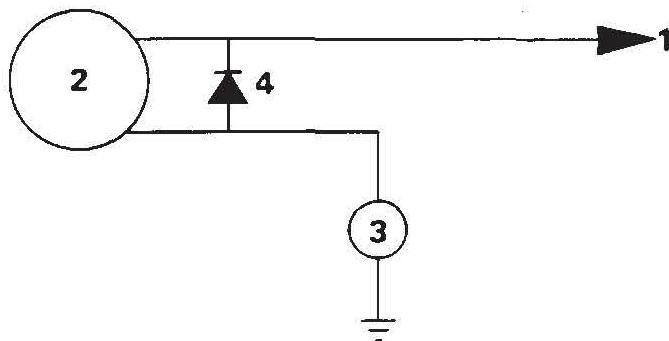
The superheat switch design was such that it detected super heated refrigerant vapour on the low pressure line.

The HSLP switch is designed to monitor pressure drop on the high side of the system. At a low pressure condition of 25 psi \pm 5 psi, the HSLP switch contacts, which are normally closed, open circuit, thus breaking the earth circuit to the compressor clutch coil resulting in the clutch drive disengaging.

Where a definite fault is present in the air conditioning system e.g., low refrigerant, restriction, etc., the HSLP switch will remain open circuit until such time as the problem is corrected.

Following rectification and recharging of the system, the HSLP switch will return to a closed state, once again completing the clutch circuit.

The need for the thermal fuse has been obviated with this system and significant benefits are gained especially where a transient fault occurs.



J86-510

HSLP WIRING DIAGRAM

- | | |
|--------------------------|----------------------|
| 1. Supply (Ranco Switch) | 3. HSLP Switch |
| 2. Compressor Clutch | 4. Diode Suppression |

Should dealers encounter problems on vehicles where a transient condition has resulted in the thermal fuse blowing on several occasions, the following service fix involving the conversion of the air conditioning compressor may be carried out to enable the HSLP switch system to be fitted.

PLEASE NOTE: This service fix does not apply to XJS 3.6 Models. A further Service Bulletin will be issued detailing procedures required for conversion of this model range.

A Service Kit Part No. JLM 1040 is now available and should be used in conjunction with the following procedure.

Service Kit Contents:

<u>Description</u>	<u>Qty</u>	<u>Part No.</u>
Compressor Rear Head	1 off	JLM 1041
'O' Ring Kit	1 off	JLM 1042
HSLP Switch Kit	1 off	JLM 1043
Pressure Relief Valve	1 off	AEU 1689
Harness	1 off	DAC 4651

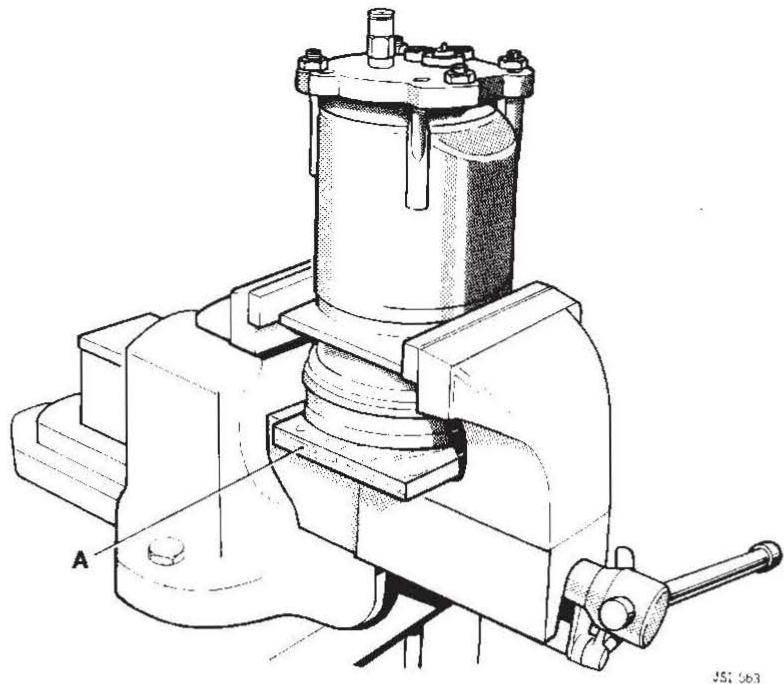
Repair Operation Number - 82-91-02

Warranty Code - 7S8-U

Labour Allowance - 2.05 hrs.

Modification Procedure

- 1) Disconnect battery
- 2) Depressurise the air conditioning system
- 3) Remove the compressor unit, and discard the thermal fuse, bracket and harness.
- 4) Place the compressor in a vice as shown in Fig.1 and grip using the forward mounting flange. Do not overtighten. As direct metal to metal contact can result in damage to the clutch drive, place a piece of wood (Fig.1 A) in the vice on which to rest the clutch drive.
IMPORTANT: THE COMPRESSOR MUST BE POSITIONED IN THE VICE AS SHOWN IN FIG.1 TO PREVENT LOSS OF REFRIGERANT OIL WHEN THE REAR HEAD IS REMOVED.

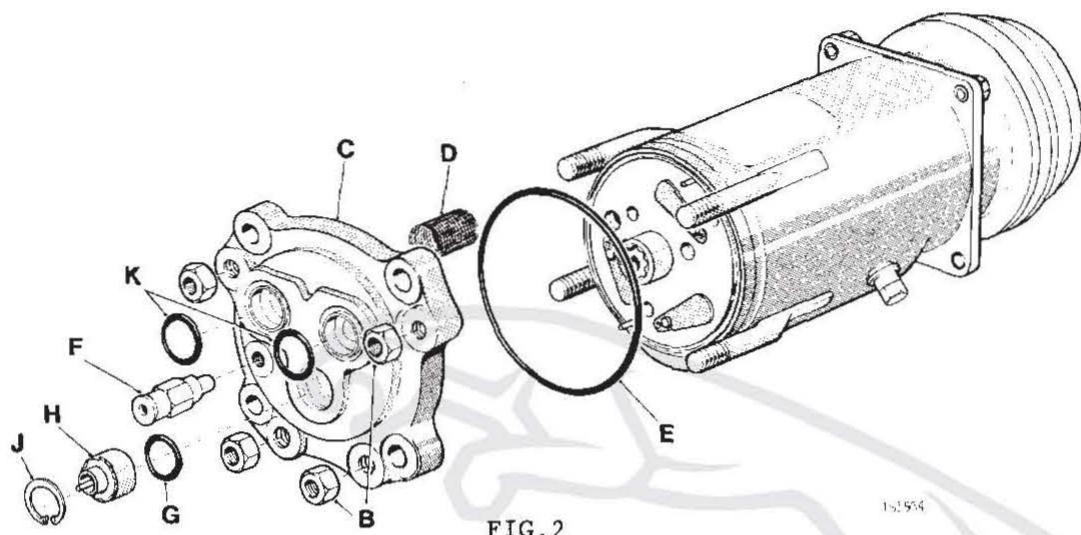


JSI 563

FIG.1

- 5) Release and remove the compressor rear head securing nuts 4 off (Fig.2 B).
- 6) Displace and remove the compressor rear head (Fig.2 C) and carefully remove filter assembly from rear head (Fig.2 D) and retain. Discard head.
- 7) Remove and discard rear head 'O' ring seal from main body of compressor (Fig.2 E).
- 8) Clean filter (Fig.2 D) and compressor seal face.
NOTE: BEFORE FITTING NEW 'O' RING SEALS LIGHTLY COAT WITH SUITABLE 525 VISCOSITY REFRIGERANT OIL.
- 9) Fit and align new rear head seal (Fig.2 E) to compressor body.
- 10) Fit filter (Fig. 2 D) into new rear head and align head to compressor. Tap rear head lightly until flush with compressor body. Fit and tighten securing nuts to 34 Nm (25 lbs ft).
- 11) Fit and secure new pressure relief valve (Fig.2 F) to rear head, and tighten to 13.5 to 19 Nm max (10-14 lbs ft max).
NOTE: The relief valve is supplied complete with the 'O' ring assembled. Lightly smear with 525 viscosity oil before fitting to rear head.
- 12) Fit the high side low pressure switch 'O' ring (Fig.2 G) supplied in the HSLP kit to the recess in the rear head location.
- 13) Carefully locate the HSLP switch (Fig.2 H) and push until it is correctly seated into the rear head location.
- 14) Fit circlip (Fig.2 J) and ensure it is fully located into the rear head.

- 15) Fit new 'O' rings to rear head high side and low pressure ports (Fig.2 K).
- 16) Refit compressor to vehicle and fit new harness supplied in kit.
- 17) Reconnect battery.
- 18) Connect and secure refrigerant hoses to compressor, evacuate and recharge system and check operation.



ITEM: 92

86 PRECAUTIONS WHEN HANDLING ELECTRONIC LOGIC MODULES**XJ6 2.9/3.6**

Damage will occur if static electric charges build up in integrated circuits when, for example, they touch insulating materials (e.g. clothes, plastic etc) in warm dry conditions. Because of perspiration, even with seemingly dry hands, corrosion will occur if electronic components and printed circuit boards are handled or touched with fingers.

The following procedures must be carried out when handling all electronic logic modules or components.

1. A lightning symbol within a triangle, denotes that the module is Static Sensitive, and when handling such a module great care must be taken not to touch any of the components on the module.
2. Keep the module or component in the package in which it is supplied until the last possible moment before fitting.
3. Do not finger or touch any component on a circuit board but handle the board by the extreme edges.
4. Circuit boards must be handled with extreme care ensuring they are not distorted or bent in any way.
5. Ensure connectors and battery are connected correctly.

1261F

Service Bulletin

JAGUAR

Daimler

DATE: NOVEMBER 1987
SHEET: 1 of 20
BULLETIN: JD 10/87

ITEM: 80

18 ENGINE IDLE QUALITY

XJ6 3.6

Following reports of poor idle quality accompanied by an intermittent misfire on 3.6 XJ6 models, the sparking plug gap has been revised to 0.9mm (0.035") from engine number 9D 129897 (N.A.S.).

Where this condition is experienced in service, the sparking plugs should be removed, cleaned, gapped at 0.9mm (0.035") and refitted.

ITEM: 81

18 ENGINE BASE IDLE SETTING

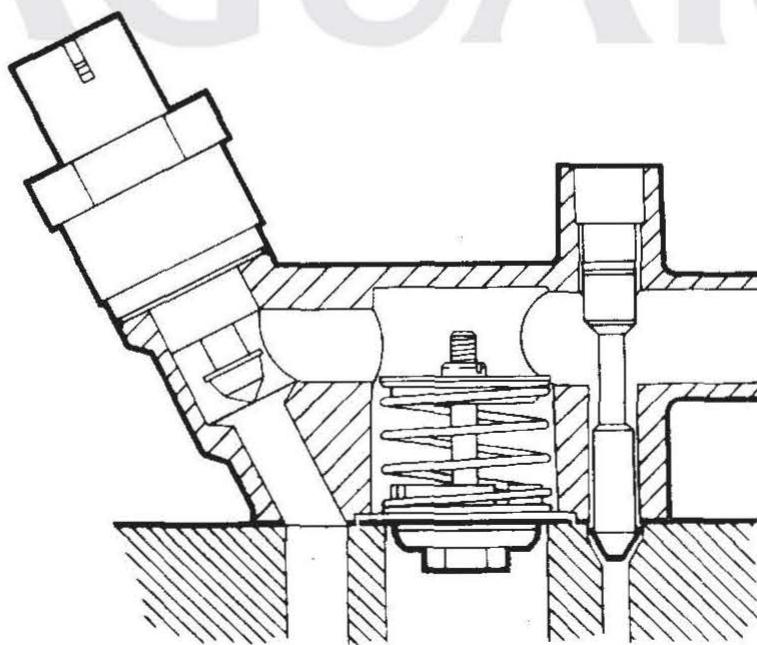
XJ6 3.6/XJS 3.6 (FROM VIN 139052)

Reports have been received that following the replacement of the idle speed control valve, the engine base idle speed cannot be reduced to specification.

Should this problem be experienced, loosen the four idle speed control valve retaining screws and reposition the valve to ensure that the tapered end of the adjusting screw is centralised with the inlet manifold by-pass drilling (Fig 1).

Tighten the retaining screws and adjust the engine base idle speed using the JDS engine set-up procedure.

FIG 1



ITEM: 82

19 HOT FUEL HANDLING – HESITATION

XJ6 2.9/3.6

To improve the hot fuel handling characteristics the following modifications have been introduced into production.

Jaguar Cars Limited

Jaguar Cars Limited 2005

1. Clipping of internal fuel tank hoses (See Bulletin JD 08/87 Item 61).
2. A revised fuel pump known as the 'Glycodure' fuel pump was introduced at VIN 526150 for all markets **except** UK. This pump is available under Part No. CBC 5656 and is more tolerant of any vapour present during high temperature operation.
3. Improved fuel tank swirl pot entrainer was introduced at VIN 526857 USA and 528028 Middle East, Japan and Australia, ensuring that the coolest possible fuel is provided to the injectors.

Fuel tanks incorporating this modification are available under Part No. CBC 6445/1.

NOTE: FUEL TANKS MUST NOT BE REPLACED UNTIL THE IMPROVEMENTS DETAILED IN 1 AND 2 HAVE BEEN COMPLETED.

ITEM: 83

30 CATALYST HEATSHIELD RATTLE

XJ6 3.6 (ALL CATALYST VEHICLES EXCEPT JAPAN)

To overcome reports of catalyst heatshield rattle, a modified heatshield has been introduced on production from VIN 522802.

This modification can be carried out as a Service Fix by adopting the following procedure.

1. Remove the existing catalyst headshield.
2. Cut off the inlet nose (A Fig 1)
3. Cut off the same area from another stock heatshield Part No. CAC 8298/1 and fit one inside the other.
4. Spotweld (or bolt) the two heatshields together, see diagram for positions (X Fig 1).

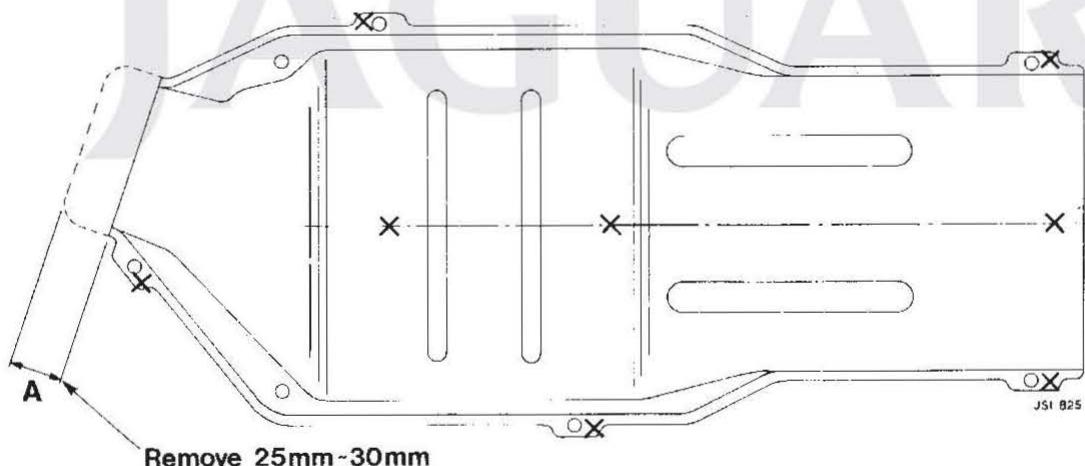


FIG 1

5. Refit the modified heatshield assembly to the vehicle.

Labour allowance	0.55 hrs
Repair Operation No:	30.91.01
Complaint Code:	2LGF

ITEM: 84

44 TRANSMISSION FLUID LOSS**XJ6 2.9/3.6 AUTOMATICS**

When investigating reports of transmission fluid ejection from the dipstick tube, the transmission breather located in the extension housing, should be inspected to ensure that it is not being obstructed by the transmission tunnel foam insulation pad.

ITEM: 85

44 ZF TRANSMISSION 1 – 2 SHIFT QUALITY**XJS & XJ6 3.6 AUTO**

New ZF transmissions incorporating a revised valve block calibration have been introduced.

This change is to eliminate the specific problem of transmission **shudder** at the full throttle 1 – 2 shift and does **not** overcome any drive line induced **vibration** which may also be present.

XJ6 3.6 Auto – USA Only (2.88:1 Axle Ratio)

Transmission Part No. EBC 2164 replaces EBC 1171, from engine number 9DP 126748, VIN 526305.

A quantity of the existing transmissions, EBC 1171, had the revised valve block incorporated before this change and are identified from transmission serial number 391-676802, which was introduced at engine number 9DP 108835, and VIN 522801.

XJ6/XJS 3.6 Auto – All Markets Except USA (3.54:1 Axle ratio)

Transmission Part No. EBC 2195 replaces EAC 9614 from transmission serial number 624-688279 which was introduced at engine number 9DP 126286, VINs 524880 and 145172.

Where instances of this complaint are reported on **XJ6** 3.6 models the valve block assembly can be replaced by a revised valve block, which is available as a serviceable item. This instruction does not apply to XJS 3.6 Models.

Repair Procedure

1. Drive the vehicle onto a ramp. Ensure that the vehicle is in 'Park', with the handbrake applied. Raise the ramp.
2. Remove the transmission oil sump drain plug and drain the fluid into a suitable clean container. Protect against contamination.
3. Remove the oil sump pan and filter. Discard the 'O'-ring seal (Fig 1).

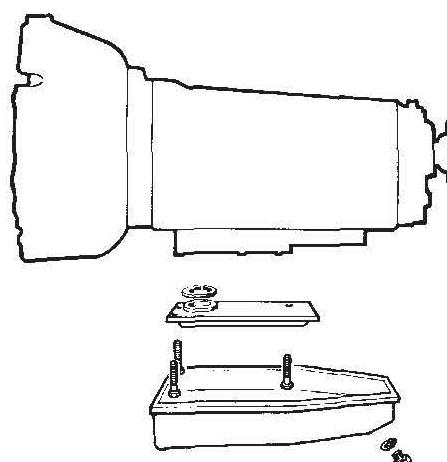


Fig 1

4. Remove the valve block assembly securing screws (1 Fig 2) and carefully lower the block.

NOTE: Only the large headed screws hold the assembly in position.

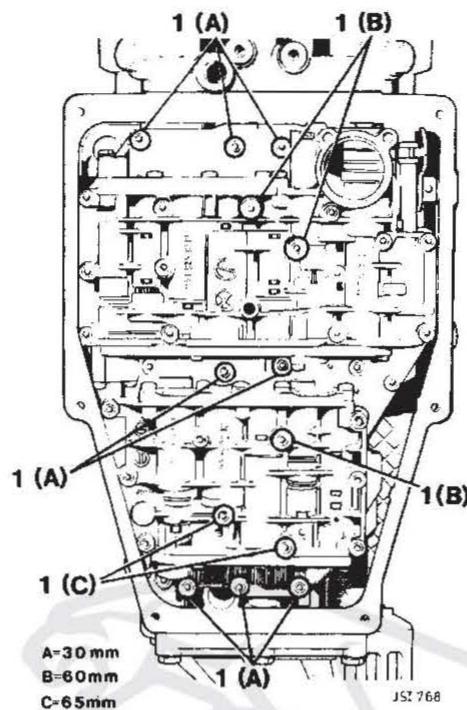


Fig 2

5. Check that the oil seals, springs and circlips are correctly located (Fig 3). Do not remove but carefully clean the mating face with a lint-free cloth.

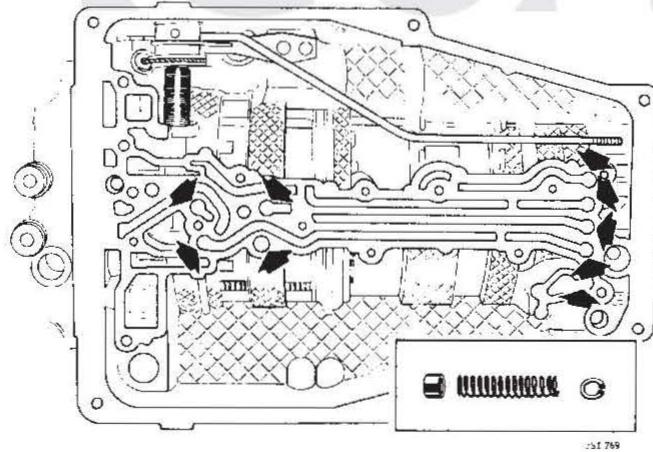


FIG 3

6. Fit the valve block assembly ensuring that the operating valve quadrant engages onto the selector detent. Do not fully tighten the screws but leave the valve block just moveable.
Note different length of screws (Fig 2).
7. Align valve block assembly in position and using the setting gauge JD 103 set the distance between the detent roller location pin and valve block (Fig 4), ensuring that no pressure is applied to the kickdown cable. Tighten the retaining screws from the centre, working outwards in a circular manner to a torque of 8 Nm. Remove the setting gauge.

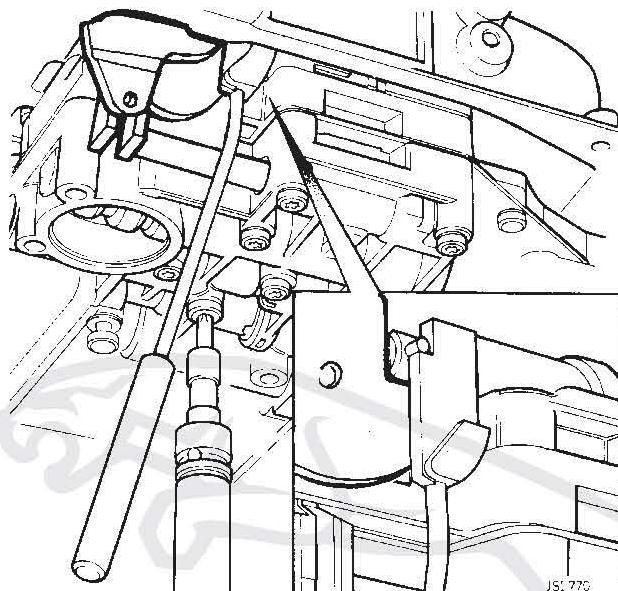


FIG 4

8. Locate the new 'O'-ring seal into the valve block. Align and secure the replacement oil filter to the valve block with the retaining screws to a torque of 8 Nm (Fig 5).

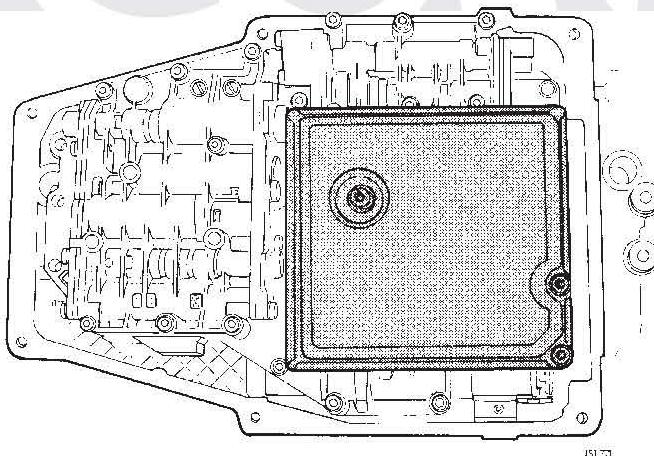


FIG 5

9. Fit a new oil sump gasket to the oil sump and check that the two magnets are correctly located.
10. Align the oil sump to the transmission ensuring that the gasket does not move. Secure with the retaining clips located in the correct position (Fig 6) to a torque of 8 Nm.

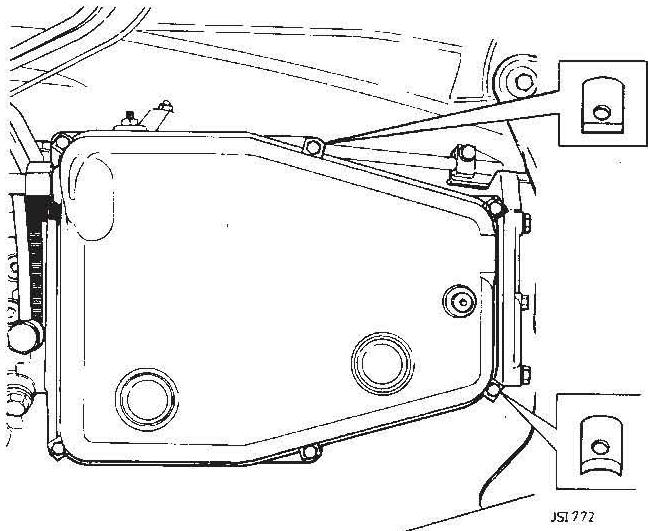


FIG 6

11. Fit the drain plug and washer to the oil sump and torque to 15 Nm. Attach the dipstick tube to the oil sump and secure the union nut to a torque of 81 Nm
12. Lower the vehicle and refill with fluid.
13. Start the engine and ensuring that both the handbrake and footbrake are applied, move the gear selector lever several times through all the selector positions and back to 'Park'. Dip and check the oil level with the engine running (idle speed), adjust as necessary.
14. Switch off the engine and re-check the kickdown cable initial setting by manually operating the throttle linkage to full throttle position (NOT KICKDOWN) and measure the distance from the outer cable to the crimp, this should be 39mm. Adjust the outer cable locknuts if necessary to obtain a measurement of 39mm.
15. Close the bonnet and check for oil leakage.

Service Tool

JD 103 – Valve Block Setting Gauge

Torque Figures

Dipstick Tube Locknut	81 Nm
Oil Sump Drain Plug	15 Nm
Valve Block to Case Screws	8 Nm
Filter to Case Screws	8 Nm
Oil Sump Bolts	8 Nm

Parts

Valve Block Assembly (including 'O' Ring and Filter)	EBC 2196E – All markets except USA
Valve Block Assembly (including 'O' Ring and Filter)	EBC 2165E – USA only

Kit	JLM 1534 comprising:
'O'-Ring Seal	JLM 665
Oil Sump Gasket	JLM 650

Optional Equipment

Dexron 2D Fluid – for recommended grades refer to XJ6 2.9/3.6 Manual, Section 1, Page 09-1.

A Labour Allowance of 1.45 hours may be claimed quoting 76-91-67 and Complaint Code 4DGF.

ITEM: 86

66 SOLENOID VALVE BLOCK**XJ6 2.9/3.6 WITH RIDE LEVEL**

A modified solenoid valve block with an increased 'trapped line pressure' has been introduced on Production from VIN 528301, to further reduce any possibility of knock from the ride level system.

This revised valve block (Part No. CBC 5848) is interchangeable with previous units.

ITEM: 87

76 DOOR APERTURE SEALS**XJ6 2.9/3.6**

Windnoise identified at door window frames, especially in the region of the upper B/C post, may be due to partial collapse of the aperture seal.

Detail modifications including shot moulded joints and foam rubber infill at corners, have been incorporated into new seals introduced on Production at VIN 519816.

Dealers replacing aperture seals should fit the later seal using the following Part Numbers:

BDC 3140	replaces	BCC 4840
BDC 3141	"	BCC 4841
BDC 3142	"	BCC 4842
BDC 3143	"	BCC 4843

ITEM: 88

76 FEDERAL TOWING EYE**XJ6 2.9/3.6 FEDERAL VEHICLES**

This bulletin applies to North American vehicles only and details the procedure for fitment of a front emergency towing eye to vehicles in service. This modification was introduced on Production 100% from VIN 528377.

Procedure

1. Jack up the front of the vehicle and place on two stands.
2. Remove the right hand bumper assembly, taking care to release any electrical connections.
3. Remove the right hand horn, discard the small horn positioning bracket but retain the horn mounting bracket.
4. Remove the screw securing the right hand brake cooling duct (located on top of the duct at the forward end).
5. Turn the steering wheel to full right lock to allow access to the right hand wheel arch.
6. Remove the right lower panel from the spoiler assembly by removing seven screws. This will allow access to the washer reservoir.
7. Remove the three screws from the front of the wheel arch liner for access.
8. Remove the air duct rear panel screws. Remove the panel.
9. Remove the screws securing the washer pump retaining bracket, remove the bracket.

10. Drain the washer reservoir into a clean container.
11. Remove the air duct.
12. Remove the reservoir upper mounting bracket bolts and remove the bracket.
13. Remove the reservoir lower mounting bracket bolts. Remove the retaining plate and stay bar. Place the reservoir onto the front suspension and temporarily secure.
14. Loosen but do not remove the spoiler right hand securing bolts.
15. Remove four bolts securing the right hand energy absorbing strut and remove the strut.
16. Position the towing eye to the strut from below, fit a temporary bolt into the left front mounting hole; do not tighten.
17. Fit the two new longer bolts to the strut and towing eye rear mountings; do not tighten.
18. Insert a spacing washer between the strut and towing eye at the right front mounting. Insert a bolt but do not fully tighten.
19. Tighten the rear bolts fully.
20. Fit the reservoir into place ensuring correct position into the filler neck, taking care to avoid trapping hoses or wires. At this time fit a new ratchet strap to the washer hose located behind the reservoir retaining stud.
21. Fit and align the reservoir stay bar; fit the retaining plate; fit and tighten the securing bolts.
22. Fit the reservoir upper mounting bracket; fit and tighten the bolts.
23. Reposition the multiplugs to the strut and secure with a ratchet strap.
24. Refit the air duct tube and secure with the screw.
25. Withdraw the temporary bolt from the towing eye front mounting; position the horn mounting bracket between the strut and the towing eye; fit a new bolt and fully tighten whilst ensuring that the horn bracket does not foul adjacent components.
26. Refit all other components in reverse order of removal.

CAUTION: CARE MUST BE TAKEN TO AVOID TRAPPING WIRES AND HOSES.

27. Refill the washer reservoir with approved fluid.

NB: Dealers should carry stock of the following parts for replacement due to corrosion or breakage of lower panel mountings:

AAU 4931	Rawnut
SE 105165J	Setscrew
BD 33929	Washer

Parts Requirement

Kit No. JLM 1533, comprising:

BDC 3110	Towing Eye	1
BDC 5743	Bolts	4
C 46294	Ratchet Strap	2
WJ 108001J	Plain Washer	1

A Labour Allowance of 1.50 hours (VDP), 1.15 hours (Jaguar) may be claimed, quoting 76-91-76/50 (VDP), 76-91-76 (Jaguar) under Complaint Code 9MNZ.

ITEM: 89

76 FUEL FILLER FLAP**XJ6 2.9/3.6**

Should complaints be received of sticking or misaligned flaps then the following modification should be carried out. These modifications were introduced on Production 100% from VIN 528906 utilising a new, stiffer, black powder coated hinge and a chamfered flap locking pin.

Procedure

1. Release and remove the two hinge securing nuts and remove the flap assembly.
2. Release and remove the flap locking pin. Replace with the new pin but do not fully tighten.
3. Release and remove the hinge mounting bolts, after removing the filler cap for access. Remove the hinge.
4. Fit the replacement hinge and bolts but do not tighten. Replace the filler cap.
5. Refit the flap but do not fully tighten the nuts.
6. Check and adjust the flap height and tighten the hinge bolts.
7. Close the flap to check the pin alignment. Re-open and tighten the nuts.
8. Close the flap to check adjustment of the locking pin. Adjust as necessary to set the profile and tighten the lock nut.

Parts Requirement

Kit No. JLM 1486, comprising:

BDC 6860	Hinge	1
JLM 1284	Locking Pin	1

A Labour Allowance of 0.30 may be claimed quoting 76-91-82 and Complaint Code 9NMZ.

ITEM: 90

76 DOOR PANEL RESONANCE**XJ6 2.9/3.6**

This bulletin details the workshop procedure where a customer has complained of noise caused by door panel resonance when slamming a door.

A modification was introduced at VIN 524291 and may be carried out on customers cars on complaint. The workshop procedure details front and rear door rectification.

NOTE: THIS MODIFICATION ONLY APPLIES TO VEHICLES FITTED WITH DOOR SIDE INTRUSION MEMBERS. THESE WERE INTRODUCED TO ALL MARKETS FROM VIN 503441.

Procedure Front/Rear Door

1. Remove the door upper trim pad.
2. Remove the door lower trim pad.
3. Apply adhesive, Dunlop 1358 or similar, to one side of the wedge (Inset Fig. 1 front door, Fig. 2 rear door).
4. Insert the wedge between the door panel and side intrusion member at one of the points indicated.

CAUTION: USE FINGER PRESSURE ONLY TO LOCATE THE WEDGE IN POSITION, DO NOT USE MECHANICAL AIDS.

5. Insert the other two wedges into each door in the positions indicated.
6. Refit the door trim pads.

Fig 1

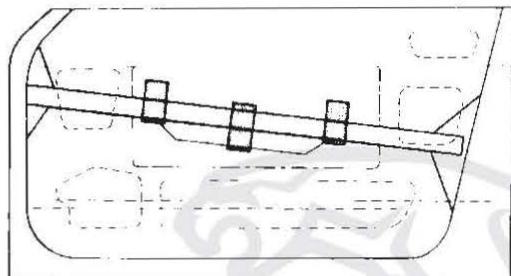
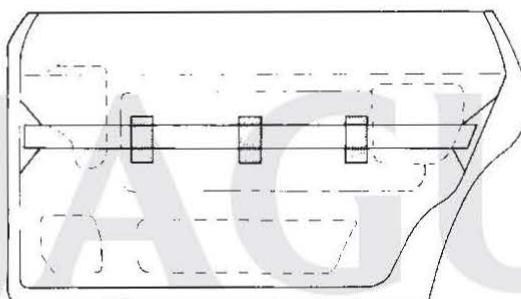


Fig 2



Parts Requirement

BAC 5178 Foam Pad 12 Per Vehicle

(This part has a unit of issue of 12, i.e. sufficient to modify one vehicle.)

A Labour Allowance of 1.50 hours per set Jaguar and 1.65 hours VDP may be claimed quoting 76-91-63 (Jaguar), 76-91-63/50 (VDP and Daimler) and Complaint Code 9NCZ.

ITEM: 91

76 DOWAGER/ASSIST HANDLE

XJ6 2.9/3.6

To improve the function and appearance of the cantrail mounted dowager strap (grab handle) a strengthened return spring and reduction in the overall length of the strap has been introduced on all XJ6 vehicles from VIN 523063.

The new Part Numbers for these straps are as follows:

Dowager Strap (grab handle) R.H. – BCC 8680
" " L.H. – BCC 8681

These parts are fully interchangeable with the existing handles when fitted in pairs.

ITEM: 92

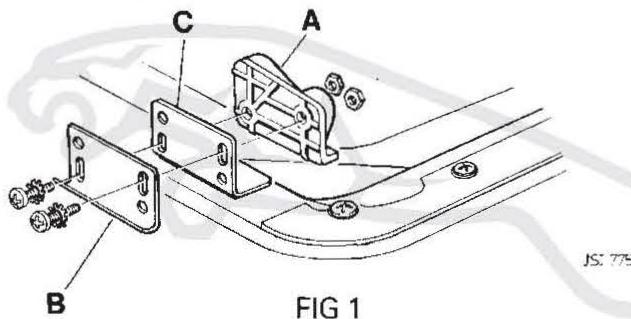
76 SLIDING PANEL SEAL AND ADJUSTMENT**XJ6 2.9/3.6 SUNROOF VEHICLES**

Where a dealer receives a complaint of poor rear profile of the sliding panel on sunroof vehicles, examination may highlight a condition where the sliding panel rear edge is unacceptably below the profile of the roof panel.

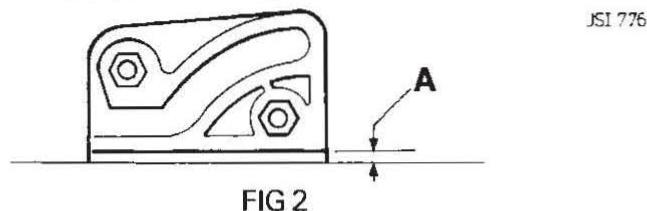
This Bulletin Item details the workshop procedure for raising the sliding panel by an additional 2mm at the rear edge. At the same time two corner seals (JLM 1500) should be fitted to eliminate any ensuing windnoise.

Procedure

1. Remove the sliding panel.
2. Place the panel onto a suitable surface, release and remove the rise block securing screws.
3. Set aside the white riser block (A Fig 1). Using a suitable tool elongate by 2mm, two holes in each seal retainer plate (B Fig 1) and two holes in each sunroof bracket (C Fig 1).



4. Prime any bare metal and re-assemble the riser blocks ensuring that:
 - (a) There is a 2mm gap between the case of the riser block and the sliding lid inner panel (A Fig 2) and
 - (b) The seal retainer bracket is positioned against the seal.



5. Release and remove two screws at each rear corner of the seal clamping plate (A Fig 3).

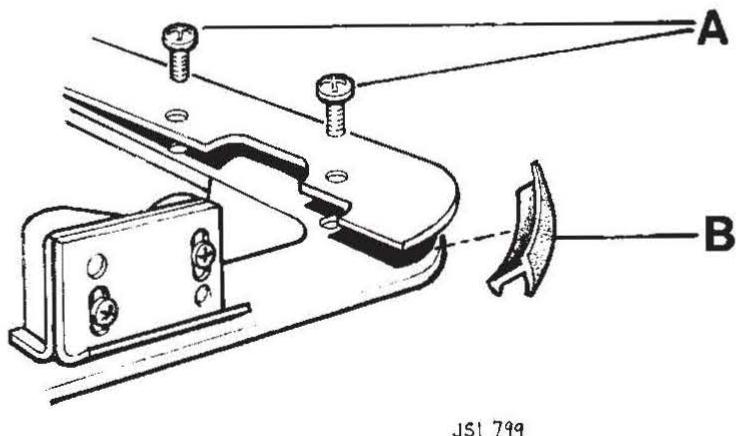


FIG 3

6. Apply adhesive to the seal inserts JLM 1500 (B Fig 3) and position under the clamping plate. Note position of seal section illustrated.
7. Refit and tighten the securing screws.
8. Refit the sliding panel, insert the forward screws but do not fully tighten. Close the panel, set the profile, re-open and tighten the screws.
9. Check the sliding panel operation.

NOTE: Additional seals under Part No. JLM 1500 were introduced on Production at VIN 522798.

A labour allowance of 0.85 hours may be claimed quoting 76-91-84 and Complaint Code 9NJL.

ITEM : 93

76 SQUEAKS AND RATTLES

XJ6 2.9/3.6

This bulletin has been compiled to assist workshop personnel identify and rectify squeaks and rattles in vehicles. Listed below are the key vehicle areas covered by this bulletin, and the necessary parts required to carry out the modifications are detailed.

PREFIX AREA OF VEHICLE

PARTS REQUIRED

A.	Boot Lid Inner	2off foam sleeves CAC 4307/1 4off tie straps ADU 9028
B.	Centre Console	Expandable foam BBC 4861/1
C.	Radio/Cassette Panel	Foam pads cut from BDC 6348
D.	Door Armrest/Switch Pack Assembly	4off door clips BD10313
E.	Door Wood Veneer Panels	2off door clips BDC 5458
F.	Door Sill Button/Bezel	1off door foam BDC 6887
G.	Coinbox – Driverside Underscuttle	1off foam pad BDC 6348
H.	Rear Parcel Shelf	2off foam pads BDC 6468 1off foam pads BDC 6469 Kit No JLM 1538 comprises
I.	Sunroof	1off BDC 5969 6off BMK 2117J 6off AFU 4137J
J.	Sunvisor Vanity Mirror	2off BDC 6605

A. BOOT (9NHB)

To prevent a rattle occurring between harness connectors (see Fig 1) for connector locations and the boot lid inner assembly, modification was introduced at VIN 530760. To rectify any vehicles which were built prior to this VIN the following procedure should be undertaken.

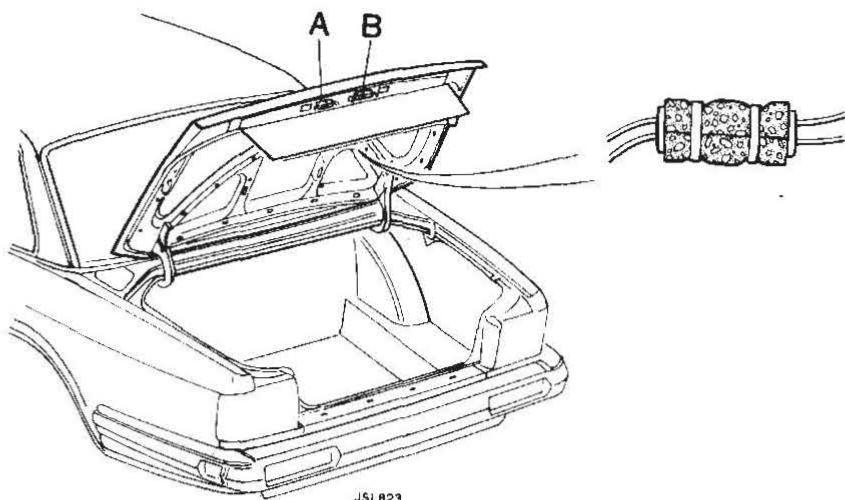


Fig 1

RECTIFICATION PROCEDURE

- 1 Open the boot lid, locate and remove the interior lamp and plastic cover panel. (Fig 1) items A and B.
- 2 Remove/expose the harness connectors for the boot interior light and boot latch switch. (Fig 1).
- 3 Using foam insulation sleeve CAC 4307/1 cut into 5 equal lengths of approximately 100mm. Then using a sharp knife or pair of scissors cut each sleeve along its length.
- 4 Wrap a sleeve around each of the exposed connectors. Secure in position using two tie straps (Part No ADU 9238). Cut the excess plastic tails on the tie straps. (Fig 1).
- 5 Replace the harness connectors, boot inner light and plastic cover panel.
- 6 Test the vehicle for rattles.

Note: Two 100mm foam tubes will be required for each vehicle.

A labour allowance of 0.30 hours may be claimed quoting R.O.T. No. 76-91-14 and Complaint Code 7FXA.

B CENTRE CONSOLE (8RLR)

HARNESS CONNECTOR RATTLES ON UNDERSIDE OF THE CENTRE CONSOLE FINISHER

To eliminate a problem of harness connectors rattling/vibrating against the underside of the centre console finisher a modification was introduced on all model variants from VIN 525078. This modification called for foam pads to be added to the finisher at the locations indicated in (Figs 2 and 3).

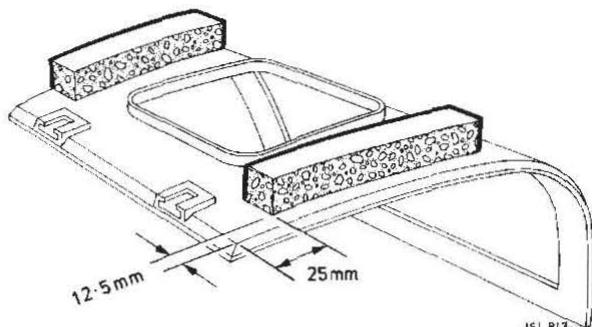


Fig 2

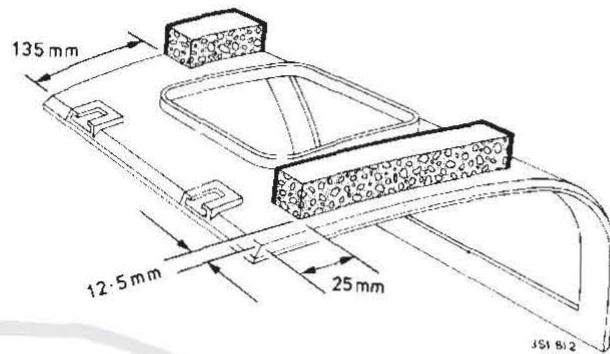


Fig 3

NOTE: (Fig 2) relates to manual transmission vehicles and (Fig 3) to automatic transmission vehicles.

For vehicles subject to rattles in this location built prior to the aforementioned VIN the following rectification procedure should be carried out.

PROCEDURE

- 1 Remove the centre console finisher.
- 2 Depending on transmission fitted to the vehicle, ie auto or manual. Apply self adhesive expandable foam at the locations indicated in (Figs 2 or 3).

Note: Expandable foam should be ordered quoting Part No BBC 4861/1, this strip of foam is 1250mm long. This strip will modify at least 3 vehicles.

DIMENSION OF FOAM PADS

Auto models	1off – 165mm long
	1off – 55mm long
Manual model	2off – 165mm long

- 3 Replace the centre console finisher and road test vehicle for rattles.

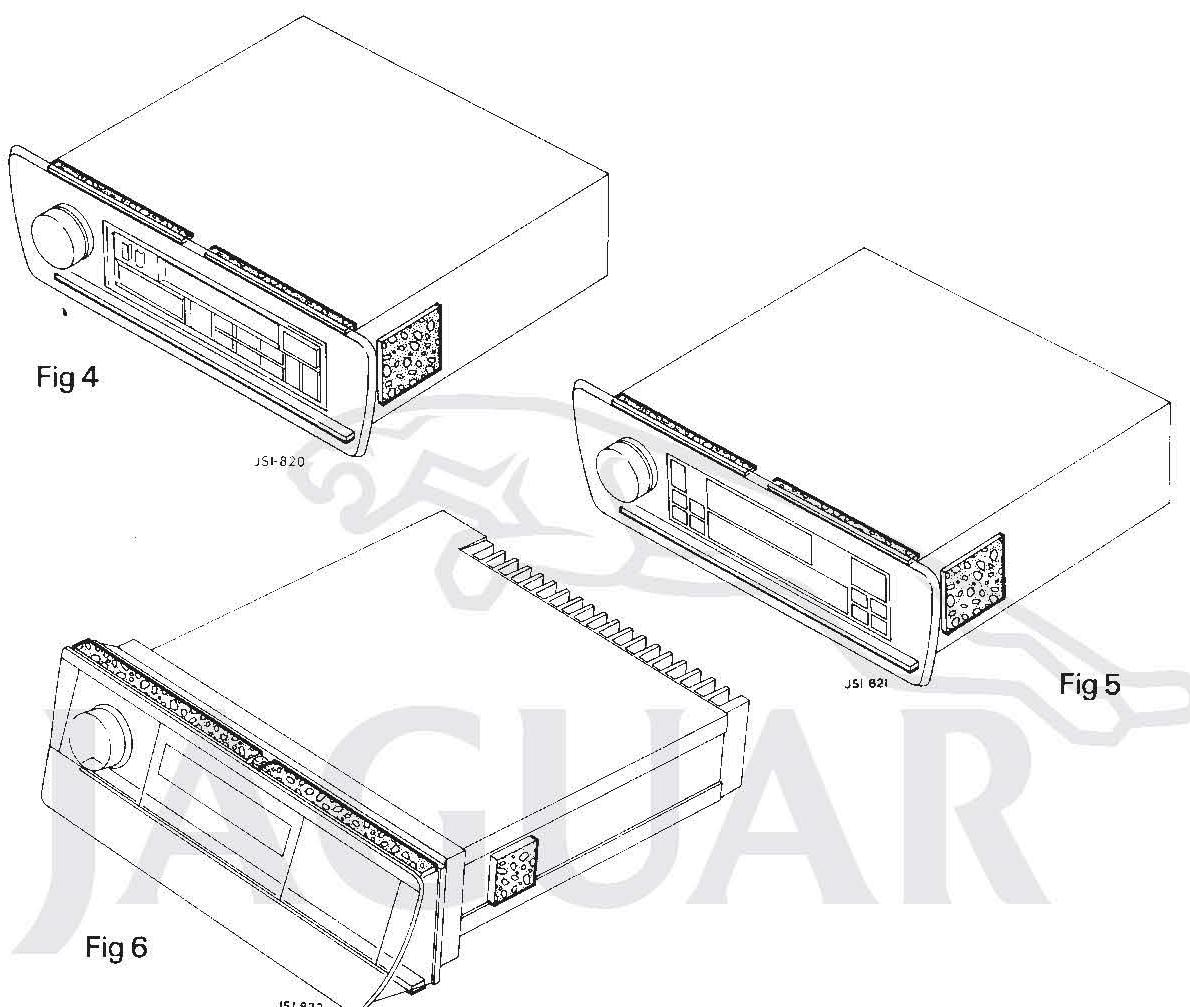
A labour allowance of 0.30 hours may be claimed quoting R.O.T. No. 76-91-15 and Complaint Code 8RLR.

C. RADIO PANEL CREAKS (7QAM)

Complaints have been received highlighting creaks from the radio/cassette panel. To eliminate further instances of creaks from this area, a modification was introduced at VIN 528200. This modification entails the fitment of foam pads at the locations indicated in (Figs 4, 5 & 6). To rectify vehicles built prior to the aforementioned VIN the following procedure should be followed.

PROCEDURE

- 1 Refer to appendix 'A' and follow this procedure to remove the relevant radio cassette model.
- 2 See (Figs 4, 5 & 6) to ascertain the location of the self adhesive anti-rattle foam pads for the relevant radio/cassette model.



Note: Models are:

- 1 Clarion 920 (Fig 4)
- 2 Clarion 950 (Fig 5)
- 3 Clarion World Audio (Fig 6)

- 3 Cut all the self adhesive foam pads from BDC 6348 using a sharp knife or scissors.

Note: This pad Part No BDC 6348 is the same pad as used in Section G of this bulletin, and will allow approximately 4 audio units to be modified.

DIMENSIONS OF FOAM PADS

1 off foam pad 40 x 25mm
 2 off foam pads 10 x 50mm
 1 off foam pad 10 x 100mm

- 4 Fit the foam pads at the locations identified in (Figs 4, 5 & 6). Replace the audio unit, refer to appendix A.
- 5 Test the vehicle for rattles.

A labour allowance of 0.75 hours may be claimed quoting R.O.T. No. 76-91-16 and Complaint Code 7QAM.

D. DOOR ARMREST (PASSENGER) SWITCH PACK AND ASHTRAY ASSEMBLY (8DZR, 8GZR AND 8KZR)

A fault has been highlighted which produces a rattle from the above location. The fault is recognised by excessive sideways displacement of the switch pack within the armrest assembly aperture. To correct this fault anti-rattle clips have been introduced on all models from VIN 525264. To correct vehicles built prior to the aforementioned VIN which are subject to rattles – the following procedure should be carried out.

PROCEDURE

- 1 Remove the wood veneer finisher and door top roll.
- 2 Remove the door lower casing and disconnect all harnesses.
- 3 Remove the door armrest and remove the securing bracket holding the switch pack into the armrest.
- 4 Where necessary disconnect the puddle lamp harness to allow improved access to the switch pack.

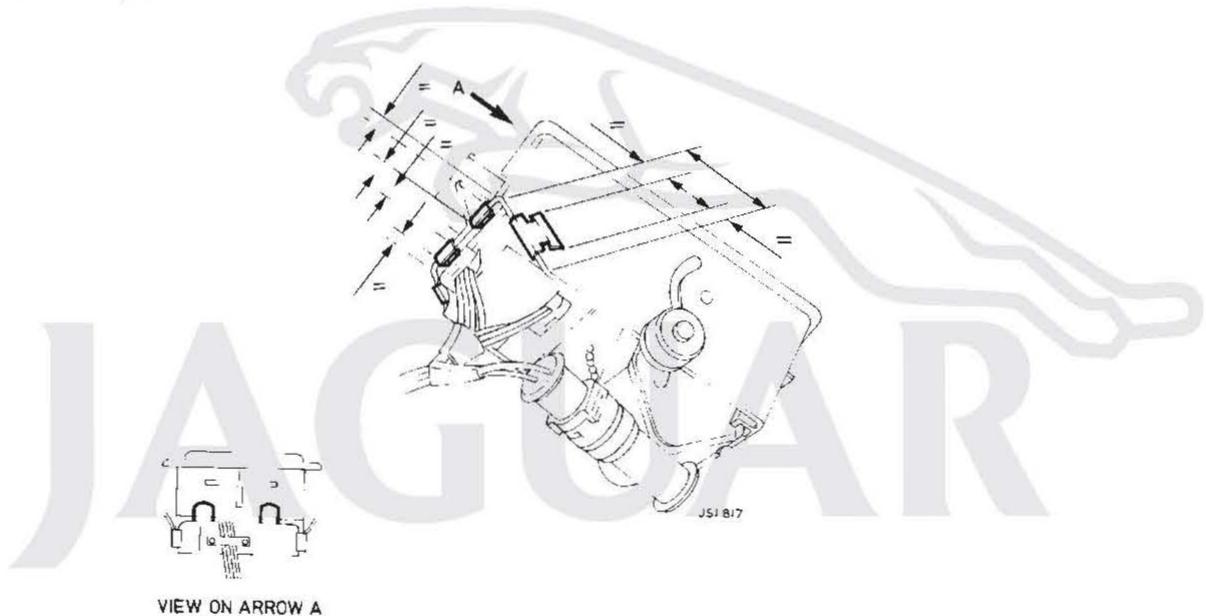


Fig 7

- 5 Fit anti-rattle clips BD 10313 to switch pack webs at the locations indicated in (Fig 7).
- 6 To reassemble door switch pack and door trim, reverse the removal procedure 1-4.
- 7 Finally road test the vehicle for rattles.

A labour allowance of 0.65 hours may be claimed quoting R.O.T. No. 76-91-26 and Complaint Code 8DZR, 8GZR or 8KZR.

E. DOOR WOOD VENEERED PANELS (8ZMR, 8ZNR, 8ZPR AND 8ZQR)

Rattles from this area have been reported on a number of vehicles, from VIN 523805 a modification was introduced on all model variants to incorporate modified panel clipping. To correct vehicles built prior to this VIN the following procedure should be carried out.

PROCEDURE

- 1 Remove the wood veneer panel from the door top roll.
- 2 Remove the existing door top roll retaining clips Part No BCC 5150. These clips are used to secure the panel to the top roll. (2off per door).
- 3 Replace the retaining clips Part No BCC 5150 with modified clips Part No BDC 5458 (Fig 8).

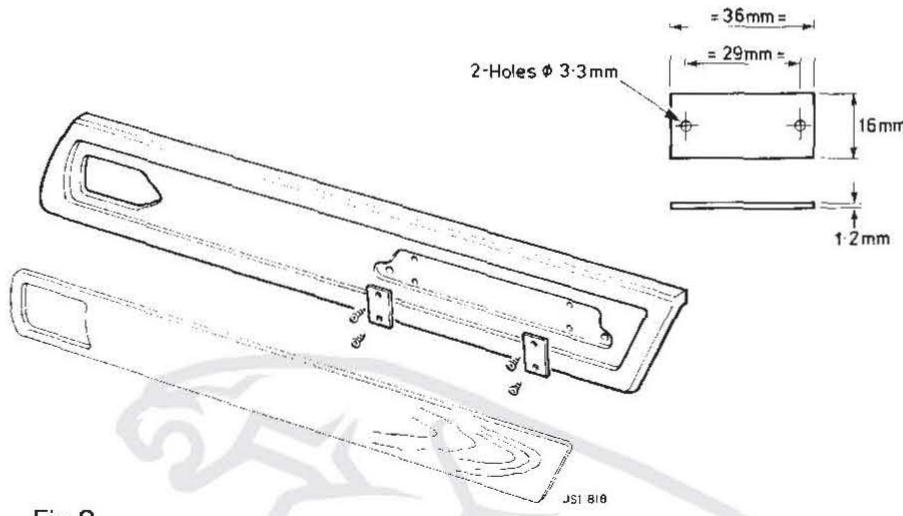


Fig 8

- 4 Refit the door top roll wood veneer panel and test car for rattles.

A labour allowance of 0.25 hours may be claimed quoting R.O.T. No. 76-91-25 and Complaint Code 8ZMR.

F. SILL BUTTON RATTLES IN BEZEL (8BLR, 8ELR, 8LGR AND 8HGR)

Reports have been received highlighting a rattle which occurs when the sill button makes intermittent contact with its bezel surround. To correct vehicles with this complaint modification has also been introduced on all new vehicles from VIN 531580. Fit the foam pad to the door top roll inner face at the location indicated in (Fig 9). This pad puts a constant load on the link sill rod, which prevents any intermittent movement of the sill button in its bezel. To modify cars in service which are experiencing this complaint prior to the previously stated VIN – the following rectification method should be carried out.

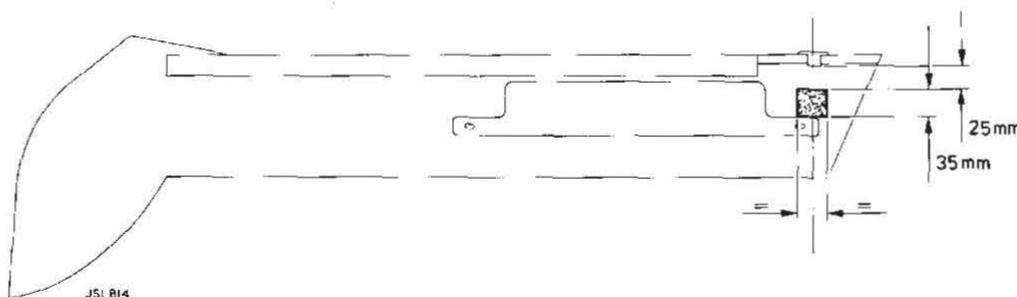


Fig 9

RECTIFICATION

- 1 Remove the wood veneer panel from the door top roll then remove top roll.
- 2 Adhere the foam pad Part No BDC 6887, refer to (Fig 9) for location. The foam pad should be adhered to the top roll using Dunlop S1358 or an equivalent adhesive. Allow the specified cure time before proceeding with refit of top roll.

DIMENSIONS OF THE FOAM PAD

Width – 25mm
Height – 35mm
Depth – 25mm

- 3 Refit the top roll and test vehicle for rattle, if OK refit the wood veneer panel.

Note: If this rectification is essential the foam pad must be positioned as shown in (Fig 9).

A labour allowance of 0.30 hours (Front Doors) may be claimed quoting R.O.T. No. 76-91-19 and Complaint Code 8BLR.

A labour allowance of 0.25 hours (Rear Doors) may be claimed quoting R.O.T. No. 76-91-20 and Complaint Code 8LGR.

G

COIN BOX RATTLE DRIVERSIDE UNDERSCUTTLE (8 RGR)

To prevent harness connectors rattling against the above component. An anti-rattle pad was introduced on all models from VIN 526250. The location of this pad is shown in (Fig 10).

To correct vehicles in service which are affected carry out the following procedure:

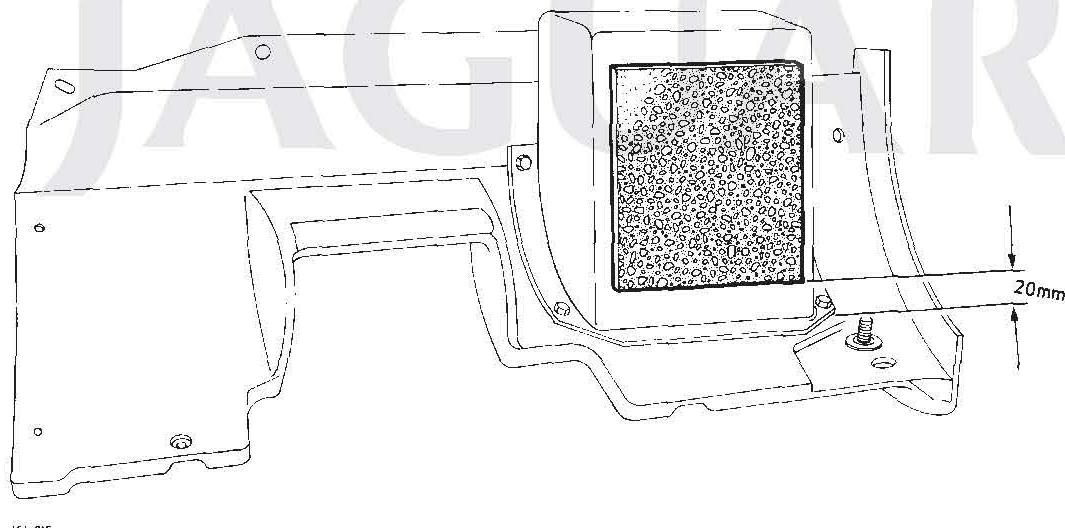


Fig 10

PROCEDURE

- 1 Remove the driverside underscuttle assembly.
- 2 Apply self adhesive anti-rattle foam pad Part No BDC 6348 to the coin box at the position indicated in (Fig 10).
- 3 Replace the underscuttle assembly, and test vehicle for rattles.

A labour allowance of 0.25 hours may be claimed quoting R.O.T. No. 76-91-21 and Complaint Code 8RGR.

H REAR PARCEL SHELF

HARNESS CONNECTOR RATTLE AT PARCEL SHELF (8 XVA)

To prevent the high level stop lamp harness connector rattling on the parcel shelf – harness ties were incorporated on all applicable models from VIN 513602.

PARCEL SHELF TRIM PANEL (8 RAR)

Rattles from the rear parcel shelf trim panel have been eliminated from VIN 527904 when a modification was introduced which incorporates the use of anti-rattle foam pads at three locations. (Fig 11).

To modify these vehicles built prior to the aforementioned VIN, the following procedure should be undertaken.

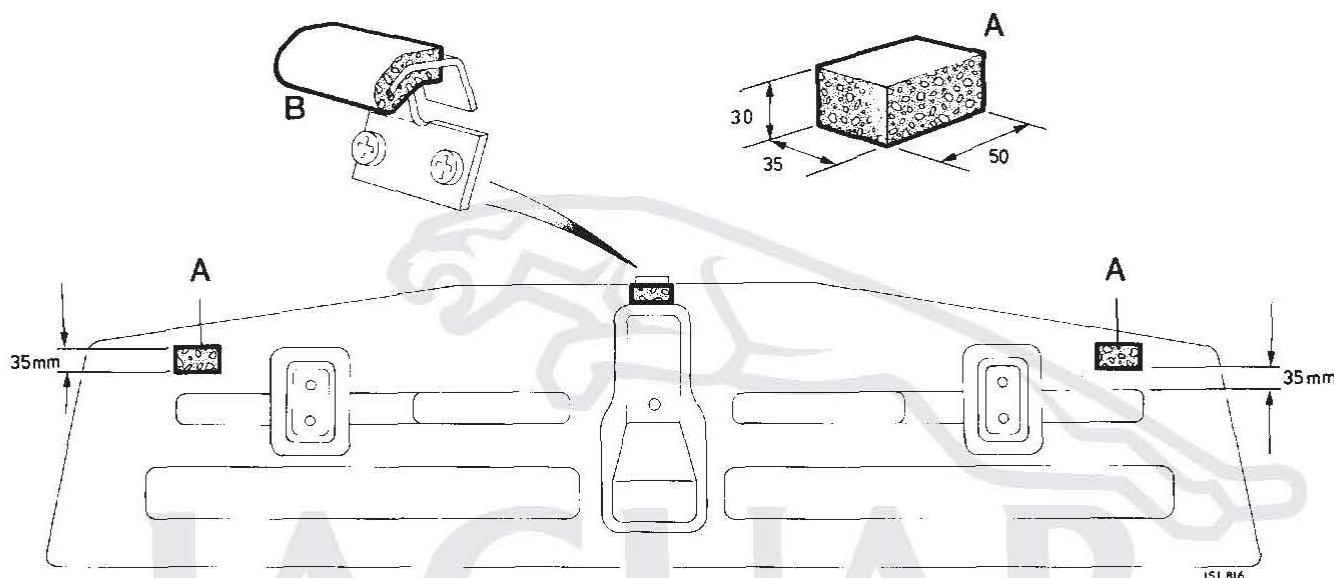


Fig 11

PROCEDURE

- 1 Remove the parcel shelf trim panel to gain access to the panel mounting points and body structure.
- 2 Refer to (Fig 11) to identify the exact locations for the fitment of the self-adhesive anti-rattle foam pads.
- 3 Fit the pads Part No BDC 6468 at the locations (A Fig 11).
- 4 Fit the pad Part No BDC 6469 to the rear trim panel mounting point. (B Fig 11).
- 5 Refit the parcel shelf trim panel and test the vehicle for rattles.

A labour allowance of 0.45 hours may be claimed quoting R.O.T. No. 76-91-23 and Complaint Code 8XVA.

SUNROOF CABLE RATTLE (9JMR)

Service have identified a rattle caused by intermittent contact between the roof panel and one of the sunroof motor drive cable tubes. The location of this rattle is above the left-hand sunvisor between the roof panel and headlining. The cause is the free end of the right-hand motor drive cable tube. To eliminate this fault a foam covered tube was fitted to all vehicles with sunroofs from VIN 527420.

The following details the procedure for rectification of this fault, for cars built prior to the above stated VIN.

PROCEDURE

- 1 Fully open the sunroof.
- 2 Remove the sunroof motor console and allow it to hang loosely from the cable connectors.
- 3 Remove the left hand sunvisor and docking bracket.
- 4 Remove the left hand dowager strap.
- 5 Unclip and remove the left hand forward cantrail trim.
- 6 Remove the sunroof aperture flange finisher.
- 7 Gently lower the forward left corner of the headlining sufficiently to allow access to the cable.

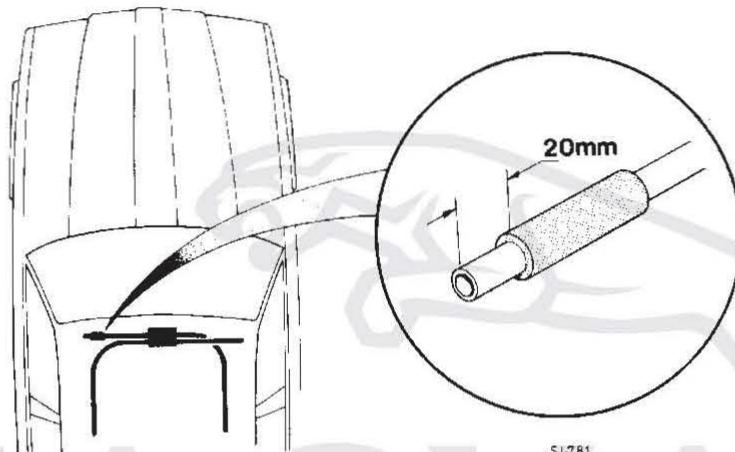


Fig 12

- 8 Fit the foam sleeve onto the end of the offending tube until 20mm of the tube protrudes through the sleeve (Fig 12).
- 9 Reverse the removal procedure to refit all components.

Note: Fixing clips may be broken during cantrail removal. Remove the broken segments and fit new clips provided in Kit No. JLM 1538, which contains the following parts.

BDC 5969	Foam Sleeve	1 off
BMK 2117J	Stud Retainer	6 off
AFU 4137J	Stud	6 off

A labour allowance of 0.45 hours for the installation of the above Kit may be claimed quoting R.O.T. No. 76-91-13 and Complaint Code 9JMR.

J SUNVISOR VANITY MIRROR (8 QMR)

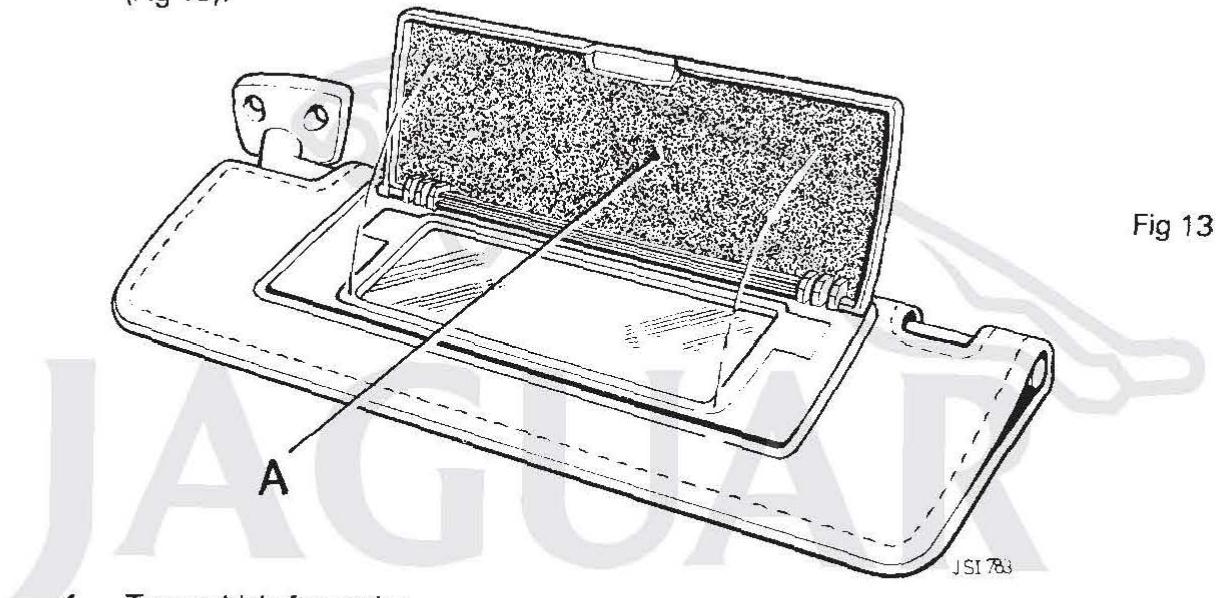
To eliminate the vanity mirror cover flap rattling, a colour keyed fabric liner has been fitted to all models from:-

Jaguar/Sovereign – VIN 530010
 Daimler/V.D.P. – VIN 531905

To incorporate this modification on vehicles built prior to the above stated VINS, please refer to the following procedure.

PROCEDURE

- 1 Pull the sunvisor down to allow access to the vanity mirror.
- 2 Open the vanity mirror cover to reveal the vanity mirror and its surround.
- 3 Fit self adhesive fabric liner Part No BDC 6605 to the mirror flap as illustrated in (Fig 13).



- 4 Test vehicle for rattles.

A labour allowance of 0.25 hours may be claimed quoting R.O.T. No. 76-91-24 and Complaint Code 8QMR.

APPENDIX A

RADIO CASSETTE PROCEDURE

- 1 Remove the console finisher – see Service Manual 76.67.18 and 76.25.19.
- 2 Move the gearbox selector lever to 'D' (Ensure that the handbrake is fully engaged).
- 3 Remove the audio panel securing screws. Displace the panel to gain access.
- 4 Displace the audio unit retaining spring clips. Slide the audio unit through the mounting panel for access to the electrical connectors.
- 5 Disconnect the aerial lead, earth lead and audio connectors (RB32 and RB33 Yellow).
- 6 Remove the audio unit. **Note** care must be taken to ensure the harnesses are not damaged when removing the audio unit.
- 7 Reverse the removal procedure to refit the audio units.

79 CLEAR OVER BASE PAINT**LIMO**

Following the successful introduction of the clear over base paint process onto saloons and sports vehicles in June 1986, C.O.B. technology has now been extended to encompass limousine vehicles as a replacement for T.P.A.

It is anticipated that C.O.B. will provide limousine owners with increased paint durability, colour protection and easier day to day cosmetic care. C.O.B. technology was introduced at VIN 201038 Body No. 4M 2045.

This bulletin provides information which will enable Dealers to identify correctly the paint finish and colour of each vehicle. This is particularly important during the changeover period. Also included is a list of approved suppliers, refinish material and 1988 M.Y. colours. For any additional information refer to Service Bulletin JD 04/86, Item 44.

Colour and Material Identification:

A three letter paint identification code is stamped on the vehicle identification plate mounted on the inner valance of the left front wing within the engine compartment. This code should be compared with the list of C.O.B. colours detailed in this Bulletin.

Where a doubt still exists, contact with Jaguar Service Division will quickly provide the correct identification.

Limousine C.O.B. Paint Colours 1988 MY:

Colour	Colour Code	BLVC/JBC
Black	PDH	333
Glacier White	NDK	721
Westminster Blue	JFG	712
Tungsten Met.	JEX	718
Dorchester Grey Met.	LDP	342
Satin Beige Met.	AGA	747
Silver Birch Met.	MDJ	716
Arctic Blue Met.	JFE	337
Solent Blue Met.	JFJ	715
Crimson	CEV	714
Carlton Grey	LEJ	749
Talisman Silver Met.	MDF	336

Approved C.O.B. Refinish Suppliers:

Supplier	Basecoat	Clearcoat
I.C.I.	P422 2K Basecoats P420 2K Acrylic	2 Pack P190-435 1 Pack P190-390 Local Repair Only
Ault & Wiborg	Aultragem	2 Pack Z4375
Dupont	Centari 600	2 Pack 120S 2 Pack AX1060
Sikkens	Autobase Autocryl	2 Pack clear 2 Pack clear
Berger	2K Standocryl Metallic Basislack	2 Pack Klarlack 2 Pack Klarlack
Inmont	Dia-Mont	Diamontop
P.P.G.	Acryline	2 Pack Acryline
Glasurit	Glasomax 54 Glassodur 21	Glassodur M.S. Top Clear 923-85

80 BOOT VENTILATION**XJS COUPE**

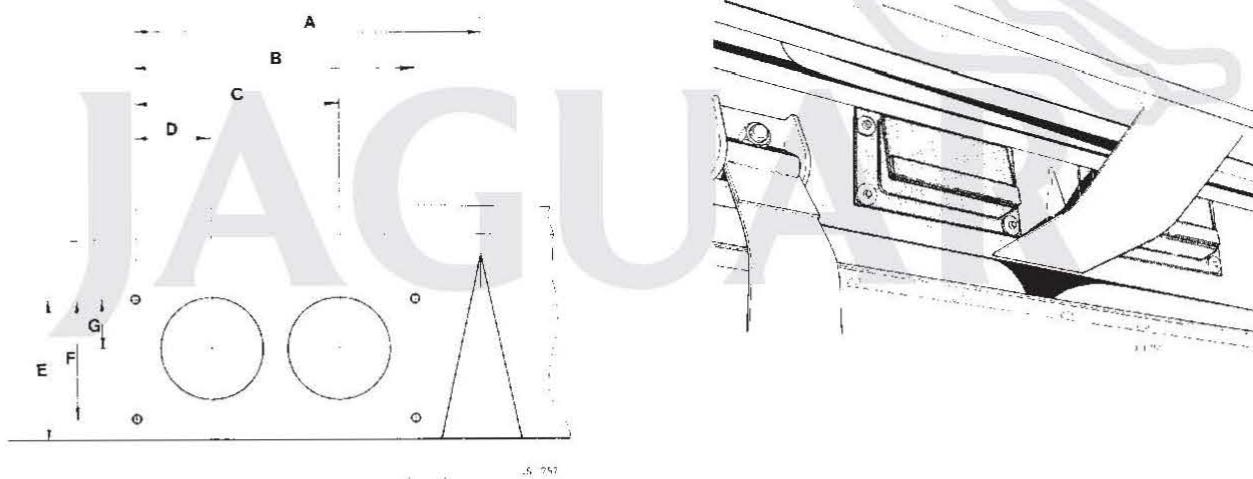
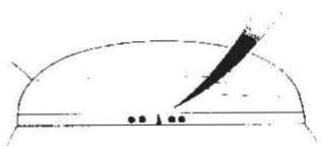
A need has been identified for increased boot ventilation on some XJS vehicles in order to eliminate odours which owners find offensive. This modification will also remove excessive moisture caused by certain climatic conditions.

Additional ventilation is achieved by increasing air flow from the passenger compartment to the boot area via two extra vent assemblies mounted above the rear parcel shelf. This air is then ducted to the atmosphere through four vented grommets fitted to the boot floor. This modification is incorporated into all XJS coupe vehicles from VIN 142987.

Where a dealer considers that this modification vent is necessary in order to rectify a customer complaint on a vehicle prior to VIN 142987, the service procedure detailed below should be followed:-

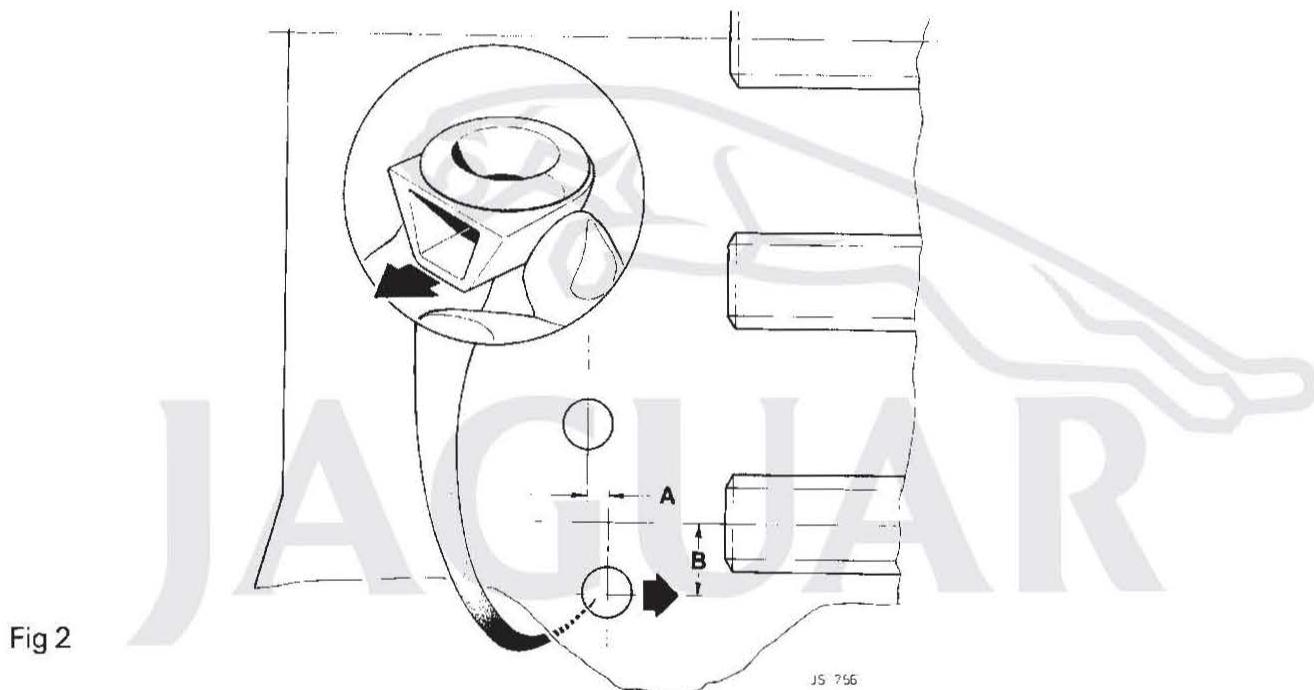
Procedure

1. Remove the rear seat cushion and squab, rear seat belts where fitted and rear parcel shelf trim.
2. Remove the spare wheel, fuel pump cover, fuel tank trim cover and floor carpet.
3. Mark out the parcel shelf rear vertical panel (Fig 1 A) for fitment of the vent assembly.

**FIG 1 B****FIG 1 A**

A = 146mm (5.75 in)	E = 51mm (2.00 in)
B = 103mm (4.00 in)	F = 44mm (1.75 in)
C = 75mm (3.00 in)	G = 18mm (0.7 in)
D = 28mm (1.10 in)	

4. Using a 38mm (1.5") hole saw, cut four holes as directed. Drill eight holes 3mm ($\frac{1}{8}$ ") for the vent assembly fixings. Apply paint primer to any exposed bare metal.
5. Apply Seelastrip or similar to the vent assembly's mating face and place in position from the **boot** side (Fig 1 B). Secure the assemblies with pop rivets from within the passenger compartment.
6. Place the parcel shelf assembly onto a clean surface, remove the retaining clips and separate the panels.
7. Discard the rear trim panel, BAC 5566PA and replace with the new vented panel, BDC 4024PA. Refit the clips and refit the assembly to the vehicle.
8. Refit the seat belts, seat squab and cushion.
9. From inside the boot mark out and cut two 25mm (15/16") holes into the boot floor (Fig 2
NOTE: Left side of boot floor shown). Apply paint primer to exposed bare metal and fit two additional vented grommets BD 46778, ensuring that the vents face to the rear of the vehicle (Inset Fig 2).



$$\begin{aligned} A &= 10\text{mm} \quad (0.4 \text{ in}) \\ B &= 38\text{mm} \quad (1.5 \text{ in}) \end{aligned}$$

NOTE: It is important that air flow to the grommets is unrestricted. It may be necessary to trim back the boot floor carpets.

10. Cut a section from the fuel tank trim cover to clear the vent assemblies (Fig 3).

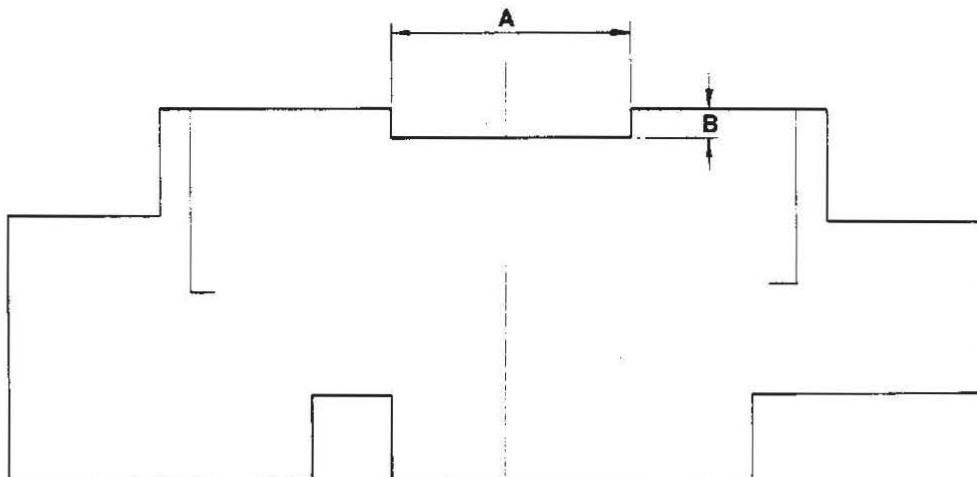


FIG 3

J51 758

A = 305mm (12 in)
 B = 66mm (2.6 in)

11. Refit the boot trim, fuel pump cover and spare wheel.

Repair Operation Number 76-91-08
 Repair Time Allowance 1.85 hr

Parts Requirements:

BCC 8509	Vent Assembly	2 off
BDC 4024PA	Parcel Shelf Trim Panel	1 off
BD 46778	Vented Grommets	2 off
RA 608127	Pop Rivets	8 off

ITEM: 96

82 CONDENSATE DRAIN TUBES

XJ6 2.9/3.6 AIR CON MODELS

To prevent the possibility of the RH side condensate drain tube being accidentally trapped/crushed during production build, a revised fixing incorporating a 'P' clip and stud arrangement has been introduced from VIN 528549.

On air conditioned vehicles prior to VIN 528549 it is important to ensure that the LH and particularly the RH drain tubes are free from restriction. Special attention should be paid to the RH tube to ensure that it is not trapped or kinked by the transmission insulation pad.

ITEM: 97

82 SANDEN COMPRESSOR – OPERATING NOISE

XJ6 2.9/3.6 AIR CON MODELS

Following the introduction of the 'Sanden' compressor at VIN 506664, complaints have been received of unacceptable operating noise levels, which have been interpreted as a loud 'rumbling', plainly audible from inside the vehicle.

To overcome this problem, a new low pressure hose assembly incorporating a muffler unit has been developed and introduced from VIN 526783.

The new hose/muffler kit, Part No. JLM 1531 may be fitted to vehicles reported with this complaint.

A Labour Allowance of 1.55 hours (LHD vehicles) or 1.35 hours (RHD vehicles) may be claimed quoting 76-91-78 and Complaint Code 7TLZ.

For modification details please refer to the following procedure.

Procedure

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NOTE: OBSERVE ALL SAFETY PRECAUTIONS AND DO NOT SMOKE WHILE CARRYING OUT THE FOLLOWING PROCEDURES.

1. Discharge the air conditioning refrigerant system.
2. When fully discharged, disconnect and remove the low pressure hose assembly (evaporator to compressor).
3. Before fitting the new hose/muffler assembly, Part No. JLM 1531:
 - (a) Fit a new 'O' ring to the compressor low pressure port recess (supplied in kit).
 - (b) Lightly smear the 'O' ring sealing joints with refrigerant oil.
 - (c) Add 1/2oz of refrigerant oil directly into the new hose assembly bore before fitment. This is to compensate for any oil displaced from the system with the removal of the original equipment hose assembly.
4. Locate the hose/muffler assembly and secure the evaporator/compressor hose joints.
5. Secure new hose/muffler assembly to the high pressure refrigerant hose as shown (Fig 1 'A') using ratchet strap Part No. C46294 supplied in Kit JLM 1531.

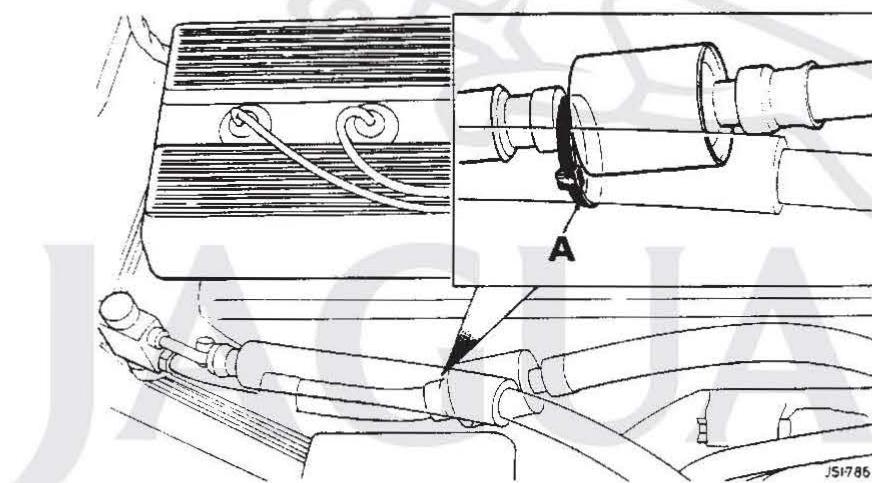


FIG 1

NOTE: When re-assembling high and low pressure hose connections to the compressor parts, ensure the clamp plate securing bolt is tightened to the correct torque i.e. 34 Nm (25 lbs ft).

6. Evacuate the system and re-charge.

PLEASE NOTE: DUE TO THE INCORPORATION OF THE MUFFLER ASSEMBLY, THE REFRIGERANT CHARGE WEIGHT SHOULD BE INCREASED TO 3lbs ± 2ozs.

7. Leak check the system and check its operation.

ITEM : 98

82 BLOWER MOTOR ASSEMBLY MODIFICATION XJ6 2.9/3.6 AIR CON MODELS**Blower Motor Assemblies**

A fan material change has been introduced to overcome problems associated with fan retention to the armature shaft of the motor, and fan blade damage due to stress fractures.

Blower motor assemblies incorporating the revised material ('Noryl GTX') were introduced from VIN 516122.

The modified blower assemblies, Part No's CBC 2695K RH and CBC 2696K LH, should be fitted to vehicles prior to the above VIN reported with this complaint.

NOTE: When investigating suspect blower motors, should any doubt exist as to whether the blower motors have been changed previously and are to the latest condition, the Serial No's or colour code identification should be checked.

Introduction Serial No's

0011303 RH Blower Motor
0013826 LH Blower Motor

The Serial No. is located on a white adhesive label situated on the side of the blower casing, adjacent to the recirculation flap actuator.

Colour Code

A yellow dot, situated on the facing panel of the blower casing, adjacent to the blue identification label indicates a ('Noryl GTX') fan.

Parts Required

Part No	Description	Quantity Per Vehicle
CBC 2695K	Blower Motor (RH)	1
CBC 2696K	Blower Motor (LH)	1

IMPORTANT: Blower assemblies must be fitted in car sets, and a Labour Allowance of 1.60 hours per set may be claimed quoting 76-91-77 and Complaint Code 7TAZ.

In the event of discovering that the vehicle is already equipped with one only of the latest fans, a claim should be submitted using the relevant Part Number above using the normal S.R.O. and Complaint Code already in your possession.

Modification Procedure**RH Blower Motor**

1. Disconnect the battery earth lead.
2. Remove the lower dash trim panel
3. If the vehicle is left hand drive:
 - (i) Remove the glove box and lid assembly.
 - (ii) Release the fixing screws and displace the microprocessor (CPU).
 - (iii) Remove the CPU mounting bracket.
4. Displace the pliable trunking from the air conditioning unit.

5. Release the fixing screws, disconnect the associated harnesses, vacuum hoses, and remove the blower assembly.
6. Disconnect the ambient sensor.
7. Remove the rubber gasket.
8. Remove the tape securing the pliable trunking and remove.
9. Fitting a new blower motor assembly is the reversal of the above procedure.

LH Blower Motor

1. Remove the lower dash trim panel.
2. If the vehicle is right hand drive:
 - (i) Remove the glove box and lid assembly.
 - (ii) Release the fixing screws and displace the microprocessor (CPU).
 - (iii) Remove the CPU mounting bracket.
3. Displace the pliable trunking from the air conditioning unit.
4. Release the fixing screws, disconnect the associated harnesses, vacuum hoses, and remove the blower assembly.
5. Remove the rubber gasket.
6. Remove the tape securing the pliable trunking and remove.
7. Fitting a new blower motor assembly is the reversal of the above procedure.
8. Reconnect the battery.

82 FRONT WINDSCREEN CONDENSATION**XJ6 2.9/3.6 AIR CON MODELS****Screen Duct Assemblies**

Instances of condensation forming on the outside of the front windscreen have been encountered, especially in countries experiencing high humidity conditions. The reason for the condensation forming is the volume of extremely cold air which is directed onto the windscreen via the screen demist vents.

To overcome this problem, whilst retaining adequate demisting performance, modified screen duct assemblies have been introduced from VIN 527775.

For details of modifications to overcome the above problem please refer to the following procedures.

For markets with high humidity conditions PROCEDURE 'A' must be implemented.

For Northern territory markets or markets who only experience low humidity conditions (i.e. where the external condensation only forms in a thin band across the lower portion of the screen), PROCEDURE 'B' should be applied.

NOTE: Subsequent to modifying a vehicle in line with Procedure 'A' no air will flow through the screen vents (other than when defrost is selected). Should screen demist be required it will be necessary to actuate the 'AIR' button on the control panel. This must be brought to the customer's attention.

PROCEDURE A**Parts Requirement**

Screen Vent Kit – JLM 1532, comprising:

Part No.	Description	Quantity
BDC 6666	Screen Duct Assy RH	1
BDC 6667	Screen Duct Assy LH	1
BAC 6964/6	Adaptor Sleeve	2
ADU 9028	Tie Strap	1

A Labour Allowance of 2.00 hours may be claimed quoting 76-91-80 and Complaint Code 8XFZ

1. Disconnect the battery earth lead.
2. Remove the driver and passenger side trim panels.
3. Remove the steering wheel.
4. Remove the instrument pack.
5. Remove the centre console upper fascia securing screw and ease the centre console rearwards, to the access fascia tie bar securing nuts, and remove.
6. Remove all fascia board securing bolts.
7. Disconnect the trip computer and lighting module connector blocks. Remove the screws securing the trip computer/lighting module and remove from the fascia board.

★ 2nd ISSUE ★

8. Manoeuvre the fascia rearwards for access. Disconnect the solar sensor block connector and glove box lamp connector.
9. Note the position of the vacuum hoses and disconnect all relevant hoses.
10. Remove the fascia board assembly.
11. Remove the left-hand and right-hand screen vent assemblies, (left-hand side shown) from the fascia assembly, Fig. 1.

IMPORTANT: It is essential before installing the new screen flap assemblies that the screen flap and vacuum actuator pivot points (Fig 1 A), are lubricated using a propriety silicone based grease.

IT IS ESSENTIAL THAT THE SILICONE BASED GREASE USED DOES NOT CONTAIN ANY PETROLEUM DISTILLATES AS DEGRADATION OF PLASTIC SURFACES CAN OCCUR.

If using grease in an aerosol form ensure the spray does not contaminate the flap seals as this can affect the seal adhesive.

Ensure the grease enters into the pivot bearing points and is not just wiped over the surface.

Carefully open and close the flap assemblies manually several times to ensure the grease is worked into the bearing surface.

12. Fit the new left-hand and right-hand screen vent assemblies.

IMPORTANT: When installing the new screen vent assemblies, ensure they are correctly located and fully seated into the fascia housing apertures before tightening fixing screws. If the vents are not correctly seated when securing the flap, operation may be impeded.

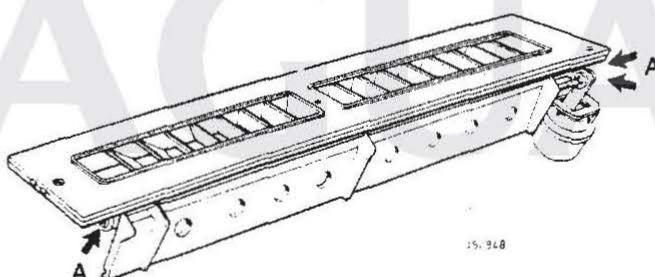


FIG 1

FIG 2

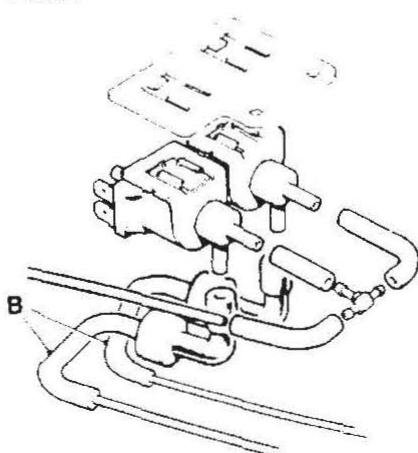
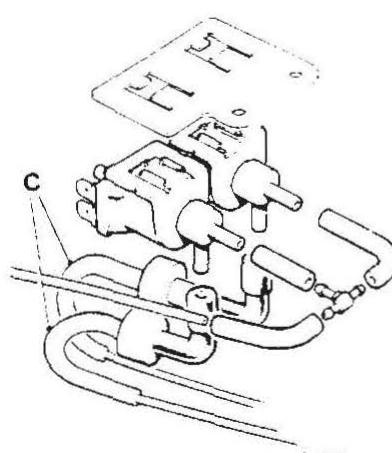


FIG 3



13. Remove and discard the 'U' bend connectors on both the blue and red vacuum restrictors (Fig 2 B) and replace with adaptor sleeving Part No. BAC 6964/6 (Fig 3 C).
14. Re-route the black, green and yellow vacuum pipes and run above the footwell outlet duct (Fig 4 D), secure to the lower microprocessor mounting lug using plastic tie strap, Part No. ADU 9028 (Fig 4 E).

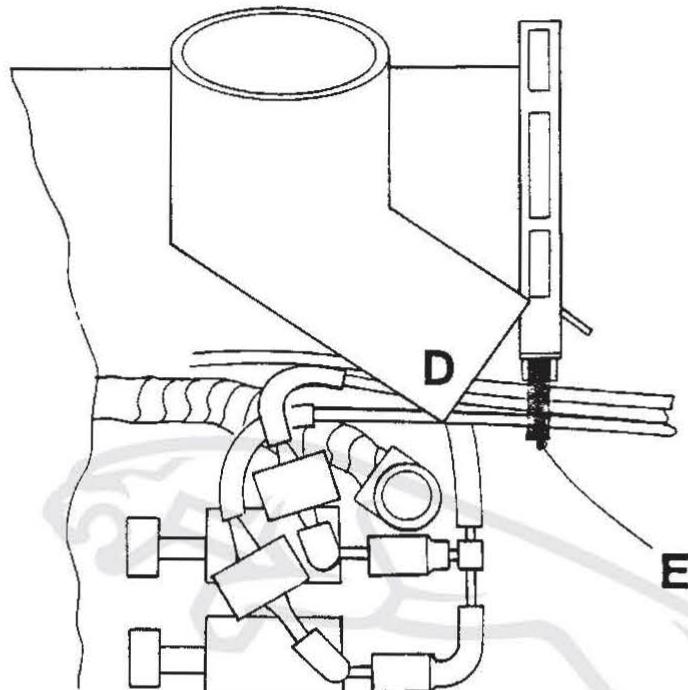


FIG 4

15. PLEASE NOTE: Fig 4 is viewed from the underside of the heater air conditioning unit.
16. NB: PVC ADHESIVE TAPE USED TO SECURE THE PIPES TOGETHER IN THIS AREA IS NO LONGER REQUIRED AND SHOULD BE REMOVED DURING THIS MODIFICATION.
17. Reverse the removal procedure and refit fascia board assembly, associated components and trim items.
18. Reconnect the battery and check the blower motor operation. Start the engine and check the screen duct operation.

PROCEDURE B

Parts Requirement

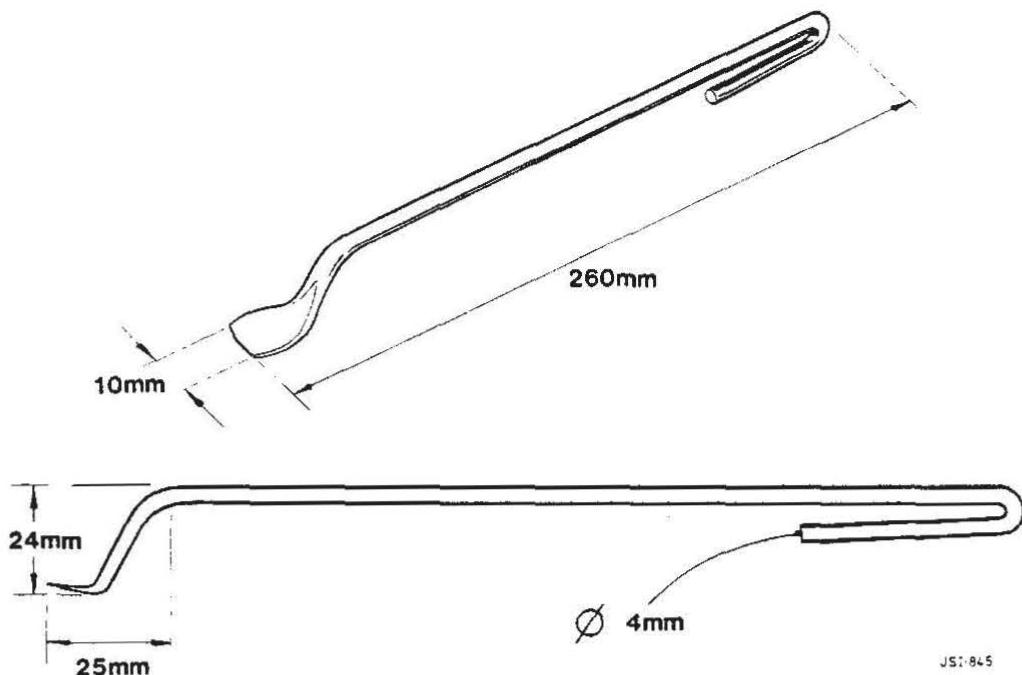
Part No	Description	Quantity
BAC 2698	Plastic Plug	2 Pkts

(BAC 2698 is supplied in packets of 8). When carrying out Procedure B 2 packets are required.

A Labour Allowance of 0.60 hours may be claimed quoted 76-91-81 and Complaint Code 9XFZ.

1. Before commencing fitment of the service fix, it is recommended, for ease of fitment of the blanking plugs, that a tool to the shape and dimensions detailed in Fig 5 should be made from mild steel.

★ 2nd ISSUE ★



2. Remove the fascia solar sensor assembly (Fig 6 G), remove the right-hand and left-hand side screen vent grills (Fig 6 H).

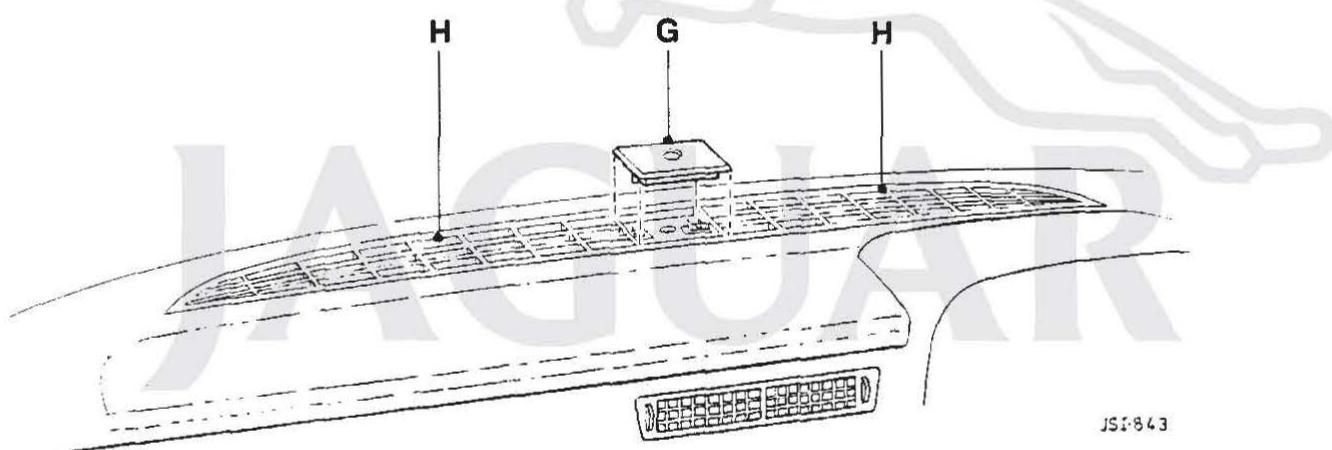


FIG 6

3. Switch the ignition on, start the engine and leave running to maintain vacuum to the air conditioning system.
4. Turn the air conditioning panel left-hand control knob to either 'High', 'Norm' or 'Low' position and ensure that the 'Air' button on the fascia control panel is off. The screen vents should now be fully closed.
5. Using a suitable tacky substance with low adhesive properties, attach a small quantity to the end of the tool (Fig 7 J) and attach a plastic plug, Part No. BAC 2698, to the tool (Fig 7 K).
6. Using a suitable proprietary trim adhesive, eg Dunlop 1358, apply sparingly to the outer edge of the plug (Fig 7 L).
7. Carefully locate and position the plug into a screen flap bleed hole (Fig 7 M) and ensure the plug is fully located by applying slight pressure.

8. Repeat the operation on both screen flap assemblies until all accessible holes are plugged.
9. PLEASE NOTE that the bleed holes on both the right-hand and left-hand flap assemblies (Fig 7 N) are inaccessible when applying this service fix.

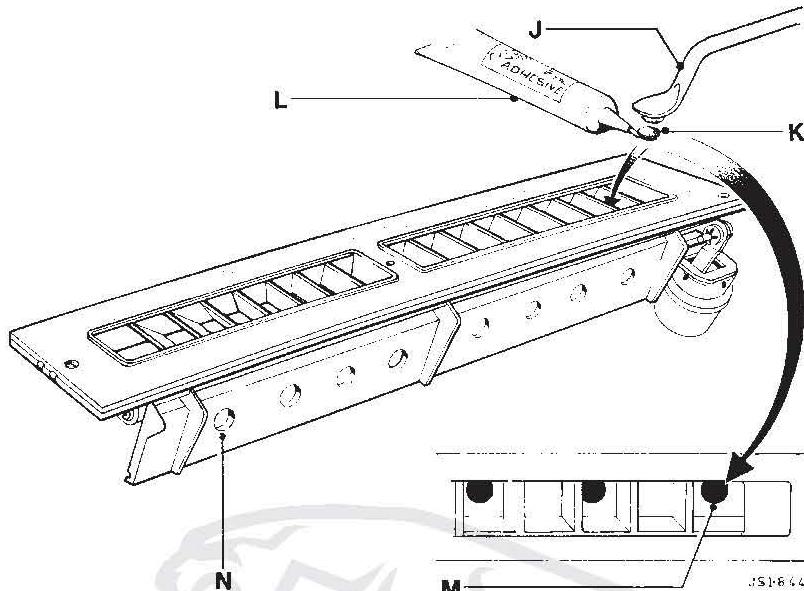


FIG 7

10. Replace vent grilles, solar sensor and check operation.

ITEM : 100

86 CHLORIDE BATTERY – CHECK PROCEDURE

XJ6 2.9/3.6

To ensure vehicles are received by Dealers with the best possible battery charge condition, the main vehicle microprocessor is disabled during transit. To safeguard the battery integrity of vehicles already in service, **ALL XJ6 2.9 and 3.6 models up to VIN 521253** are to have the battery condition checked at the next Dealer visit.

Check Procedure

- A. Ascertain whether the vehicle engine has been run within at least 12 hours before commencing the battery check,
 - if NO, proceed to C,
 - if YES, proceed to B.
- B. Switch headlights on (main beam) for approximately 1 minute, no longer. After 1 minute switch headlights off and wait 5 minutes.
- C. Measure the open circuit voltage of the battery using a digital voltmeter. If the voltage recorded is 12.45 volts or above, the battery condition may be considered satisfactory.

If the voltage is between 12.00 volts and 12.45 volts, recharge the battery.

For batteries with voltages below 12.00 volts, the battery should be checked using either a heavy discharge test or specific gravity test to determine whether the battery is serviceable.

Health & Safety Precautions

No smoking.

Avoid sparks, short circuits or other sources of ignition.

Hydrogen, which is highly explosive, is emitted particularly during charging.

Switch off current before making or breaking electrical connections.

Always disconnect the earth terminal first and reconnect last.

Charge the battery in a well ventilated area.

Avoid contact with battery acid. Battery acid is poisonous and corrosive, it will cause burns to the skin as well as to the eyes. In the event of skin or eye contact drench the affected area with water and in the case of eye contact seek urgent medical attention.

The battery is classed as Maintenance Free. Any need to top-up the electrolyte because its level has fallen below the top of the separators will be due to the battery having been subject to unacceptable conditions and damaged. Typically, it may be due to an excessive charging circuit voltage either on or off the vehicle, the effects following an extended period of the battery being at a low state of charge, excessive battery temperature. It is important to establish the cause, for the service life of the present and future batteries will be affected.

Heavy Discharge Test

This test ensures that the battery is capable of supplying the heavy currents required by the starter motor to mutually rotate the engine.

1. A heavy discharge tester should be applied to the battery terminals with the red lead to the positive terminal and the black lead to the negative terminal.
2. The tester should be set for the ammeter to indicate a discharge of approximately 350 amps for 15 seconds.
3. Observe the voltmeter during the battery discharge. If the voltmeter reading is above 9.6 volts after 15 seconds, the battery can be considered serviceable. Should the voltage fall below the specified 9.6 volts and if the electrolyte is observed to boil in one of the cells during the discharge period, move to the specific gravity test (below).

Sulphation is a condition which occurs when a battery remains in a discharged state for a period of time. It is not readily distinguishable from a battery which has been recently discharged. Charging may or may not recover the battery but the test procedure will determine whether it is serviceable or not.

Specific Gravity Test

The electrolyte consists of a mixture of sulphuric acid and water in given proportions. The electrolyte becomes weaker as the cell discharges and this weakening effect is directly proportional to the amount of electric current given up by the cell. Therefore the specific gravity of the electrolyte gives a direct indication of the condition of the battery.

When the tube of a hydrometer is immersed in the electrolyte and the rubber bulb is pressed and released, a small quantity of electrolyte is drawn into the hydrometer. The specific gravity of the electrolyte determines the depth of the float in the liquid. With the float in a high position the specific gravity is high. If the specific gravity is low the float sinks to a lower position.

The specific gravity readings are taken when the liquid level crosses the scale on the float giving an accurate indication of the state of charge of the battery.

The volume of electrolyte and hence its specific gravity varies with temperature.

Electrolyte Temperature Correction

For every 10°C below 15°C subtract 0.007 from the hydrometer reading and for every 10°C above 15°C add 0.007 to the hydrometer reading.

Example Specific gravity reading = 1.250
 The temperature = 5°C
 The equivalent specific gravity at 15°C = $1.250 - 0.007 = 1.243$

Should the individual cell readings differ by 50 points or more (eg 1.230, 1.160, 1.230, 1.240, 1.230, 1.240) then an unserviceable battery is indicated.

ITEM : 101

86 HORN MODIFICATION

XJ6 2.9/3.6

Dealers have received complaints from owners that the original equipment horn tone is not in keeping with the image of the car.

To satisfy these individual complaints a service fix has been developed incorporating the current S.III/XJS type horn assemblies. For modification details please refer to the following procedure.

Horn Kit Part No. JLM 1505 comprising of:-

Part No.	Description	Quantity Per Car
DBC 4794	Mounting Bracket	1
DBC 4797	Link Harness	1
DBC 4802	Horn (Low Note)	1
DBC 4803	Horn (High Note)	1
SN 108041J	Nuts (Horn to Bracket)	2
GL 108251J	Bolts (Bracket to Body)	2

Procedure

1. Disconnect the battery.
2. Remove the front bumper assembly retaining bolts (2 off) and ease the bumper forwards. Do not remove.
3. Remove the left-hand side radiator grille assembly (A Fig 1).

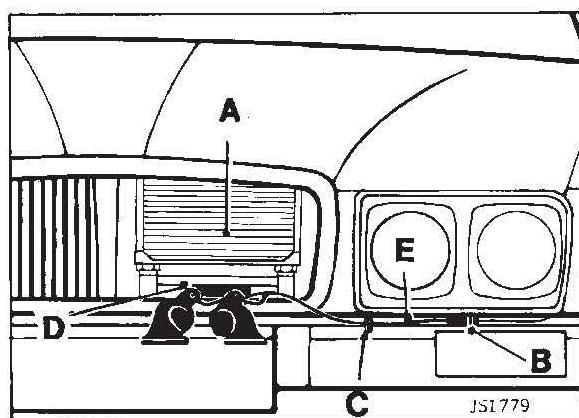


FIG 1

4. Disconnect the electrical connections and remove the existing horn/bracket assemblies.
5. Remove the retaining strap securing the horn link harness PM4 (Blue) connector LS 62 (B Fig 1). Displace the harness from the body clip (C Fig 1), disconnect the PM4 connector, remove the link harness and discard.
6. Assemble the horn assemblies (DBC 4802/3) and link harness (DBC 4797) earth eyelets to the mounting bracket (DBC 4794) and secure (Fig 2).

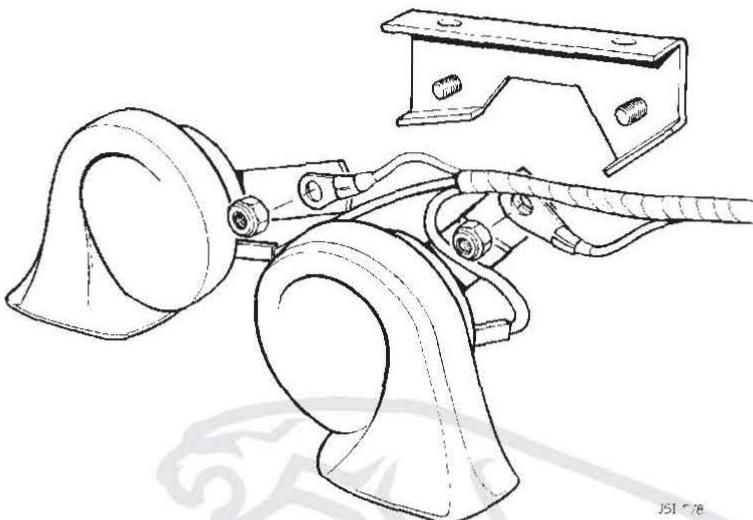


FIG 2

7. Locate the existing fixing points in the lower body crossmember (D Fig 1). Offer the new horn/bracket assembly to the fixing points and secure using paint clearing bolts GL 108251J.
8. Route the link harness as shown (E Fig 1), locate into the body clip (C Fig 1), connect the PM4 connector LS 62 and re-strap using a suitable plastic type ratchet strap.
9. **IMPORTANT:** Ensure the horn assembly is not in contact with the oil cooler lower pipe.
10. It is advisable to reconnect the battery and check the horn operation before replacing the grille and bumper assembly.

ITEM : 102

86 ELECTRIC WINDOWS

XJ6 2.9/3.6

A modification designed to provide additional adjustment of door window frames has been introduced progressively onto production vehicles from VIN 511000.

As a consequence of this modification, following replacement of a window regulator, some windnoise may become apparent if the glass will not seal fully into the upper channel at full closed position.

This Bulletin Item defines the action necessary to attain full window closure and details the procedure for window adjustment.

NOTE: The procedure for removal and replacement of a window regulator is detailed in Volume 5 of the workshop manual.

Operation number 86-25-04 Front Door.
 " " 86-25-09 Rear Door.

Tools Required

Setting block manufactured from a suitable piece of wood to dimensions of 8 x 5 x 80mm.

Window Travel

1. With a new regulator fitted, connect the window switches and turn the ignition on. Slightly release the regulator stop to allow full travel and motor the glass to fully closed position.
2. Check the glass position. Should a gap be evident the upper regulator stop must be modified.
3. Release and remove the window stop bolt (A Fig 1. Note: Front door shown). Remove the stop assembly.
4. Mark out and remove 3mm from the upper nylon block using a file (B Fig 1).
5. Refit the stop assembly into the door but do not fully tighten.

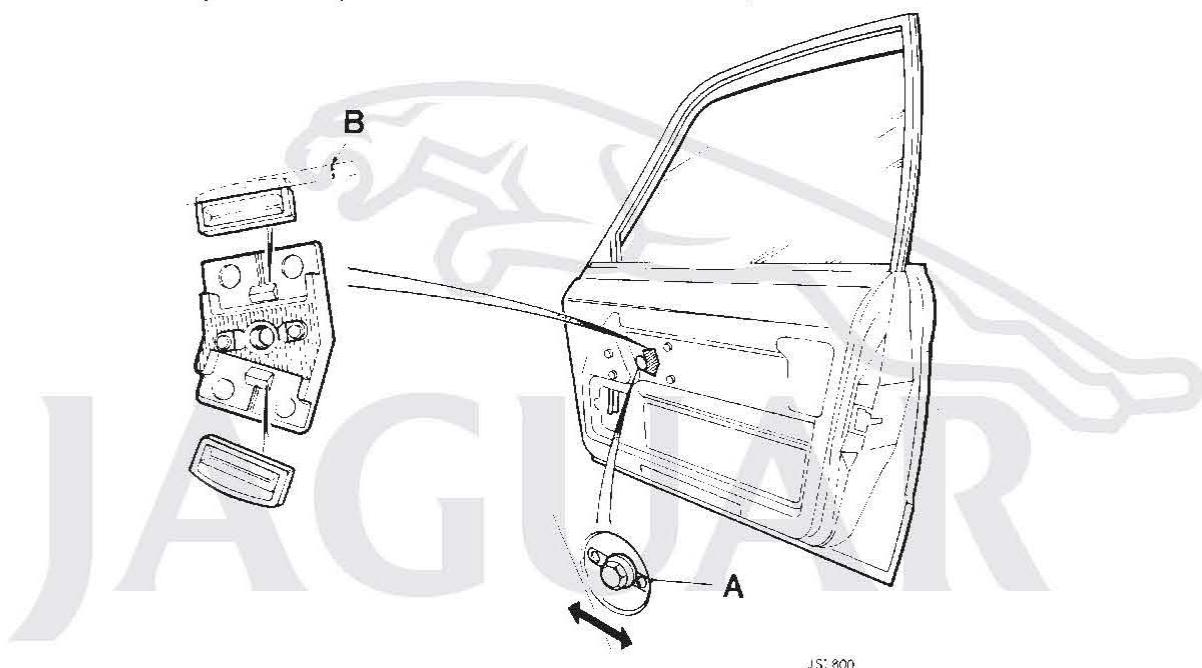


FIG 1

Adjustment

1. Motor the glass clear of the upper channel.
2. Insert the setting block into the channel.
3. Motor the window fully up to the block, adjust the stop and tighten the bolt.
4. Lower the window, remove the block, fully close the glass and set correctly.
5. Refit any displaced tape etc., and refit all the component parts.
6. Repeat for the rear door if required.

Repair Operation No: 76-31-47 Front Door
" " 76-31-48 Rear Door

Repair Time Allowance: 0.6 hr Front Door
" " 0.55 hr Rear Door

86 REAR TAIL LIGHT**XJ6 2.9/3.6**

To overcome a problem of heat distorting rear tail light lenses and backing plates during prolonged use, a modification introduced from VIN 526342 changes the specified material from the lens and backing plates to "BAYBLEND" for the backing plate and "POLYCARBONATE" for the lens

These new parts can be obtained through Parts using the following numbers:

1. As a kit for federal specification vehicles (USA and Canada) XJ6 (Non VDP):
JLM 1536 comprising of: JLM 1525 RH Lens and Backing Plate – 1 off
JLM 1526 LH " " – 1 off
2. As a kit for federal specification vehicles (USA and Canada) XJ6 VDP:
JLM 1535 comprising of: JLM 1529 RH Lens and Backing Plate – 1 off
JLM 1530 LH " " – 1 off

A labour allowance of .55 hours may be claimed quoting 76-91-72 and Complaint Code 7DJZ.

88 OIL PRESSURE TRANSMITTER**XJ6 2.9/3.6**

To overcome spurious signalling of the red warning square on the oil pressure gauge from VIN 527217, Part No. C46272, has replaced Part No. DAC 8817.

The effect of using this unit will be to indicate high oil pressure under virtually all normal conditions, should the actual oil pressure fall to 10 psi then the red warning square will be displayed.

The revised transmitter may be fitted to earlier vehicles. A labour allowance of 0.70 hours (for catalyst equipped cars) or 0.40 hours (for non-catalyst cars) may be claimed quoting 76-91-83 and Complaint Code 7JLZ.

88 FUEL TANK ELEMENT**XJ6 2.9/3.6**

When the fuel tank has been filled to capacity, owners have complained of inaccurate fuel gauge indications, i.e. two chaplets of the vacuum fluorescent display fail to illuminate.

To provide correct fuel gauge indications a re-calibrated tank element has been introduced from VIN 529109.

The modified element may be fitted to cars prior to the above VIN.

NOTE: DURING REMOVAL OF THE TANK ELEMENT THE INTEGRITY OF THE FUEL RETURN HOSE SHOULD BE CHECKED. REFERENCE SERVICE BULLETIN JD 08/87 ITEM 61.

Parts Requirement

Part No	Description	Quantity Per Vehicle
JLM 1537 comprising of: DBC 4735 ARA 1502J	Tank Element Kit Fuel Tank Element Sealing Ring	1 1 1

A Labour Allowance of 0.45 hours may be claimed quoting 76-91-64 and Complaint Code 7JJZ.

Procedure

1. Disconnect the battery.
2. Drain the fuel tank.
3. Remove the existing fuel tank element and discard.
4. Fit the modified element and replacement sealing ring.
5. Refill the tank and check for leaks at the sealing ring.
6. Reconnect the battery.



Service Bulletin

JAGUAR

Daimler

DATE: JUNE 1987
SHEET: 1 of 4
BULLETIN: JD 06/87

ITEM: 41

12 INTERMEDIATE SPROCKET AND SHAFT

XJ6 2.9/3.6

When replacing the intermediate sprocket and shaft oil seal, Loctite 542 must be applied to the drive coupling shaft setscrew threads to provide an oil tight seal.

ITEM: 42

18/ TRANSIT SPARK PLUG FOULING

S.III V12/XJS/XJ6 2.9 & 3.6

To overcome instances of spark plug fouling during vehicle transit from the factory, an additive has been introduced into the fuel before vehicles are despatched.

The additive insulates the spark plug, allowing an increased number of starts to be made before cold fouling occurs. This is only a temporary condition until untreated fuel is added when the customer receives the vehicle.

Initially the additive was introduced progressively for specific markets but has now been extended to both leaded and unleaded fuel from VIN Nos:

477750 - S.III V12
140700 - XJS
510000 - XJ6 2.9
509791 - XJ6 3.6

ITEM: 43

26 HEADER TANK ASSEMBLY

XJ6 2.9/3.6

Coolant leakage has been experienced from between the upper and lower halves of the header tank assembly. To overcome this problem the supplier has reviewed and implemented improved process controls from Date Code Week 17/87.

These have been progressively introduced into production with 100% fitment from VIN 512200.

ITEM: 44

79 PAINT COLOUR CODE

S.III V12/XJS/XJ6 2.9 & 3.6

Please note the following change of Jaguar Sales Code (BLVC) on current paint colour, Solent Blue Metallic.

JBC 715 (BLVC JFJ) Solent Blue Metallic

REPLACES

JBC 715 (BLVC JEW) Solent Blue Metallic.

ITEM: 45

82 MK III AIR CONDITIONING

S.III V12/XJS

Instances of the temperature differential spread being excessive has been reported; which has resulted in inverted differentials on some cars and excessive differentials on others.

i.e.: Owners complain that the footwell temperature remains constantly hot whilst the facia air progressively cools, or vice-versa. This is termed as an inverted differential.

Movement of the face level differential control (C Fig 3) will only have partial effect on the temperature differential and in extreme cases no change is detectable.

To achieve a more consistant differential and acceptable temperature blend, the supplier jig set position of the rotary flaps has been revised, with units to the latest condition being introduced from VINs:-

469018 - S.III V12
135721 - XJS

Any vehicle where the differential is unacceptable should have the following service fix implemented to achieve a more agreeable temperature blend.

TOOLS REQUIRED

J.D.S. equipment
Temperature monitoring equipment (or thermometers)

SERVICE FIX PROCEDURE

- 1) Remove the necessary passenger's and driver's side underscuttle trim to gain access to the lower feed back potentiometer (L/H side Fig 1), and E.C.U. (R/H side Fig 2).

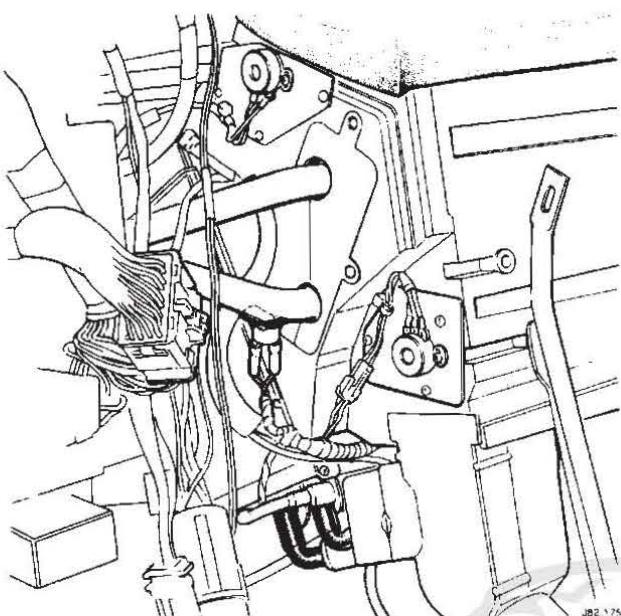


FIG 1

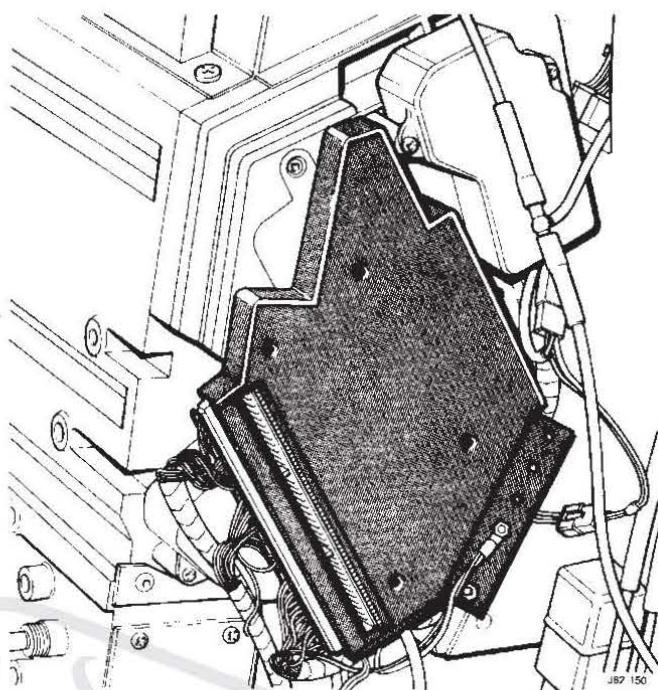


FIG 2

- 2) Start and run the engine with the air conditioning/heater system engaged, until the normal operating temperature is reached. Ensure all manually operated facia vents are open.

Set the fan speed switch to normal and the temperature demand control switch to the mid position (Fig 3).

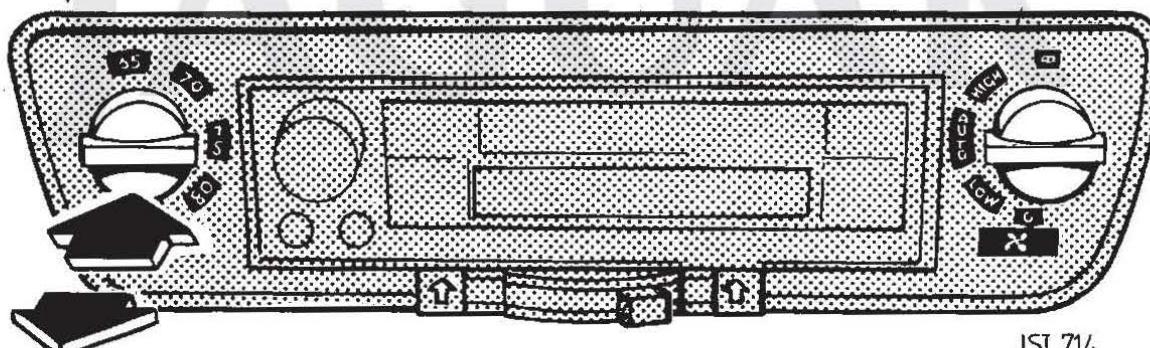
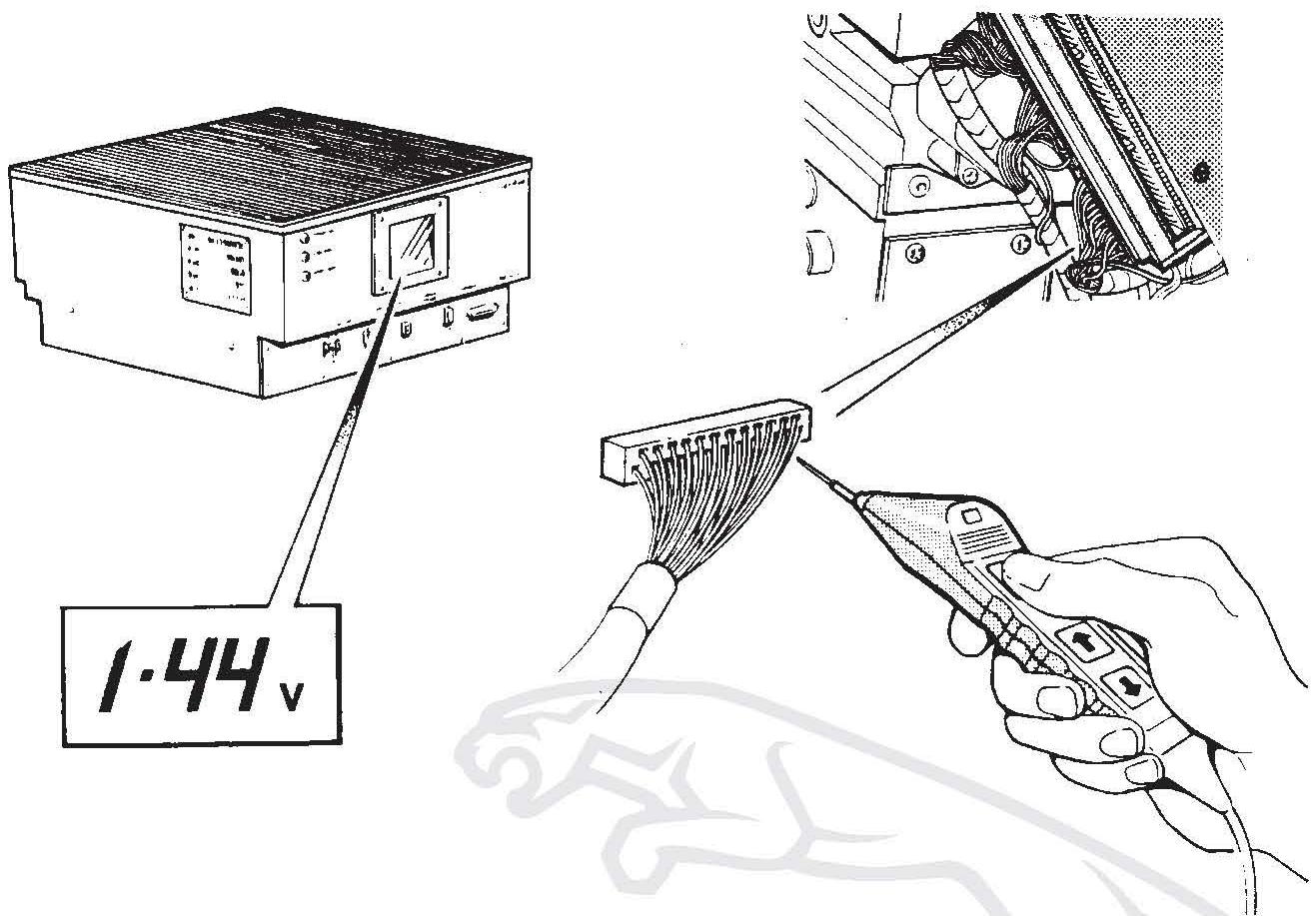


FIG 3

Move the face level differential control to the minimum differential position, i.e. full heat position (C Fig 3).

Select manual mode by pulling the temperature demand switch towards you (Fig 3). This automatically adjusts the rotary flaps to a pre-determined position, maintains and ensures consistency of the differential temperatures during the adjustment procedure.

With the J.D.S. unit in the voltage multimeter mode, probe connector AC4 Pin 5 brown/green (N/G) wire at the E.C.U. and simultaneously adjust the temperature demand switch until the voltage reading shown on the V.D.U. is 1.44 volts (Fig 4).



JSI 716

FIG 4

With the engine r.p.m. maintained at approximately 1500 r.p.m. and utilising the temperature monitoring equipment, observe the temperature difference at the facia side vent and the footwell outlet on the same side of the car. The temperature difference should be 0°C - 12°C with the facia level cooler than the lower level, e.g.:

<u>FACIA</u>	<u>FOOTWELL</u>	<u>DIFFERENCE</u>
24°C	36°C	12°C
28°C	35°C	7°C

NOTE: When positioning temperature monitoring equipment probes, ensure they are positioned in the outlet airflows so an average temperature reading is taken (Fig 5).

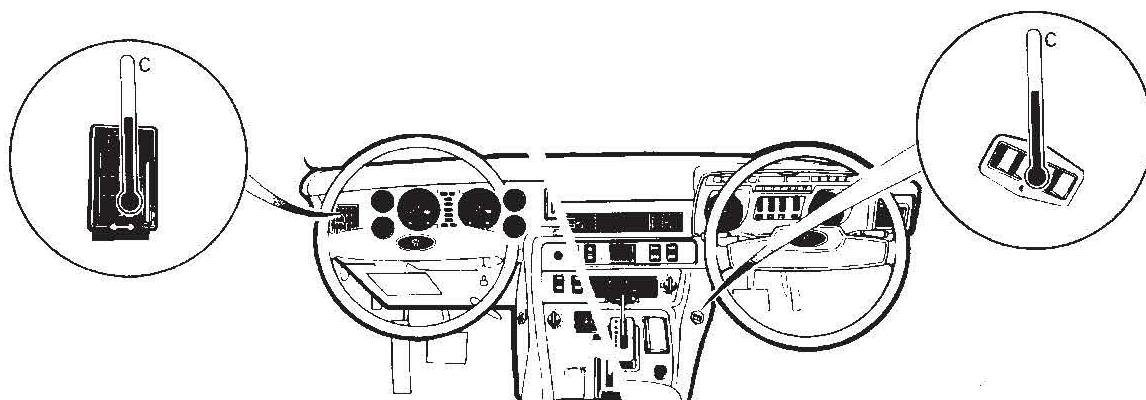


FIG 5

JSI 715

If the temperature differential is outside the specification or in extreme cases inverted, the following adjustment may be carried out. Slaken the lower feedback potentiometer securing screws and correct any temperature anomalies by adjusting the potentiometer as follows:-

- 1) Clockwise for cooler air at the footwell outlets to reduce the differential.
- OR
- 2) Anti-clockwise for warmer air at the footwell outlets to overcome inverted temperature differentials (Fig 6).

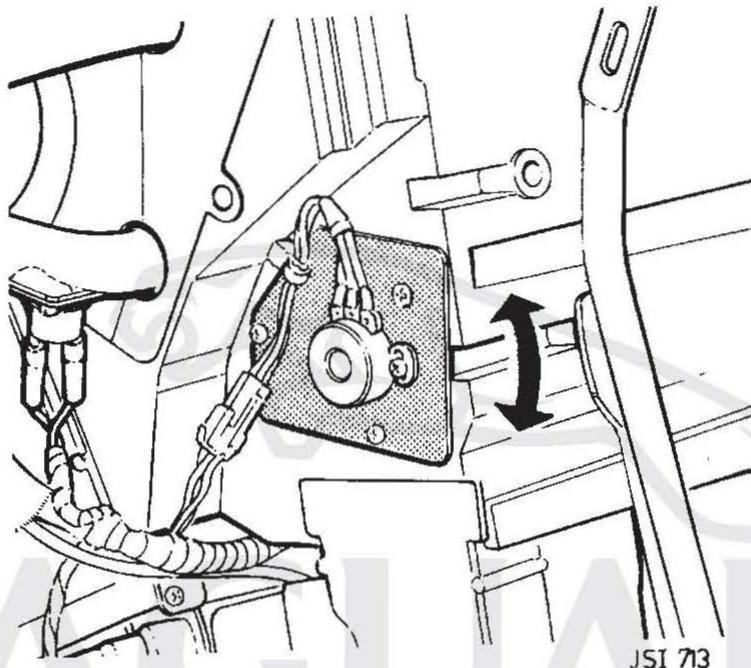


FIG 6

IMPORTANT: The slightest adjustment of the potentiometer results in a significant change in the position of the lower rotary flap.

Following adjustment of the potentiometer wait approximately 5 mins for the temperature to stabilise before taking readings.

With a satisfactory temperature differential obtained, re-tighten the potentiometer fixing screws and replace all trim items.

ITEM: 46

84 WIPER WHEEL BOXXJ6 2.9/3.6

Dealers have reported a high incidence of windscreen wiper securing nuts being found loose, causing loss of arm drive. In some instances the wheel box splines have been stripped.

Investigations have confirmed that correct production procedures were not being adhered to, resulting in vehicles being despatched with securing nuts incorrectly torqued.

Action has been taken and correct fit assured from VIN 515444.

Ensure that all vehicles either in stock, new deliveries and vehicles undergoing service interval attention prior to the above safe VIN are checked for securing nut security.

The correct torque figure applied should be: 17 Nm - 19 Nm (12.5 lbs ft - 14 lbs ft).

ITEM: 47

86 AUXILLARY LINK HARNESSES

XJ6 2.9/3.6

Due to the complex electrical system employed on XJ6 2.9/3.6 models, the availability of power supply points for auxillary equipment has been limited primarily to the bulkhead battery terminal posts.

Fused battery supply feeds can now be accessed from the vacant number '9' fuse locations on the fuse chart, situated in both A post fuse boxes. To enable connections to be made to these positions, auxillary link harnesses are now available.

Part Numbers

DBC 3612 - Cable size 0.5mm/colour white
Max load capability - 5 amps
Max fuse rating - 5 amp continuous

DBC 3613 - Cable size 2.0mm/colour yellow
Max load capability - 10 amps
Max fuse rating - 10 amp continuous

DBC 3614 - Cable size 3.0mm/colour green
Max load capability - 20 amps
Max fuse rating - 20 amp continuous

Fuse Part Numbers: ADU 1874 J - 5 amp
 ADU 1876 J - 10 amp
 ADU 1878 J - 20 amp

Installation Procedure

- 1) Disconnect battery
- 2) Remove lower A post trim surrounding the fuse box assembly
- 3) Remove the fuse box securing screens and displace the fuse box to gain access to the rear of the fuse box TTS connector blocks
- 4) Disconnect the white 9-way TTS connector block i.e:
Driver A post fuse box - RB/LB 10
Passenger A post fuse box - RB/LB 65

Using a pair of pliers carefully pull the anti back-out plate from the connector housing (A Fig 1)

Locate socket 6 on the connector block (B Fig 1), and insert the appropriate link cable required. Refit the anti back-out plate (A Fig 1)

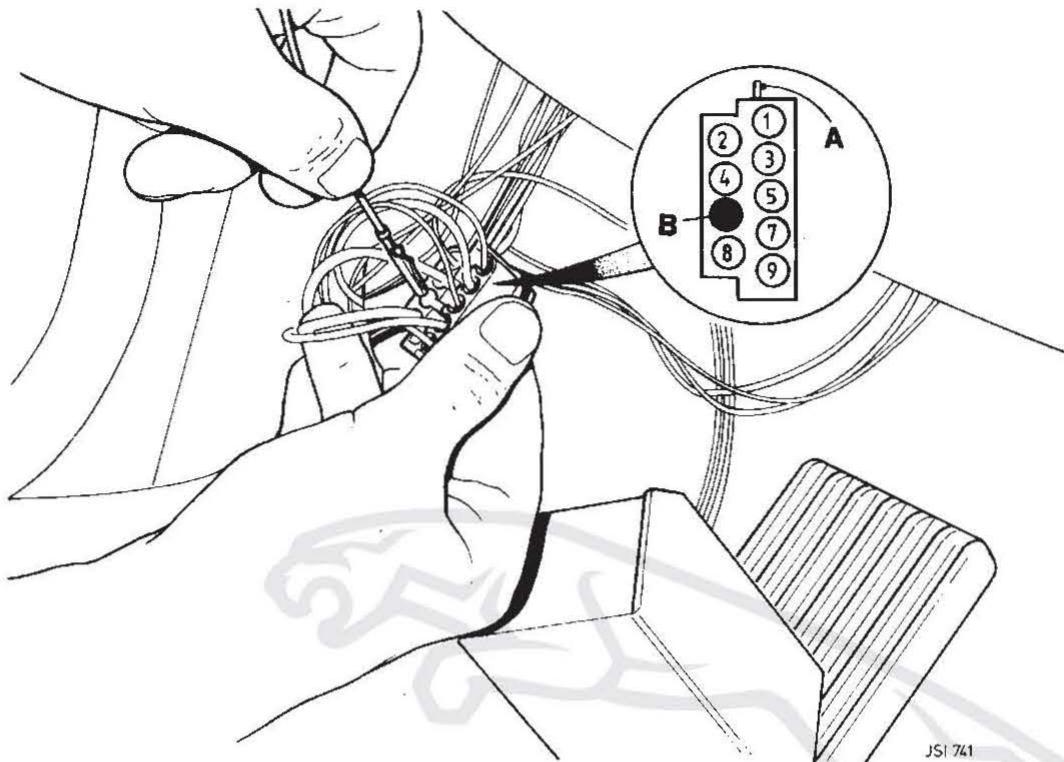


FIG 1

JSI 741

- 5) Connect the auxillary link cable to power supply cable of equipment being installed
- 6) Reverse removal procedure and reconnect the battery

ITEM: 48

86 POWER EARTH LOCATIONS

XJ6 2.9/3.6

When installing non Jaguar optional accessories, please note the following power earth positions must be utilized.

UNDER NO CIRCUMSTANCES SHOULD NEW POWER EARTH POINTS BE DRILLED INTO THE BODY.

One position behind each headlamp

LHD - LS 37/57
RHD - RS 53

One position on bulkhead

LHD - LB 75
RHD - RB 75

One position on each lower 'A' post

LHD - LB 72/LB 80
RHD - RB 72/RB 80

One position behind both rear lamp assemblies LHD -) RS 55/LS 39
RHD -) /LS 56

One position on transmission tunnel

LHD - LB 73/74
RHD - RB 73/74

Please note: The radio to chassis braided earth strap connection at the transmission tunnel, may also be utilized in addition to the transmission tunnel position detailed above.

For location of the power earth positions use JDS or consult the Service Manual Book 5 Section 80.88. If any of these earth points are to be utilized, care must be taken to ensure that they are reassembled with the correct terminals attached and that all the contact surfaces are clean.

IMPORTANT:- Please note that the logic earth positions (identified by black/pink (B/K) cables) **MUST NOT** be used as earth points for accessory equipment.

1432F



Service Bulletin

JAGUAR
Daimler

DATE: MARCH 1988
SHEET: 1 of 5
BULLETIN: JD 03/88

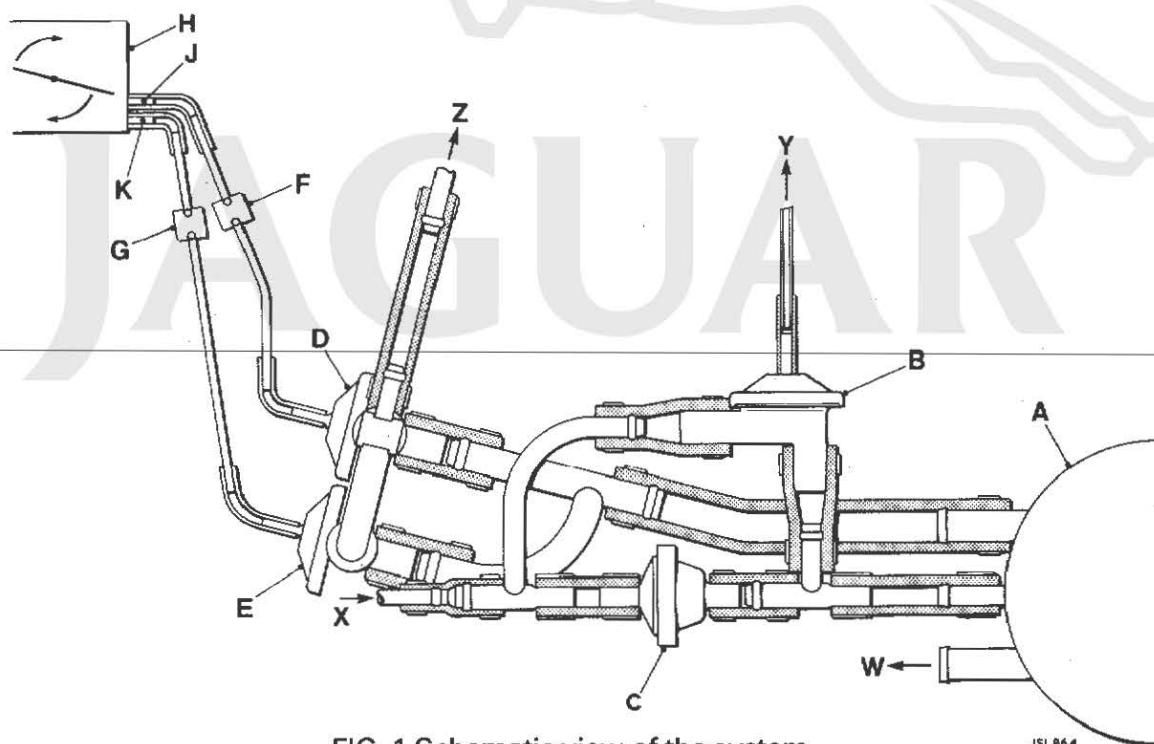
ITEM: 19

17 DUAL STAGE FUEL TANK PURGE SYSTEM XJ6 2.9/3.6 (WITH CHARCOAL CANISTER)

Description:

Changes have been made in the design and specification of the fuel tank breather system and introduced on the above models to:

- Reduce pressurisation of the fuel tank
- Avoid instances of rough running during slow speed manoeuvring



KEY:

A)	Charcoal Canister	J)	Existing Throttle Edge Tapping
B)	Vacuum Valve – Tank Breather Line	K)	Additional Throttle Edge Tapping
C)	2 PSI Valve		
D)	Vacuum Purge Valves	W)	To Atmosphere
E)	Existing Thermal Vacuum Switch	X)	Fuel Tank Breather
F)	Additional Thermal Vacuum Switch	Y)	Inlet Manifold Vacuum
G)	Throttle Body	Z)	Purge to Engine

These conditions may occur if winter grade fuels are used during warm weather periods.

Improved fuel vapour flow control to and from the charcoal canister is achieved by progressively purging the charcoal canister thus avoiding any tendency to slight over-richness as the throttle is initially opened whilst maintaining neutral fuel tank pressure when the engine is running.

Two purge valves are used in parallel, each controlled by a discreet throttle edge signal. This gives two levels of purge: one at part throttle opening and a second which is activated at a wider throttle opening.

This modification was introduced from the following VINs:

'A' Emission Vehicles	538526
'B' Emission Vehicles	538281
'D' Emission Vehicles – 3.6	538317
– 2.9	538490

ITEM: 20

17 FUEL TANK PURGE CONTROL XJ6 2.9/3.6 (WITH CHARCOAL CANISTER)

Description:

Changes have been made in the design and specification of the fuel tank breather system and introduced on the above models to:

- Reduce pressurisation of the fuel tank.
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These conditions may occur if winter grade fuels are used during warm weather periods.

Improved fuel vapour flow control to and from the charcoal canister is achieved by progressively purging the charcoal canister, thus avoiding any tendency to slight over-richness as the throttle is initially opened whilst maintaining neutral fuel tank pressure when the engine is running.

Introduced from the following VINs:

'A' Emission Vehicles	538526
'B' Emission Vehicles	538281
'D' Emission Vehicles – 3.6	538317
– 2.9	538490

The benefits of the above change can be effected on vehicles prior to these VINs by fitment of Part Number JLM 1576.

Parts Requirements

Part No. JLM 1576 comprising:-

Part No	Description	Quantity	Notes	Fig Ref
CAC 5866/28	Fuel Hose	1		Fig 2 A
CAC 5866/2	Fuel Hose	1		Fig 2 B
CAC 5868/1	Fuel Hose	1		Fig 2 C
CAC 5867/31	Fuel Hose	1		Fig 2 D
CAC 7843	Stepped Fuel Hose	2		Fig 2 E
CBC 6523	Elbow 'T' Piece	1		Fig 2 F
CBC 6524	'T' Piece	1		Fig 2 G
CAC 6874	Purge Valve	1		Fig 2 H

Part No	Description	Quantity	Notes	Fig Ref
CAC 8772	Hose Clip – Blue	3		Fig 2 J
†CAC 8773	Hose Clip – Black	4		Fig 2 K
†CAC 8774	Hose Clip – Black	4		Fig 2 L
CAC 8776	Hose Clip – Green	2		Fig 2 M
EAC 8022/38	Vacuum Hose 1415 mm	1	3.6*	Fig 2 N
C15644	'T' Piece – Nylon	1		Fig 2 P
CAC 1853/5	Fuel Hose	1		–
C43599/6	Hose Clip	1		–
CBC 6633	Purge Restrictor	1		Fig 7 A
ADU 9028	Ratchet Strap	1		–
C45099	Tie Strap	1		–

* Dealer can cut 1240 mm length for 2.9 application.

† These clips can be identified by the following dimensions:-

CAC 8773 width 14mm internal dia 12.7mm

CAC 8774 width 7.5mm internal dia 15.1mm

Fitting Instructions

1. Open the boot, remove the floor carpet, front and left-hand side boot liners.

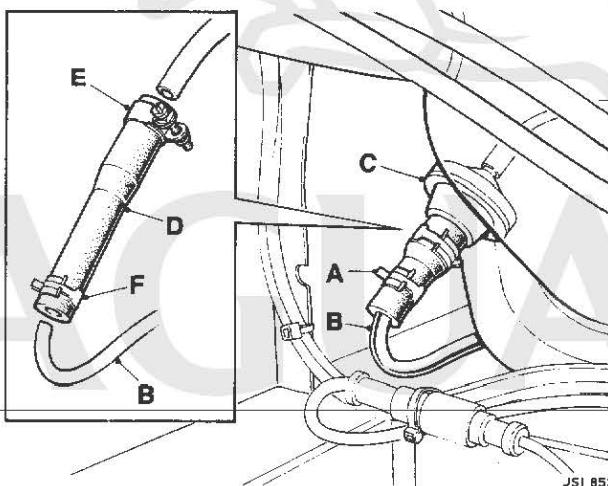


FIG. 1

2. Using a suitable pair of pliers, slacken the spring clip (Fig. 1 A) to enable the vapour pipe (Fig. 1 B) to be disconnected from the hose.
3. Bend back the tag securing the fuel tank plastic vapour pipe to the tank. Reposition the pipe and valve assembly for access.
4. Remove the valve (Fig. 1 C) from the plastic vapour pipe. Remove the hose from the valve and place the valve to one side.
5. Cut off the swaged end of the plastic vapour pipe.
6. Fit the larger bored end of hose, Part Number CAC 1853/5, (Fig. 1 D) to the fuel tank plastic vapour pipe. Secure with the hose clip, C43599/6 (Fig. 1 E).
7. Position the plastic vapour pipe along the side of the fuel tank and secure with the retaining tag.
8. Refit the underfloor vapour pipe to the other end of the hose and secure with spring clip, CAC 8772 (Fig. 1 F).

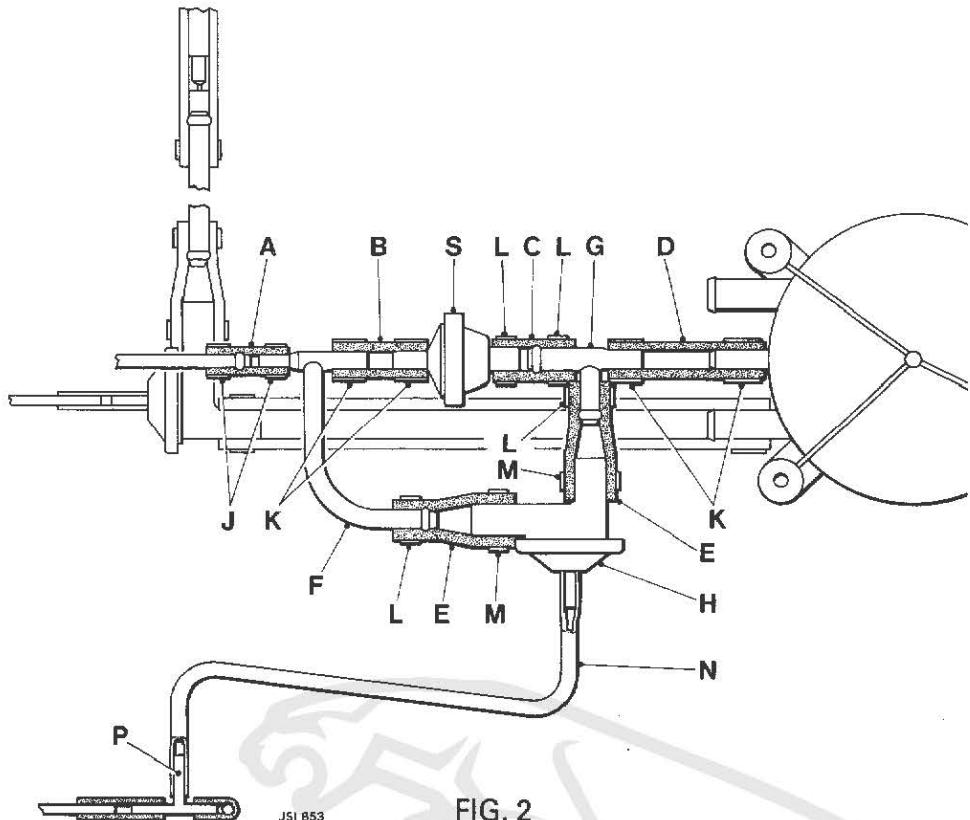


FIG. 2

9. Refit the boot liners and carpet.
10. Assemble the parts as shown in Fig. 2, using the vehicle's existing 2 psi valve, CAC 3101 (Fig. 2 S).
11. Jack up the front of the vehicle and support the body on stands.
12. Turn the steering wheel to full left-hand lock; open the bonnet.
13. Remove the spoiler closing panel to gain access to the charcoal canister.
14. Remove the hose connecting the vapour pipe to the charcoal canister.
15. Fit the parts assembled in operation number 10 between the vapour pipe and the charcoal canister centre stub pipe (Fig. 3). Secure with the clips supplied.
16. Fit the vacuum hose (Fig. 3 A) (1415 mm 3.6 models) to the purge valve (Fig. 3 B).

NOTE: For 2.9 vehicles this vacuum hose should be cut to a length of 1240 mm.
17. Mark out and drill a 10 mm diameter hole in the spoiler closing panel, (Fig. 4) for positional details.

NOTE: Fig. 4 A denotes existing hole.
18. Refit the spoiler closing panel.
19. Lower the vehicle and remove the stands.
20. Slacken the engine harness channel front tie strap (Fig. 5 A), cut and remove the centre ratchet strap (Fig. 5 B).
21. Position the new vacuum hose adjacent to the existing purge control vacuum pipe and the engine harness channel.

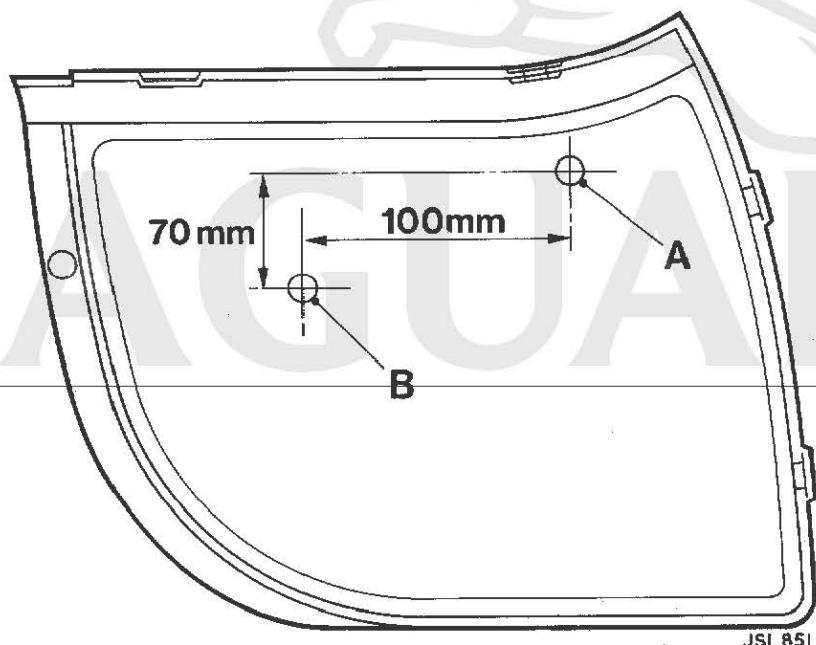
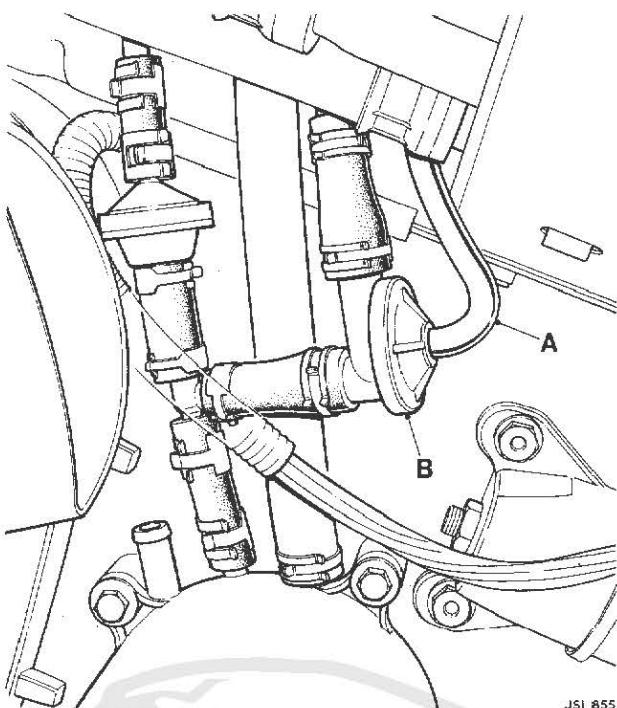


FIG. 4

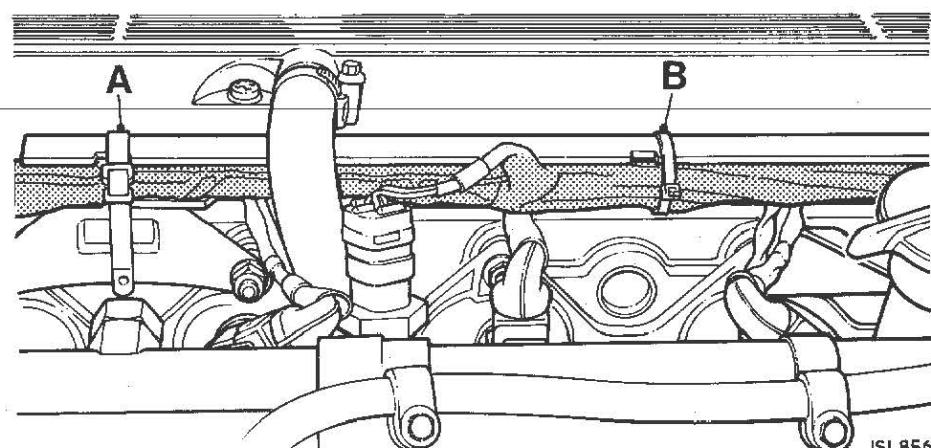
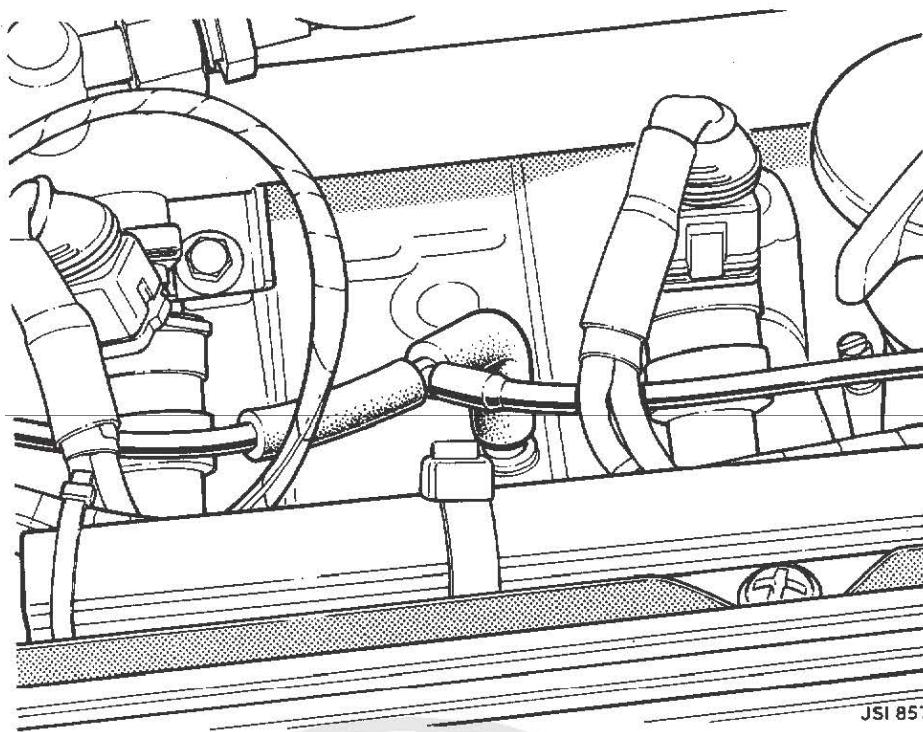


FIG. 5



JSI 857

FIG. 6

22. Secure the vacuum hose to the channel with the existing tie strap and new ratchet strap, ADU 9028.
23. Secure the vacuum hose to the vacuum pipe, adjacent to the air pump, using ratchet strap, C45099.
24. Disconnect the air conditioning vacuum feed elbow from the inlet manifold and disconnect the elbow from the pipe.
25. Connect the 'T' piece, vacuum pipes and hoses to the inlet manifold – refer Fig. 6.
26. Slacken the clip securing the manifold purge hose to the purge pipe and disconnect the hose from the pipe.
27. Fit the restrictor, CBC 6633, in the bore of the hose (Fig. 7 A).
28. Reconnect the hose to the pipe and tighten the securing clip.

Repair Operation Number: 17.91.05
Labour Allowance: 1.25 hours
Complaint Code: 2CAQ

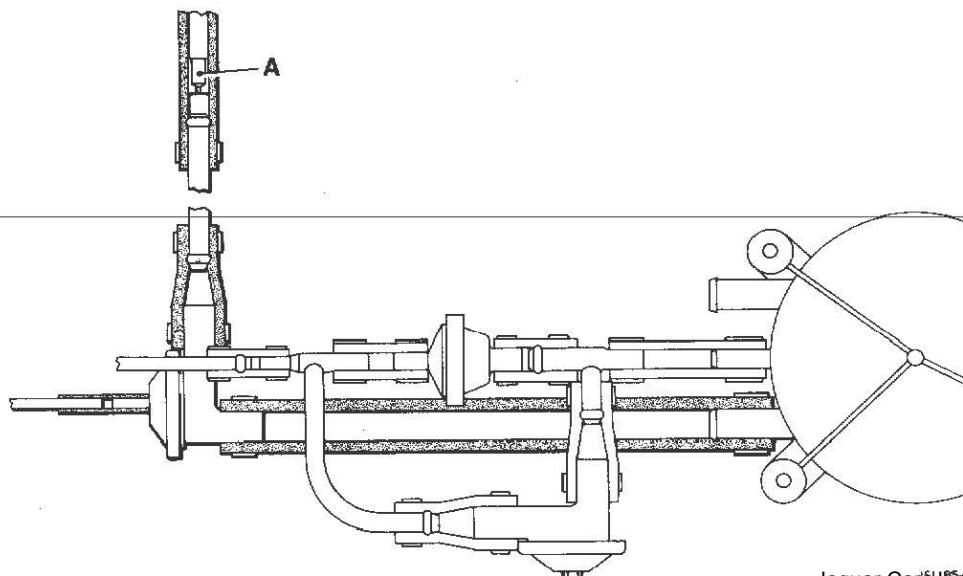


FIG. 7

ITEM: 21

19 CRUISE CONTROL**S.III**

Reference Service Bulletin JD 01/87 Item 04. To further improve the protection of the brake pedal dump switch harness and terminals, protective shield Part No. DAC 4238 has been replaced by DAC 5555 and was introduced from VIN 479124. Insulating washers DAC 4439 remain unchanged.

The current shield DAC 4238 available through Jaguar Parts Operations for service fix purposes, will subsequently be replaced by DAC 5555 when stock becomes available.

ITEM: 22

47 PROPSHAFT COUPLING**XJ6 3.6**

A revised propshaft and final drive unit have been introduced on XJ6 vehicles supplied to the USA (2.88:1 axle ratio). These incorporate a rubber "Jurid" coupling at the pinion flange, replacing the universal joint. This was introduced at VINs:

538281 Non Powr Lok
538478 Powr Lok (VDP)

This modification is scheduled for future introduction on all axle ratios for all markets; further introduction details being advised accordingly.

New Part Numbers are as follows:

CBC 5194	Propellor Shaft Assembly
CBC 6229	Centre Bearing
JLM 1575/28	Final Drive Unit
BX 112131J (3 off)	Bolt
WA 112081J (3 off)	Washer
NY 112051J (3 off)	Locknut

NOTE: Should the coupling fixing bolts be disturbed for any reason they **must** be replaced with **new** bolts, washers and locknuts. When refitting the propshaft it is important to ensure correct alignment.

ITEM: 23

70 JURID 518 FRONT & REAR BRAKE PADS**XJ6 2.9/3.6**

A revised brake lining material known as Jurid 518 has been introduced on Production from VIN 533361.

These parts can also be used as a 'Service Fix' to overcome complaints of graunch, rumble, pull and judder. In the case of judder it will also be necessary to replace the discs, where excess disc thickness variation exists. The other three complaints only require the brake pads to be replaced, **unless** excessive brake disc wear is evident.

Brake pads manufactured using this material **must only** be used in **complete vehicle sets** and are available under the following Part Numbers:

Complete Vehicle Set	JLM 1280
Front Axle Set	JLM 1281
Rear Axle Set	JLM 1282

On vehicles prior to the above VIN it will also be necessary to replace the brake pad sensor link leads, which can be ordered using the following Part Numbers:

Link Lead Kit – Ride Level – JLM 1415
Link Lead Kit – Non Ride Level – JLM 1416

The above link lead will only be required to be replaced once to enable the new Jurid brake pads to be fitted.

NOTE: Brake 'bedding-in' is very critical as the unbedded performance of brake pads is relatively poor when compared to the bedded condition.

It is essential that at least 10-20 stops are undertaken from speeds not exceeding 80 km/hr (50 miles/hr), separated by a minimum of 1.25 km (.75 mile), using varying amounts of deceleration and duration.

Friction levels should have increased significantly after 10–20 stops, if not, further 'bedding-in' should be carried out as detailed above.

Jurid pads can be identified by the wording JURID 518 printed on the top face of the pad material.

ITEM: 24

79 CLEARCOAT SURFACE POLISHING

ALL MODELS

The change of paint technology from T.P.A. to clear over base system has provided many benefits to the customer and service network. The durability of the clearcoat and its ability to protect the colour coat means that vehicles require less cosmetic attention than with T.P.A. However the mirror effect of certain dark colours will dictate the necessity for periodic attention to restore the gloss if subjected to automatic car washes etc.

This Bulletin Item will provide guidance to Dealers for the removal of fine surface scratches and minute dirt particles from the clearcoat. It must be emphasised however, that corrective action applied injudiciously may promote further problems. It is recommended that all blemishes should be assessed objectively, as the rectification may be more apparent than the original fault.

Basic Precautions:

1. Where surface scratches will required flatting, the use of 3M 314 and 737 line Wetordry paper is recommended.
2. Flatting paper should be pre-soaked in a container of clean water to which a little soap has been added. This makes the paper more pliable and less prone to clogging.
3. Always use plenty of water when flatting, applying only light pressure. Check often to see if the blemish has been removed. **DO NOT OVERSAND.**
4. Where possible use a fibre or rubber block when flatting to prevent 'finger marking' the panel.
5. After flatting, clean the panel thoroughly before polishing.

Procedure

There can be no clearcut method for repairing faults or damage to the clearcoat film due to the many forms they can take. We have therefore identified two specific problems and detailed a procedure for rectifying each one.

Fine Scratches:

1. Apply 3M single step finishing compound to the affected area.
2. Polish the panel using 3M Superbuff 2 + 2 buffering pad on a polishing machine operating between 1500 to 2400 rpm.
3. Use light pressure and keep the mop moving across the panel.
4. As a final stage sprinkle a few droplets of water onto the panel. This will enhance the finish when 'mopped'.
5. If necessary complete the operation with a light hand polish using straight strokes to remove minor swirl marks.

Dirt Nibs or Local Heavy Scratches:

1. Using either 3M fine or superfine Wetordry paper as indicated previously, sand the defect with light pressure using plenty of water.
2. After sanding, clean off the panel and inspect to ensure that the defect has been removed.
3. It may be necessary to use 3M Auto Paste Compound medium to remove flattening marks. This should be applied with a cloth and 'mopped' in the same way as with Single step. **Caution: Where a 3M Superbuff 2 + 2 mop is used, ensure that the same side is not contaminated by both compounds.**
4. Finish off with 3M singlestep finishing compound.

Material List

3M Single Step Finishing Compound	— Part No: 5432
3M Auto Paste Compound – medium	— Part No: 5428
3M Superbuff 2 + 2 pad	— Part No: 5701
3M 314 'fine' Wetordry paper	— Part No: 1966
3M 737 'superfine' Wetordry paper	— Part No: 1968

In addition there are Superbuff adaptors available to fit most machine mops.

14 mm Adaptor — Part No: 5512
5/8" Whit Adaptor — Part No: 5710

Service Bulletin

**JAGUAR****Daimler**

DATE: MARCH 1988
SHEET: 1 of 3
BULLETIN: JD 05/88

ITEM: 26

09 USED ENGINE OILS

ALL MODELS

The Society of Motor Manufacturers and Traders, having set up a working group reporting to the Car and General Technical Board, have advised motor vehicle manufacturers to disseminate the following information on used engine oils:

Prolonged and repeated contact with mineral oil will result in the removal of natural fats from the skin, leading to dryness, irritation and dermatitis. In addition, used engine oil contains potentially harmful contaminants which may cause skin cancer. Adequate means of skin protection and washing facilities should be provided.

Health Protection Precautions:

1. Avoid prolonged and repeated contact with oils, particularly used engine oils.
2. Wear protective clothing, including impervious gloves where practicable.
3. Do not put oily rags in pockets.
4. Avoid contaminating clothes, particularly underpants, with oil.
5. Overalls must be cleaned regularly. Discard unwashable clothing and oil impregnated footwear.
6. First Aid treatment should be obtained immediately for open cuts or wounds.
7. Use barrier creams, applying before each work period, to help the removal of oil from the skin.
8. Wash with soap and water to ensure all oil is removed (skin cleaners and nail brushes will help). Preparations containing lanolin replace the natural skin oils which have been removed.
9. Do not use petrol, kerosine, diesel fuel, gas oil, thinners or solvents for washing skin.
10. If skin disorders develop, obtain medical advice.
11. Where practicable, degrease components prior to handling.
12. Where there is risk of eye contact, eye protection should be worn, for example, chemical goggles or face shields. In addition an eye wash facility should be provided.

Environmental Protection Precautions:

It is illegal to pour used oil on to the ground, down sewers or drains, or into water courses.

The burning of used engine oil in small space heaters or boilers is not recommended unless emission control equipment is fitted; in cases of doubt, check with the Local Authority.

Dispose of used oil through authorised waste disposal contractors, licensed waste disposal sites or to the waste oil reclamation trade. If in doubt, contact the Local Authority for advice on disposal facilities.

ITEM: 27

57 PAS STEERING RACK MOUNTING BUSHES XJS 3.6 (SPORTS PACK)

The steering rack and pinion mounting bushes fitted to XJS 3.6 vehicles with sports pack suspension, are secured in position with Loctite 601.

Service Tool 18G 1324 should still be used to remove and refit them.

When fitting new bushes use Loctite 601; refer to the manufacturer's guide lines for application instructions.

ITEM: 28

66 RIDE HEIGHT SENSOR XJ6 2.9/3.6

To improve reliability and reduce quiescent current drain levels, a new ride height sensor Part No. DBC 3439 incorporating "CMOS" technology has been introduced from VIN 523301.

The new sensor is fully interchangeable with the previous "PMOS" type sensor Part No. DBC 3287.

ITEM: 29

74 TYRE REPAIR ALL MODELS

Due to differing legislative requirements concerning the repair of tyres in all markets and the various make/type of tyres being fitted to Jaguar vehicles, the following statement will be incorporated in all handbooks and service literature:

It is recommended that damaged tyres are replaced and not repaired in view of the high performance capability of the vehicle.

ITEM: 30

76 BONNET/CHASSIS EARTH XJ6 2.9/3.6

To ensure a good 'earth' exists between the bonnet and the vehicle chassis, an earth braid strap has been introduced from VIN 523964.

The earth strap which is fitted between the LH bonnet hinge and the vehicle chassis hinge bolts has been introduced to prevent the possibility of engine related ignition noise being radiated from this source, which could interfere with radio signal transmissions.

Should Dealers receive reports of radio interference, suspected as ignition based, prior to VIN 523964, then the earth braid strap Part No. DBC 4727 should be fitted as shown in Fig 1 before undertaking further investigations.

Parts Required

Part No.	Description	Qty
DBC 4727	Earth Braid	1
SH 108201J	Bolt	1
FN 108041J	Nut	1
FW 105E	Washer	1

A labour allowance of 0.30 hours may be claimed quoting Fault Code 7QAT, Repair Operation No. 86-91-14.

Procedure:

- 1 Open the bonnet.
- 2 Release and remove the LH bonnet hinge lower bolt and discard (Fig 1 A).
- 3 Clean the paint from around the surrounding surface of the hole to ensure a good earth connection.
- 4 Position the earth lead and secure using a new bolt Part No. SH 108201J and washer Part No. FW 105E (Fig 1 [A & B]).
- 5 Remove the LH side radiator grille assembly.
- 6 Release and remove the fixing nut from the lower hinge bracket (Fig 1 C)
- 7 Clean the paint from the surrounding surface of the studs to ensure a good earth connection.
- 8 Route the earth lead to the lower stud as shown (Fig 1) and secure using a new fixing nut Part No. FN 108041J (Fig 1 C).
- 9 Apply a light smear of grease to the fixing points to prevent the possibility of corrosion.
- 10 Replace the radiator grille panel and close the bonnet.

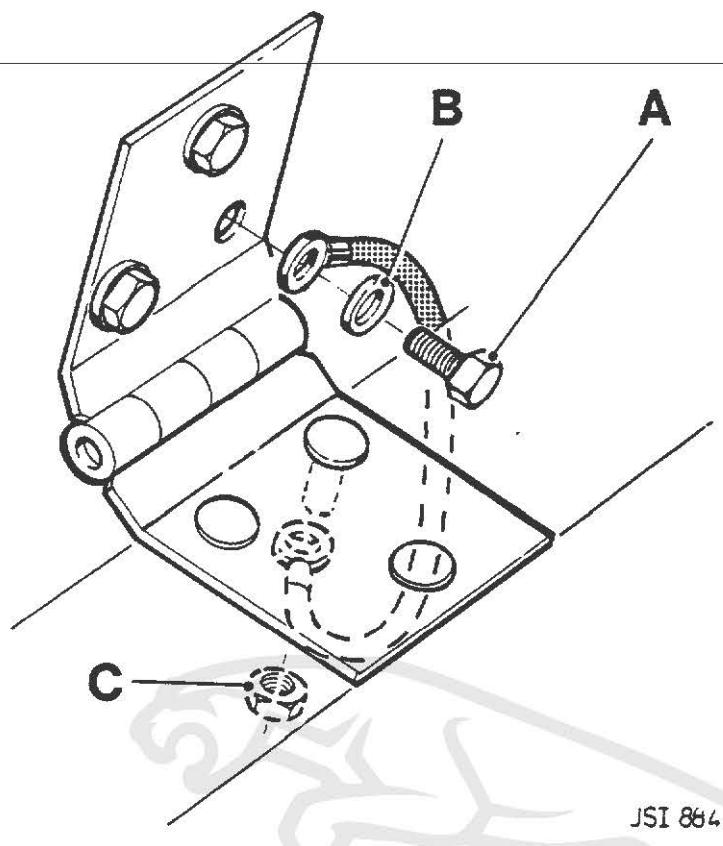


Fig 1.

ITEM: 31

79 PAINT COLOUR CODE

ALL MODELS

Please note the change of Jaguar Sales Code and BLVC on clear over base colour **Glacier White**. This follows reformulation to improve opacity:

JBC 742 (BLVC NDP) Glacier White
replaces
JBC 721 (BLVC NDK) Glacier White

This reformulation was progressively introduced from VINs:

542482 – XJ6
149361 – XJS

ITEM: 32

86 ELECTRIC AERIAL

XJ6 2.9/3.6

During investigations into signal reception quality, improvements in the aerial signal to noise ratio i.e. (weak transmission signal high background noise, strong signal low background noise) have been gained by shortening and repositioning the electric aerial earth braid.

Where instances of weak signal strength are suspected the following detailed modification should be carried out.

Please Note: This modification will offer some improvement in signal strength but will not overcome the more prevalent reception interference encountered in certain areas of the British Isles, resulting from low level transmissions utilized by the BBC and some local radio stations.

The interference referred to is caused by signal break-up which affects Radio 3 VHF transmissions and is commonly interpreted as a "chuffing" sound, which coincides with the vehicle passing land based obstructions i.e. trees, high buildings, etc.

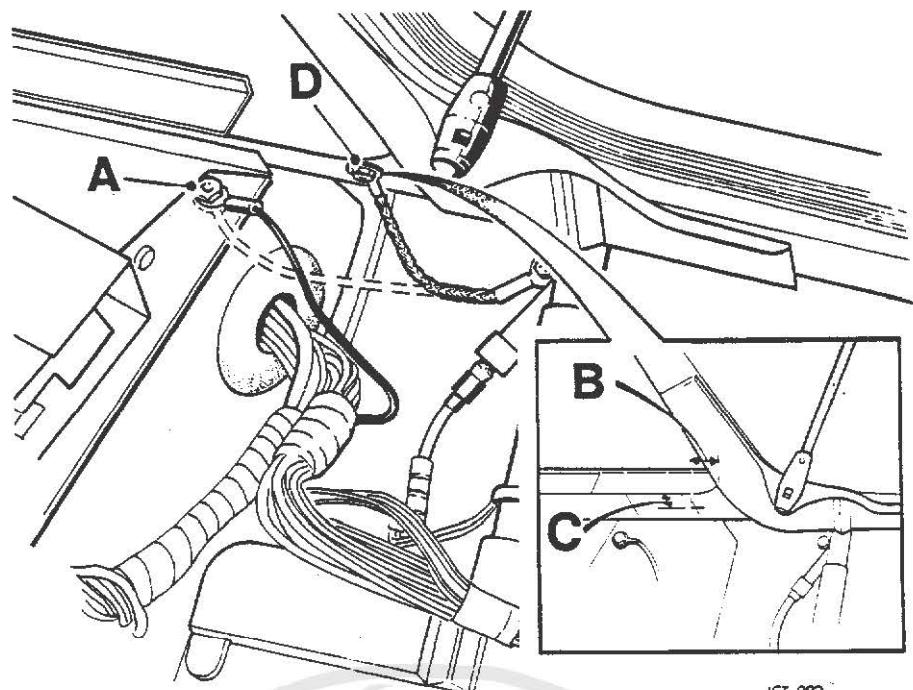
A labour allowance of 0.45 hrs may be claimed quoting Complaint Code 7QAT – Repair Operation No. 86-91-13.

Modification Procedure:

Parts Required:

- * Eyelet Connector – Internal diameter 4mm (0.15 in)
- * Self Tapping Screw No.8 x 13mm (0.50 in)
- * Suitable Star Washer

- 1 Disconnect the battery negative cable.
- 2 Remove the jack assembly, spare wheel and rear trim panel.
- 3 Remove the RH side trim panel.
- 4 Locate and remove the aerial earth lead from the relay mounting plate fixing (Fig 1 A). Relocate the side harness earth cable to relay mounting plate, refit and secure the fixing screw.
- 5 Mark out the new position for the aerial earth lead as shown in Fig 1 inset B = 10mm (0.40 in) C = 7mm (0.28 in), drill 2.5 mm (3/32 in) hole. Clean the paint from the surrounding surface to ensure a good earth connection.
- 6 Position the aerial mast earth lead to the new fixing point ensuring that the shortest length possible can be fitted without putting any strain on the lead (Fig 1 D). Mark the earth braid ensuring the new length will be approximately 76mm (3.0 in) when measured from the centre of the eyelets.
- 7 Cut the earth braid, secure and solder the new eyelet.
- 8 Locate and secure the eyelet to the new earth point using the recommended self-tapping screw and washer.
- 10 Apply a light smear of grease to the new earth fixing to prevent the possibility of corrosion.
- 11 Refit the trim panels, spare wheel/jack assembly and reconnect the battery.



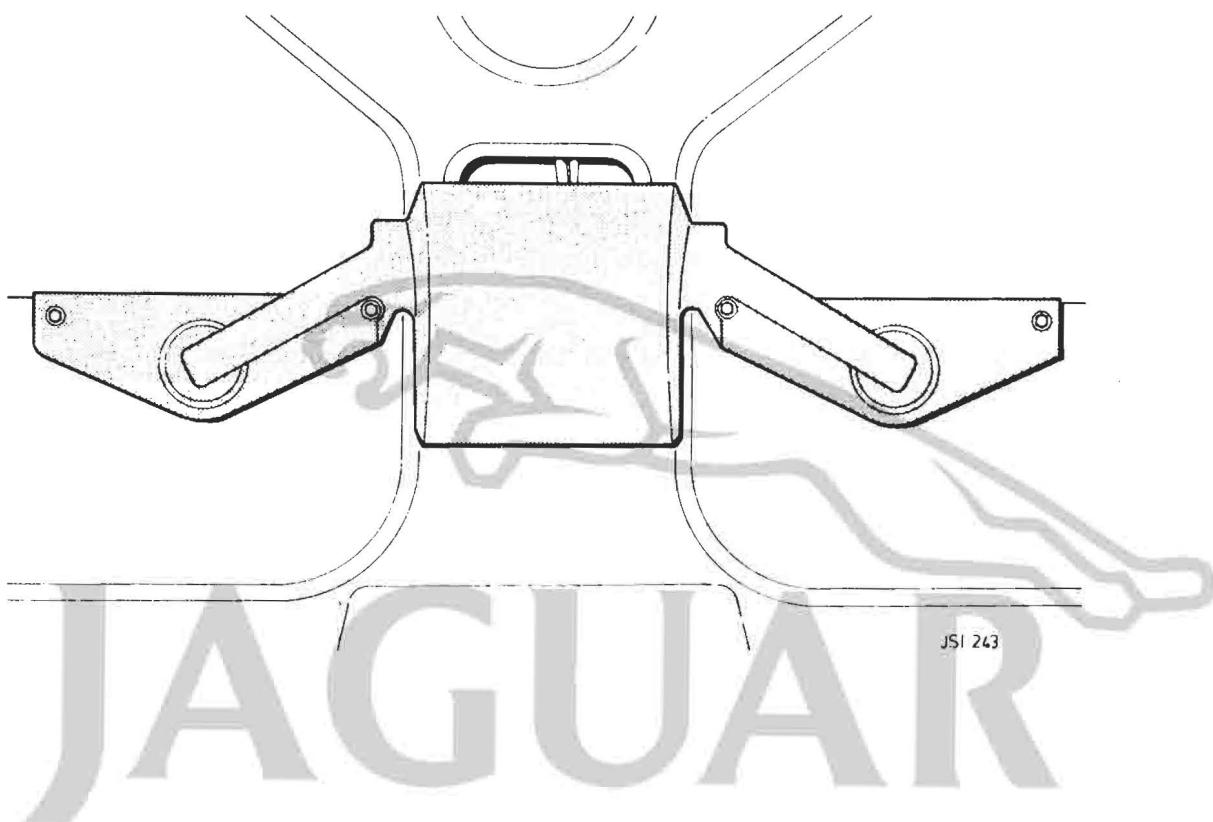
JSI 883

Fig 1.

JAGUAR

ITEM 30**76 BOOT LOCK****XJS**

To provide increased security against illegal entry into the boot, a plastic shield, DAC 1030, has been introduced on all XJS vehicles from VIN 114455. This shield completely encloses the lock linkage and prevents access to the lock assembly.

**ITEM 31****76 MATCHING WOOD VENEER KITS****S.III & XJS**

To overcome the problem of mismatch of replacement interior wood panels for warranty vehicles, full fascia kits comprising fascia panel, glove box lid, door cappings and console switch panel (trip computer/clock) are now available from Parts Division.

For kit part numbers and identification, Dealers should refer to Parts Technical Information Bulletin J5 Item 22, issued in March 1984.

Please note that this service is aimed primarily at warranty vehicles on an order as required basis.

Investigations into screens misting on Series III Non Air Conditioned models, whilst the system is selected in positions other than defrost, have identified the cause to be insufficient air flow at the screen vent apertures. To overcome this problem, modified screen vent assemblies providing improved air flow distribution have been introduced at:

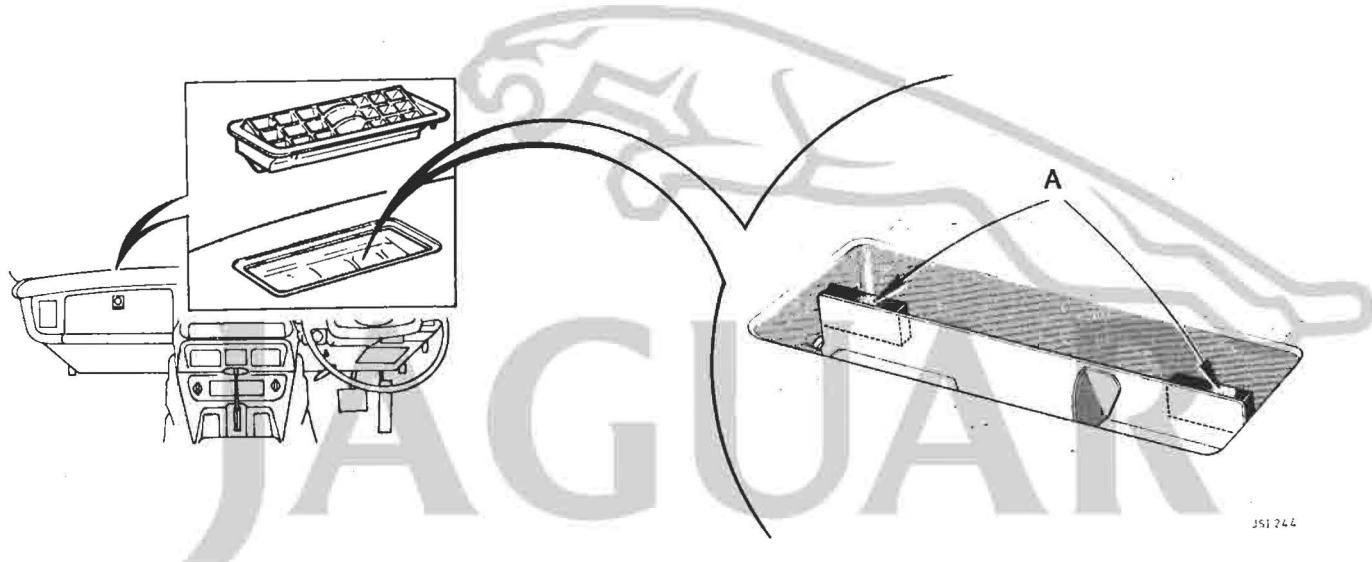
VIN 384900

Should Distributors/Dealers receive reports of this problem on vehicles prior to the above VIN, the following service fix may be implemented to improve the air flow rate.

MODIFICATION PROCEDURE

1. Carefully remove both screen vent aperture grilles from the facia crash roll.
2. Switch unit to defrost position to open screen vent flaps.
3. Use 4 off self adhesive rubber strips (not foam) to the dimensions detailed:

25mm long x 12mm wide x 6mm thick



To comply with Japanese Legislative requirements, 1984 Model Year XJS 'HE' Models are equipped with "Cibie" quartz halogen headlamps and directional indicator side repeater lamps. These replace the previous twin headlight arrangements and side marker lamps.

Introduction commenced at VIN: 112482.

ITEM 34**86 ALTERNATOR****SERIES III 4.2 EMISSION 'B' (EXCEPT UK & EUROPE)
AIR CONDITIONED MODELS ONLY**

From VIN 384153 Series III 4.2 Emission 'B' Air Conditioned Models (except UK/Europe) are now equipped with A 133-75 amp Alternators Part No. AEU 1929. Interchangeability is unaffected.

Introduction on UK/European Models is to follow, and will be announced in a future Service Bulletin.

ITEM 35**86 LUCAS MF3 BATTERY****SERIES III SALOONS (EXCEPT NORTH AMERICA)**

From VIN 385000 all saloon models (except North America) are equipped with the new Lucas Low Maintenance Battery known as the Lucas "MF3". Interchangeability with the previous A/C Delco 'Freedom' maintenance free battery is affected, the MF3 requiring a new battery clamp/retainer. Battery data and charging procedures appertaining to the Lucas MF3 are detailed in Service Bulletin JD 09/83 Item 62.

Introduction on XJS HE Models – Service Bulletin JD 09/83 Item 62 refers.

Introduction on Daimler Limousine – Service Bulletin JD 12/83 Item 78 refers.

ITEM 36**99 SERVICE TOOLS JD13A REAR HUB END FLOAT GAUGE****ALL MODELS**

V.L. Churchill Ltd. have announced the introduction of a modified rear hub end float gauge consisting of a pedestal and adaptor. This end float gauge will be supplied less clock gauge and will be number JD13B. The end float gauge may be used in conjunction with the clock gauge from SL.3 (18G 191) pinion setting gauge, or similar rear mounted clock gauge. Two separate clock gauges suitable for use with JD13B are also available if required, under Part No. SM991 or Part No. SM6494.

Service Bulletin

JAGUAR

Daimler

DATE: DECEMBER 1988
SHEET: 1 of 2
BULLETIN: JD 14/88

ITEM: 79

11 JURID AXLE PINION FLANGE

XJ6 2.9 / 3.6

With the introduction of the Jurid type axle drive flange, a Service Tool will shortly be introduced to enable Jurid service fix procedures to be carried out and also to aid pinion flange removal. Until such time pinion flange removal can be achieved using a standard 3 legged puller such as MS 96 supplied by V.L. Churchill.

ITEM: 80

74 SPORTS ALLOY WHEELS

XJS

Shortly after sports alloy wheels (Fig. 1) were introduced as original equipment to certain XJS variants, accessory kits were devised to allow their fitment to used XJS vehicles in the aftermarket. The wheels can be supplied without tyres (CBC 2469) or as wheel/tyre assemblies (CBC 4185). When a complete vehicle set is required, fitting kit JLM 1459 should be ordered at the same time. The fitting kit contains steering rack restrictor washers and wheel nuts.

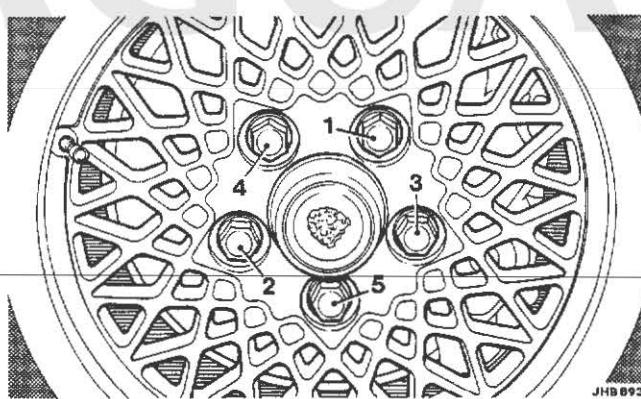


FIG 1

To emphasize this, a warning label is supplied with each wheel/tyre assembly as shown in Fig 2 below. Instances have been noted where the warning label has been disregarded and sports alloy wheels fitted without the fitting kit. Dealers are advised that this practice is highly unsatisfactory.

When factory fitted, the sports alloy wheels (with 235/60 tyres) are matched to Adwest steering racks that have 12 mm restrictor washers fitted. Other alloy wheels (with 215/70

tyres) are fitted to racks with 5 mm restrictor washers fitted. Early cars fitted with narrower profile tyres had no restrictor washers fitted.

The 12mm restrictor washers supplied in the fitting kit, **MUST** be fitted to prevent a foul condition between the sports alloy wheels' low profile 235/60 tyres and the bodywork, as the steering approaches full lock.

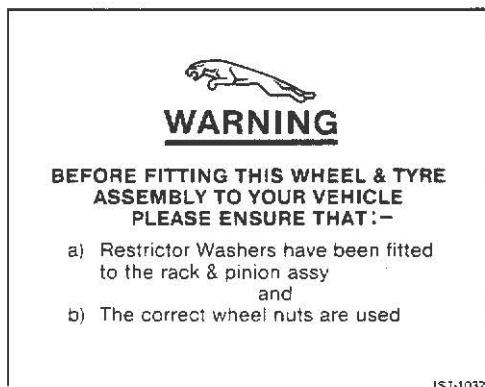


FIG 2

ITEM: 81

76 HOOD APERTURE SEALS

XJS CONVERTIBLE

Service Bulletin JD 06/88 Item 35, identified procedures for rectifying water ingress and windnoise on convertible vehicles.

From experience gained in the period following launch, one recommendation contained within the Bulletin has been changed.

Within Section 2, the use of soft soap is advocated to aid fitment of hood seals. It is now known that the use of any chemical based lubricant can allow a seal to move from its critical setting and induce water leaks.

Seals must be fitted dry or lubricated with water only.

ITEM: 82

86 SPEAKER INTERFERENCE

XJS V12 CONVERTIBLE
(NOT USA / CANADA)

Reports have been received highlighting a problem of speaker interference affecting XJS V12 convertible models equipped with the Alpine "Takeaway" radio tape assembly.

The interference is interpreted as a slight audible thud through the speaker system during gear selection but is only detectable during selection of 'drive' or 'reverse' from either the 'neutral' or park positions.

Investigations have traced the source of the interference to the anti stall system which operates whenever the engine is suddenly exposed to load, i.e.: - when changing from 'park' to 'drive' and is a combination of transients from the anti stall relay coil and interference from the gear selector microswitch.

To eliminate the source of the interference the following service fix has been developed and should be fitted whenever this problem is reported.

This modification will be incorporated onto production vehicles and commencement VIN will be advised in a future Service Bulletin.

Service Modification Procedure

Parts Required: Diode/Resistor Pack Assy. Part No. DAC 8782.

A labour allowance of 0.30 hrs may be claimed quoting Fault Code 7QCT - Repair Operation No. 86.91.18.

Procedure

1. Disconnect the battery earth lead.
2. Locate the anti stall relay (blue base) situated on the front radiator crossmember and remove the relay from the base.
NOTE: Although relay configurations may alter dependant on market specification, the anti stall relay (blue base) is always situated on the LH side of the relay bank (Fig 1).

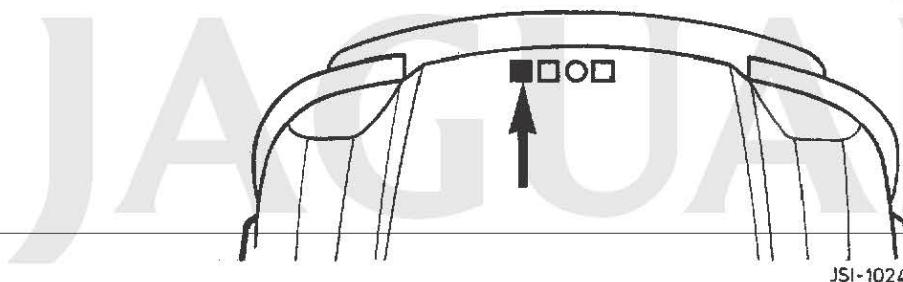


FIG 1

3. Remove the relay base/harness from the crossmember fixing plate.
4. Utilizing a suitable implement (e.g. a small electrical screwdriver) carefully probe the mating face of the relay base and displace the Lucas connectors corresponding to cables -
Black/Green (B/G)
White (W)

5. Locate and carefully solder the cables of the diode/resistor pack Part No. DAC 8782 to the neck of the Lucas connectors in the following order:

Diode / Resistor Pack

Brown (N)
Yellow (Y)

to
to

Relay Lucas Connector

White (W)
Black/Green (B/G)

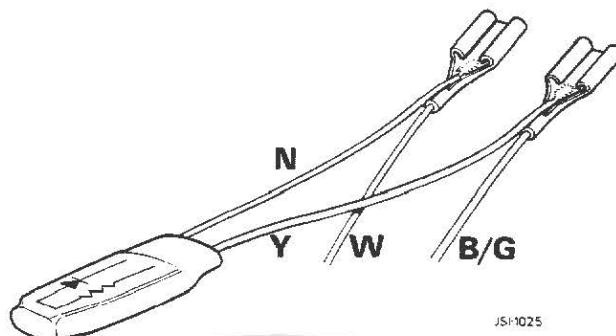


FIG 2

6. Relocate the Lucas connectors into the relay base ensuring that the Lucas retaining tangs have locked. Refit the base to the fixing plate and insert the relay.
7. Using a small suitable plastic ratchet strap, retain the diode/resistor to the relay harness (do not overtighten).
8. Reconnect the battery and check the operation.

1831F

Service Bulletin

**JAGUAR****Daimler**

DATE: MARCH 1989
SHEET: 1 of 7
REF: JD 03/89

ERRATA

Bulletin JD 02/89, Section 19, Item 07. Modification procedure, Paragraph 19 should read:-

“19

Remove auxiliary air valve and replace with new unit supplied in kit. Repair Operation 19.20.16. refers.”
(Not 12.20.16. as stated). Please amend your copy accordingly.

NOTE: Bulletin JD 01/89 Item 01 Marelli Digital Ignition
Paragraph 1 of sheet 2 states that the high compression 12.5:1 will be discontinued.
This should read was discontinued and replaced by the standard 11.5:1 compression engine.
We apologise for any confusion caused and affirm that all engines fitted with Marelli Ignition will run on unleaded fuel.

ITEM: 11

03 REVISED REPAIR TIMES

XJS 3.6 / XJ6 2.9 & 3.6

Since the deletion of “drive in - drive out” allowance, all modifications issued in Service Bulletins have now been revised. Please amend your Bulletins where applicable using the following list:

SRO No.	MODEL	TIME		ITEM
		PREV.	NEW	
82-91-05	XJ6 2.9/3.6 RHD	1.70 hr	1.55 hr	Air Con/Heater ‘in car’ sensor.
82-91-05	XJ6 2.9/3.6 LHD	1.05 hr	0.90 hr	Air Con/Heater ‘in car’ sensor.
86-91-14	XJ6 2.9/3.6	0.30 hr	0.15 hr	Bonnet/Chassis Earth
86-91-13	XJ6 2.9/3.6	0.45 hr	0.35 hr	Electric Aerial
30-91-01	XJ6 3.6 CAT	0.55 hr	0.40 hr	Catalyst Heatshield Rattle
76-91-84	XJ6 2.9/3.6	0.85 hr	0.75 hr	Sliding Panel Seal/ Adjustment.
76-91-63	XJ6 2.9/3.6	1.50 hr	1.40 hr	Door Panel Resonance
76-91-14	XJ6 2.9/3.6	0.30 hr	0.15 hr	Boot-Connector Rattle
76-91-15	XJ6 2.9/3.6	0.30 hr	0.20 hr	Centre Console
76-91-16	XJ6 2.9/3.6	0.75 hr	0.60 hr	Radio Panel Creaks
76-91-67	XJS/XJ6 3.6	1.45 hr	1.30 hr	ZF Transmission 1-2 shift quality.

SRO No.	MODEL	TIME		ITEM
		PREV.	NEW	
76-91-26	XJ6 2.9/3.6	0.65 hr	0.55 hr	Passenger SW Pack and Ashtray Assy.
76-91-25	XJ6 2.9/3.6	0.25 hr	0.15 hr	Door Wood Veneered Panels
76-91-19	XJ6 2.9/3.6	0.30 hr	0.15 hr	Front Door Sill Button/Bezel.
76-91-20	XJ6 2.9/3.6	0.25 hr	0.15 hr	Rear Door Sill Button/Bezel.
76-91-21	XJ6 2.9/3.6	0.25 hr	0.10 hr	Coinbox-Driverside Underscuttle.
76-91-23	XJ6 2.9/3.6	0.45 hr	0.35 hr	Rear Parcel Shelf
76-91-13	XJ6 2.9/3.6	0.45 hr	0.35 hr	Sunroof
76-91-24	XJ6 2.9/3.6	0.25 hr	0.10 hr	Sunvisor Vanity Mirror
76-91-78	XJ6 2.9/3.6 RHD	1.35 hr	1.30 hr	Sanden Compressor Noise
76-91-78	XJ6 2.9/3.6 LHD	1.55 hr	1.50 hr	Sanden Compressor Noise
76-91-77	XJ6 2.9/3.6	1.60 hr	1.25 hr	Blower Motor Assy. Mod.
76-91-80	XJ6 2.9/3.6	2.00 hr	1.90 hr	Front Windscreen Condensation.
76-91-81	XJ6 2.9/3.6	0.60 hr	0.50 hr	Front Windscreen Condensation
76-91-72	XJ6 2.9/3.6	0.55 hr	0.40 hr	Rear Tail Light
76-91-83	XJ6 2.9/3.6	0.40 hr	0.30 hr	Oil Pressure Transmitter
76-91-64	XJ6 2.9/3.6	0.45 hr	0.30 hr	Fuel Tank Element
19-91-08	XJ6 2.9/3.6	1.00 hr	0.90 hr	Fuel Tank - Internal Hose Clipping.
76-91-82	XJ6 2.9/3.6	0.30 hr	0.20 hr	Fuel Filler Flap
76-91-08	XJS-C	1.85 hr	1.75 hr	Boot Ventilation

NOTE: No other Repair Times are affected.

ITEM: 12

57 P.A.S. RACK FIXINGS / TORQUE SETTINGS

XJ6

The torque settings quoted in the XJ6 2.9/3.6 Service Manual for the rack mounting securing nuts and bolts have been changed from 26-29 Nm to 45-55 Nm. Please ensure that all Service staff are made aware of this change.

ITEM: 13

64 / REAR SUSPENSION CREAKS

66

XJ6 2.9 / 3.6

Investigation into noises emanating from the rear suspension has identified that a creak can occur where the upper shock absorber assembly mounting bracket locates into the body aperture. To eliminate further instances of this fault, a spacer has been fitted (Fig 1) on all XJ6 vehicles built from VIN 571642.

This spacer is now available via Parts Supply and may be used as a retrospective in-service fix on vehicles with this fault.

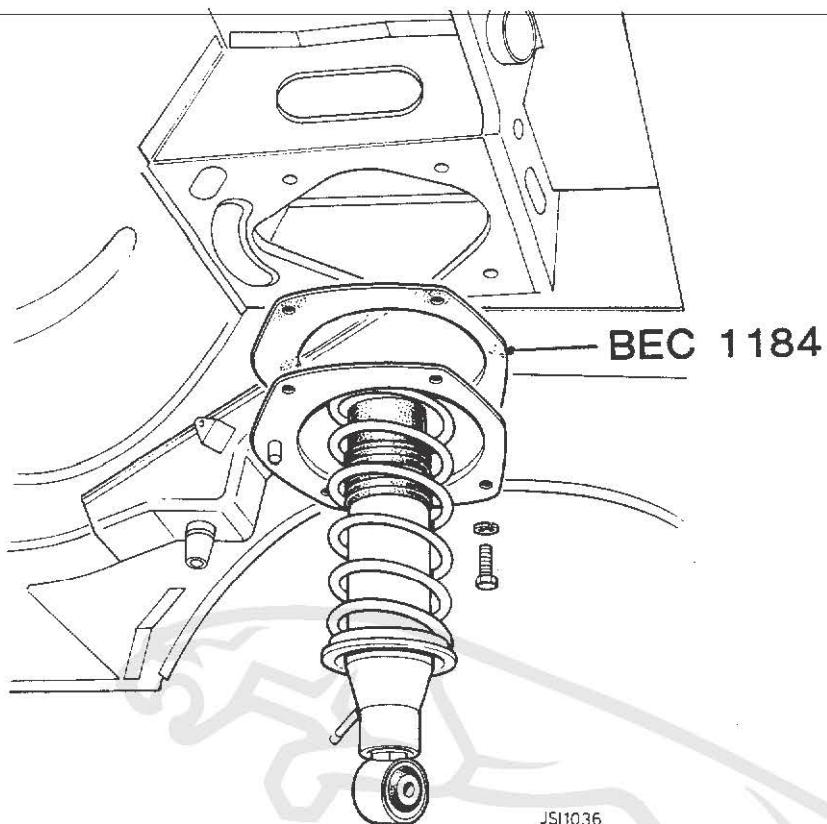


FIG 1

Rectification:

Referring to XJ6 Service Manual Pages 61-1 to 64-7 for non-ride level suspension or 66-9 to 66-10 for ride level suspension, displace road spring/shock absorber assemblies. Fit spacer BEC 1184 over shock absorber. Assemble upper mounting bracket (Ref to Fig 1). Reassemble suspension and road test vehicle.

NOTE: Road spring/shock absorber assemblies should not be dismantled.

The operation numbers, descriptions and times for the above procedures are as follows:-

64-91-01 Rear Shock Absorber Upper Spacer Modification - 1.15 hrs
66-91-08 Ride Levelling Strut Upper Spacer Modification - 1.70 hrs.

ITEM: 14

76 CLIP - INTERIOR DOOR HANDLE

XJ6 2.9 / 3.6

It has been established that extreme force applied to an interior door handle can cause the clip securing the operating cable to become disconnected.

Whilst the clip is simple to refit, it is recommended that it should be replaced by fitment of a new improved clip AGU 2678 RH and AGU 2679 LH which will remain in position.

The new clip should be fitted on a **Complaint Only** basis, using the Repair Operation Number and Time allowance quoted in this Bulletin.

Procedure:

1. Remove the door trim veneer panel.
2. Separate the retaining clip from the operating cable.
3. Fit the new clip AGU 2678 RH or AGU 2679 LH to the interior handle.
4. Insert the cable end into the clip and lock the clip into position on the cable.
5. Operate the handle to ensure it does not foul the clip. Clear as required by relieving the handle.
6. Refit the veneer panel.

Repair Operation Times as follows:

76-91-37	Door Remote Operating Cable Retaining Clip Modification	0.10 hrs
76-91-38	Door Remote Operating Cable Retaining Clip - Vehicle Set - Modification	0.40 hrs.

ITEM: 15

76 MECHANICAL FIXING OF FRONT SEAT SQUAB COVERS

XJ6 2.9 / 3.6

INTRODUCTION

A change in the method of securing the front seat squab trim covers to the squab foam/frame is being introduced on XJ6 2.9/3.6 models. Introduction is progressive, achieving 100% across all colour derivatives (in cloth and leather) by commencement of 1989 MY build.

The new method eliminates the use of adhesives in favour of a mechanical fix. Future parts supply of squab trim materials will be to the new design condition and it is therefore necessary to describe how these materials may be fitted to pre-1989 MY models should the need arise.

METHOD

Remove the seat (XJ6 Service Manual - Section 76.70.01).

Place the seat on a bench (suitably covered to prevent damage to the seat facing). Remove the lumbar support handwheel/escutcheon. Remove the seat recline handwheel/escutcheon (manual seat only). Remove the recline tube side covers - two on powered seats, one on manual seats.

Remove the squab back finisher, exposing all the trim cover fixings.

Remove the head restraint securing clip. Cut the ratchet strap to release the harness, and remove the head restraint.

Remove the steel spring clips (A Fig 1).

Release the fabric tie ribbons (C Fig 1).

Release the adhered edge of the cover from the frame (B Fig 1).

To fully release the cover, pass one hand between cover and foam support (at the areas shown in A Fig 2) and VERY CAREFULLY ease the cover away from the foam.

**CAUTION: ALTHOUGH THE COVER/FOAM SHOULD SEPARATE EASILY,
EXERCISE GREAT CARE TO PREVENT IRREPARABLE DAMAGE TO THE FOAM
SUPPORT.**

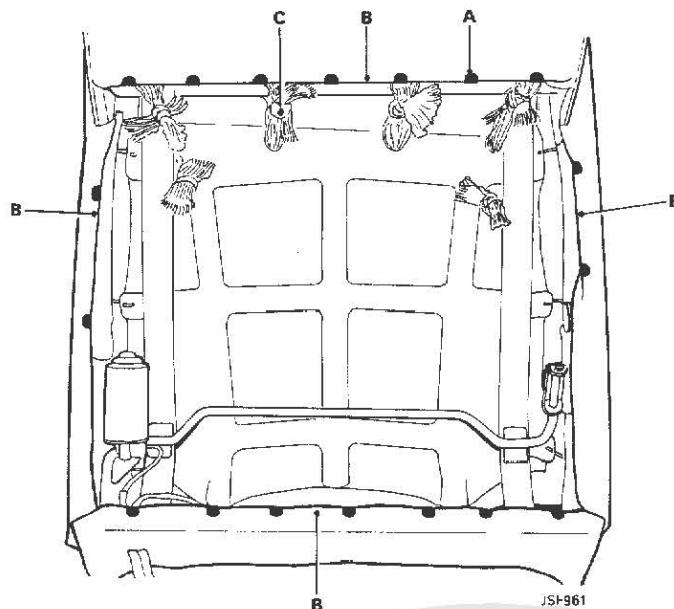


FIG 1

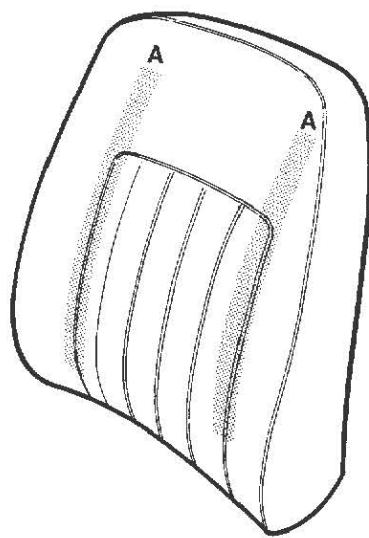


FIG 2

Obtain the following tools:

- 1 Air driven or electric hand drill.
- 2 Hammer and centre punch.
- 3 Pilot drill - maximum 2mm diameter.
- 4 HSS drill 4mm diameter.
- 5 HSS drill 7mm diameter.
- 6 Drill stop.
- 7 Measuring tape and scribe.

Drill 4 x 4mm holes in the seat frame in the positions shown in Fig 3.

NOTE: Dimension A Fig 3 = 6mm.
Dimension B Fig 3 = 152mm.

Drill 2 x 7mm holes in the seat frame side in the positions shown in Fig 4.

NOTE: Dimension A Fig 4 = 39mm.
Dimension B Fig 4 = 25mm.

N.B. A kit is required to fit the new squab covers according to the following procedure. This can be obtained from Jaguar Parts Supply by quoting Part No. JLM 1787.

PROCEDURE FOR DRILLING HOLES:

- 1 Refer to the relevant figure for hole size/location, mark and punch the hole centre.
- 2 Drill a pilot hole. NOTE: A pilot hole is necessary to prevent any possible frame damage, ie bending, which may result from the excessive pressure required to drill a full size hole.
- 3 Open out the holes to full size. NOTE: When drilling the 7mm holes, set the drill stop to allow the drill to penetrate 10mm ONLY. The drill MUST NOT be allowed to contact the recline motor.
- 4 Ensure that no drilling swarf/debris enters the gear recline mechanism.

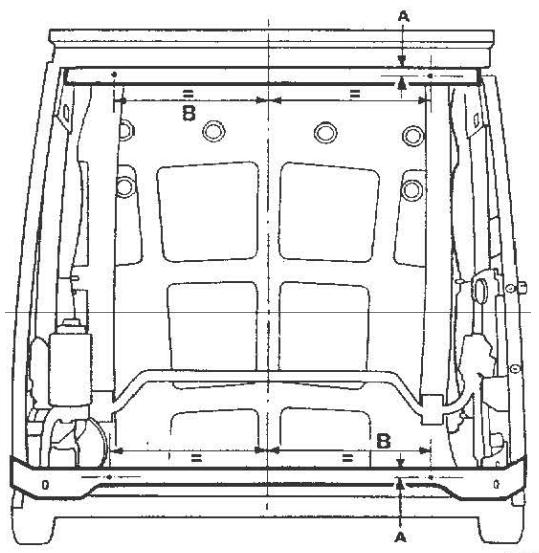


FIG 3

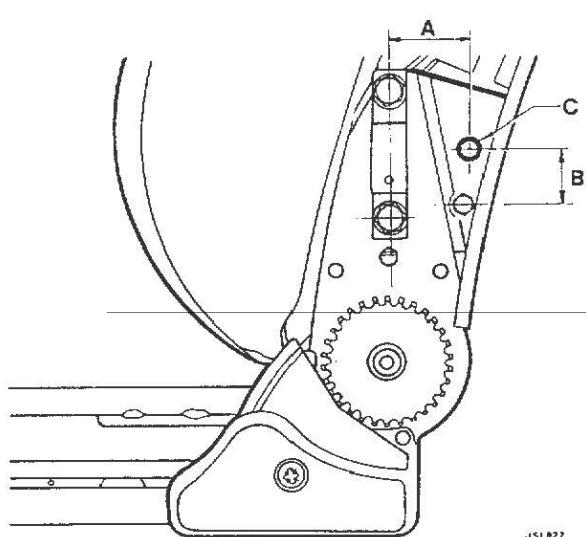


FIG 4

TRIMMING THE SQUAB USING MECHANICAL FIXINGS

Place the new squab cover on the bench. Trim off excess foam and piping where necessary (Figs 5 and 6).

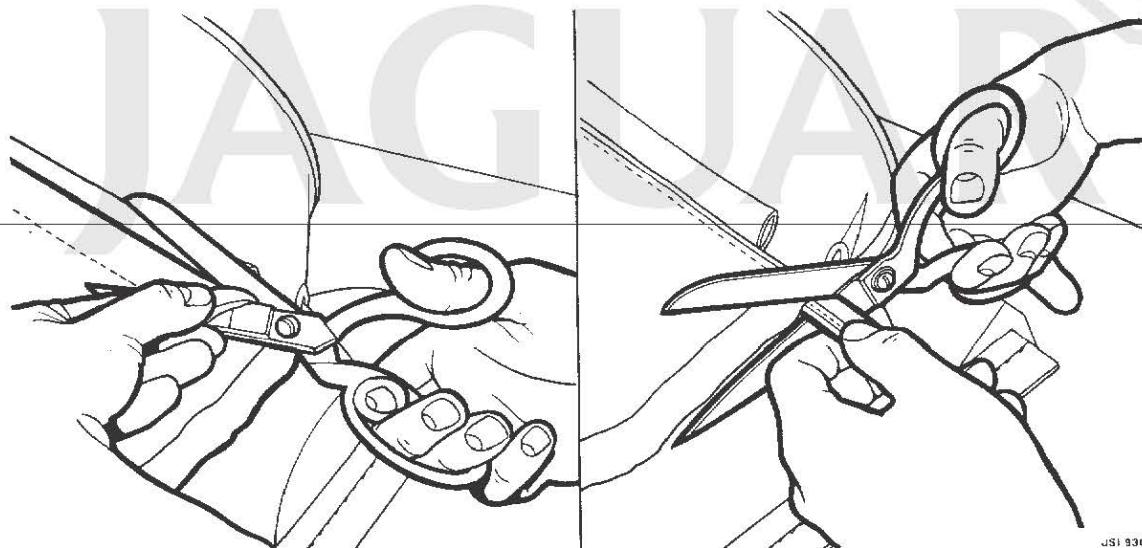


FIG 5

FIG 6

Attach fine, malleable draw wires to the yellow elasticated support cables (A Fig 7). Starting at the top, feed the draw wires down through the 'calico' material tubes that are fixed to the vertical inner edges of the squab cover (Fig 7). Leave approximately 200mm showing at the upper end.

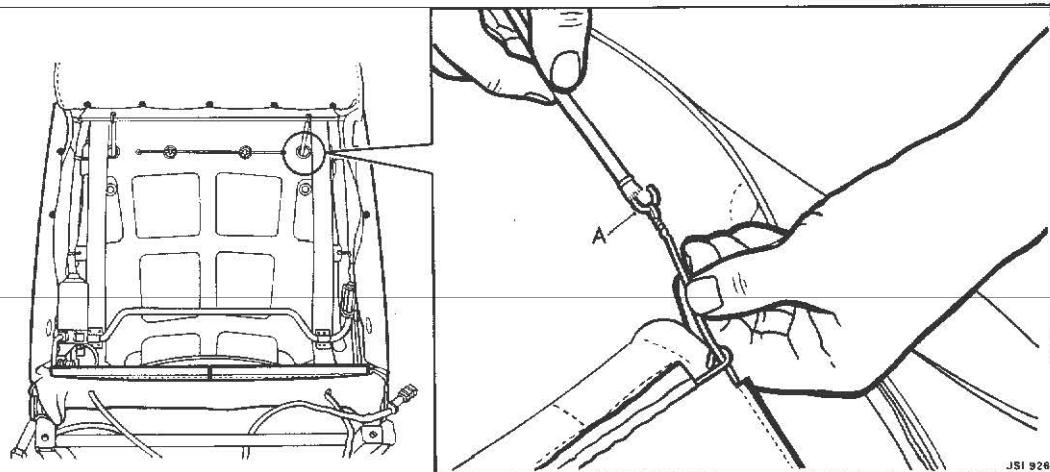


FIG 7

Feed the inner retainer cable through the upper horizontal 'calico' material tube. Feed the yellow support cables through the inner retainer cable eyes (Fig 8). Fit the cover to the foam squab, feed the 200mm of support cable through the slits in the foam and through the holes in the rubber diaphragm (Fig 9). Locate the support cable hooks into the upper frame 4mm holes (Fig 9).

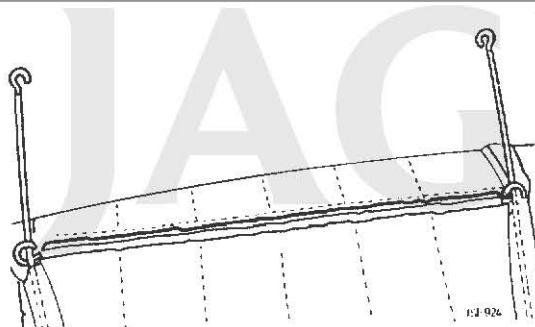


FIG 8

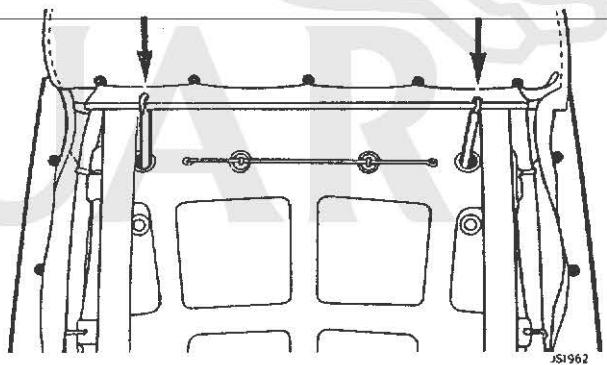


FIG 9

Carefully align the cover over the squab/frame, ensuring a good shape and tailored fit. Ensure that the head restraint/cover holes are aligned correctly. Pull the draw wires/support cables around the recline pivot tube. Hold one support cable under tension, remove the draw wire, and locate the hook into the lower frame 4mm hole (Fig 10). Repeat for the other draw wire/support cable. Feed the harnesses through the holes in the lower cover. Secure with new ratchet straps where necessary (Fig 11).

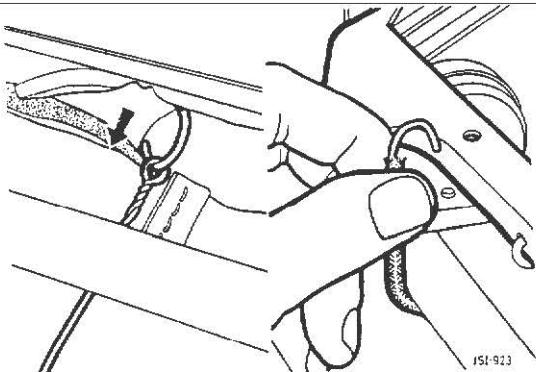


FIG 10

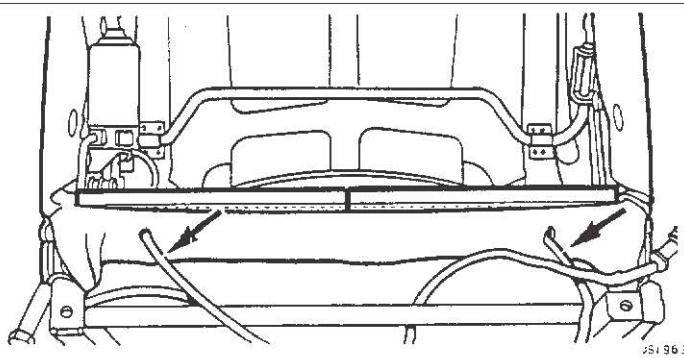


FIG 11

Fit the side borders into position and align the 7mm holes. Secure with 'fir tree' plastic studs (Fig 12).

Fit double-sided tape to the pivot flanges (Fig 13).

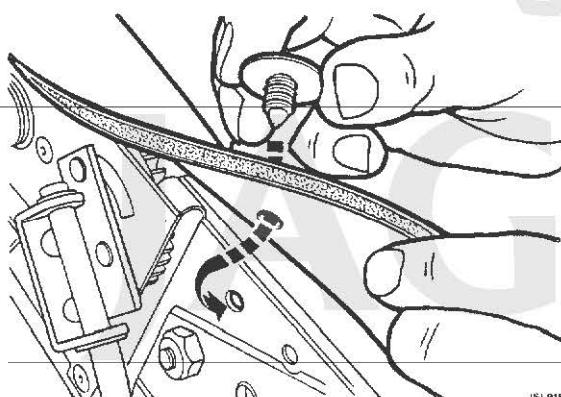


FIG 12

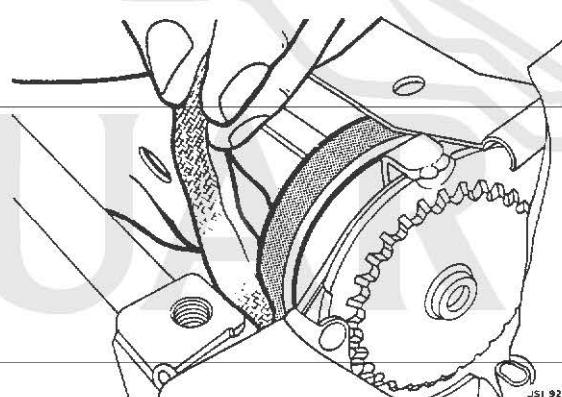


FIG 13

Remove the backing from the tape and position the cover lower trim onto the tape. Secure the plastic retainer onto the frame flange (Fig 14).

Secure the cover to the frame using steel clips (Fig 15).

NOTE: Spacing of clips is determined by a series of small holes in the cover material. Locate the clips at these holes.

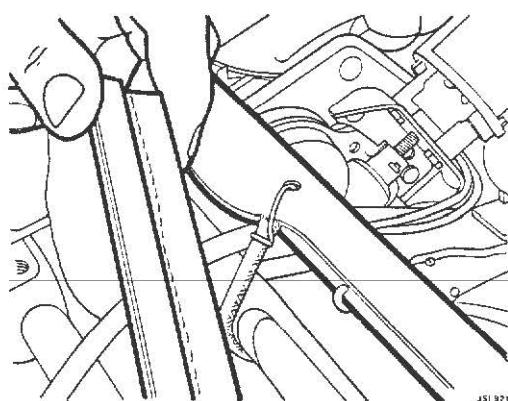


FIG 14

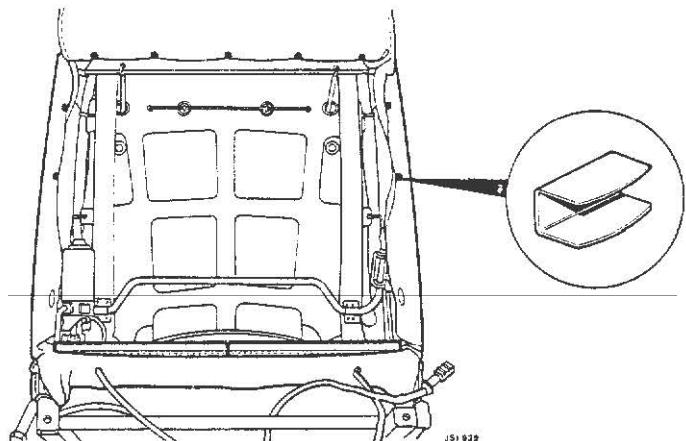


FIG 15

Place a suitable support block on the bench. Cover the block to prevent damage to the seat facing. Place the seat on the bench with the support block directly below the relief line (the relief line is arrowed in Fig 16).

Position the outer retainer cable as shown in Fig 16. Press down the diaphragm until the inner retainer cable (inside the 'calico' tube) meets the outer retainer cable. Secure both cables with 'hog rings' (Fig 16).

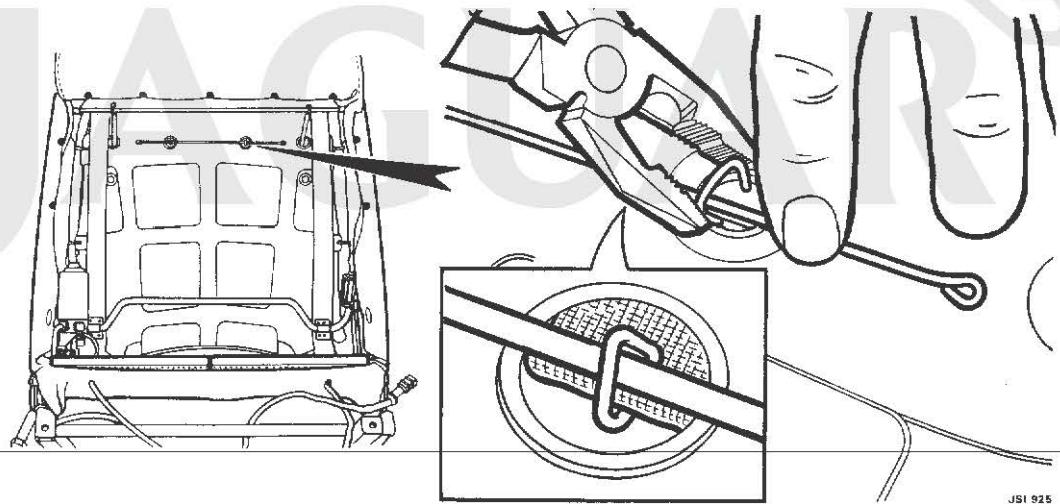


FIG 16

Refit the head restraint. Refit the squab back finisher.

Refit the lumbar support handwheel/escutcheon. Refit the seat recline handwheel/escutcheon (manual seat only).

NOTE: Use a bradawl to mark hole positions in the squab side cover for the lumbar support escutcheon

Refit the recline tube side covers - two on powered seats, one on manual seats.

Refit the seat to the vehicle 76.70.01.

REPAIR OPERATION TIMES

ELECTRICALLY OPERATED FRONT SEAT SQUAB MECHANICALLY FIXED COVER - RENEW:

S.R.O. 76.70.15. Time allowance - 1.45 hours.

MANUALLY OPERATED FRONT SEAT SQUAB MECHANICALLY FIXED COVER - RENEW:

S.R.O. 76.70.25. Time allowance - 1.40 hours.

ELECTRICALLY OPERATED FRONT SEAT SQUAB ADHESIVE FIXED COVER - RENEW USING MECHANICALLY FIXED COVER:

S.R.O. 76.91.29. Time allowance - 1.65 hours.

MANUALLY OPERATED FRONT SEAT SQUAB ADHESIVE FIXED COVER - RENEW USING MECHANICALLY FIXED COVER:

S.R.O. 76.91.28. Time allowance - 1.60 hours.

ITEM: 16

77 RECOMMENDED TREATMENT OF ELECTRONIC CONTROL DEVICES IN AN ACCIDENT REPAIR

ALL MODELS

Electronic components are manufactured and designed to withstand damage or stress which may arise during the manufacture and fitment to the vehicle.

Similarly, electronic control devices are positioned in or on the vehicle so as to survive most accidents relatively undamaged.

The replacement of electronic control devices after an accident is therefore only necessary when one or more of the following criteria are met:-

- 1 The housing is damaged or distorted
- 2 The mounting position or bearing surface is damaged or distorted.
- 3 The harness connector is damaged or corroded as a result of moisture.
- 4 The vehicle self-diagnosis facility or functional test indicates a fault.

ITEM: 17

77 BODY REPAIR - WELDING/BRAZING PRECAUTIONS

ALL MODELS

Due to the sensitive nature of certain electrical/electronic components on XJ6/XJS/SIII, essential precautions are necessary before carrying out welding or brazing.

1 DISCONNECT THE BATTERY BEFORE CARRYING OUT ANY BODY REPAIR WORK.
OBSERVE HEALTH AND SAFETY PRECAUTIONS.

2 Electric Arc Welding:

CAUTION: UNDER NO CIRCUMSTANCES MUST ELECTRIC ARC WELDING EQUIPMENT BE USED ON JAGUAR VEHICLES.

Due to the high voltages produced, electric arc welding can cause irreparable damage to the microprocessor/ECU controlled systems; therefore, this method of body repair must not be used.

3 Resistance Spot Welding:

Resistance spot welding can only be carried out on bare metal. It is assumed, therefore, that all trim and electrical components in the locality of the repair will have been removed prior to panel removal/replacement. It is, however, the responsibility of the technician to ensure that ALL sensitive electrical/electronic components in the locality of the repair are disconnected and removed before commencing work.

4 MIG welding/brazing (including MIG plug/tack/seam/butt welding):

As with resistance spot welding, MIG welding and brazing will only be carried out when all trim and electrical components have been removed, prior to painting. Again, it is recommended that ALL sensitive electrical/electronic components in the locality of the repair are disconnected and removed before commencing work.

Always observe Health and Safety precautions (see the relevant Service Manual, Section 77 - Body Repair). These methods of welding and brazing are the only ones recommended by Jaguar Cars Ltd.

ITEM: 18

84 WIPER MOTORS**XJS**

To improve the wiper system performance on XJS models, a new wiper motor has been introduced from VINs:-

152511 (RHD)
154405 (LHD)

Interchangeability between the previous wiper motor and the new system is affected. Should it become necessary to replace the earlier motor, a conversion is possible utilising the parts listed and following the detailed procedure. (For information on the earlier wiper motor availability and supersession details, please refer to Parts Technical Information Volume J8 Number J1, January 1989 Item 1).

Parts Required:

RHD Part No	Description
DAC 5504	Wiper Motor/Grille Assembly
DAC 6053	Intermittent Wipe Relay (Green Case)
DAC 6148	Wiper Arm RH Crank (Driver)
DAC 6150	Wiper Arm RH Straight (Passenger)

LHD Part No.

DAC 5505	Wiper Motor/Grille Assembly
DAC 6053	Intermittent Wipe Relay (Green Case)
DAC 6149	Wiper Arm LH Crank (Driver)
DAC 6150	Wiper Arm LH Straight (Passenger)

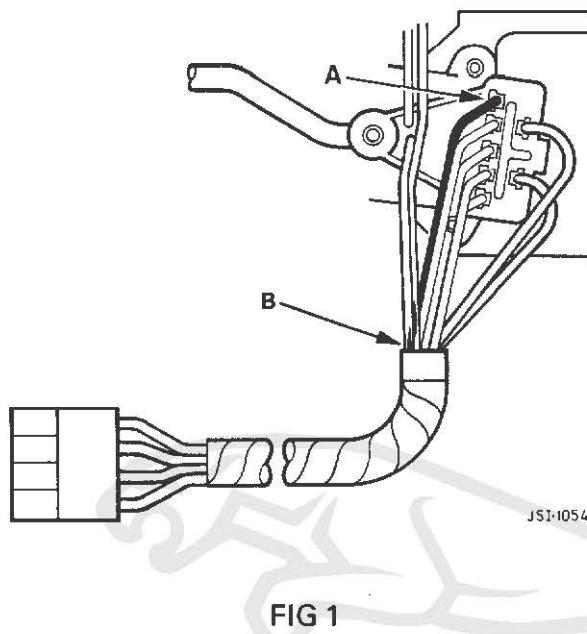
A labour allowance of 1.45 hrs may be claimed, quoting Repair Operation No. 84-91-04 and Complaint Code 7KA-B.

Modification Procedure:

Disconnect battery negative lead.

Wiper Switch

Access the wiper column switch, cut and remove the black (B) cable from the switch harness at points 'A' and 'B' as indicated in Fig 1.



Intermittent Wipe Relay:

Locate the intermittent wipe relay (see Service Manual).

Remove and replace with the new relay (green case) Part No. DAC 6053.

Model	Manual Ref	Key
3.6 RHD	86A 56/57	35
3.6 LHD	86A 58/59	23

(Please Note: 3.6 LHD key references Page 86A 58 are printed incorrectly; to obtain correct locations, move all key descriptions up one number. Key 1 "air pump" is deleted. Key reference 23 detailed above is corrected reference).

5.3 RHD	86A 60/61	43
5.3 LHD	86A 62/63	15

Wiper Motor / Grille Assembly:

Remove the old motor and grille assembly, replace with the new motor and grille unit.

Wiper Arm / Blade Setting Procedure:

Reconnect battery.

With the ignition switch 'on', switch on the wiper system and switch off with the wiper switch. (This procedure ensures that the wiper motor is in the 'parked' position). Note that with the new wiper system, there is no suppressed wiper blade parking. Switch the ignition off.

Fit the wiper arms and blades as shown in Fig 2, Diagrams (C) and (D).

Tighten the wiper arm fixing nut(s) to a torque of 9-10 Nm.

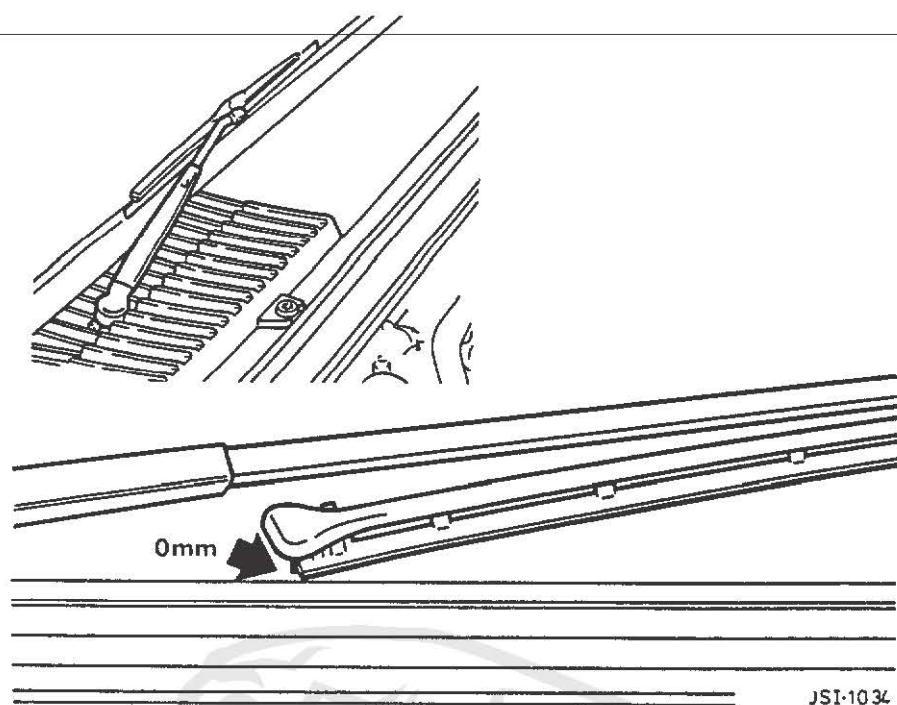


DIAGRAM C

Passenger side RH Drive shown.
LHD is symmetrically opposite.

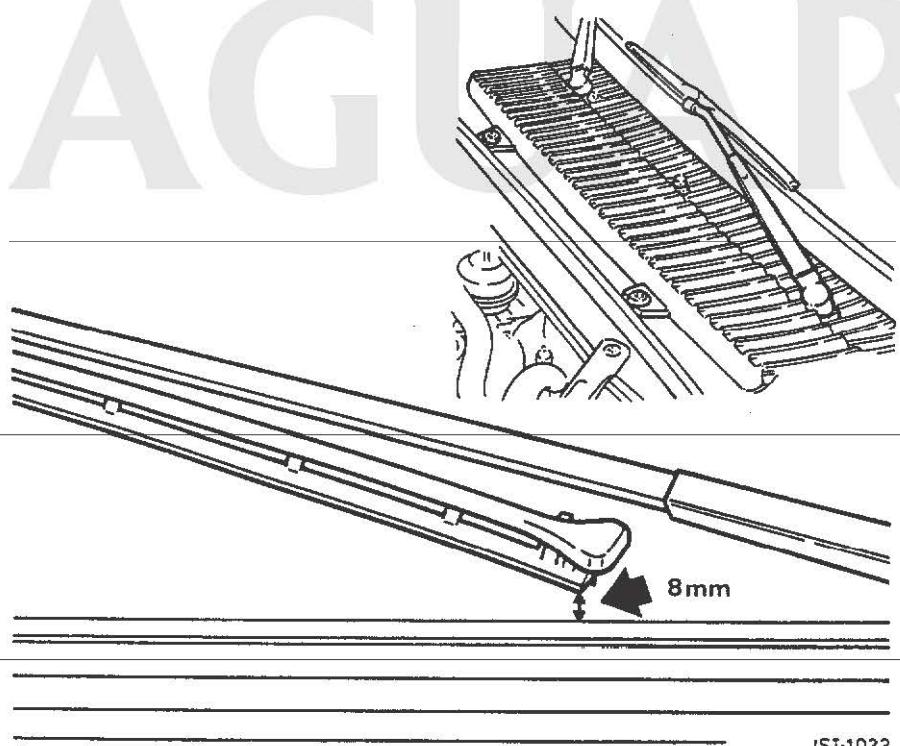


DIAGRAM D

Driver's Side LH Drive shown
RHD is symmetrically opposite.

Service Bulletin



DATE: APRIL 1989
SHEET: 1 OF 6
REF: JD 05 / 89

ERRATA

Service Bulletin JD 04/89, Section 76, Item 22, Page 3 of 9:-

Please note that the UK telephone number given for Drager Ltd is incorrect. This should be:-

(0442) 3542

We apologise for any confusion

ITEM: 26

44 A, B AND D CLUTCHES END PLAY ADJUSTMENT

ALL MODELS FITTED WITH
ZF 4 HP 22 AUTO. TRANS.

To ensure maximum shift quality on rebuilt ZF 4HP 22 transmission units, Service Tool JD 157 has been developed by V L Churchill Ltd., to ensure that clutch end play adjustment is correct. This is achieved by taking measurements following the procedures given below, and fitting the correct adjustment plate or spring ring as appropriate.

Carry out clutch end play adjustment whenever the transmission unit is overhauled (Service Manual Procedure 44.20.06).

The tool comprises:

- 1 Base plate.
- 2 Top plate (15mm thickness).
- 3 Securing nut.

D CLUTCH

The D clutch consists of four friction plates (lined) and five metal plates. By varying the thickness of the outer metal plate, end play can be adjusted. Outer plates are available as follows:

D CLUTCH OUTER PLATE	PLATE THICKNESS
PART NUMBER	

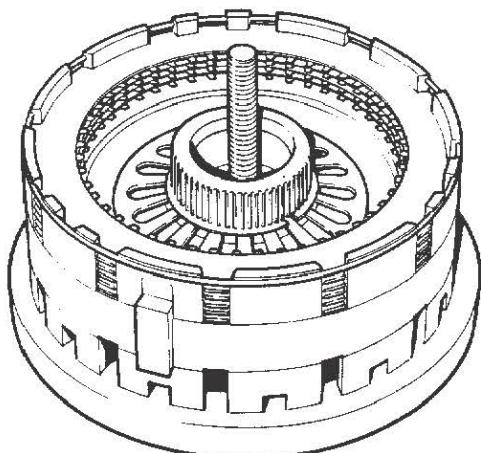
JLM 991	1,2mm
JLM 997	1,5mm
JLM 992	1,8mm
JLM 999	2,1mm

Adjustment procedure:

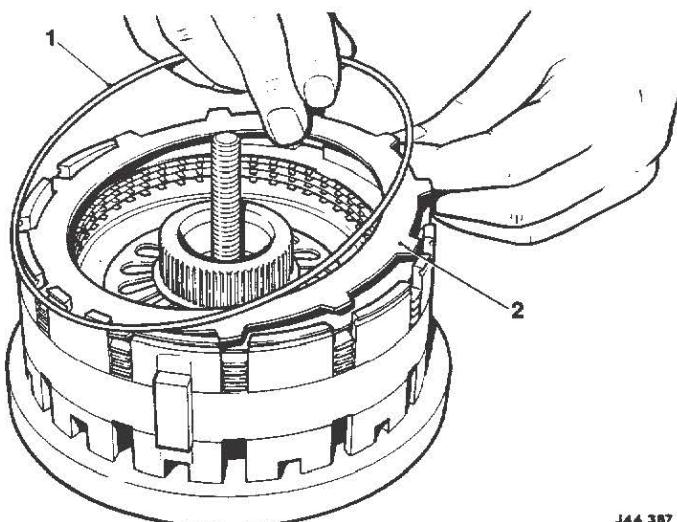
Locate the C/D clutch assembly onto Service Tool JD 157 base plate with the D clutch uppermost (Fig 1).

Remove the D clutch snap ring (1 Fig 2).

Remove the outer metal plate (2 Fig 2).



J44 386



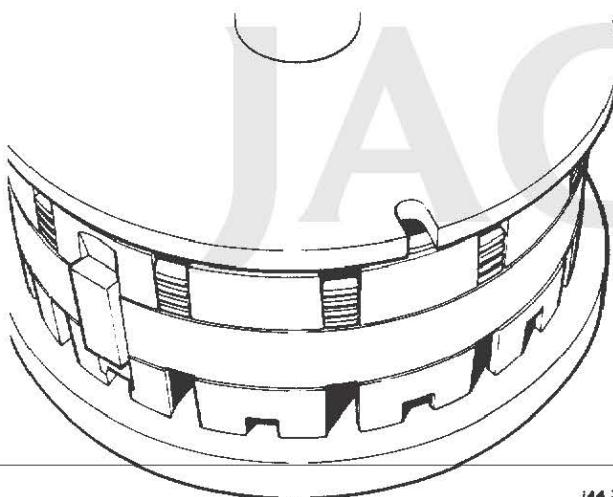
J44 387

FIG 1

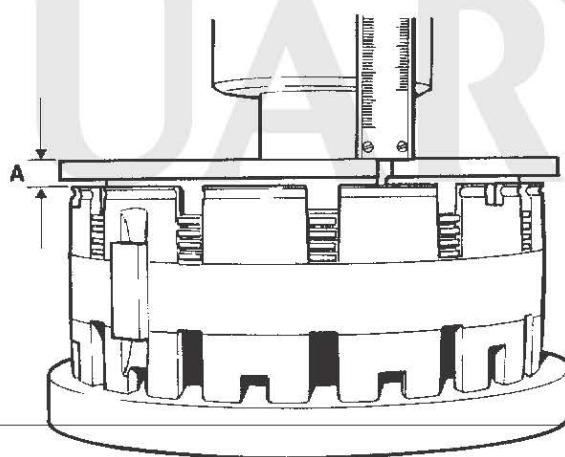
FIG 2

Locate Service Tool JD 157 top plate onto the D clutch. Fit and hand tighten the securing nut.
NOTE: Ensure that the cut-out in the top plate is located above the top of the CD cylinder as shown in Fig 3.

Using a vernier, measure from the upper edge of the top plate of the Service Tool to the top of the cylinder (Fig 4). Note the measurement (A Fig 4).



J44 388



J44 389

FIG 3

FIG 4

Subtract the measurement taken (A) from the thickness of the service tool top plate (15mm) to give dimension B (Fig 5). Refer to the tolerance table below to find the correct thickness of the outer plate. For example:

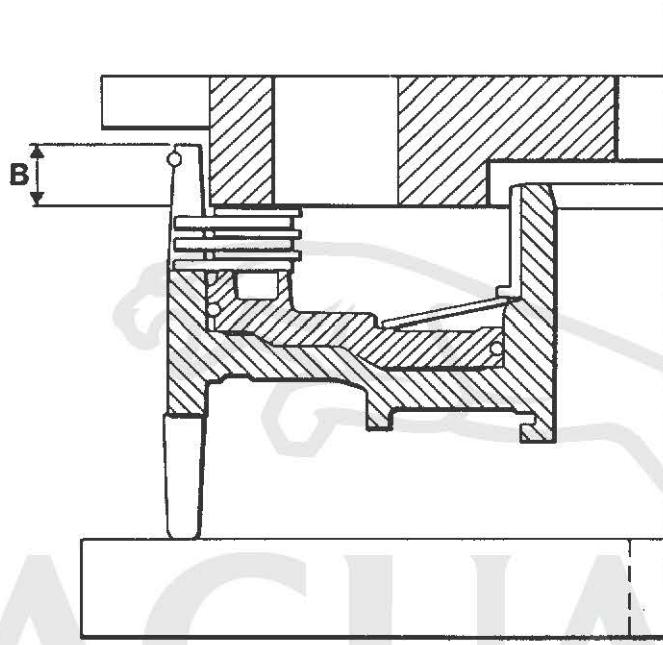
Measurement A taken with outer plate removed = 9,2mm.
 Thickness of top plate (15mm) less measurement A = 15 - 9,2.
 Dimension B = 5,8mm.

Refer to the Tolerance Table (Up to 6, 1).
 Correct outer plate thickness to be fitted = 1,2mm.

TOLERANCE TABLE

Dimension B (mm)	Thickness of outer plate required
Up to 6,2	1,2
Between 6,2 and 6,5	1,5
Between 6,5 and 6,8	1,8
6,8 upwards	2,1

Remove the Service Tool from the C/D clutch assembly. Fit the outer plate and snap ring.



J44 390

FIG 5

A CLUTCH

The A clutch consists of six friction plates (lined), seven metal plates and two spring plates. By varying the thickness of the outer metal plate, end play can be adjusted. Outer plates are available as follows:

A CLUTCH OUTER PLATE PART NUMBER	PLATE THICKNESS
JLM 1064	1,8mm
JLM 1065	1,2mm

Adjustment procedure

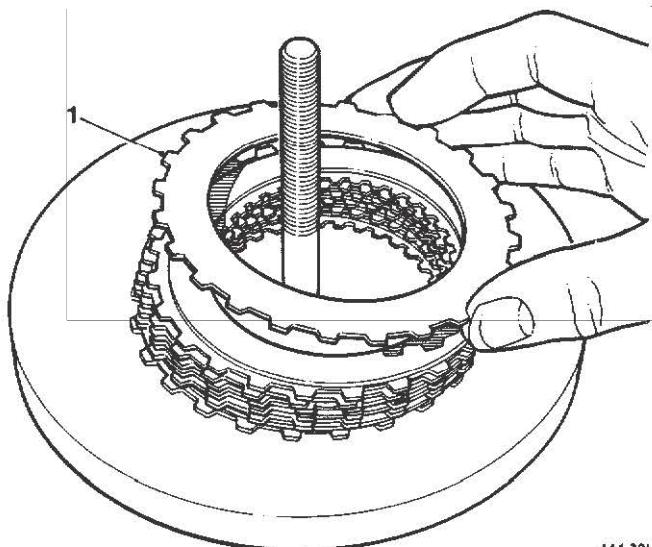
Remove the clutch pack from the A clutch hub.

Remove the two spring plates from either end of the clutch pack.

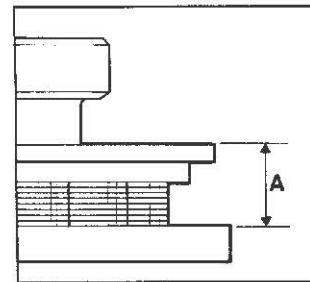
Locate the A clutch pack on to Service Tool JD 157 base plate (Fig 6).

NOTE: There are four thick metal plates and three thin metal plates. The thin plates should be uppermost on the service tool.

Remove the outer (thin) metal plate (1 Fig 6).



J44 391



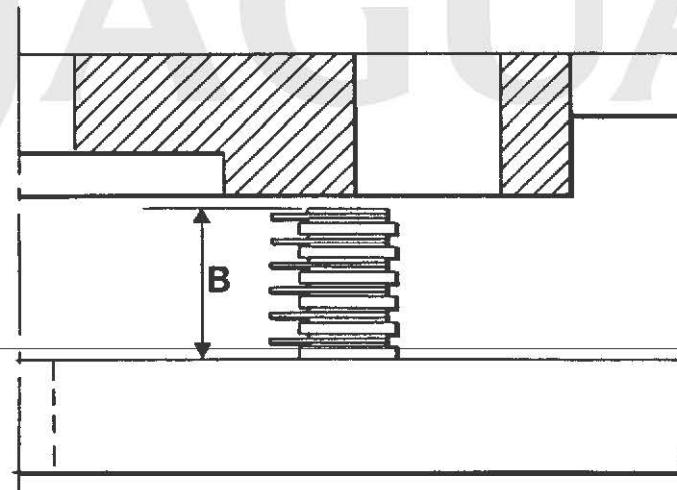
J44 392

FIG 6

FIG 7

Locate Service Tool JD 157 top plate on to the clutch pack. Fit and hand tighten the securing nut.
Using a vernier, measure from the upper edge of the top plate to the bottom of the clutch pack.
Note the measurement (A Fig 7).

Subtract the thickness of the service tool top plate (15mm) from the measurement taken (A) to give dimension B (Fig 8).



J44 393

FIG 8

Refer to the tolerance table to find the correct thickness of the outer plate. For example:

Measurement A taken with outer plate removed = 33,6mm.
Measurement A less thickness of top plate (15mm) = 33,6 - 15.
Dimension B = 18,6mm.

Refer to the Tolerance Table (Up to 19,0).
Correct outer plate thickness to be fitted

= 1,8mm.

TOLERANCE TABLE

Dimension B (mm)	Thickness of outer plate required
Up to 19,0	1,8
19,0 upwards	1,2

Remove the Service Tool from the A clutch assembly. Fit the outer plate and two spring plates. Refit the clutch pack to the clutch hub.

NOTE: Ensure that the thick metal plates face inwards towards the piston.

B CLUTCH

The B clutch consists of four friction plates (lined), five metal plates and one spring plate. Note that the thickness of the metal plates can vary according to transmission unit specifications, two thicknesses are used (1,8mm and 2,1mm). By varying the thickness of the spring plate, end play can be adjusted. Spring plates are available as follows:

B CLUTCH SPRING PLATE PART NUMBER	PLATE THICKNESS
JLM 1893	2,5mm
JLM 1894	2,02mm
JLM 1895	1,5mm

Adjustment procedure

Remove the clutch pack from the B clutch hub.

Remove the spring plate from the clutch pack.

Locate the B clutch pack onto Service Tool JD 157 base plate (Fig 9).

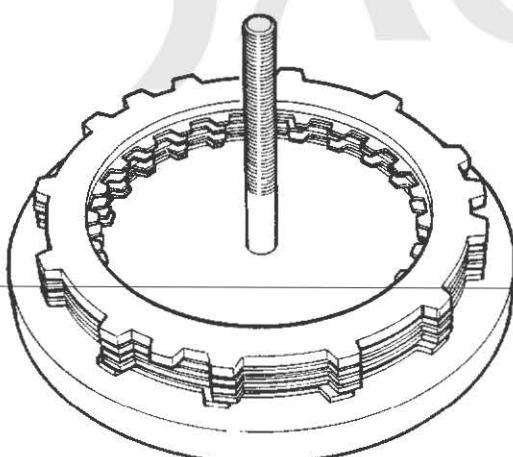


FIG 9

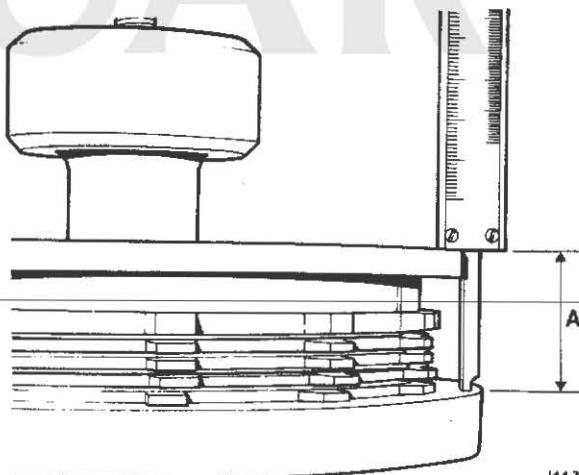


FIG 10

Locate Service Tool JD 157 top plate onto the clutch pack. Fit and hand tighten the securing nut.

Using a vernier, measure from the upper edge of the top plate to the bottom of the clutch pack. Note the measurement (A Fig 10).

Subtract the thickness of the service tool top plate (15mm) from the measurement taken (A) to give dimension B (Fig 11).

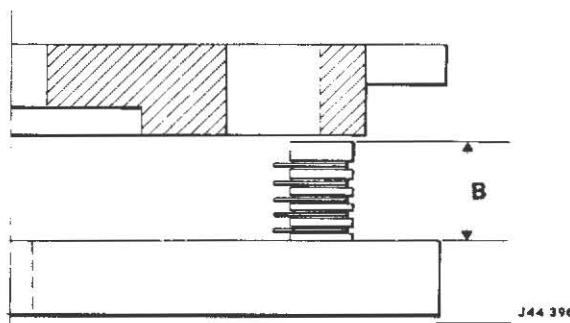


FIG 11

Refer to the tolerance table to find the correct thickness of the spring plate. For example:

Measurement A taken with spring plate removed = 32,2mm.

(Note: Clutch pack with 2,1mm metal plates)

Measurement A less thickness of top plate (15mm) = 32,2 - 15.

Dimension B = 17,2mm.

Refer to the Tolerance Table (Up to 19,20).

Correct spring plate thickness to be fitted = 2,02mm.

TOLERANCE TABLE

Dimension B (mm)	Thickness of spring plate required
METAL PLATE THICKNESS 1,8mm:	
Up to 18,0	2,02
18,0 upwards	1,5
METAL PLATE THICKNESS 2,1mm:	
Up to 19,20	2,02
19,20 upwards	1,5

Remove the Service Tool from the B clutch assembly. Fit the spring plate. Refit the clutch pack to the clutch hub.

Re-assemble the transmission 44.20.06.

Refit the transmission unit 44.20.01.

ITEM: 27

76 CONVERTIBLE HOOD REPLACEMENT

XJS CONVERTIBLE

This Bulletin is intended to assist Dealers with replacement of the convertible hood. It also includes the procedure for replacement of the heated back-light.

Materials Required: JLM 1588 — Betaseal Repair Kit.
Adhesive - Dunlop 1358 or equivalent.

Special Tools
Required: 2 Suction Pads for back-light fitment.
1 Suction Clamp JD 158, for fitment to the rear window during
the sealant curing period.
1 Wooden Drift for dressing the hood rim — Fig 3.
1 Wooden drift for aligning the tensioning cable — Fig 4
(Optional).

Recommended Special Equipment:

KM 4105	Vibro Knife
KM 4105-73	Blade
KM 4105-76	Blade
KM 4105-97	Blade
KM 4105-103	Blade
KM 4105-113	Blade

U.K. Supplier: Kent-Moore U.K. Ltd
 Seale Power Corporation
 86 Wharfside Road
 Tyseley
 Birmingham B11 2DD

SECTIONS: 1 Back-light Removal
 2 Hood Removal
 3 New Hood Fitment
 4 Back-light Refit

1. Back-light Removal

- 1.1 Disconnect heated back-light wiring connectors.
- 1.2 Remove the back-light outer flange rubber, noting that it will be adhered to the glass at each corner.
- 1.3 Remove the aperture inner flange rubber, also adhered.
- 1.4 Using cheesewire, carefully cut out the back-light glass and place onto a soft clean surface.

At this stage, proceed to Operation 2 if the hood is to be replaced, or Operation 4 if the backlight only is to be replaced.

2. Hood Removal

- 2.1 Remove the rear quarter trim pads 76-13-12 and rear stowage 76-11-16.
- 2.2 Release the press studs securing the hood interior side curtain straps.
- 2.3 Remove the bolts and release the backlight support brackets.
- 2.4 Release the screws and remove the curtain rod retaining clips. Withdraw the rods and move the curtains aside.
- 2.5 Remove the bolts and release the rear quarter headlining retainer brackets.
- 2.6 Release the front hood locking handles and partially open the hood to the mid-position.
- 2.7 Carefully release the sections of carpet glued around the hood cable mountings. Release the cable locknuts.
- 2.8 Release the screws and remove the hood outer finishers, then withdraw the tensioning cable.
- 2.9 Raise the rear of the hood and carefully release the section of headlining adhered to the body aperture flange.

- 2.10 Release the bolts and remove the operating cylinder pivot brackets (A Fig 1).
- 2.11 Release the bolts securing the hood mountings to the body (B Fig 1).
- 2.12 Select manual position on the pump valve, fold the hood and whilst supporting, release and remove each cylinder upper fixing bolt.
Note the position of the spacing washers.
- 2.13 Displace the cylinders from the hood brackets and lift the hood from the vehicle.

3. New Hood Fitment

- 3.1 Position the hood on the vehicle, locating the pins into the header rail clips.
- 3.2 Fit but do not tighten the two top bolts securing each hood mounting to the body (B Fig 1).
- 3.3 Locate the cylinders to the hood mounting brackets.
- 3.4 Select manual operation on the pump valve, partially open the hood, align the cylinder upper fixings and insert the bolts, **do not tighten**.
- 3.5 Position the cylinder pivot brackets and insert the mounting bolts (A Fig 1).

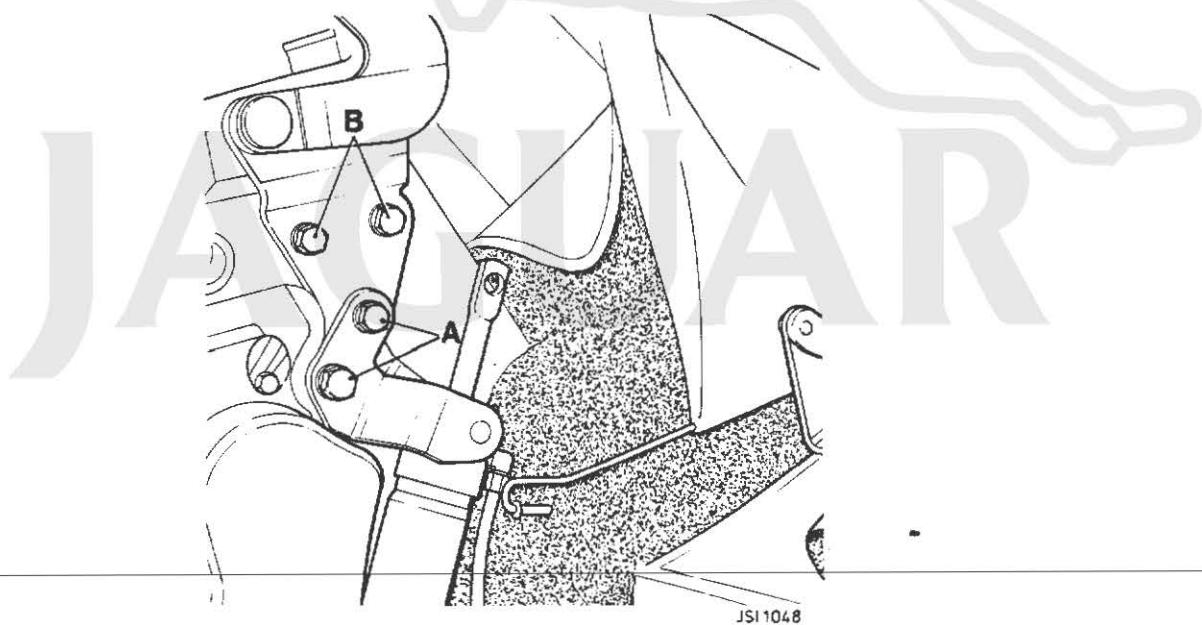
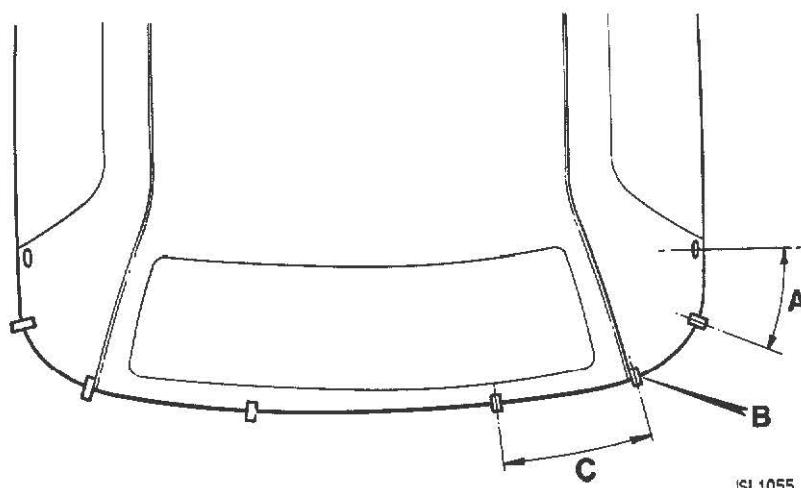


FIG 1

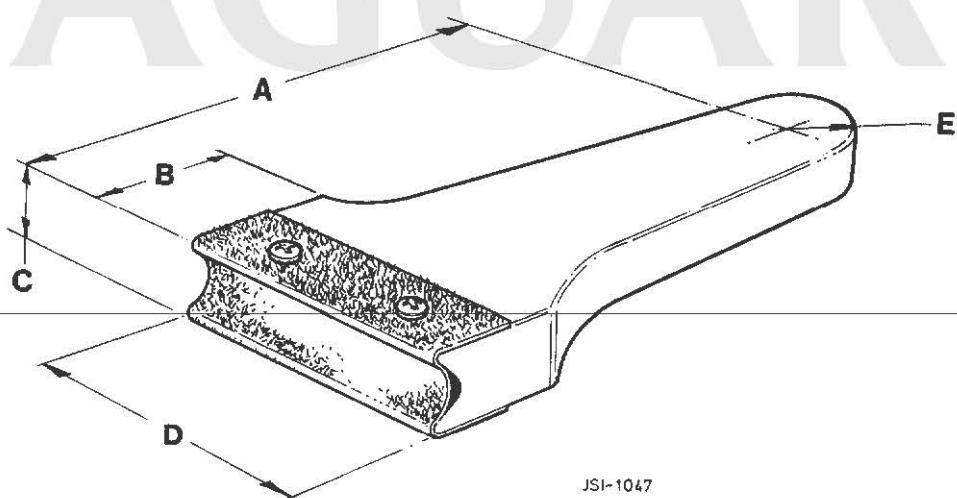
- 3.6 Fully tighten all bolts.
- 3.7 Position the backlight support brackets and insert the bolts.
Do not tighten.
- 3.8 Position the rear quarter headlining retainer brackets, insert the bolts and tighten.
- 3.9 Apply adhesive to the edge of the headlining and secure to the body aperture flange.
- 3.10 Select manual operation on the pump valve and fully raise the hood, select electric operation on the pump valve to hold the hood in position.
- 3.11 Position the rear of the hood to the body, thread the cable through the loops and position the loops as indicated (Fig 2).



A = 250 mm (9.75°).
 B = Outboard of the longitudinal seam.
 C = 420 mm (16.5°).

FIG 2

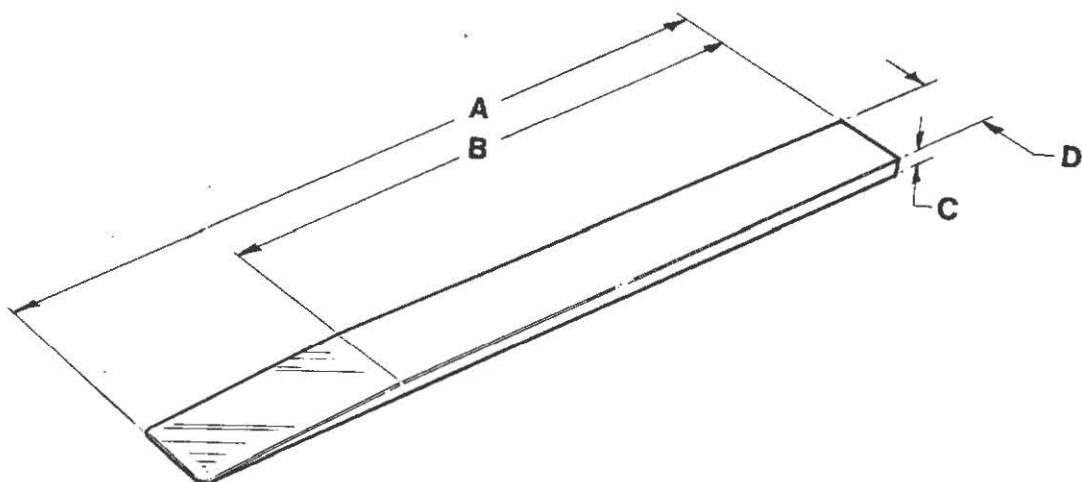
- 3.12 Thread the cable through the hood and into the mounting brackets. Fit the locknuts loosely.
- 3.13 Adjustment of the cable is very important and must be carried out correctly. To carry out the process, two wooden drifts are recommended; these are identified as Tool "A" which is considered essential and Tool "B" which is optional. The tools should be made by the Dealer to the dimensions given.



Tool "A" - Fig 3: Dimension A = 135mm, 5.25"
 B = 32mm, 1.25"
 C = 16mm, 0.625"
 D = 65mm, 2.5"

FIG 3

To protect the vehicle paintwork, suitable soft material, i.e. leather or felt should be glued or screwed to the drift as shown.



JII-192

Tool "B" - Fig 4: Dimension A = 270mm, 10.5"
 B = 190mm, 7.5"
 C = 6mm, 0.25"
 D = 25mm, 1.00"

FIG 4

Progressively dress the hood rim using Tool "A" whilst tightening the cable locknuts to a torque of 4.5 Nm.

Tool "B" is used to refine the cable positioning and when fitted correctly, the hood should fit neatly to the body flange with the cable hidden.

- 3.14 Fit the exterior hood finishers, initially by aligning the material and using a bradawl to locate the screw hole. Insert the screw and secure. When positioned the hood rim will fit up to the flange of the rear quarter glass seal (Fig 5). CAUTION: Ensure that a rubber cap, BDC 9031, is fitted over the point of each screw to prevent damage to the hood material when in the full open position.

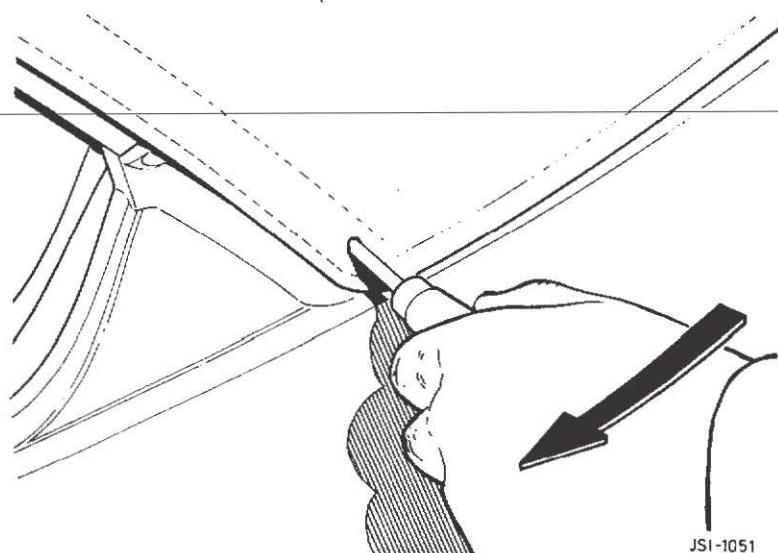


FIG 5

- 3.15 Apply adhesive to the carpets and secure into position.
- 3.16 Adjust the back-light support brackets to eliminate any wrinkling of the material, tighten the bolts.
- 3.17 Insert the rods into the inner curtains and secure with plastic clips. Secure the side curtain straps.
- 3.18 Refit stowage and lower trim panels.

4. Back-light Refit

- 4.1 After removal of the back-light, it will be necessary to remove some of the old sealant from the aperture flange. This can be achieved by using either a sharp knife or a vibro-knife as recommended by Jaguar Cars. Provided there is good adhesion, a thin even bead of sealant can be left on the flange.
- 4.2 Prepare the glass for glazing by removing any excessive thickness of sealant. A thin even bead of sealant can be left on, provided the adhesion is good.
- 4.3 Apply adhesive and fit the inner flange rubber into the aperture with the joint at the centre of the lower section.
- 4.4 Spirit wipe the aperture flange and brush with Betaseal primer.
- 4.5 Move to the back-light glass and apply adhesive at each corner.
- 4.6 Fit the outer flange rubber to the glass, with the joint at the lower centre.
- 4.7 Fit JD 158 to the glass and spirit wipe the glass to remove contaminants; apply the glass primer by brush or felt pad.
- 4.8 Apply a bead of Betaseal to the glass using the flange rubber as a guide. The bead should be 13-16 mm deep.
- 4.9 Locate the glass into the aperture and fully seat the outer flange rubber into position.
- 4.10 Fit the suction clamps JD 158 inside the vehicle and tension to hold the glass into position during the curing process (minimum 2 hrs).
- 4.11 After the curing period, remove the brackets and refit the wiring connections to the heating element.

Repair Operation No: 76-86-01 Hood Renew including Back-light—Remove and Refit
Repair Time: 3.4 hrs

Repair Operation No: 76-81-11 Heated Back-light—Remove and Refit.
Repair Time: 1.05 hrs.

1907F

Service Bulletin

**JAGUAR****Daimler**

☆ 2nd ISSUE ☆

DATE: MAY 1989
SHEET: 1 of 4
REF: JD 07/89

ITEM: 33

12 ONE PIECE REAR MAIN OIL SEAL

V12 MODELS

This seal replaces the rope seal previously in use. However, it is not possible to fit retrospectively as a revised cylinder block and rear main bearing cap have been introduced to coincide with its introduction from:

Engine Nos:

8S 66783—XJS
7P 02073—S.III

VIN Nos:

160010—XJS
481485—S.III

This seal is similar to that currently used on the AJ6 engine and therefore the same remove/refit procedures apply.

REPLACEMENT PROCEDURE

1. With the vehicle raised on the ramp, remove the gearbox, Workshop Manual Operation No. 44.20.01.
2. Carefully distort and remove the old seal, taking care not to damage the crankshaft surface; (this can be achieved by punching two holes with a suitable hole punch and extracting with suitably shaped thick welding wire/steel rods).
3. Clean the crankshaft.
4. Place the new oil seal (EBC 2101) and guide with the front face adjacent to the crankshaft.

NOTE: If the seal guide is displaced upon receipt from the stores, it **MUST BE DISCARDED** as it will be deformed, rendering it unsuitable for fitment/use.

5. Apply even pressure (the use of a suitable dummy tool is desirable to achieve this) and fit the new seal squarely into the block bearing cap recess such that it is flush with the end face.
6. Remove the seal guide.
7. Refit the drive plate.
8. Refit the gearbox.

Remove and Refit Times:

XJS Federal	—6.35 hrs
XJS R.O.W.	—5.70 hrs
S.III	—6.00 hrs

18 IGNITION COIL

S.III V12

A new single solid state ignition coil and king lead assembly with improved high load performance characteristics have been progressively introduced on S.III V12 models from Engine Number 7P 62208 SA.

In conjunction with the change to the new coil, the forward-mounted auxiliary coil and associated harness have now been deleted.

As both ignition amplifier leads have female Lucas terminals on the new installation, care must be taken when connecting the amplifier leads, should removal of the coil be required, i.e.:-

- * White lead to the positive (+) terminal.
- * White/black lead to the negative (-) terminal.

In the event that an ignition amplifier should require replacing on a vehicle equipped with a solid state coil, the following modification will be required to the amplifier harness before connection is possible:-

- * The male Lucas connector on the white/black cable should be cut off as close to the Lucas as possible. Retain the existing Lucas insulation cover and crimp and solder a suitable female Lucas connector to the cable.

ITEM: 35

79 CLEARCOAT SURFACE POLISHING

ALL MODELS

Service Bulletin JD 03/88, Item 24, identified a workshop procedure for removing minor surface blemishes and polishing the clearcoat of Clear Over Base finishes. A number of finishing products were recommended for use in carrying out the rectification process.

In liaison with the 3M Company, Jaguar have continued to evaluate new materials, aimed at assisting dealers in preparing vehicles to showroom condition. To this end, 3M have produced a new polishing compound, "Finesse-It", as a direct replacement for the 'Single-Step' finishing compound.

Service have established that "Finesse-It", used in conjunction with other recommended finishing aids, will produce a deep gloss to a very high standard.

This Bulletin Item will provide guidance to Dealers for the removal of fine surface scratches and minute dirt particles from the clearcoat. It must be emphasised, however, that corrective action applied injudiciously may promote further problems. It is recommended that all blemishes should be assessed objectively, as the rectification may be more apparent than the original fault.

BASIC PRECAUTIONS:

1. Where surface scratches will require flattening, the use of 3M 314 and 737 line "Wetordry" paper is recommended.
2. Flattening paper should be pre-soaked in a container of clean water to which a little soap has been added. This makes the paper more pliable and less prone to clogging.
3. Always use plenty of water when flattening, applying only light pressure. Check often to see if the blemish has been removed. DO NOT OVERSAND.

4. Where possible use a fibre or rubber block when flattening to prevent "finger marking" the panel.
5. After flattening, clean the panel thoroughly before polishing.

As with the earlier Bulletin, we have identified two typical problems and detailed a procedure for rectifying each one.

1. FINE SCRATCHES

- 1.1 Apply "Finesse-It" compound to the affected area.
- 1.2 Polish the panel using the 3M compounding sponge pad or Superbuff 2+2 pad on a polishing machine operating between 1400-2500 rpm.
- 1.3 Use light pressure and keep the mop moving across the panel.
- 1.4 If required, complete the operation with a complete panel polish using imperial machine or hand glaze to fill minor compound scratches or swirl marks.

2. DIRT NIBS OR LOCAL HEAVY SCRATCHES

- 2.1 Use either 3M fine or superfine 737 "Wetordry" paper; sand the defect with light pressure using plenty of water.
- 2.2 After sanding, clean off the panel and inspect to ensure that the defect has been removed.
- 2.3 It may be necessary to use 3M auto paste compound - medium, to remove flattening marks. This should be applied with a cloth and mopped in the same way as with "Finesse-It".
CAUTION: Where a 3M Superbuff 2+2 mop is used, ensure that the same side is not contaminated by both compounds.
- 2.4 Apply "Finesse-It" compound and polish as indicated in instruction 1.2.
- 2.5 Complete the process, if required, as indicated in instruction 1.4.

Materials described in the following list should be obtained from local agents/distributors of 3M's products. Should any difficulties arise in locating a local supplier, please contact UK Head Office direct at:-

3M UK Plc
 3M House, PO Box 1
 Bracknell,
 Berkshire, RG12 1JU
 England

Tel: Bracknell (0344) 426726
 Fax: (0344) 58278.

MATERIAL LIST

3M "Finesse-It" Finishing Material	Part No. 09639
3M Auto Paste Compound - Medium	Part No. 05428
3M Superbuff 2+2 Pad	Part No. 05701
3M Compounding Sponge Pad 14mm thread	Part No. 09637
3M Compounding Sponge Pad 5/8" thread	Part No. 09638
3M 314 Fine Wetordry Paper	Part No. 01966
3M 737 Superfine Wetordry Paper	Part No. 01968

In addition, there are superbuff adaptors available to fit most machine mops:

14mm Adaptor Part No. 05512
5/8" Whitworth Adaptor Part No. 05710

ITEM: 36

86 IN TRANSIT SPARKING PLUG PROTECTION

XJS V12/S.III V12

To address repeated problems of sparking plug foul on V12 models at Port of Entry or PDI, it is proposed that full load enrichment is to be disconnected for transit and reconnected at PDI. This will reduce the possibility of detrimental overfuelling when loading/unloading vehicles during the delivery cycle.

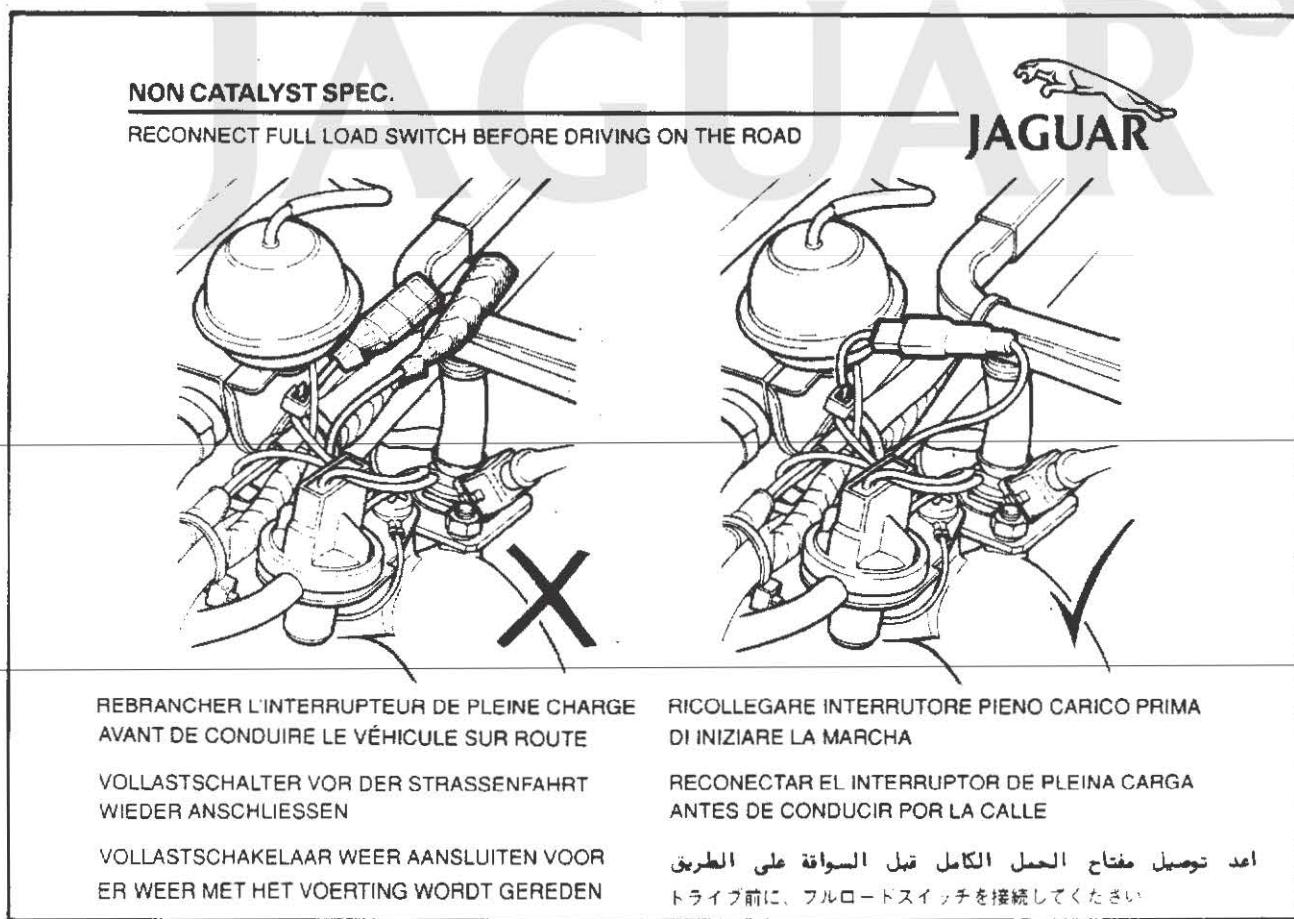
Vehicles after VINs: TBA - XJS V12
TBA - S.III V12

will be despatched with the full load enrichment switch(es) disconnected and will be identified by a warning label adhered to the windscreen; see Figs 1 and 2. The switch(es) should be reconnected at PDI and the label removed from the windscreen. (Where vehicles are to be driven on the road prior to PDI, the reconnection should be carried out before driving). Introduction VINs will be advised when this procedure has been implemented.

Reconnection should be carried out in accordance with the following instructions:-

Non-Catalyst Specification

* Locate the vacuum-operated full load switch at the rear of the engine; see Fig 1.



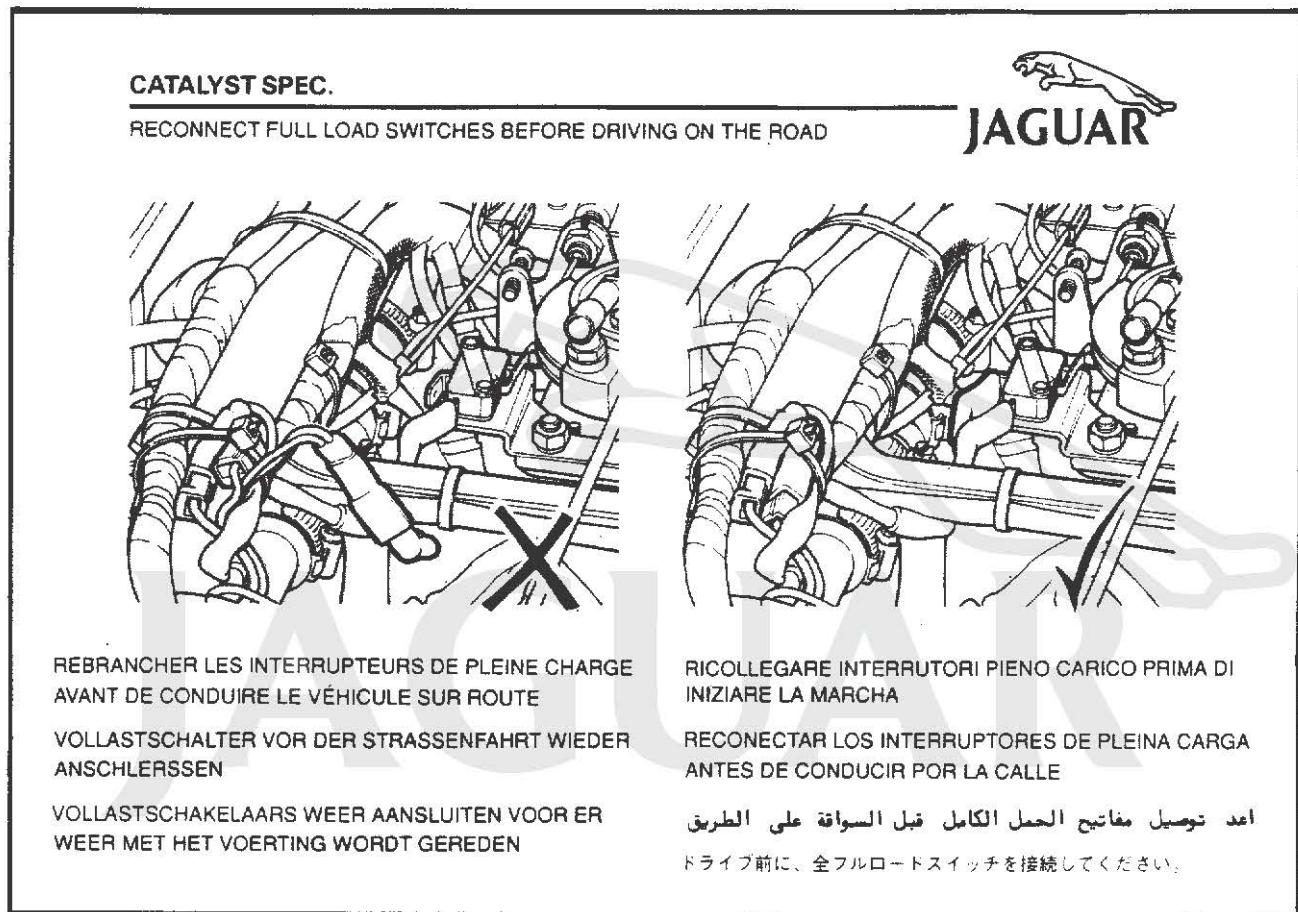
JSI-1088

FIG 1

- * Remove the insulation from the displaced white and slate (W.S.) cable lucar connectors and join the connectors together.
- * Secure as necessary.

Catalyst Specification

- * Locate the vacuum-operated full load switch at the rear of the engine and the full load micro-switch on the throttle pedestal.
- * Locate the white and slate (W.S.) cable male/female lucar connector joint shown in Fig 2.



JSI-1089

FIG 2

- * Displace this joint and connect the male connector to the vacant white and slate (W.S.) cable lucar, adjacent to the main harness. Secure as necessary.
- * Connect the displaced female connector to the vacant micro-switch terminal.

Introductory VINs will be advised in a further Bulletin as soon as they become available.

1989 MODEL YEAR RUNNING CHANGES

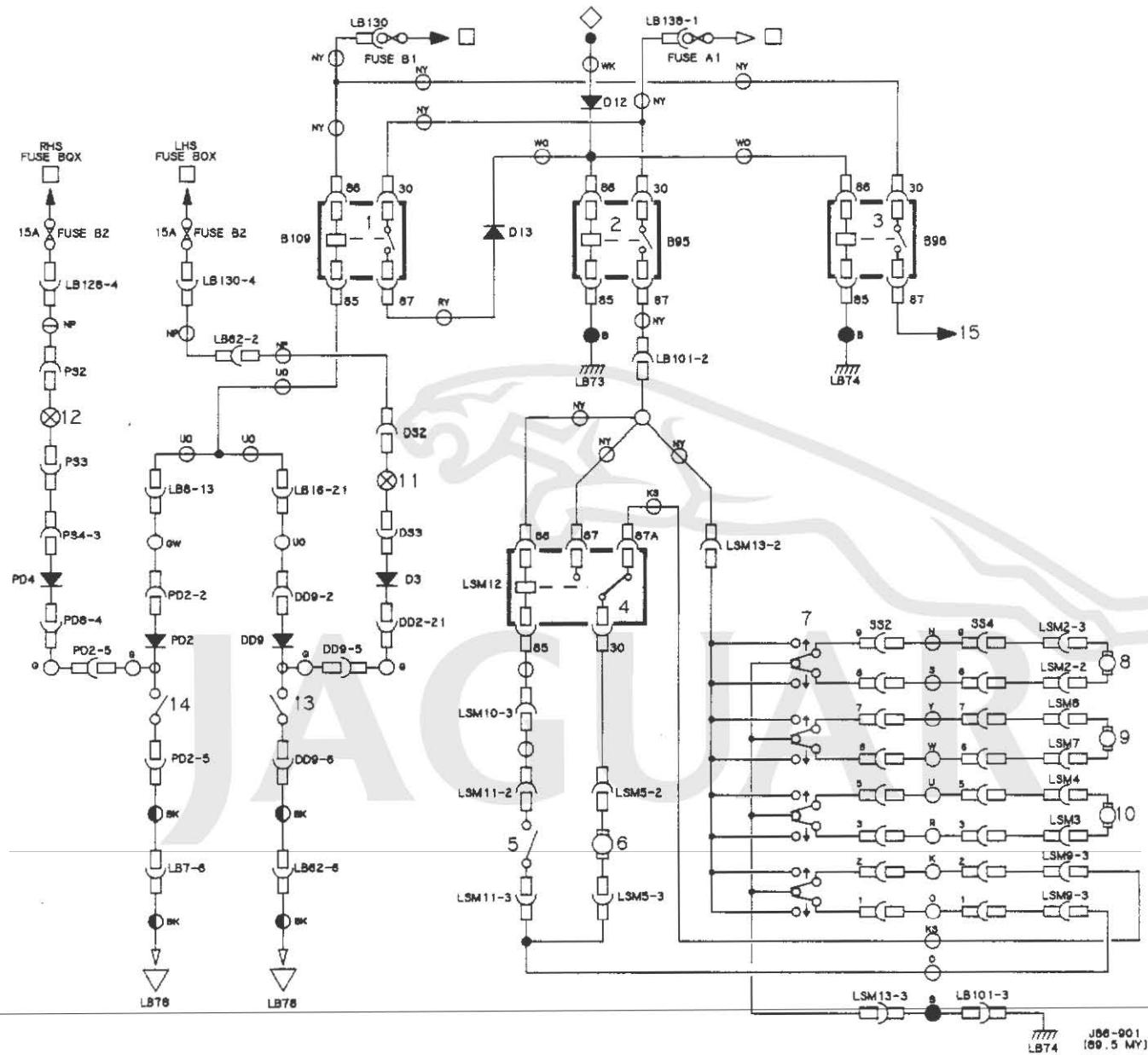
ITEM: 37

86 DRIVER'S SEAT ENTRY SWITCH

XJ6 2.9 / 3.6

The driver's seat entry switch is located on the outboard side of the driver's seat. It was introduced at VIN 578777 (VIN 578778, however, was not fitted with the switch). The function of the switch, which may be operated without switching the ignition on, is to move the seat rearwards whilst the switch is depressed. Operation of the switch energises a relay, Jaguar Cars Limited 2005

causing a battery feed to be diverted to the seat motor. Releasing the switch de-energises the relay and returns control of the motor to the normal seat switches on the centre console side. The relay is mounted on the retaining rod of the air conditioning/heater unit behind the centre console. For schematic diagram See Fig 1.

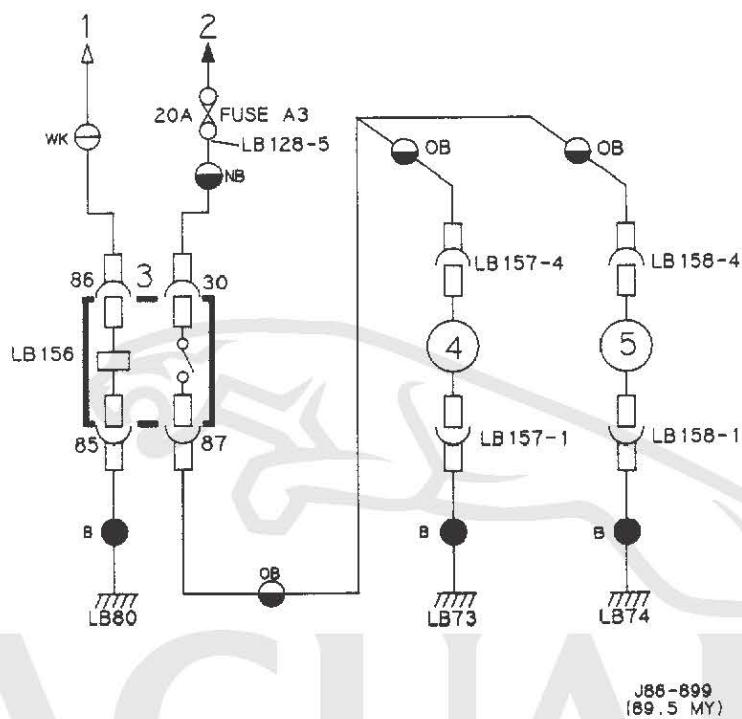


1. Seat adjust relay
2. L.H. Seat relay
3. R.H. Seat relay
4. Seat entry relay
5. Seat entry switch
6. Seat fore/aft motor
7. Switch Pack
8. Squab fore/aft motor
9. Rear lower/raise motor
10. Front lower/raise motor
11. Driver's puddle lamp
12. Passenger puddle lamp
13. Driver's door switch
14. Passenger door switch
15. Power to passenger seat switch pack

FIG 1

Cigar Lighter wiring change

The cigar lighter wiring circuit has changed to ensure that the cigar lighter is ignition fed and not permanently fed as is the present condition. This means that the cigar lighter(s) will become active only when the ignition is on. The change has been facilitated by incorporating an additional relay situated behind the right-hand 'A' post fuse box. Permanent battery supply to the relay contacts will be from the existing cigar lighter fuse. The relay will be energised by an ignition feed from the 'ignition on' relay (WK cable). See Fig 2 for schematic diagram. This is introduced from VIN 582183.



1. Ignition feed
2. R.H. fuse box
3. Cigar lighter relay
4. Front cigar lighter
5. Rear cigar lighter

FIG 2

Audible 'lights on' warning

The audible 'lights on' warning is fitted as standard to all XJ6 models from the following VINs:

581955 - RHD
 582190 - LHD (passive seat belt vehicles)
 583947 - LHD (manually operated seat belt vehicles)

The warning module is located on the driver's fascia end panel and is a self-contained unit with an integral speaker and a standard relay base. Connector number LB147 is used to enable connection to the vehicle bulkhead harness.

The warning module will produce a continuous tone when the sidelights are on and the driver's door is opened. See Fig 3 below for the schematic diagram.

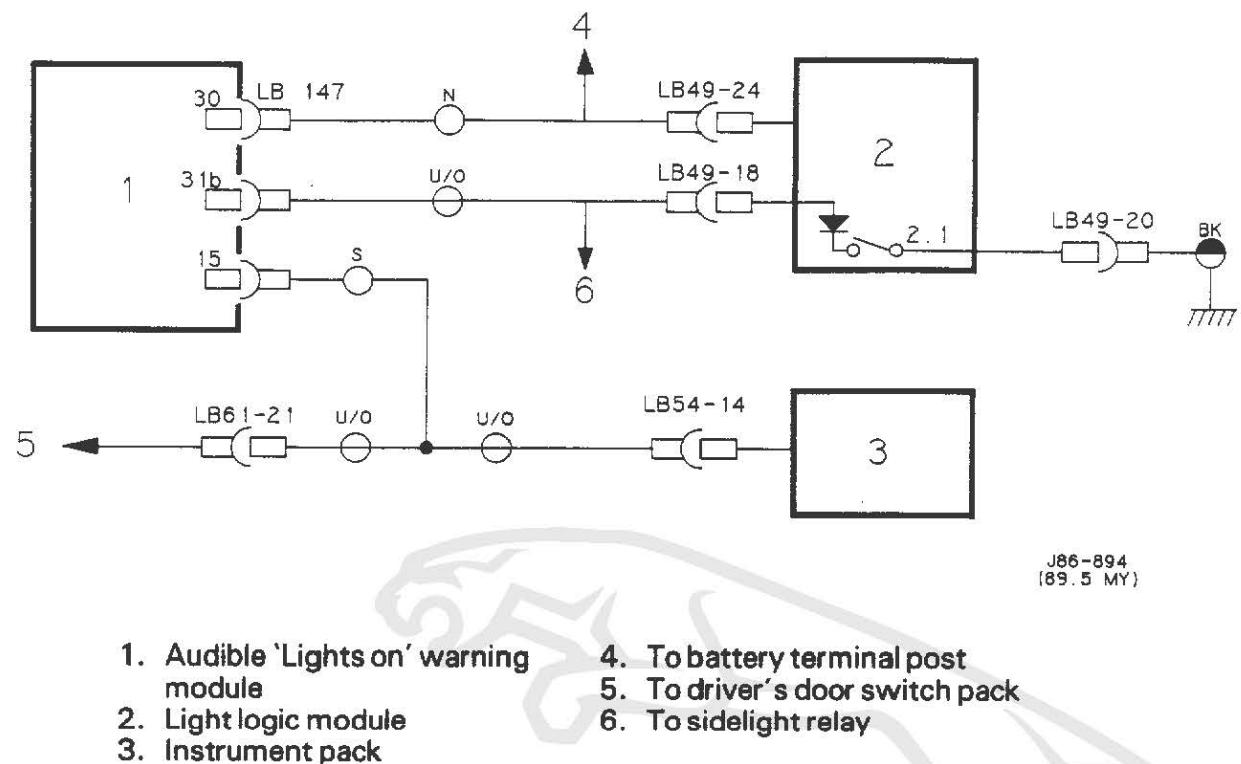


FIG 3

Service Bulletin

**JAGUAR****Daimler**

DATE: SEPTEMBER 1989
SHEET: 1 of 4
REF: JD 13 / 89

ERRATA

In Service Bulletin JD 12/89 (XJ6 1990 model year preliminary information) refer to the reverse side of sheet 22 under the heading 'Front fog lamps'. Due to marketing decisions made after the time of the Bulletin going to press, the paragraph should read:

Front fog lamps are now a factory fit option on all models, except European Daimlers where they are a standard fit ('European market' excludes the U.K. in this context). In the North American market the factory fit option is not available on entry level XJ6 or Sovereign (Canadian XJ6 open script badged or plaque badged) but is a standard fit on Vanden Plas and VDP Majestic (Canadian Sovereign).

Under the heading 'Trim and colour' refer to the third line, which should read:

New interior trim colour—Parchment (leather to replace buckskin).

ITEM: 59

66 POWER HYDRAULIC VALVE BLOCK SOLENOID VALVES - GENERAL

XJ6

In order to eliminate the necessity to replace complete valve block assemblies to cure individual solenoid valve complaints, the following components are to be made available under separate part numbers:-

Down Solenoid Valve, Up Solenoid Valve and the Unloader Solenoid Valve.

Refer to the relevant Parts Information Bulletins EP 157 and 278 for further parts information.

The following information should help when diagnosing which fault relates to which valve:

When investigating reports of brake pedal 'off load noise' - suspect the unloader solenoid valve.

On ride level cars - when investigating reports of a groan being emitted from the valve block area, when the car is stationary and usually after a long run - suspect the down solenoid.

When investigating reports of knocking noise from the rear struts, suspect either the non-return valve - situated behind the 'up' solenoid valve or the up solenoid or the down solenoid.

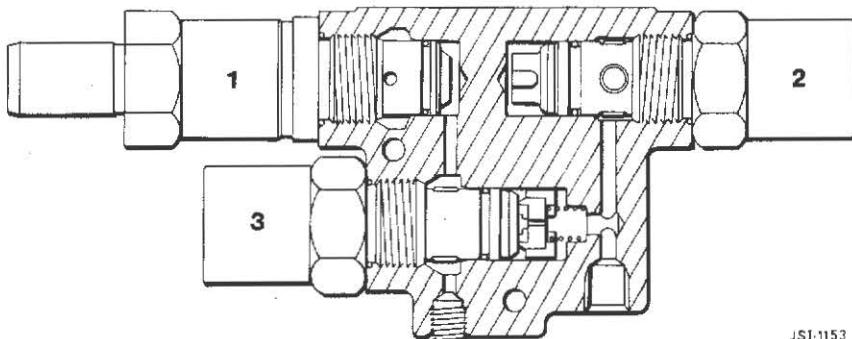
This information is not a substitute for using JDS when diagnosing electrical problems.

SOLENOID VALVES - RENEW

Down Solenoid Valve
Unloader Solenoid Valve
Up Solenoid Valve

S.R.O.
66.30.20/09
66.30.18/09
66.30.19/09

Warranty
Complaint Code
5LU
5LT
5LV



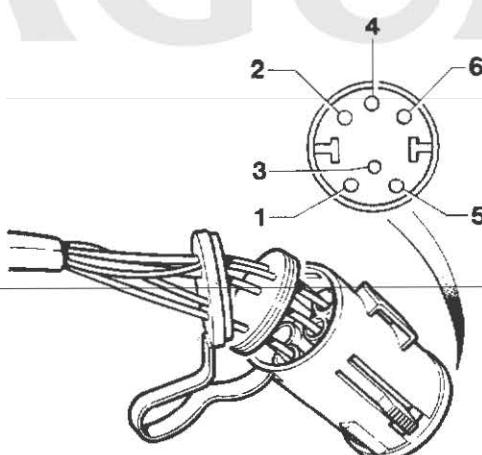
JSI-1153

FIG 1

NOTE: The unloader solenoid (1 Fig 1) and the down solenoid (2 Fig 1) can be renewed without removing the valve body assembly from the vehicle. To renew the up solenoid (3 Fig 1) the valve body assembly must be removed from the vehicle and dismantled on a bench.

CAUTION: THE UTMOST CLEANLINESS MUST BE OBSERVED AT ALL TIMES.

1. Depressurise the ride level system. Refer to Operation 66.20.00 in the XJ6 Service Manual.
2. Cut and remove the ratchet straps securing the harness to the valve block.
3. Disconnect the harness multiplug.
4. Renewing the up solenoid:- remove the valve block assembly from the vehicle, refer to Operation 66.30.04 in the Service Manual.
5. All:- Remove the seal from the rear of the 'male' multiplug connector (Fig 2), and remove the anti-back out plate.



KEY:

Pin Ref Number	Harness Colour	Function
1 & 3	White/Slate	Ignition +ive
2	Yellow/Orange	Load Solenoid -ive
4	Yellow/Light Green	Suspension Up Solenoid -ive
5	Brown/Blue	Suspension Down Solenoid +ive
6	Yellow/Blue	Suspension Down Solenoid -ive

FIG 2

6. Note the positions of the connections in the multiplug and remove the seal. Remove the appropriate connector pins from the plug using Service Tool JD 137.

NOTE: Further details on pin removal can be found in the appropriate section of the Service Manual.

7. Thoroughly clean the valve block assembly to prevent the ingress of dirt into the valve body.

8. Place a suitable piece of absorbent material below the solenoid valve assembly to be renewed and remove the valve from the valve body.

When renewing the up solenoid, the valve body should be held carefully in a vice; when removing the solenoid valve be careful not to lose the non-return valve and spring.

REFITTING

1. Fit the new solenoid valve to the valve body and tighten to the correct torque, i.e. 35–45 Nm.

NOTE: When fitting the up solenoid, ensure that the non return valve and spring are fitted. Refer to Fig 3 for method.

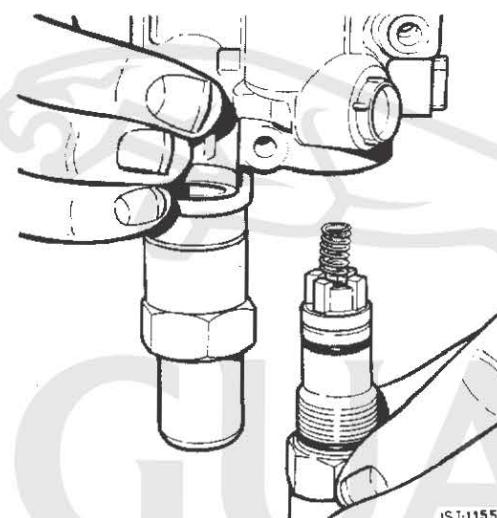


FIG 3

CAUTION: DURING THIS OPERATION, IT IS IMPERATIVE THAT NO FOREIGN BODIES ARE ALLOWED TO ENTER THE VALVE BLOCK BODY.

2. Position the harness pins through the anti-backout plate and seal. Fully seat the pins into their appropriate positions in the multiplug.

3. Fully seat the seal and anti-back out plate in the multiplug socket.

4. Secure the switch harness together using suitable insulating tape.

5. If removed, refit the solenoid valve block to the inner wing.

6. Reconnect the plug and socket; secure with a tie strap.

NOTE: Ensure that the plug and socket are clean and free of any contamination before reconnecting them together.

7. Check/top up the power hydraulic fluid reservoir.

8. Start the engine and allow the hydraulic system to pressure; check for leaks.

9. From underneath the car disconnect the ride level sensor link arm from its bracket and move through its travel several times to prime the system. Reconnect the link arm.

Times allowed:	66.30.18	1.05 hrs
	66.30.18/09	0.70 hrs (less JDS allowance)
	66.30.19	1.50 hrs
	66.30.19/09	1.15 hrs (less JDS allowance)
	66.30.20	1.00 hrs
	66.30.20/09	0.65 hrs (less JDS allowance)

76 CONVERTIBLE HOOD TRANSIT PROTECTION COVER**XJS**

Since the launch of XJS Convertible, we have been fully aware of the need to provide transit protection for the fabric hood. Hood protection to date has been accomplished by encapsulating the hood in black polythene, held in position by a drawstring at the rear and adhesive tape at the front and sides. Experience has shown that the integrity and suitability of this form of protection has only been partially successful.

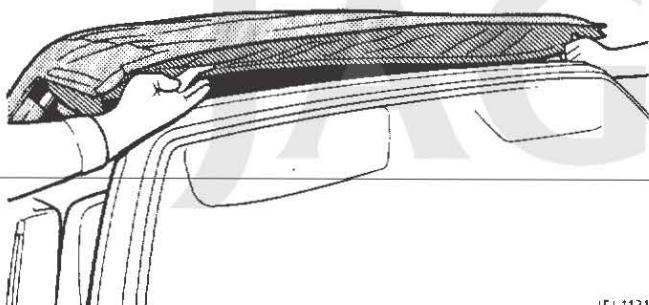
Consequently, a new protective hood cover has been introduced on all convertibles built from VIN 163400. The cover is manufactured from lightweight but durable nylon that has been treated to prevent water penetration.

The major design considerations for the cover encompass not only full in-transit protection of the hood, but also in-service customer use. It is envisaged that the simple method of removing/fitting will allow the cover to be used for long or short periods of vehicle storage by the customer, for example while parked at airports, docks, railway stations, etc.

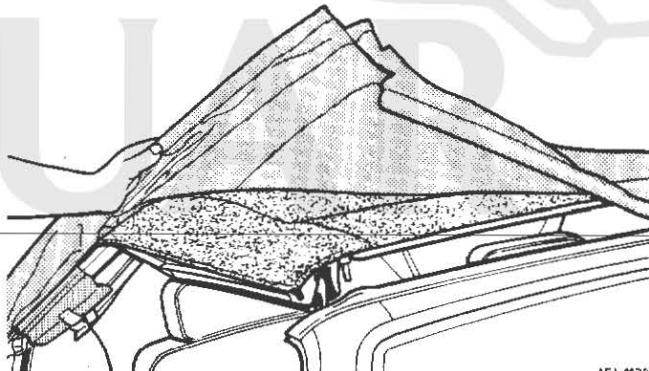
Regular use of the cover by the customer will provide major benefits in prolonging the life and enhancing the appearance of, the hood material by preventing possible staining from airborne contamination, i.e. bird lime. Dealers are requested to demonstrate the following removal/fitting procedure at vehicle handover.

COVER REMOVAL

Open both doors, releasing the side flaps. Lower the sun visors; unfasten the hood locking catches and power the hood back approximately six inches. Displace the front flap (Fig 1), pull the cover forward to free the corners of the hood and peel the cover back approximately halfway (Fig 2).



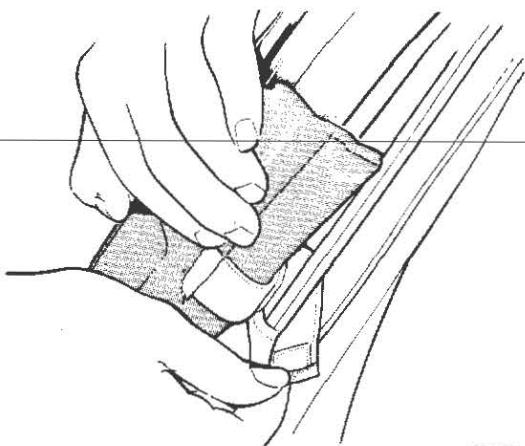
JSI 1131



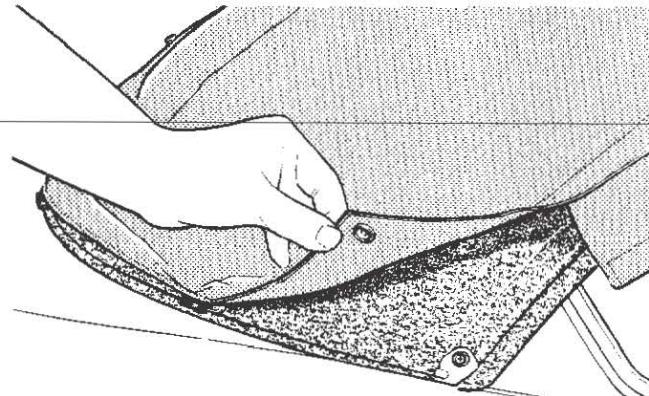
JSI 1132

FIG 1**FIG 2**

Release the "Velcro" straps (Fig 3) and displace the cover from the hood frame area. Release the press studs from the hood outer finishers (Fig 4).



JSI 1133



JSI 1134

FIG 3**FIG 4**

Release the plastic securing clips from the rear lower edge loops (Fig 5). Peel back and fully remove the cover (Fig 6).

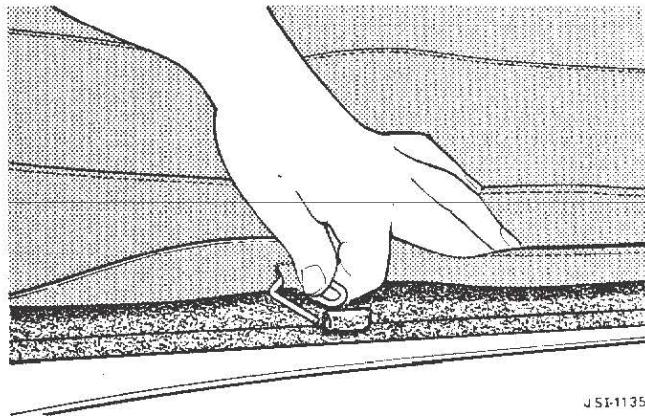


FIG 5

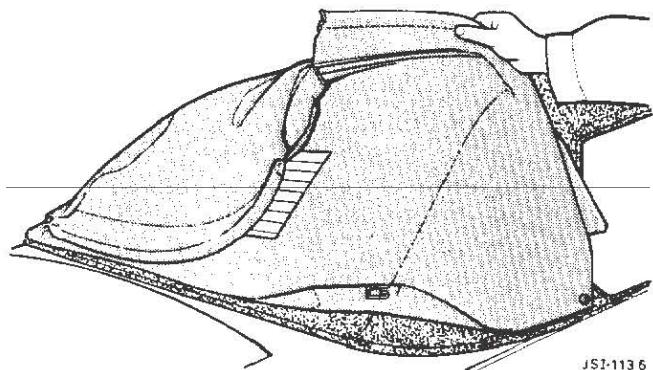


FIG 6

COVER REFIT

Lay the cover on to the hood. Align the front and side flaps.

Starting at the rear of the hood/cover:

Secure the plastic securing clips to the rear lower edge loops (Fig 5).

Fasten the hood outer finisher press studs.

Fit the Velcro straps around the hood frame tubes. Locate the corner of the hood into the cover (Fig 7).

Ensure that the front flap is located correctly; power the hood to the closed position and fasten the hood locking catches.

Raise the sun visors, thus securing the front flap (Fig 8).

Close the doors.

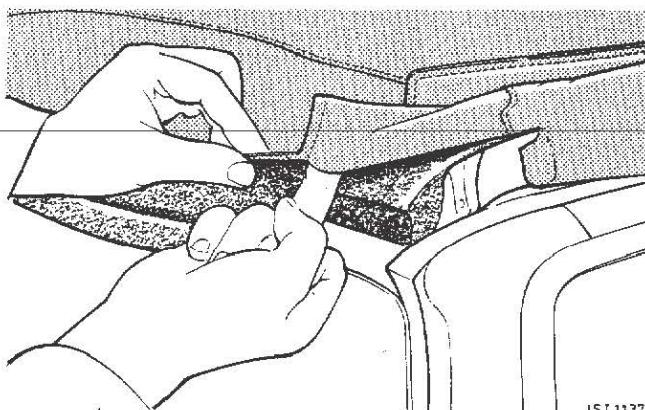


FIG 7

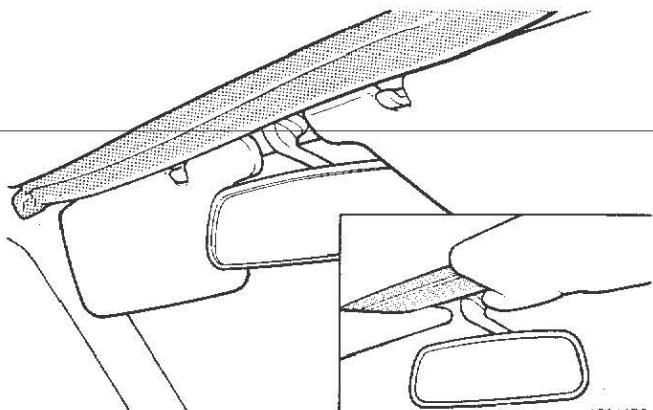


FIG 8

Jaguar Cars Limited 2005

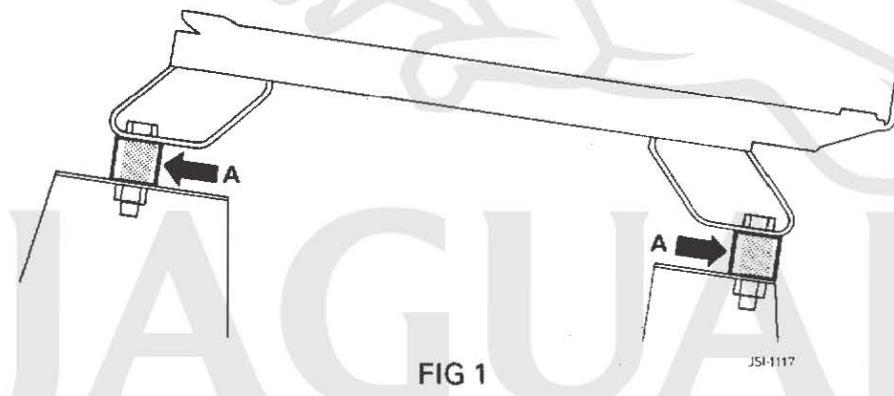
76 MANUALLY OPERATED SEAT HEIGHT**XJ6 2.9 / 3.6**

The following information is being provided in response to market/customer requests to provide a means of increasing the height of the XJ6 manually-operated front seats. Due to seat/frame design changes introduced at 89 MY (VIN 556851), two procedures are outlined in the following text:-

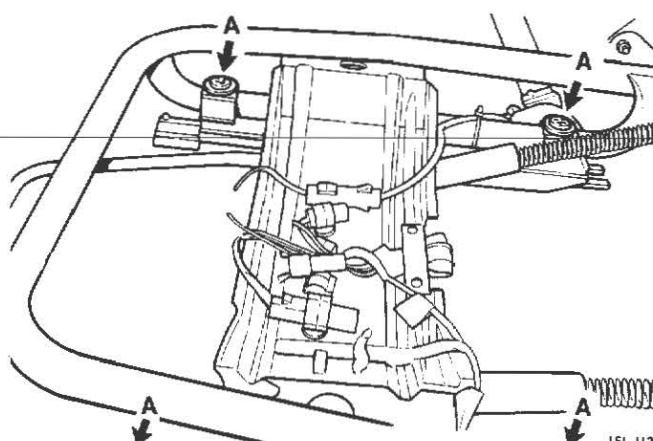
- 1) Modification Procedure for Pre-89 MY Vehicles
- 2) Modification Procedure for Post-89 MY Vehicles

1. PROCEDURE FOR PRE-89 MY VEHICLES

- a) Applying the method indicated in the Service Manual, Operation No. 76.70.01, displace the front seat. Full removal of the seat from the vehicle will not be necessary.
- b) Discard the 4 torx head seat mounting screws, and remove and discard the 4 off 4mm spacers located between the seat frame and the body floor cross members.
- c) Refer to Fig 1; refit the seat using BEC 6353 4 off spacers instead of the 4 off 4mm discarded spacers, at position 'A' Fig 1 and 4 off hex head bolts Part No. BH.110091J; tighten to a torque of 36.5 Nm.

**2. PROCEDURE FOR POST-89 MY VEHICLES**

- a) Apply the method indicated in the Service Manual, Operation No. 76.70.05, to remove the front seat cushion.
- b) Removal of the seat cushion will expose the 4 off M8 Torx head screws which secure the seat frame to the slide runners, See 'A' Fig 2. Remove these screws and the underhead washers. Discard the screws only; washers should be kept for use when re-assembling the seat.

**FIG 2**

- c) Displace the seat/frame from the slide runners; full removal of the seat from the vehicle will not be necessary.
- d) Re-assemble the seat frame to the slide runners with spacer Part No. BEC 6354 positioned at location 'B' Fig 3. Use hex head bolts 4 off (and washers from Item 2b), Part No. BH.108141J, size M8 x 70 mm. Tighten to a torque of 18.2 Nm to re-secure the seat frame to the slide runners.

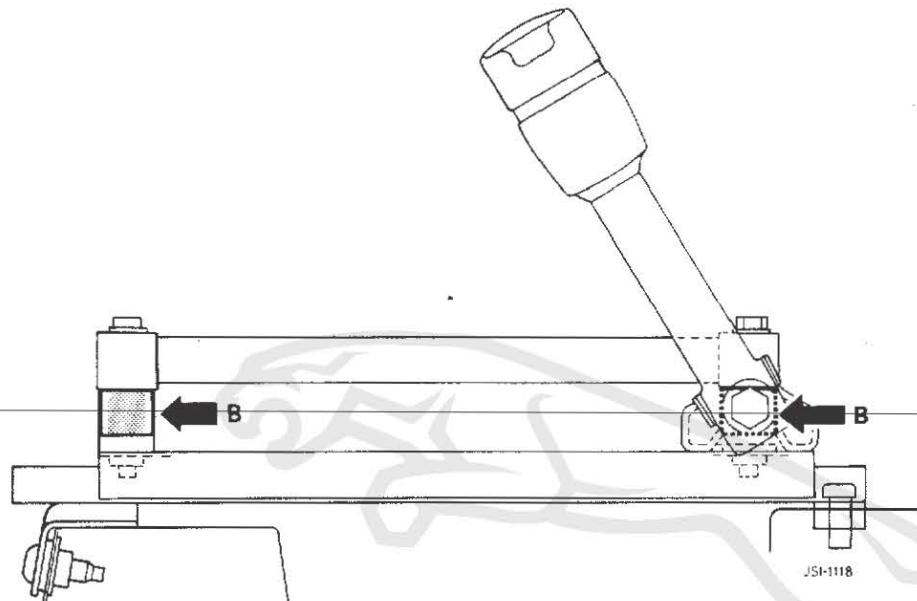


FIG 3

- e) Re-fit the seat cushion to the frame by reversing the removal procedure in step 2a).

Parts required can be obtained directly from Jaguar Parts Operations by quoting relevant Part numbers and quantities.

Parts List for Pre-89 MY modification, one seat only:

4 off - Spacers - Part No. BEC 6353
4 off - Hex Head Bolts - Part No. BH.110091J

Parts List for Post-89 MY modification, one seat only:

4 off - Spacer - Part No. BEC 6354
4 off - Hex Head Bolt - Part No. BH 108141J

1998F

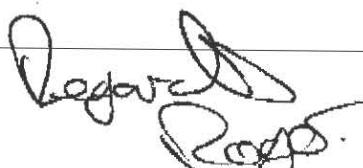
Service Bulletin

JAGUAR**Daimler**

Attn: KEVIN CARROLL

UCS

DATE: JANUARY 1990
 SHEET: 1 of 4
 REF: JD01/90


ERRATA

Service Bulletin JD 16/89, Item 85, reverse side of Sheet 2 of 2, last paragraph should read:

"Please note RB/LB 135 black 48-way PCB edge connector, is situated at the rear of the instrument pack assembly."

ITEM: 01**57 DRIVELINE VIBRATION / SHUDDER****XJ6**

To determine accurately the cause of vibration/shudder, subjective testing must be carried out. It must be stressed, however, that before any adjustments are carried out to the drive line/propeller-shaft, dealers must ensure that all couplings are in good condition and that all flange and mounting bolts are tight.

The following complaints have been identified and a guideline chart has been compiled to assist in resolving these complaints:-

CONDITION	From VIN 594576 to 607098	After VIN 607098
Shudder at 15 mph (25 kph) "At steady speed"	Refer to Procedure A	Refer to Procedure B
Drive away shudder "under acceleration"	C	C
Vibration at 30/50 mph "steady speed"	B	D

Procedure 'A'

Instances of shudder at 15 mph (25 kph) on early "OUT OF PHASE" front propeller-shaft joints have been reported. To overcome this condition the fitment of an "IN PHASE" joint, Part No. EBC 3810, is required.

ITEM: 94

87 SECURITY SYSTEM**XJS**

Modifications to XJS vehicles at 1990 model year (VIN 165791 on) necessitate certain changes to the security system. A quick way of recognising a 1990 model year XJS is by the inclusion of a tilt steering column. This means that security system Fitting Kits JLM 1679 (Convertible) and JLM 1724 (Coupe) are incompatible with 1990 model year vehicles. The major changes are described below.

1. Sumitomo multi-plug connectors are introduced on 1990 model year vehicles; consequently the security system harness is altered to suit.
2. The earth terminal has changed from a bullet connector to an eyelet.
3. The valet switch and L.E.D. are located to modified dimensions to suit the new tilt column lower cowl.
4. A new relay bracket is supplied in the kit to be fitted to the main fuse box. The components relocated to it are: the start inhibit relay, headlamp relay, sidelight relay.

The 1990 model year security system Basic Kit is unchanged but the Fitting kits must be ordered under part number JLM 1679/1 (Convertible), JLM 1724/1 (Coupe). The fitting instructions enclosed with the fitting kit have an addendum to reflect the modified fitting procedure.

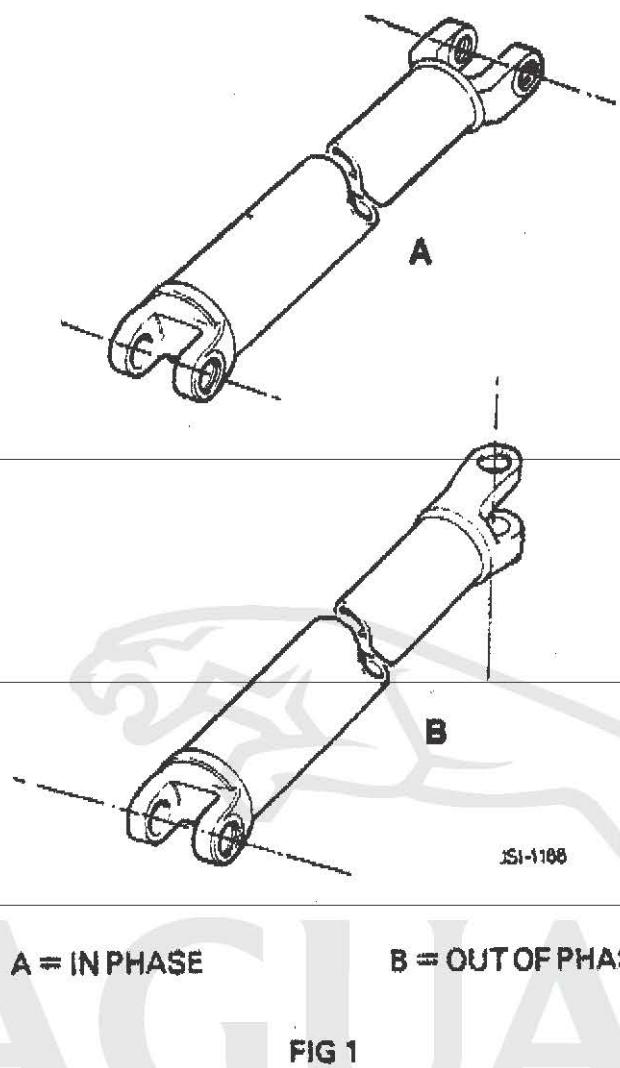
ITEM: 95

88 INSTRUMENT PACK ASSEMBLY**XJ6 2.9/4.0 1990 MY**

During the initial power-up of instrument packs when the ignition circuit is switched on and during power-down when the ignition circuit is turned off, a faint audible buzz may be noticeable from the instrument pack assembly.

Will Dealers please note that this is **NOT** an instrument pack fault, but is a normal function of the instrumentation electronic circuit.

2047F



A = IN PHASE

B = OUT OF PHASE

FIG 1

Procedure 'B'

- Check drive-line alignment.
- Check gearbox mountings and ensure that the centre stud is central to the inspection hole in the base of the cross-member.
- Ensure that the gearbox cross-member is central on the body fixings, i.e. not hard to one side; also ensure that there is no side load due to incorrect setting of the front engine mountings.
- Check the propeller shaft alignment using plumb-lines, i.e. attach taut strings to the propeller-shaft, see Fig 2. Position plumb-lines at each end of the tube avoiding welds and balance weights.

With the propeller-shaft in perfect alignment the plumb-lines will be offset by 19mm, see Fig 2C. This offset is caused by the differing front/rear propeller-shaft tube diameters. The required alignment is 21mm and the centre bearing should be adjusted to the left until this is achieved.

Vertical alignment should be achieved by adding/deleting spacers which are available in two thicknesses CBC 7253/1 (1mm) or CBC 7253/2 (3mm). The standard build is with a 3mm spacer to achieve the nominal position.

SERVICE BULLETIN JD 01/90**SHEET 2 of 4****Procedure 'C' Drive Away Shudder (under acceleration)**

If a drive away shudder is present, fit a standard 3mm shim between the propeller-shaft and centre mounting plate.

Procedure 'D' Vibration 30 / 50 mph (50-80 kph) Steady Speed

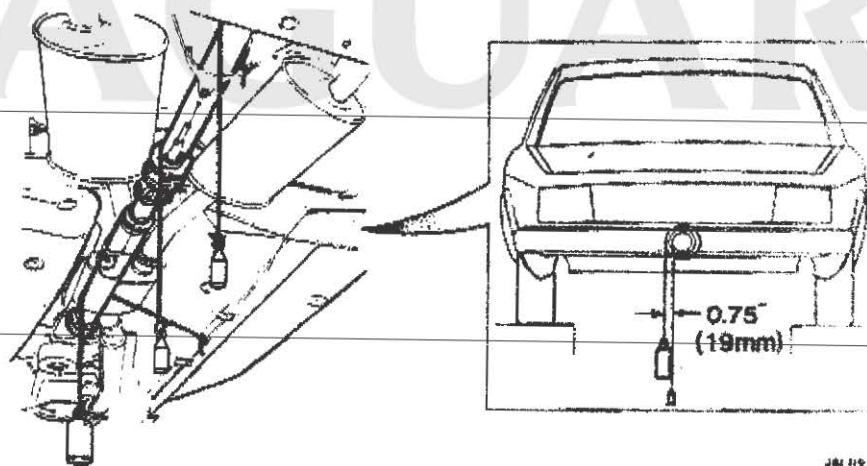
First check the propeller shaft alignment as detailed below, N.B. this differs in detail from that contained in Procedure 'B'.

The alignment of the propeller-shaft to the differential flange has three optional positions. Try all three subjectively to obtain optimum results.

NOTE: Do not disturb the 3 bolts fixing the rear coupling to the propeller-shaft.

Propeller Shaft Alignment

- a) Check the drive-in alignment.
- b) Check the gearbox mountings and ensure that it is set correctly, i.e. the centre stud is central to the inspection hole in the base of the cross-member.
- c) Ensure that the gearbox cross-member is central on the body fixings, i.e. not hard to one side and also ensure that there is no side load due to the incorrect setting of the front engine mountings.
- d) Check the propeller-shaft alignment using plumb-lines, i.e. attach taut strings to the propshaft, see Fig 2. Position plumb-lines at each end of the tube, avoiding welds and balance weights. This means that allowing for the difference in the propeller-shaft tube diameters, when correctly aligned, the distance differential between the centre plumb-line and the straight line through the fore and aft plumb-lines should be 19mm.

**FIG 2**

Vertical alignment can be achieved by adding/deleting build spacers which are available in two thicknesses CBC 7253/1 (1mm) or CBC 7253/2 (3mm). The standard build is with a 3mm spacer to achieve the nominal position.

Propeller Shaft to Differential Flange Relationship

Step 1: Rotate the rear joint 120° either way. **NOTE:** This can affect high speed refinement as the correct assembled position has balance weights in alignment.

Step 2: Should this fail to improve the condition, secure the rear joint in its present position and rotate the front joint 180°; ensure the joint face is clean and that the spigot locates into the gearbox flange.

Should there be vibration at 60/70 mph (95-110 kph) and all other adjustments have failed, slacken off all drive-line bolts including the differential securing bolts and re-tighten. Retest the vehicle; if this does not give a satisfactory result, change the propeller shaft assembly.

ITEM: 02

76 DOOR SILL LOCKING BUTTON BEZEL SURROUND

XJ6 2.9/4.0

A new self-locking, door top crash roll chrome bezel (locking button surround) has been introduced on all XJ6 models built from VIN 603711. The new bezel, Part No. BCC 9790, replaces the existing 'bonded' bezel, Part No. BBC 9033.

This new bezel should be used, upon customer complaint, as a service replacement part on all XJ6 models built prior to the afore-mentioned VIN.

Replacement Procedure:

1. Remove and discard the detached bezel, Part No. BBC 9033 (See Fig 1).
2. Fit the new bezel over the locking button and locate in the door top crash roll.
3. Push home the bezel into the crash roll until fully located (refer to Fig 2). To avoid damaging the chrome finish, use a length of suitable diameter hose.

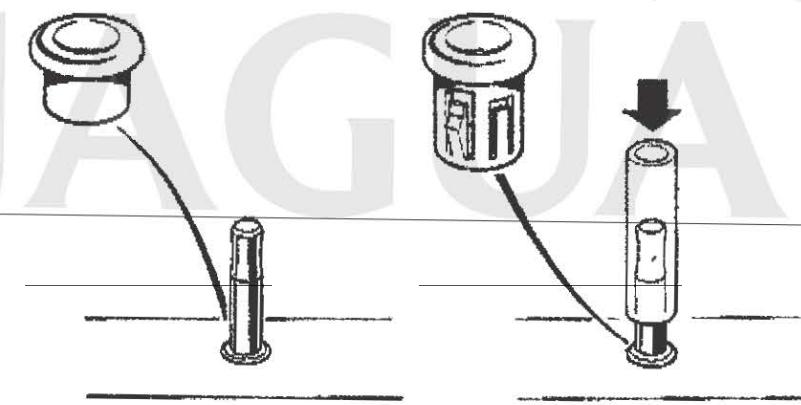


FIG 1

FIG 2

Warranty claims for the above repair should be submitted, quoting Fault Code 8BX, SRO 76.37.33, Time Allowance 0.10 hrs.

ITEM: 03

76 PIPING WEAR - SPORTS PACK SEATS

XJS SPORT PACK

To overcome the specific problem of premature wear to the seat squab piping caused by contact (abrasion) of the seat belt webbing, a change to the piping facing material has been introduced on all XJS Sports Pack Vehicles built from VIN 168562. This material change deletes the current vinide piping and introduces a P.U finished leather piping.

Current supplies of the seat squab cover held by Jaguar Parts Operations are now all to the above modified condition. Therefore, replacement covers should be obtained from Parts by quoting the existing Part No. BCC 9324, and the relevant colour suffix.

SERVICE BULLETIN JD 01/90**SHEET 3 of 4****ITEM: 04****76 GEAR SHIFT APERTURE FINISHER****XJ6 90 MY ONLY**

To overcome some reported incidents of gear shift aperture finisher detachment affecting 90 MY XJ6 only, a modified console aperture, which ensures a positive fix for the finisher, was introduced at VIN 605402.

ITEM: 05**82 AIR CONDITIONING RE-CIRCULATION MODE MANUAL OVERRIDE****XJ6 2.9 / 3.6 / 4.0**

Owner concern has highlighted a requirement for a manual override control of the air conditioning re-circulation mode in certain markets following fume ingress during dense city traffic conditions.

To meet this requirement, a service fix has been developed, which will enable the selection of air conditioning re-circulation mode without having to select full cooling mode.

The service fix comprises the fitment of a switch/harness assembly in the centre console veneer panel which, in turn, is connected via the harness/Takbro connector multiplug AC2 of the air conditioning micro-processor.

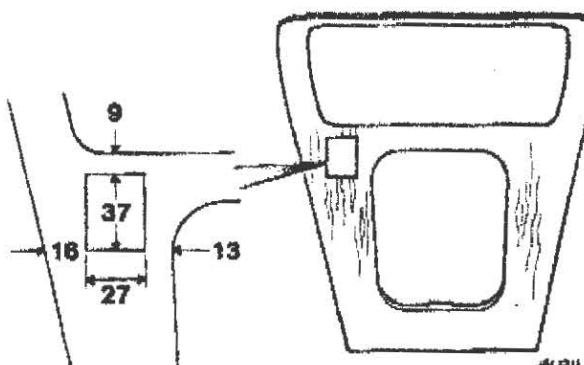
IMPORTANT NOTE: The switch assembly should always be mounted on the left hand side of the centre console panel irrespective of market/model, the position of the switch being determined by the space available below the console finisher.

Fitment of the kit should be carried out on a customer complaint basis only and is chargeable.

Parts Description	Part No.
Switch/Harness Assembly	DBC 4778
Bracket	DBC 4916
Repair Operation No.	82.91.06
Labour Allowance	0.95 hrs.

Modification Procedure

- Disconnect the battery negative earth lead.
- Remove the RH side dash liner and centre console veneer finisher panel.
- Using suitable tape (ie: masking tape) stick the tape on the centre console veneer panel and mark out the dimensions for the switch position, see Fig 1:

**FIG 1**

- * Using a small drill bit, 2.5mm (3/32 in), carefully drill a series of holes around the marked-out dimensions on the tape. Drill an additional pilot hole using a 2.5mm (3/32 in) drill and taking extreme care, enlarge the pilot hole using an 8.0mm (5/16 in) drill; see Fig 2:

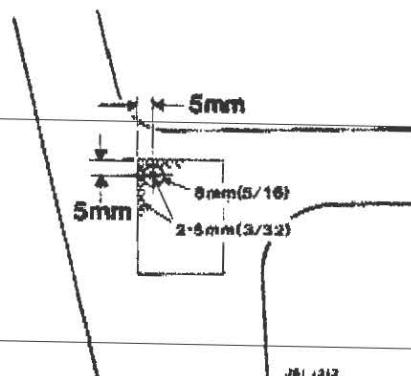


FIG 2

- * Starting at the enlarged pilot hole, 8.0mm (5/16 in), use a fine cut junior hacksaw blade, cut around the pilot holes (3/32 in) and remove the panel.
- * Using a fine-toothed file, carefully file the sides of the cut-out to a smooth finish.
- * WHEN CARRYING OUT THE ABOVE OPERATIONS, "EXTREME" CARE SHOULD BE TAKEN AT ALL TIMES TO PREVENT ANY FRACTURING OF THE VENEER FINISH.
- * Position the switch/harness assembly into the veneer panel aperture and secure with the fixing bracket.
- * Mark out the dimensions on the LH side of the console armature, see Fig 3 and using a fine toothed junior hacksaw blade, cut out the section identified.

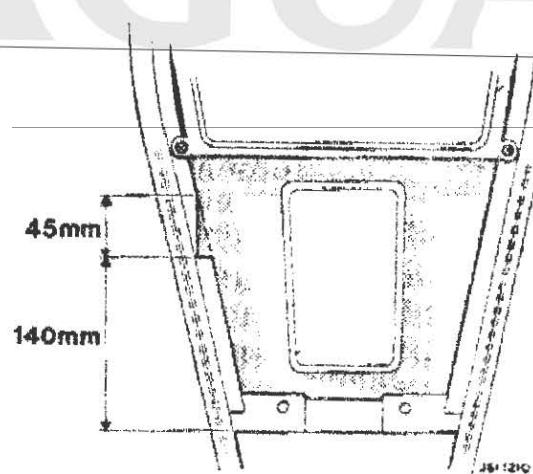


FIG 3

- * Place the console finisher 'in position', feeding the switch harness forwards beneath the console assembly and towards the air conditioning electronic control unit (ECU) situated on the RH side of the air conditioning unit. Ensure that the switch harness is clear of any obstructions before securing the centre console veneer panel in position.

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SHEET 4 of 4

- * Connect the switch harness "Takbro" multiplug to the air conditioning electronic control unit, utilising the 'AC2' diagnostic socket, see Fig 4:

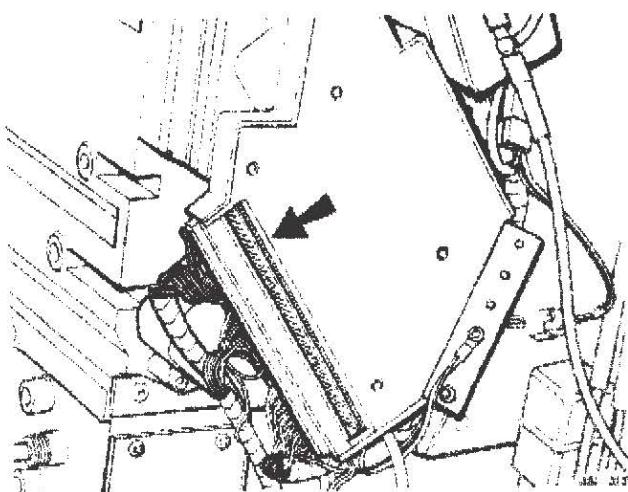


FIG 4

- * Reconnect the battery and check the override function. Refit trim items.

PLEASE NOTE: The Takbro Connector Multiplug **MUST** be removed from the diagnostic socket AC2 when using the JDS. The re-circulation override manual control function is **NOT** covered by JDS software.

2101F

JAGUAR

Service Bulletin



DATE: MARCH 1990
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ITEM: 13

WARRANTY COMPLAINT CODES

XJS

The following new Warranty Codes have been allocated for inclusion in Section 7 of the XJS Warranty Code Book.

Code	Description
7CV	Power Resistor Pack
7CW	Anti-Stall Relay
7FN	Interior Lamp Illumination (Location)
7FP	Interior Lamp Illumination (Mode)
7GH	Fuse Box Module (Headlights)
7JS	Low Coolant Control Unit
7KG	Wheelbox Assembly
7KH	Rack/Linkage Drive
7ML	Control Module
7TS	Cooling Fan Diode Pack
7VQ	Speed Control Interface

Please ensure that your Warranty Department is made fully aware of these additions.

ITEM: 14

12 V12 ENGINE NUMBER SUFFIX

ALL V12 MODELS

From the following engine numbers:-

S.III - 7P 63107 - SF
XJS - 8S 72157 - SB

The last letter of the engine number suffix is used to denote the emission type and not the grade of piston.

On engines prior to the above numbers, the last letter still denotes the grade of piston.

ITEM: 15

76 DOOR TOP OUTER WAIST SEAL FINISHER

ALL XJ6 MODELS

A new improved method of securing the door top outer waist seal finisher has been devised and introduced on all 1990 MY XJ6 vehicles built from VIN 602507.

This new method of securing the finisher dispenses with the metal securing clip, Part No. AGU 2025, which has been scratching the side windows of 1990 MY XJ6 vehicles.

The new waist seal finisher Part Numbers are as follows:

Part No.	Description
BEC 5444	Right Hand Front Door Outer Waist Seal Finisher
BEC 5445	Left Hand Front ..
BEC 5446	Right Hand Rear ..
BEC 5447	Left Hand Rear ..

ITEM 16

76 AIRBAG LOW SPEED DEPLOYMENT

XJS USA MARKET VEHICLES

With reference to Service Bulletin JD 17/89 regarding the introduction of airbags, please note that the airbag is designed to inflate in frontal impacts in which the severity of the impact will cause significant movement of the driver relative to the steering wheel. It will not deploy at very low speeds, or in side and rear impacts. Protection in these instances is provided by the seat belts.

It must be emphasised that the airbag is only one part of the vehicle's integrated safety system and therefore the seat belts must be worn at all times whilst the vehicle is in motion.

ITEM: 17

79 REFURBISHMENT OF WOOD VENEERED PANELS

ALL MODELS

Jaguar has devised a repair method which can be used by Dealers to correct imperfections associated with wood veneered panels. This Bulletin has been issued to provide prior information ahead of the mandatory issue of a repair material package.

The repair material will consist of the following:

Part No.	Description	Qty
JLM 2008	A Wood Veneer Repair Kit	1
JLM 2009	Acrylic Clear Lacquer Gloss Finish Part 'A'	1 x 2.5 lts.
JLM 2010	Activator Gloss Finish Part 'B'	1 x 1 lt.
JLM 2011	Thinner	1 x .5 lt.

The procedures and technical information required to undertake a repair using the above materials are fully explained in:

- a) A Technical Training Video - Part No. JLM 2174
- b) A multi-lingual Technical Guide - Part No. JJM 991599

Both the Video and the Guide will be made available prior to the mandatory issue of the repair kit and associated materials to allow dealers/technicians the opportunity of fully understanding the repair techniques involved.

Details of all associated procedures will be fully outlined in a forthcoming Policy Letter.
Jaguar Cars Limited 2005

ITEM: 18

86 JAGUAR CAR SECURITY SYSTEMS**XJ6**

The new Alarm System is now available for installation into 1990 MY XJ6 Models, VIN 594576 onwards.

Part Nos: JLM 1768 - Security System
 JLM 1767 - Fitting Kit LHD
 JLM 2053 - Fitting Kit RHD

For installation into very early 1990 MY vehicles, a security system link lead was placed loose in the luggage compartment (Part No. DBC 6221) and will be required when installing this system. Vehicles without this loose lead will have it installed on Production.

It must be pointed out that the installation of this security system does rely on the vehicle having infra-red remote locking fitted. When possible, this option should be specified when placing orders for new vehicles.

If remote locking is not fitted, a kit can be ordered under the following Part Nos:

Part No:
JLM 1769 LDY - Saville Grey with Sunroof
JLM 1769 AEE - Doeskin with Sunroof
JLM 2112 - Saville Grey/Fixed Roof
JLM 2113 - Doeskin/Fixed Roof

Care should be taken when fitting the security system, in particular in the identification of the black Grote & Hartmann connector required for the alarm harness remote lock/unlock connection to the bulkhead harness, which will be found above the 'A' post fuse box on the driver's side. The connector should be identified by means of the harness colours and should not be mistaken for the brake switch connection RB/LB 127. The alarm harness connector is identified by the following colours:-

Green/Blue
Red/Orange
Yellow/Orange
Red/Yellow
Spare

Dealers are advised to fit this harness prior to the fitting of the ECU.

Vehicles built prior to 1990 MY must continue to be fitted with the existing alarm system, i.e. basic system (JLM 9910) and fitting kit (JLM 2089).

Service Bulletin

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DATE: AUGUST 1990

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ALL XJ6 MODELS

ITEM: 37

10 ADDITION/CHANGES TO PDI & SERVICE SCHEDULES

With immediate effect, the following additions/changes are to be made to the Maintenance Schedules.

- a) P.D.I. – add screen clean using approved cleaning paste.
- b) 7500 mls (12000 kms) – Replace Wiper Blade.

Top-Up Screenwash reservoir using approved fluid. Clean windscreen using approved screen clean paste.

The above additions to the 7500 mls (12000 km) schedule are also to be included in all subsequent schedules.

The additional items are available individually under the following part numbers:-

Wiper Blade	- DBC 1917
DBC 3972 (Winter Blade)	- UK/Eire/Canada/Europe only)
Screenwash Fluid	- JLM 10152 (5 litre) - DBC 5178 (550 ml) - JLM 10150 (Sachet)
Screen Clean Paste	- DBC 5676 (100 ml)

Dealers using the Service Kits currently available through Jaguar Parts should continue with these for the present time, ordering wiper blades separately. Parts Operations will shortly advise you of new kit numbers which will include all necessary parts to cover the above changes.

- c) Road Test:- This item which was previously a part of the 15000 ml (24000 km) Schedule and all subsequent 15000 ml (24000 km) intervals is now required to be carried out at every service interval from 7500 ml (12000 km) onwards.

All of the above details will be reflected in the modified Service Sheets, Service Record and Warranty Booklets and Drivers' Handbooks, soon to be issued.

Revised servicing times are listed below:-

1000	7500	15000	22500	30000	37500	45000	52500	60000	67500	75000	82500	90000	97500	mls
1500	12000	24000	36000	48000	60000	72000	84000	96000	108000	120000	132000	144000	156000	km
1.85	2.05	2.55	2.05	4.05	2.05	2.55	2.05	4.25	2.05	2.55	2.05	4.05	2.05	

ALL XJS MODELS

ITEM: 38

19 SUMP TANK VAPOUR VENTING

An improved sump tank venting kit has been introduced as a service fix for all XJS models to overcome drive hesitation caused by fuel vaporisation under adverse climatic/fuel supply conditions.

The kit comprises a vent directly from the vapour separator feed hose into the sump tank to prevent fuel vapour being drawn into the main fuel system.

The benefits of the above change can be obtained by fitment of Kit No. JLM 2163 to any XJS vehicle affected in service.

Part Number	Description	Quantity	Fig Reference
CAC 5866/30	Vapour Hose	1	5 Fig 3
DCB 1167	Tee Piece	1	4 Fig 3
CAC 8773	Hose Clip	4	3 & 6 Fig 3
EBC 4281	Suction Pipe Assy.	1	1 Fig 3

Fitting Instructions:

1. Open the boot, remove the spare wheel cover and the wheel, battery cover, boot floor carpet and the RH boot side liner. Pull back the RH side of fuel tank carpet.
2. Using suitable tools, clamp the hoses in the positions shown (1 Fig 1) to the fuel tank/auxiliary tank hoses.

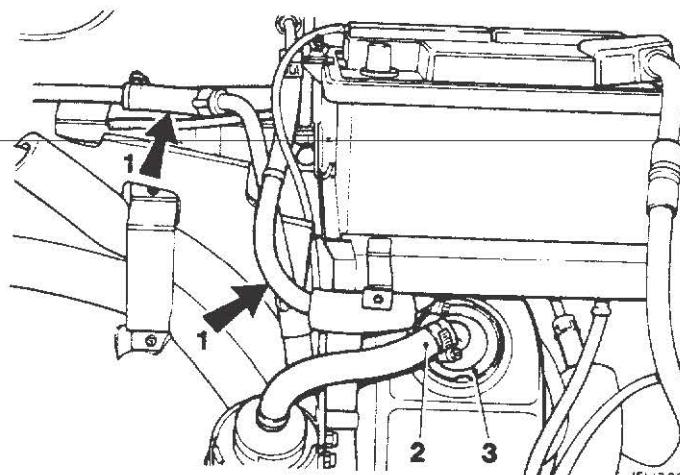


FIG 1

3. Start and run the vehicle for three minutes to lower the fuel level in the auxiliary tank.

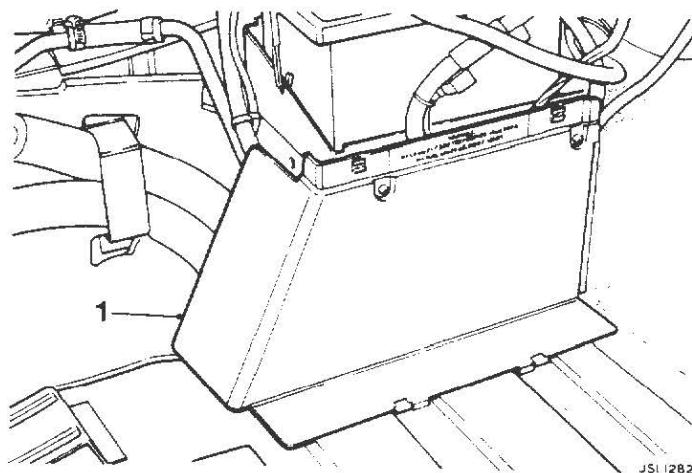


FIG 2

4. Disconnect the battery and remove the fuel pump cover (1 Fig 2).
5. Position an absorbent cloth under the auxiliary tank and disconnect the hose from the auxiliary tank suction pipe assembly (2 Fig 1).
6. Remove the suction pipe assembly and sealing ring (3 Fig 1) from the auxiliary tank using a brass drift.

NOTE: Because of the presence of petroleum spirit; under no circumstances should a steel drift be used for this operation.

7. Remove the fuel filter from the suction pipe assembly.
8. Refit the fuel filter to the new suction pipe assembly.
9. Fit the new suction pipe assembly and using a brass drift fit the sealing ring to the auxiliary tank (1 Fig 3).

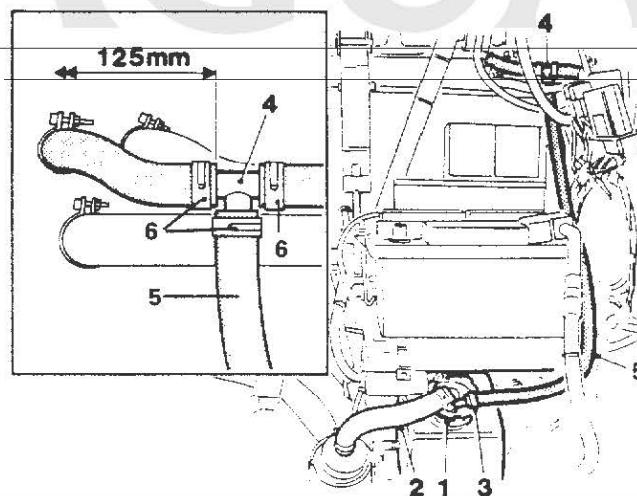


FIG 3

10. Connect the fuel pump to auxiliary tank hose (2 Fig 3) to the new suction pipe assembly (1 Fig 3).
11. Attach the new vapour hose to the remaining outlet on the suction pipe assembly using the hose clip supplied (3 Fig 3).

12. Slacken the hose clip and remove the LH vapour hose from the top of the fuel tank (1 Fig 4).

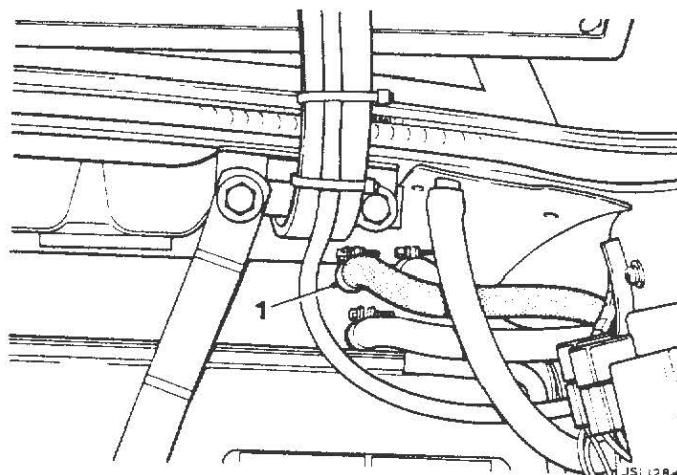


FIG 4

13. Measure 125 mm from the end of this hose and cut through.
14. Connect the cut ends of the hose together using the hose clips (6 Fig 3) and the tee-piece supplied (4 Fig 3).
15. Refit the vapour hose to the fuel tank and fasten with the hose clip.
16. Route the new vapour hose (5 Fig 3) around the battery carrier tray and up to the tee-piece. Connect to the remaining outlet of the tee-piece using the remaining hose clip (6 Fig 3).
17. Refit the fuel tank carpet and the boot side liner, ensuring that the new vapour hose is hidden.
18. Remove the fuel tank to auxiliary tank hose clamps and the cloth from under the auxiliary tank.
19. Replace the fuel pump cover.
20. Reconnect the battery, start the engine and check for leaks.
21. Stop the engine, refit the boot floor carpet, spare wheel and cover.
22. Close the boot.

For vehicles in warranty, a claim may be submitted quoting Warranty Code 2PBX
 S.R.O. Time 0.65 hrs.
 S.R.O. No. 19.91.18

ALL XJ6 MODELS

ITEM: 39

66 REAR HUB FITMENT

In order to permit finer control of rear hub bearing end float revised hubs, spacers and shims have been introduced from VIN 608960 as the following chart shows.

	Old Condition Part Number	New Condition Part Number
Hub	CAC 6400	CBC 8936
Spacer Shim	CBC 8935/1-13 (0.003" increments)	CBC 9505/1-26 (0.002" Increments)
Spacer/Distance Piece	CAC 5825	CBC 8207

It is important to ensure that components of the respective hub assemblies are not intermixed.

XJS CONVERTIBLE ONLY

ITEM: 40

76 ADJUSTMENT CAM FITMENT

In order to refine the sealing of the convertible hood, an adjustment cam has been fitted to later cars.

This cam achieves the following:-

1. It reduces or removes the number of packers that are required between the hood frame and the seal carriers.
2. It allows greater pressure to be exerted by the centre cantrail seals on to the door and quarter glass top edges. The cam will resist the upward pressure from the door/quarter glass that tends to distort the cantrail seals at the joint.
3. It improves the ability of the hood to remain in shape following adjustments.

This Bulletin outlines the procedure for fitting the adjustment cam to older vehicles and the following method is recommended.

1. Ensure that the vehicle parking brake is on and that the gear selector is in the park or neutral position.
2. Release the hood front clamping hooks.
3. Switch the ignition to position "1" and motor the hood to the half-open position.
4. Measure from the front cantilever bar mounting bush 29 mm (Fig 1) rearward along the retraction bar.

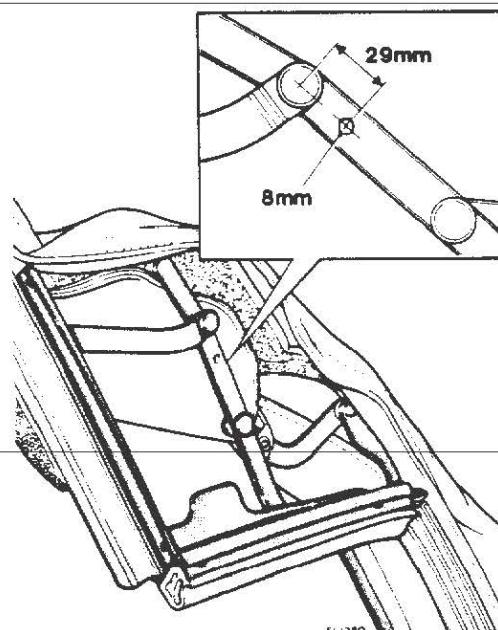


FIG 1

5. Measure to the centre of the width of the retraction bar.
6. With assistance, place a suitable support block behind the retraction bar, then at the cross-point of the above dimensions, mark the position with a centre punch.
7. Fit and position a suitable protective covering around the work area.
8. Using a drill with a 3 mm bit, carefully drill-out a pilot hole.
9. With an 8 mm bit, drill-out the mounting hole.
10. De-burr the hole, remove the protective covering and clean away all debris from the area.
11. Repeat this procedure for the other side.
12. Position the cam body to the outerside of the retraction bar, ensuring that the cam-lobe is uppermost. This gives the minimum amount of adjustment.
13. Fit and tighten the nut which secures the cam to the inside of the retraction bar. Repeat this procedure for the opposite side.
14. Motor the hood to the closed position and close the hood front clamping hooks. Ensure that the front windows are in the fully up position and close the doors.
15. Check that the glass-to-seal relationship is in its optimum condition, i.e., the seal is sufficiently close to the glass to make good contact without the seal-flip becoming trapped.
16. After the cam has been fitted, any adjustment should be made as follows:-
17. Release the hood front clamping hooks and motor the hood to the half open position.
18. Slacken the retraction bar cam securing bolt (1 Fig 2) and rotate the cam (2 Fig 2) to increase/decrease the adjustment as necessary.
19. When satisfied with the condition, fully tighten the cam securing bolt. Close the hood and switch off the ignition.

Where the adjustment cam is being fitted to a vehicle in warranty to rectify a warranty defect, Warranty Claims should be submitted quoting Warranty Fault Code 9USP and Repair Operation No. 76.91.46.

A labour allowance of 0.40 hrs may be claimed.

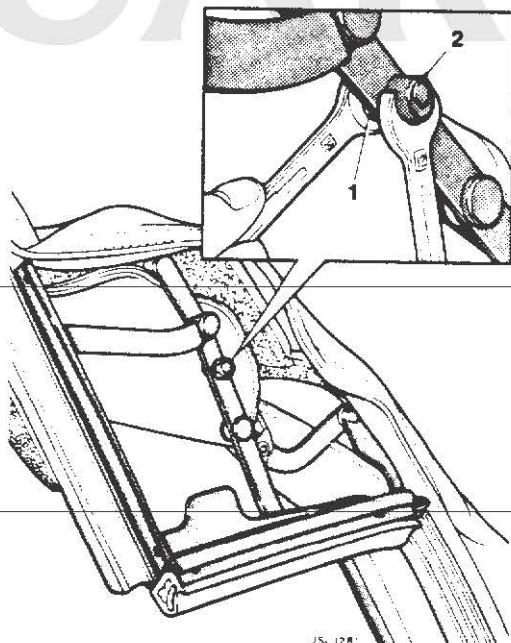


FIG 2

XJS CONVERTIBLE ONLY**ITEM: 41****76 REAR SCREEN RE-ATTACHMENT**

This Bulletin outlines the procedure for re-attaching the two components of the inner-to-outer glass frame on the convertible hood, should they become separated. For vehicles in warranty claims should be made against Warranty Fault Code 9 BQA, quoting S.R.O. 76-92-03; an allowance of 3.45 hrs may be claimed. Dealers are advised that this operation should not be attempted until approved by their Regional Service Manager.

Part of this Bulletin involves the removal/re-fitting of the convertible hood. These operations are covered by S.R.O. 76-13-12 (Rear 1/4 panel trim pad – Renew) and S.R.O. 76-11-16 (Rear stowage compartment – Renew). The allowances for these operations have been included in the time of 3.45 hrs.

1. Remove the backlight rubber finisher.
2. With the doors open, follow the procedures in S.R.O. 76-13-12 and 76-11-16.
3. Remove the hood from the vehicle and place on a clean bench with the inside of the rear screen glass uppermost.
4. Undo and remove the rear screen glass frame support bracket securing bolts.
5. Remove the brackets from the frame. (Note: These brackets are handed).
6. Position the hood cover tensioning straps through the rear screen frame mounting slots.
7. Displace and then remove the rubber roll tubes from the tensioning strap ends.
8. Displace the tensioning straps from the rear screen frame.
9. Working from the point at which the inner and outer frames have separated, carefully ease apart any portion of the inner/outer frame which is still attached.
10. Carefully clean away old sealant/adhesive from the rear screen frame inner well.
11. In order to secure fully the two portions of the frame, it will be necessary to fix four self-tapping screws through the metal frame and into the fibrous inner core of the outer frame, which carries the rear screen. Two of the screw heads will be visible on the upper frame edge, two on the lower frame edge.

The following method of fitting the screws is recommended:-

12. Position the frame assembly so that the inner edge is uppermost.
13. On the upper frame edge, use the tensioning strap slots as a datum. Measure and mark a point 86 mm from the inner edge of the slot towards the centre.
14. Measure half the width of the flange and mark the intersection of the two points.
15. Repeat this process for the other side of the frame upper.
16. On the lower frame edge, use the rear screen frame support bracket mounting holes as a datum.

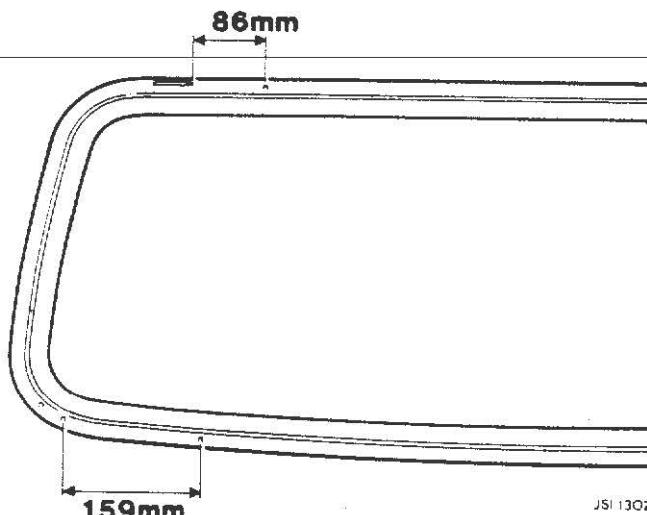


FIG 1

17. Measure and mark a point 159 mm from the centre of the inner hole.
18. Measure half the width of the flange and mark the intersection of the two points.
19. Using a drill and a 5 mm bit, drill through the metal frame at the marked points.
20. Using a 45° countersinking bit, countersink and de-burr the drilled holes. Clean away ALL swarf.
21. In order to drill into the fibrous inner core of the outer frame, it will be necessary to use the metal frame as a template.
22. Fit the two parts of the frame together securely.
23. Using a drill and a 3 mm bit, drill into the core to a depth of 14 mm.
24. Separate the frame inner and outer and clean away any plastic debris.
25. Apply de-greasant to the channel of the frame inner.
26. When the frame inner is clean and dry, apply windshield sealant primer to the channel of the frame inner.
27. Apply de-greasant to the frame outer, ensuring that it is clean and dry.
28. Apply a 5 mm (approx.) bead of sealant to the outer third of the frame inner channel.
29. Fit and fully seat the frame outer to the frame inner.
30. Fit and fully tighten the self-tapping screws which secure the frame inner to the frame outer.
31. Whilst allowing time for the sealant to set (following the manufacturers' instructions), it will be necessary to use four G-clamps (one at each mid-point of the four sides of the frame). A suitable protective pad will be required between the feet of the clamps and the frame assembly.

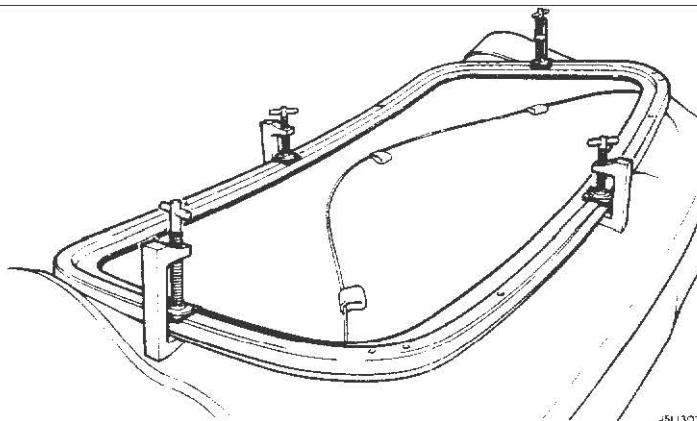


FIG 2.

32. When the betaseal has fully cured, remove the clamps and protective pads from the frame assembly.
33. Re-fit the hood cover tensioning straps through the rear screen frame mounting slots.
34. Fit and position the rubber roll tubes to the tensioning strap ends, ensuring that the straps are positioned and fully seated.
35. Position the rear screen frame support brackets to the frame and secure, using bolts.
36. Re-fit the hood to the vehicle, following the procedure in S.R.O.'s 76-13-12 and 76-11-16.
37. Fit and fully seat the backlight rubber finisher.
38. Close the doors.

XJ6 MODELS**ITEM: 42****82 BLOWER MOTOR ASSEMBLIES**

Noise problems encountered with blower motor assemblies following the launch of XJ6, resulted in the introduction of a revised fan blade material (Noryl GTX) from Vin 516122.

Service Bulletin JD 10/87 – Item 98, was subsequently issued to notify Dealers of this modification and advise action required on vehicles built prior to this VIN.

Owing to the nature of the fault, the Bulletin instructed that blower motor assemblies should be fitted, in car sets, when a noise problem was reported.

Although this instruction applied only to vehicles built between VINs 500001 to 516122, it would appear that some Dealers are still carrying out this practice regardless of the VIN.

Will Dealers please note, when attending to noise problems affecting the blower motor assemblies, that only the blower motor at fault should be replaced. In the un-

likely event that both blower motor assemblies are diagnosed as faulty, this should be clearly identified on the Warranty Returns documents, to prevent any confusion.

XJ6 2.9/4.0

ITEM: 43

82 AIR CONDITIONING CONDENSER

To improve the performance of the air conditioning condenser, a new thin wall condenser has been introduced from VIN 613462.

In conjunction with this change, the previously-specified refrigerant gas charge weight of 3 lbs \pm 2 ozs has now been reduced to 2.5 lbs \pm 2 ozs.

Unfortunately, the instruction label attached to the refrigerant hose muffler assembly is yet to be altered to indicate the revised charge weight. A further Bulletin will be issued to advise the Vehicle Identification Number (VIN) when this label is changed.

Until advised of this correction, will Dealers please ensure that if disturbance of the refrigeration system is required on vehicles after the above VIN, the correct charge weight of 2.5 lbs \pm 2 ozs is used.

Service Bulletin

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DATE: OCTOBER 1990

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REF: JD 10/90

ERRATUM

In the recently published Service Bulletin JD 09/90, Item 40, an incorrect dimension was quoted.

In paragraph 4 of the procedure for fitting the adjustment cam to older vehicles, which appears on page 5, the measurement from the front cantilever bar rearward along the retraction bar should be 39mm and not 29mm as previously stated. Would Dealers please ensure that all literature is amended to reflect this correction.

XJ6 90 MY

ITEM: 44

44 1990 MY ZF SHIFT QUALITY

Refinements have been made to the shift quality of the ZF4HP 24 transmission unit, as fitted to the XJ6 4.0 litre from VIN 614441. This has been achieved by modifications to the engine and transmission ECUs and the gearbox valve block.

Although all shifts are affected by the changes, the main effects are:-

3-4 shift Improvement to the constant throttle up-shift and the back-off shift from medium to light throttle. The firmness of these shifts has been reduced by the fitment of gearbox EBC 4409.

1-2 shift The previous specification shift was too short and firm; it has, therefore, been softened and the shift time lengthened.

N-D The earlier specification has a short and firm shift. The new specification has a lower rated load spring, which softens the initial engagement of drive.

Should it be necessary to remedy shift quality concerns on a 1990 MY car with a gearbox Serial Number of 42730 or earlier, fit both DBC 6162 (gearbox ECU) and EBC 4410 (valve body). It is intended to make these available as a kit shortly. If, due to failure (not shift quality), a valve body or gearbox ECU replacement is necessary, fit a straight replacement, ie valve body assembly EBC 3492 or gearbox ECU DBC 6369 (which supersedes DBC 5080).

If a complaint of shift quality is received on a 1990 MY car with a gearbox number of 42731 or subsequent, please advise Product Investigation. If a valve block assembly or gearbox ECU replacement is necessary due to failure (not shift quality), fit valve body EBC 4410 or gearbox ECU 6162 (which supersedes DBC 6328) as appropriate.

Both gearbox ECUs DBC 6162 (later unit) and DBC 6328 (earlier unit) contain these shift quality improvements and are, therefore, interchangeable. However, they must not be used in conjunction with earlier transmissions on their own prior to gearbox Serial Number 42731 as a durability problem may arise, together with varying shift change points.

The service manual contains the procedures necessary to renew these components.

Repair Operation Times: 44.40.01/09 Remove and refit valve body – 1.40 hrs.
44.15.32/09 Remove and refit trans ECU – 0.40 hrs.

Warranty Code The relevant complaint code is available under Section 4D of the Warranty Code Book.

XJ6 / XJS / S.III

ITEM-45

76 WINDSCREEN BONDING PROCEDURE

The following is the approved bonding and sealing procedure for direct glazing when replacing Jaguar windscreens. Service kit JLM 1588 is available for replacing front and rear screens and contains 300ml of sealant adhesive and all necessary consumables. When carrying out these instructions **cleanliness** is essential at all times if successful bonding is to be achieved.

1. Following removal of the windscreen, trim the existing polyurethane sealant to approximately 1.0mm depth at the body aperture. During this operation take care to prevent damage to the paintwork.

2. Ensure the surface of the polyurethane sealant remains clean after trimming. If the surface becomes contaminated, it should be wiped with solvent activator Betawipe 4000.

3. Body glazing primer is not required or desired for use with Betaseal HV3 adhesive and clear over base paint finishes. However, primer must be used on solid paint finishes or if the paint surface is broken.

4. Thoroughly clean the bonding surface of the glass with solvent activator and prime with glazing primer (5001). Allow to dry, avoiding contamination of the primed area.

5. Apply a bead of polyurethane sealant Betaseal HV3 to the primed surface of the screen.

Caution: It is vital that moisture (ie. wet fingers, soapy water, etc.) is NOT allowed to contact the polyurethane bead or bonding surfaces.

Any moisture contact will immediately seal the surface, prevent this area from bonding and introduce potential failure.

6. Fit lifting handles to the screen, align and fully seat the screen to the body aperture. Assembly must be completed within ten minutes of sealant application.
 7. Any excess polyurethane sealant on the vehicle paintwork must be removed with a spirit based solvent within 15 minutes of contact.

XJ6**ITEM: 46****76 FITMENT OF DOOR APERTURE SEALS**

The use of "Solumin" soft soap lubricant during the fitting of door aperture seals has resulted in seals moving, stretching and collapsing.

To prevent this, the use of "Solumin" during assembly has been terminated and a solution of water and windscreen wash fluid has been introduced as lubricant on all vehicles built from VIN 631238.

Service Requirements:

It is recommended that this lubricant (windscreen wash fluid/water solution) is used by all Service Technicians when renewing/replacing door aperture seals.

This lubricant is recommended because no residue remains when dry so unlike the "Solumin", it is not re-activated by water when it rains or when the vehicle is washed.

The lubricant should be mixed in a ratio of 9 parts water to 1 part wash fluid. This mix ratio MUST NOT be exceeded as a stronger concentration of wash fluid may cause seal degradation.

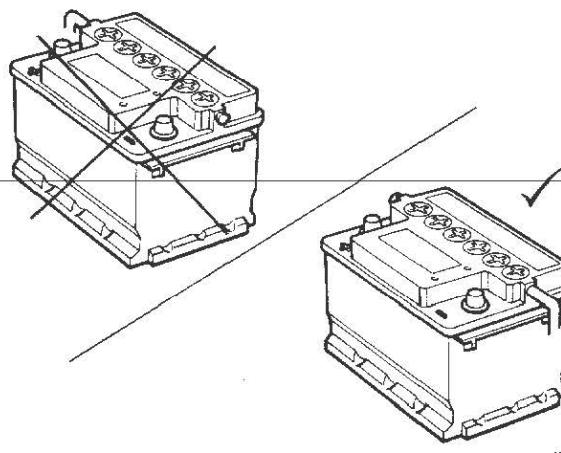
Details of windscreen wash fluid: Part Nos Supplied in Quantities

- | | | |
|----|-----------|--------|
| 1) | JLM 10150 | 100 ml |
| 2) | DBC 5178 | 500 ml |
| 3) | JLM 10152 | 5 lts |

XJS**ITEM: 47****86 BATTERY**

A new DIN 55 battery has been progressively introduced on XJS models from VIN 175174.

Any supplies of this new unit obtained through Parts Operations will require the re-locating of the vent elbow from the positive side to the negative side of the casing. The blanking plug in the opposite side will also need to be transposed as in Fig 1 below.

**FIG 1**

JSL-1352

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XJS V12/S.III V12

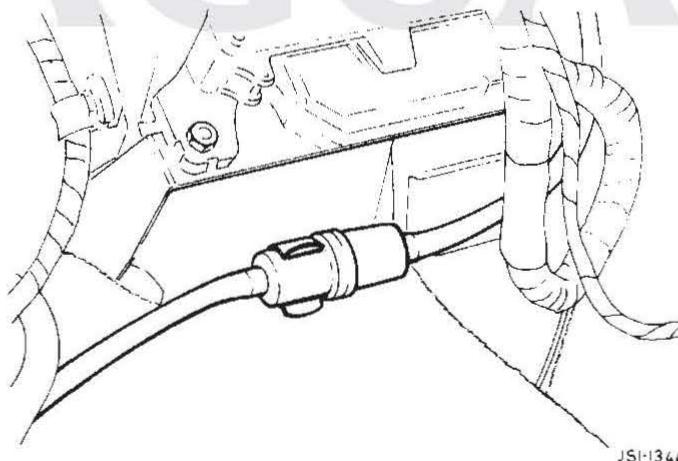
ITEM: 01

18 ECU VACUUM CIRCUIT

When investigating engine management fuelling problems which may result in:- poor idle, misfire or plug foul conditions, etc., Dealers should initially ensure that the engine management ECU vacuum line, which runs from the vacuum balance pipe (engine compartment) to the ECU located in the boot compartment, is not restricted or disconnected. In particular, Dealers should check the vacuum line reservoir capsule (see illustration) situated adjacent to the ECU; checks should be made for vacuum hose security and to ensure that no damage is evident to the capsule itself.

Replacement capsules are available through the Parts Operations, Part No. CAC 4968.

To cover warranty and fault reporting requirements for attention to the reservoir capsule, Dealers should utilise Warranty Code 1TA (vacuum regulator) together with 4th digit code 'Y' which has been allocated to read 'ECU Vacuum Line'.



PLEASE NOTE: WITH REFERENCE TO SERVICE RECALL ACTION R.351 (FUEL SYSTEM PURGE MODIFICATION), THE IN-LINE CAPSULE CAC 4968 REFERRED TO IN THIS BULLETIN IS DELETED ON V12 NON ELC (EVAPORATIVE LOSS CONTROL) MODELS WHEN THE PURGE MODIFICATION KIT IS INSTALLED.

Jaguar Cars Limited

XJ6 4.0L 1990 MY**ITEM: 02****18 ENGINE MANAGEMENT ECU**

Since the introduction of 1990 MY XJ6 4.0L models, modifications have been required to the engine management 15cu ECU software to cater for corrections to the fuel used interface, between the engine management system and instrument pack assembly and calibration enhancements affecting the electronic gearbox ECU. 15cu ECUs incorporating these software improvements were introduced progressively from VIN 615079. Although the production original equipment 15cu part numbers have changed to reflect these modifications, a unique range of part numbers have been released to accommodate service requirements covering early and later electronic gearbox ECU conditions.

Software changes required to the fuel used interface have primarily been required owing to the possibility of the 'fuel used' signal being corrupted, resulting in the instantaneous fuel read-out defaulting to 99 mpg (199 kpl) whilst the vehicle is cruising between 2400 and 2800 rpm.

SHOULD JDS BE USED TO DIAGNOSE THIS PARTICULAR FAULT, IT WILL CONDEMN THE INSTRUMENT PACK PRINTED CIRCUIT MODULE BOARD. THIS SHOULD BE DISREGARDED AND THE CORRECT SERVICE REPLACEMENT 15cu ECU FITTED.

For service 15cu part number breakdown by market / model specification, please refer to following list:-

NEW SERVICE PART NO.	REPLACES	PRODUCTION PART NO.	MODEL / MARKET SPECIFICATION
(For use on Vehicles Equipped with either Electronic Gearbox ECU DBC 5080 or DBC 6369)			
DBC 6550		DBC 5700	UK / Europe / R.O.W. / Taiwan Emission 'B' Auto.
DBC 6552		DBC 5702	USA Emission 'A' Auto.
DBC 6554		DBC 5704	Middle East Emission 'D' Auto non-catalyst.
DBC 6555		DBC 5705	Austria / Canada / Japan / Norway / S.Korea/Sweden/Switzerland/Belgium / France / Germany / Netherlands / Luxembourg Emission 'C' Auto with catalyst.
DBC 6556		DBC 5735	Australia Emission 'D' Auto with Catalyst.

NEW SERVICE PART NO.	REPLACES	PRODUCTION PART NO.	MODEL / MARKET SPECIFICATION
(For use on Vehicles Equipped with either Electronic Gearbox ECU DBC 6328 or DBC 6162)			
DBC 6830		DBC 6350	As DBC 5700
DBC 6832		DBC 6352	As DBC 5702
DBC 6834		DBC 6354	As DBC 5704
DBC 6835		DBC 6355	As DBC 5705
DBC 6836		DBC 6356	As DBC 5735

NEW SERVICE PART NO.	REPLACES	PRODUCTION PART NO.	MODEL / MARKET SPECIFICATION
(ECUs FOR MANUAL TRANSMISSION VEHICLES LISTED BELOW ARE COMPATIBLE WITH BOTH EARLY AND LATE CONDITIONS AS THEY ARE NOT AFFECTED BY GEARBOX CHANGES)			
DBC 6551		DBC 5701	UK / Europe / R.O.W. / Taiwan Emission 'B' Manuals
DBC 6553		DBC 5703	Austria / Canada / Japan / Norway / S.Korea / Sweden / Switzerland / Belgium / France / Germany / Netherlands / Luxembourg, Emission 'C' Manual with Catalyst.

XJ6**ITEM: 03****76 DOOR MOUNTED REAR VIEW MIRRORS, WIND NOISE (RUSH)**

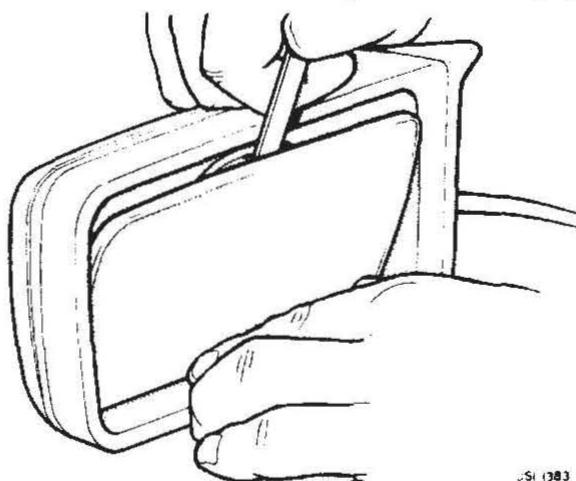
Market complaints of wind noise generated by the door-mounted rear view mirrors has resulted in the introduction of a modified mirror assembly, incorporating detail changes designed to eliminate wind noise. The new mirror assembly has a revised housing combined with a new foam self adhesive gasket, located between the chromed finisher and the housing.

Full introduction of the new mirror assembly was assured from VIN 594993. Vehicles built prior to VIN 594993, which are subject to wind noise, should be rectified by carrying-out the following procedure.

Rectification

NOTE: The following repair should be carried out, with the mirror assembly fitted to the vehicle.

1. Remove the mirror glass by inserting a plastic lever between the glass and the mirror housing at the location shown in Fig.1. THE LEVER SHOULD ONLY BE INSERTED TO A MAXIMUM DEPTH OF 4mm. This depth is stipulated to avoid the lever fouling the mirror motor assembly when disengaging the glass.

**FIG 1**

2. Lever the mirror glass from its mounting then, holding the glass, remove the two electrical connections (Fig.2). To avoid damage, store the mirror glass in a safe place.

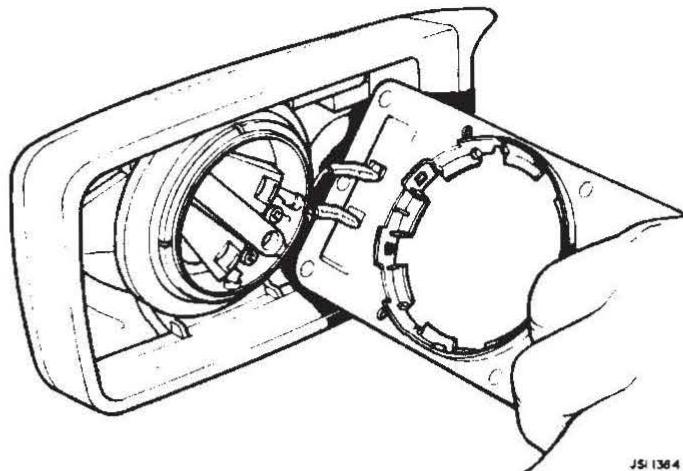


FIG 2

3. Using a narrow-bladed screwdriver, release the chromed finisher mounting clips (Fig 3). Prise the finisher free using the thumbs (Fig.4).

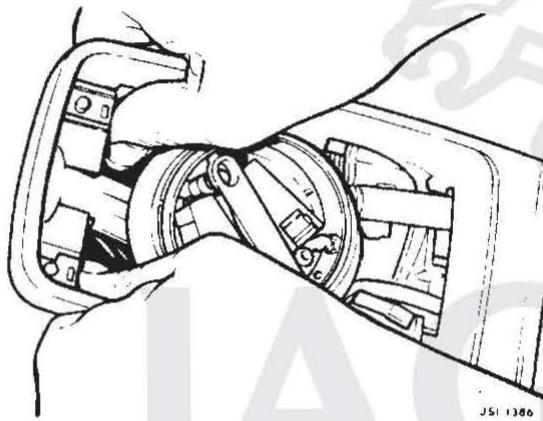


FIG 3

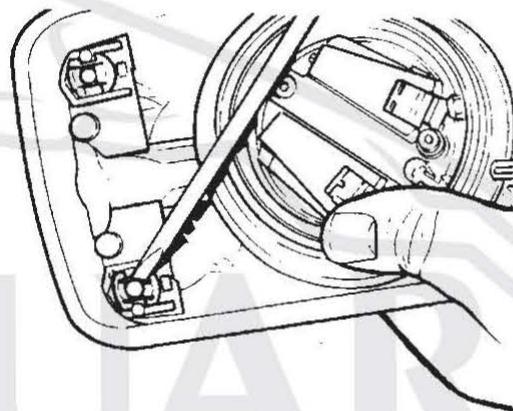
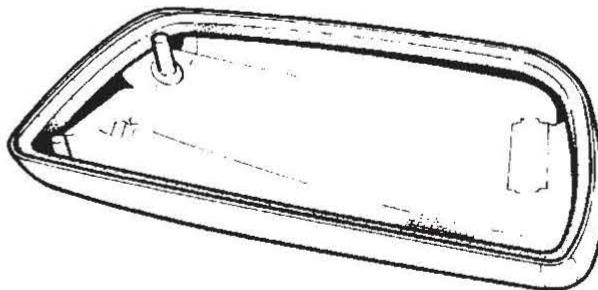


FIG 4

JSI 1385

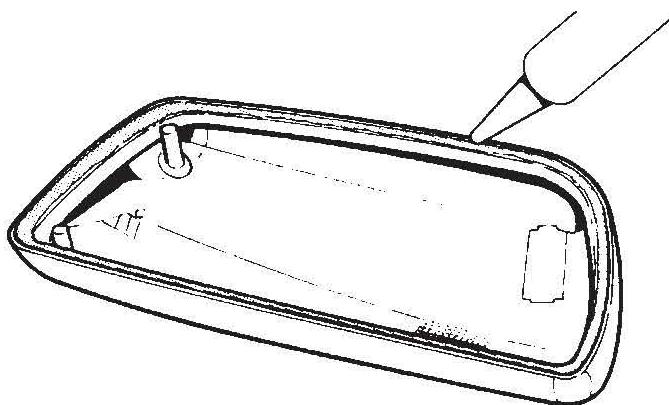
4. Inspect the self adhesive foam gasket. Displacement of the gasket from its correct position, and the resultant gaps between the finisher and the housing, is an indication of the probable source of wind noise. Fig 5 shows the correct position of the foam gasket.



JSI 1387

FIG 5

5. Correct the faulty condition by applying a bead of adhesive to the inner surface of the finisher, as shown in Fig 6.

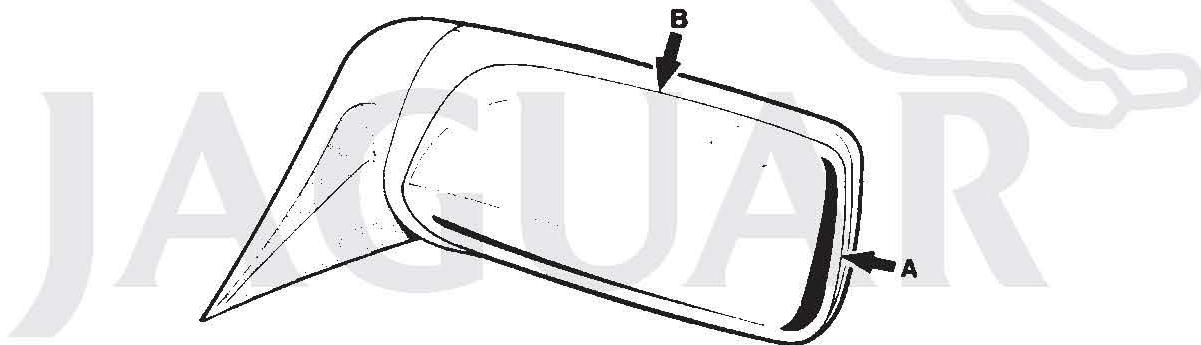


JSI 1386

FIG 6

NOTE: Refer to Adhesive Details at the end of this Bulletin item.

6. Prior to refitting the chromed finisher, the spring retaining clips (Fig 3, Part No. JLM 2235) should be renewed.
7. Refit the chromed finisher on to the mirror housing, ensuring that the finisher is correctly seated and that the profile to the mirror housing is flush (see A and B, Fig 7). Remove any surplus adhesive with a soft dry cloth.



JSI 1389

FIG 7

8. Refit the mirror glass into the housing and check for correct operation.
9. Allow 1 hour for the adhesive to cure.
10. Finally, road test the vehicle to prove the integrity of the repair.

ADHESIVE DETAILS

Type – Polyurethane (P.U.) adhesive.

A dispenser containing 150 ml of adhesive can be obtained from Jaguar Parts Operations by quoting Part No. JLM 1582.

WARRANTY CLAIMS:

Warranty claims should be submitted quoting the following complaint codes:

7NCA – R.H. door mirror or 7NDA – L.H. door mirror
 S.R.O. time 0.15 hours.
 S.R.O. Number 76.92.06.

NOTE: This repair technique can be used to re-secure mirror chrome backs where the security of the clips (Part No. JLM 2235) is found to be suspect.

ALL MODELS**ITEM: 04****79 1991 MY NEW BODY COLOURS**

The following new colours have been introduced for 1991 model year; not all markets will take all colours.

Solid/Uni Colours:

Brooklands Green – Jaguar Colour Reference JBC 753

Metallic Colours:

Silver Frost Metallic – Jaguar Colour Reference JBC 750

Oyster Metallic – Jaguar Colour Reference JBC 751

Micatallic/Pearl Colours:

Tuscany Bronze Micatallic – Jaguar Colour Reference JBC 754

Black Cherry Micatallic – Jaguar Colour Reference JBC 737

The following reference numbers refer to refinish suppliers' materials approved for repair of Jaguar vehicles.

Colour, Ref & Sales Code	Brooklands Green JBC 753	Silver Frost Metallic JBC 750	Oyster Metallic JBC 751	Tuscany Bronze Micatallic JBC 754	Black Cherry Micatallic JBC 737
Supplier & Type (UK)	HFB	MDK	SDE	SDD	PDP
Rinshed Mason Diamont	JAG 212	JAG 183	JAG 215	JAG 214*	JAG 213
Glasurit 54 & 21	JAG 753	JAG 725/00C	JAG 751/00C	JAG 754/00C*	JAG 737/00C
ICI-Autocolour	TF 32B	2811B	2726B	PH 86B	PH 85B
Dupont Centari #	ABL 9349	ABL 9201	ABK 9329	ABK 9384	ABK 9383
PPG Deltron	JAG 753	JAG 750	JAG 751	JAG 754	JAG 737
Herberts Standox	12267	85998	23365*	14899	16099
Sikkens Autobase	JAG 753	JAG 750	JAG 751	JAG 754	JAG 737
Product Types may vary by Market					
# Not North America					
* Indicates Colours Not Achievable on Mixing Scheme					

Please ensure that your Paint Shop Manager receives a copy of this information.

XJ6/XJS & S.III**ITEM: 05****82 AIR CONDITIONING 'HIGH SIDE' CHARGING VALVE**

From 1991 MY vehicle build, the models listed above have had the diameter of the charging valve reduced from 7/16" to 3/8". As a consequence, the air conditioning charging equipment situated within your workshop may not fit the new valve size.

The parts required to enable your equipment to fit the new valve are listed below, together with part numbers and an indication of the U.K. Sterling price for the three manufacturers of equipment listed below:

	Part No.	Price
Robinaire:		
Auto-shut off connector	10242	£21.00
Conventional	10468A	£2.95
90 degree angle	10469A	£4.50
6" flexible hose	10470A	£9.50
Salmon / Diavia:		
Connector	QCE4	£6.35
Bear Automotive:		
Adaptor	40-321	£5.75
5 Piece Adaptor set	40-322	£32.85

XJS V12/3.6 MODELS**ITEM: 06****82 IN CAR SENSOR ASSEMBLY**

In order to improve the in-car sensor response time and reduce temperature overshoot, thus providing a more acceptable and stable system, a revised in-car sensor design incorporating a motorised aspiration system similar to that available for XJ6 models, is now available as a service fix for XJS models. This fix should be fitted to vehicles where complaints of temperature instability/slow sensing, drift to heat and inadequate cooling are reported.

Would Dealers please note that the procedure for checking and adjusting temperature differentials (reference Service Bulletin JD 06/87 Item 45) still applies with the exception that the temperature differential should be $0 +/ - 5^{\circ}\text{C}$ and not $0 - 12^{\circ}\text{C}$ as previously quoted.

To prevent additional disturbance of components, the existing in-car sensor layout may be left in situ, as this will not be detrimental to the operation of the motorised system.

Parts required are available under Part Nos:

PART NO	DESCRIPTION	QTY PER VEHICLE
DBC 5724	Motorised Aspirator Ass	1
CCC 3502	Mounting Bracket RHD (Coupe)	1
CCC 3503	Mounting Bracket LHD (Coupe)	1
CCC 3504	Mounting Bracket RHD (Convertible)	1
CCC 3505	Mounting Bracket LHD (Convertible)	1
JLM 2295 Installation Kit Comprising:-		1
* DAC 7856	Harness Ass.	1
* CCC 3587	Vacuum Restrictor Valve	1
* BD 8633/3	Spire Clip	1
* AA 608045	Screw (flanged head)	1
* SE 105163	Screw (Posi-drive)	2
* NY 105041	Nylon Insert Nut	2
* WA 105001	Washer	2
* ADU 9028	Fixing Strap	10

Vehicles should be modified on a customer complaint basis only, quoting:-

U.K.

Warranty claims (electronic claim type 04) for fitting the parts should be submitted quoting S360 and the appropriate Option Code (see below).

A labour allowance of 1.55 hours and a drive in / drive out allowance of 0.15 hours are included in these options.

Option Code 'A' = RHD Coupe

Option Code 'B' = LHD Coupe

Option Code 'C' = RHD Convertible

Option Code 'D' = LHD Convertible

EXPORT

Warranty claims (electronic claim type 04) should be submitted quoting S360 in place of the normal Warranty Code together with the appropriate part and kit numbers (see matrix).

A labour allowance of 1.55 hours may be claimed quoting SRO 82-91-07, together with a drive in / drive out allowance of 0.15 hours quoting SRO 10-10-10.

MODIFICATION PROCEDURE

The following installation drawings cover LHD models. For RHD markets, installation is symmetrically opposite.

Disconnect the battery negative lead.

Remove the driver and passenger side lower dash liners.

Remove the glove box assembly

Remove the fixing nuts securing the relay mounting plate to the passenger side

blower motor assembly and displace the panel from the fixing studs. Locate the low coolant control unit on the reverse side of the panel, see Fig 1 (A); remove from the mounting clip and disconnect the harness multiplug:-

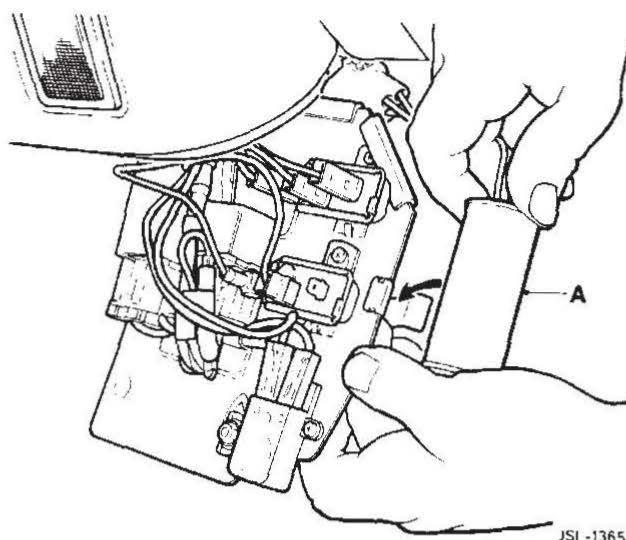


FIG 1

Connect the 'T' connection of the new link harness (Part No. DAC 7856) between the low coolant control unit and the vehicle harness connections.

Route the link harness up and behind the facia side outlet ducting, see Fig 2 (B).

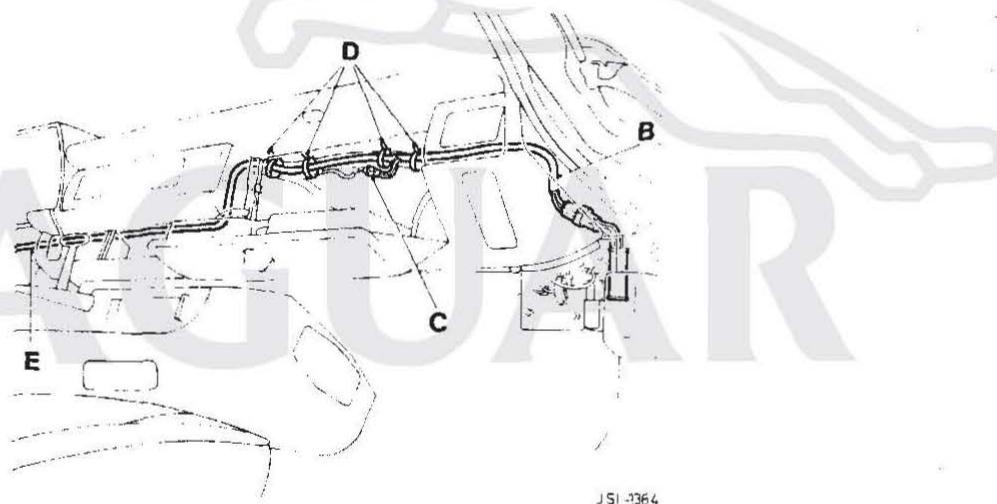


FIG 2

Refit the low coolant sensor to the mounting clip and reposition the relay the mounting plate to the blower motor fixing studs and secure. Ensure that the harness and multiplugs are positioned correctly and are not trapped.

Disconnect the in-car sensor multiplug Fig 2 (C) and connect the harness spur on the new link harness to the vehicle harness sensor multiplug. Using suitable insulation tape, tape back the in-car sensor multiplug.

Following the existing vehicle harness routing, secure the link harness as shown in Fig 2 (D), using the ratchet straps provided.

Remove the trip computer/clock from the facia switch panel.

Using a suitable length of wire (e.g. welding rod), carefully feed the wire behind the facia switch packs, attach the new link harness to the wire and draw the harness through and behind the switch panel into the driver's footwell, see Fig 2 (E). Remove the draw wire from the link harness.

Route and secure the link harness to the column stay bar using the ratchet straps provided. For routing instructions covering all markets including USA non-air bag specification, refer to Fig 3. For USA vehicles equipped with air bag, refer to Fig 4.

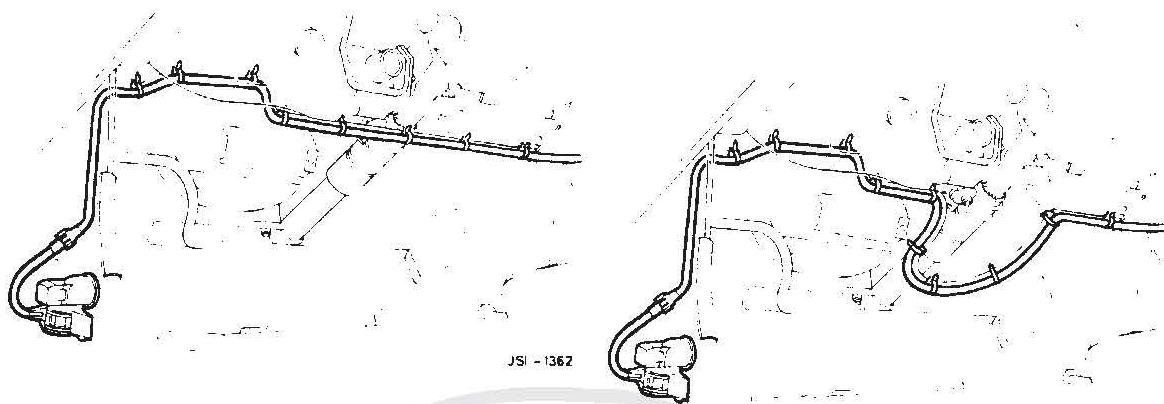


FIG 3

FIG 4

JSI-1363

Remove the driver's side lower 'A' post trim panel.

For drilling dimension instructions, refer to the following illustration applicable to the model affected:-

Fig 5 = RHD / LHD XJS V12/3.6 coupe models

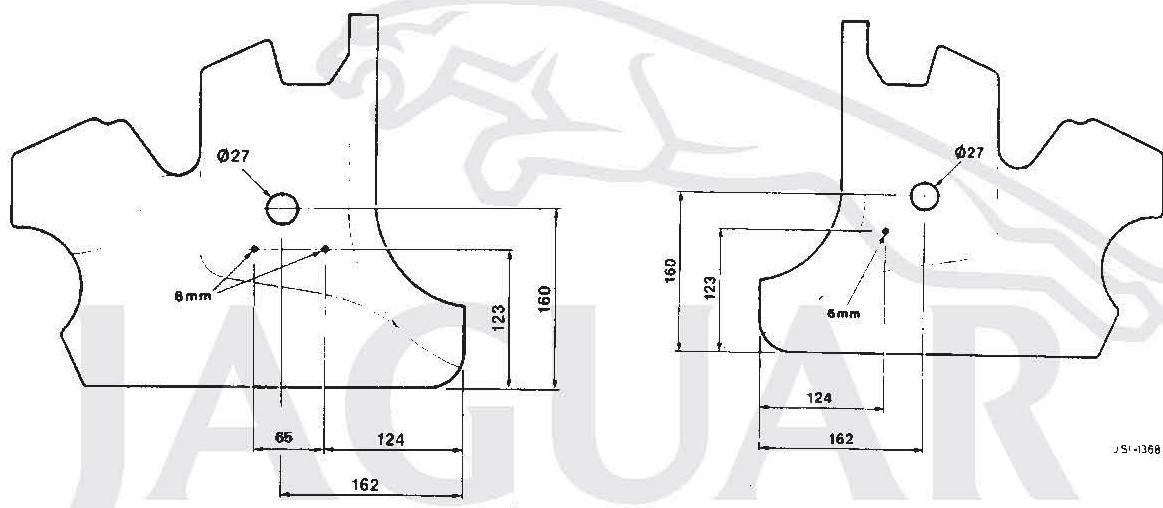
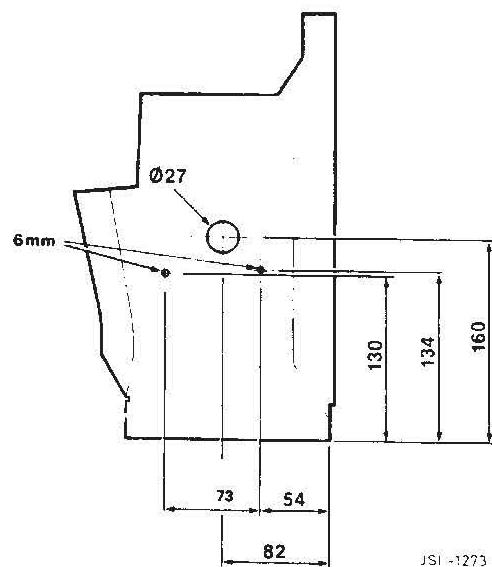
Fig 6 = RHD convertible only

Fig 7 = LHD convertible only

DRILLING INSTRUCTIONS APPLICABLE TO ALL MODELS

Mark out the dimensions on the 'A' post trim panel for the aspirator motor air intake aperture; carefully cut the trim accordingly and drill a 27 mm hole using a suitable hole saw.

Mark out the dimensions for the mounting bracket fixing holes and carefully drill using a 6 mm drill.



For installation of the motorised aspirator and associated fixings, refer to the following illustration, applicable to the model affected:-

Fig 8 = LHD convertible (only).

Fig 9 = RHD convertible and RHD / LHD V12/3.6 coupe.

Note: Although the RHD convertible 'A' post trim panel is shown, installation is identical for V12 and 3.6 coupe models.

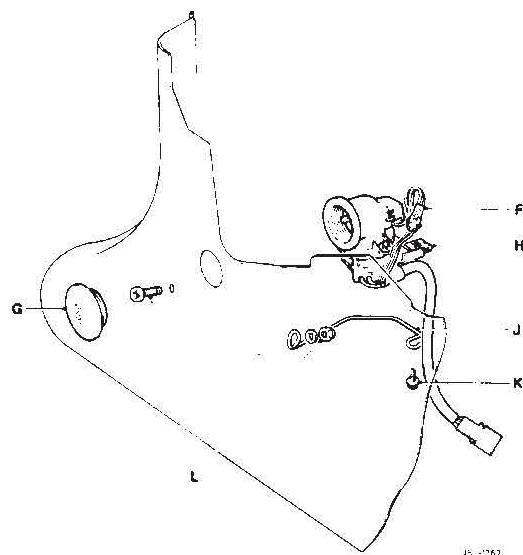


FIG 8

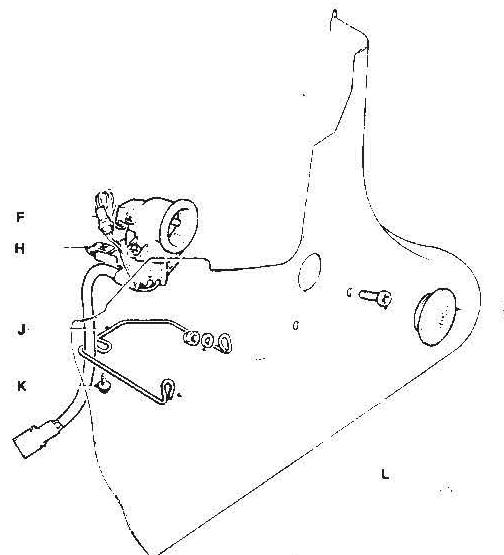


FIG 9

F = Motorised Aspirator **G** = Plastic Grille
H = Spire Clip **J** = Mounting Bracket
K = Self-Drive Screw **L** = Fixing Nuts/Screws and Washers

INSTALLATION INSTRUCTIONS APPLICABLE TO ALL MODELS

Unscrew the plastic grille from the motorised aspirator assembly, remove and discard the foam rubber seal.

Position the motorised aspirator to the trim panel and secure in position with the plastic grille (do not over-tighten).

Locate and secure the spire clip to the aspirator mounting bracket.

Secure the wire mounting bracket to the motorised aspirator using the flanged self-drive screw (on RHD convertible and RHD / LHD coupe models, position the aspirator motor harness through the wire bracket as shown in Fig 9).

Secure the wire bracket to the 'A' post, trim panel utilising the two posi-drive screws/nuts and washers. NOTE: On LHD convertible, only one posi-drive screw is required (see Fig 8).

To ensure an air-tight seal between the motorised aspirator and the 'A' post trim panel, seal the aspirator elbow as shown in Fig 10, using a suitable clear sealer (e.g. 3M Part No. 08401).

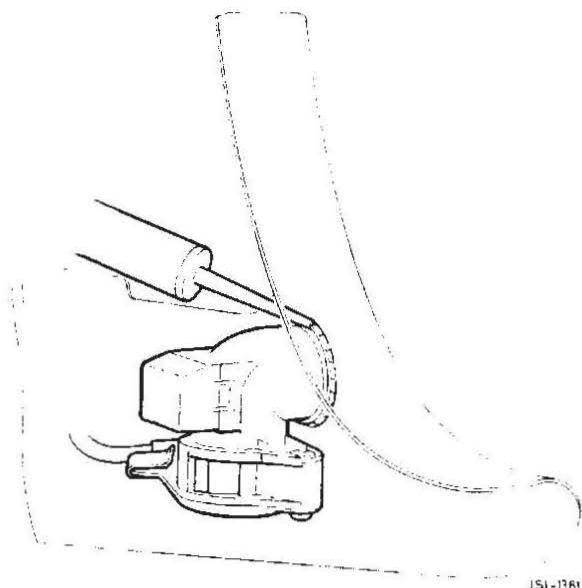


FIG 10

Connect the motorised aspirator harness multiplug to the link harness multiplug. Refit the trim panel to the 'A' post, ensuring that the harness and multi-plugs are not trapped and secure the panel.

Refit trim items, reconnect the battery and check operation.

ALL XJ6 VEHICLES WITH ELECTRIC SEATS

ITEM: 07

86 POWER SEAT HARNESS

There has recently been a change of supplier for the electric seat harness, which has resulted in an interim condition harness being used on production vehicles between VINs 619571 and 625863.

The variance of specification on this range of vehicles can be easily identified visually by means of the harness braiding used. On vehicles before and after the above VIN range, the harness is a single tier braided design. Vehicles within the VIN range have a multi-tiered harness.

Dealers experiencing the intermittent or total loss of any of the following seat-related functions on vehicles within the affected VIN range are advised firstly to inspect the harness to ensure that no fouling on the seat frame has occurred. This should be checked visually with the seat in all possible positions of travel.

Possible modes of failure:-

- Loss of one or more seat movements
- Loss of 'in-head-rest' functions
- Loss of seat-heating functions

Any Dealers identifying damage to the harness should carry-out rectification in line with normal procedures. Where no change of harness is required, Dealers should ensure that the tiers are firmly strapped together, using tie-straps and that they are clear of any possible foul condition with the seat frame in any of the possible seat positions.

XJ6 2.9/3.6**ITEM: 08****88 WATER TEMPERATURE SWITCH**

In Service Bulletin JD 07/90, Item 34, reference was made to two water temperature switches, namely JLM 763 (red) and JLM 2121 (black).

It has been brought to our attention that some earlier production build XJ6 2.9/3.6 models may be equipped with a 'blue' coloured switch. Should Dealers encounter the situation where a 'blue' switch requires replacement, it should be replaced with the 'red' type, Part No. JLM 763.

Bulletin JD 07/90 Item 34 also makes reference to three fault patterns, which may be encountered with the operating function of the control panel assembly. Will Dealers please note that the faults listed may be interpreted as 'control panel lock up', which can be overcome by replacement of the respective microprocessor. Dealers should not replace the control panel assembly as this results in a number of 'no fault found' conditions.

XJ6 MODELS**ITEM: 09****88 WARRANTY CODES**

To facilitate warranty and fault reporting requirements for instrument pack components, the following codes and corresponding parts descriptions have been assigned:-

Complaint Code	Description
7JU	Flexible Circuit Board
7JV	Printed Circuit Board

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JAGUAR
Daimler

Date JANUARY 1985
Sheet 1 of 3
Bulletin JD.01/85

ITEM 01

12 OIL PRESSURE SWITCH

ALL MODELS

During investigations into oil leakage from the oil pressure switch, it has been noted that non approved pressure switches are being used. Please note that Unipart switch GPS 117 IS NOT APPROVED for fitment on Jaguar vehicles and must not be used as the hexagon size prevents secure fitment in Jaguar applications.

The only oil pressure switch specified and approved for use on current Jaguar vehicles is C 42200.

ITEM 02

26 COOLANT HEADER TANK

XJS 3.6/XJ-SC 3.6

Following reports of coolant loss from the header tank filler neck joint, all header tanks are now pressure tested after stove enamelling. The solder specification has also been improved to prevent any possibility of the solder melting during the stove enamelling process. Header tanks are quality assured from VIN 119730 and Parts stocks are all to the latest condition.

ITEM 03**26 THERMOSTAT HOUSING GASKETS****S.III/XJS HE**

To overcome isolated instances of coolant loss from the thermostat housing, new gaskets have been introduced on 6 cyl (XK) and V12 engines. The new part numbers are detailed below:

Model	Description	Part No.
XJ6 3.4, Limo	Thermostat Housing Gasket	EAC 7044
XJ6 4.2	Thermostat Housing Gasket	EAC 7046
XJ6 3.4, 4.2, Limo	Water Outlet Pipe Gasket	EAC 7045
XJ12, XJS HE	Thermostat Cover Gasket LH	EAC 7047
XJ12, XJS HE	Thermostat Cover Gasket RH	EAC 7048

The bolt tightening torques are also revised to:

6 cyl (XK)	23 – 28.5 Nm	(17–21 lb/ft)
V12	10.8 – 12.2 Nm	(8–9 lb/ft)

The improved gasket and revised tightening torques were introduced at the following engine numbers:-

XJ6 3.4	8A 15616
Limo	7M 4974
XJ6 4.2	8L 173271
XJ12	7P 51620
XJS HE	8S 32778

ITEM 04**57 POWER ASSISTED STEERING RACK****S.III/XJS**

Continual monitoring and examination of returned Power Assisted Steering racks has resulted in the following improvements:

1. To prevent rack bar contamination due to the use of spurious lubricants during Service, extensive testing by Jaguar and Adwest has resulted in the deletion of the rack damper grease nipple. Greasing of the rack damper during Service is NOT necessary as initial greasing by the manufacturer is considered sufficient.
2. To alleviate the possibility of scoring the rack bar with the steering alignment tool, when checking the steering geometry, a deeper and chamfered centralising pin hole has been introduced.
3. A new tangential valve and torsion bar has been introduced.

These improvements have been implemented on steering racks built after date code 4L 0001 and were introduced progressively on to Jaguar production from VINS:

413000	S.III
120500	XJS

ITEM 05**70 BRAKE BEDDING IN PROCEDURE****ALL MODELS**

With the recent introduction of semi-metallic brake linings, it is important that all Service Personnel are aware of the optimum procedure for the 'bedding-in' of these linings. Details are as follows:

In order to ensure optimum brake performance and refinement throughout the life of the brake friction linings and brake discs, it is essential that a controlled brake bedding procedure is undertaken during the early life of the friction linings.

The procedure used should ensure that the friction linings quickly achieve normal operating conditions as a result of low energy applications, without being subjected to high energy input levels.

The procedure recommended for the first 320 km (200 miles) is of deliberate, frequent light application wherever possible, similar to that used during normal town driving. On open road driving the above conditions have to be simulated. Try NOT to brake from speeds in excess of 96 km/h (60 mph); reduce speed by short brake applications, i.e. 80–65 km/h (50–40 mph) at intervals of approximately 1.5 km (1 mile).

This procedure will ensure satisfactory brake lining/disc conditioning, and lead to optimum brake life and performance.

ITEM 06**74 ALLOY WHEELS****S.III/XJS**

Reports of difficulty in removing alloy wheels due to corrosion between the mating faces of the wheel and the hub spigot has resulted in a greasing operation being introduced on production.

The hub spigot bore of the wheel is now coated with Shell Retinax 'A' grease. This was introduced at VIN Nos:

411159	S.III
119708	XJS

ITEM 07**76 AUTOMATIC REAR SEAT BELTS****XJS (AUSTRALIA)**

All XJS vehicles landed in Australia after January 1st 1985 will incorporate 3 point inertia reel rear seat belts.

ITEM 08**82 AIR CONDITIONING SERVO UNIT****S.III/XJS HE/XJ-S 3.6/XJ-SC 3.6**

Further to Service Bulletin JD.11/84 -- Item 85 Reference Step 3. To prevent excessively low pressure being generated in the air conditioning system under certain operating conditions, the servo motor unit Ranco override function has now been deleted. Units to the modified condition were introduced from VINs:—

411931	S.III
120267	XJS HE/XJ-S 3.6/XJ-SC 3.6

ITEM 09

82 RECEIVER DRIER

S.III 4.2 (AIR CON. MODELS ONLY)

To improve the efficiency of the Receiver Drier, the Drier has been repositioned to enable maximum refrigerant flow through the internal pick-up pipe.

This repositioning has resulted in the sight glass now being on the left hand side and in the vertical position. This change was introduced at VIN 412060.

When fitting replacement Receiver Drier Bottles on Series III 4.2 Models (prior to the above VIN) the Receiver Drier should be fitted as described above.

The fitment of the Receiver Drier Bottle CAC 1881 on Series III 5.3/XJS HE and XJS 3.6 Models remains unchanged, i.e. the Drier mounted with the sight glass on the right hand side and the sight glass angled approximately 15 degrees rearwards.

ITEM 10

86 DOOR POCKET WARNING LAMPS

S.III/JAGUAR VDP & SOVEREIGN ONLY

During the winter period, especially in markets where the ambient temperatures are particularly severe, it is possible for the electric aerial mast to freeze temporarily. Isolated incidences have been reported of the main circuit fuse blowing through the aerial operation being impaired.

Should this occur it is possible for the door casing puddle lamps to illuminate with the doors closed, and in some cases, due to the problem going unnoticed, can result in the battery discharging when the vehicle is parked.

Through subsequent investigations, the cause has been traced to a feed back circuit developing through the interior light circuit which is also protected by the same fuse link.

Fuse No. 3 Main Fuse Box – LHD
Fuse No. 13 Auxiliary Fuse Box – RHD

To prevent this involuntary illumination and possible battery discharge, modified bulkhead harnesses incorporating diode protection on the interior light circuit will shortly be introduced. Introductory VINs will be issued in a further Service Bulletin.

However should this problem be encountered on vehicles already in Service, the following modification may be implemented:

Labour allowance 0.45 hrs
Complaint Code 7K7S

PARTS REQUIRED

Description	Part No.	Code (see Fig. 2)
1 off Lucas Connector	GHF 2051	A
1 off Lucas Connector	GHF 2060	B
2 off Lucas Insulation Sleeve	GHF 2151	C
1 off Diode	AAU 5034	D

MODIFICATION PROCEDURE

1. Disconnect the battery.
2. Remove the passenger side 'A' post lower trim panel to expose the lower bulkhead/door harness (See Fig. 1). Passenger side RHD is shown, LHD is symmetrically opposite.

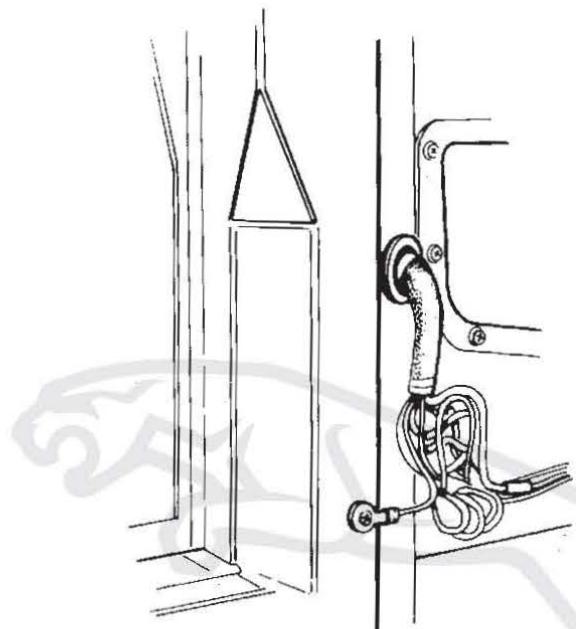


FIG. 1

JSI-281

3. Locate the interior door switch purple/white (PW) cable and cut.
4. Fit insulations sleeves (C, Fig. 2) and crimp/solder Lucas connector (A and B, Fig. 2), to the purple/white (PW) cable. Connect diode unit (D, Fig. 2) in circuit and strap or tape to the harness.

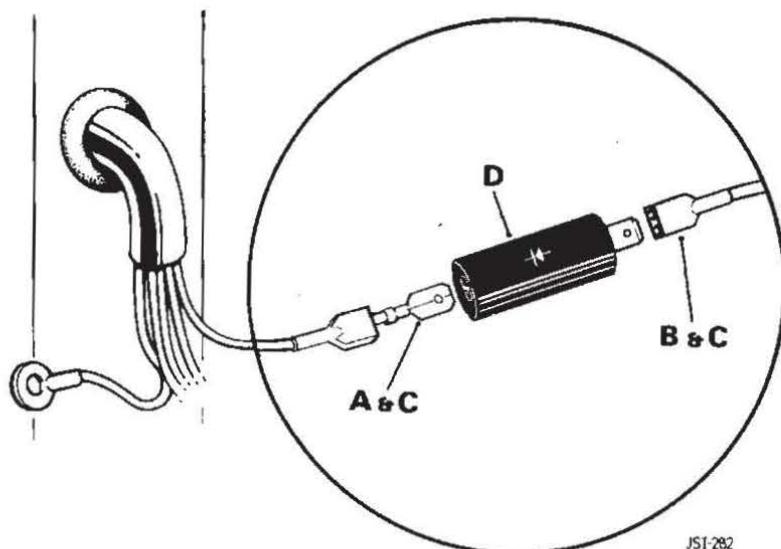


FIG. 2

JSI-282

5. Refit the 'A' post lower trim panel and reconnect the battery.

ITEM 11

86 IGNITION COIL

S.III 4.2

To improve the ignition performance on S.III 4.2 Models, a new Ducellier coil with ballast resistor, together with a modified amplifier and engine harness have been introduced from Engine No:—

8L 173271

Interchangeability with the previous ignition system is affected.



Service Bulletin



DATE: MARCH 1991

PAGE: 1 of 8

REF: JD 02/91

It has been decided to re-issue sheets 1 of 5 and 2 of 5 of Service Bulletin JD 15/89. The first issue instructs fitters to lubricate the crankshaft rear oil seal. The seal supplier, however, recommends that the seal is fitted dry to avoid contamination.

These amended sheets are included at the end of this Bulletin and are clearly identified as "Issue 2". Would Service Personnel concerned please remove and destroy the original copies and replace them with the amended sheets.

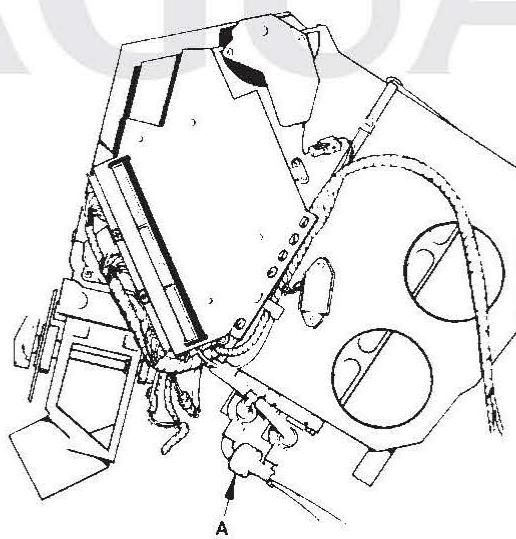
ERRATUM

With reference to Service Bulletin JD 01/91, Item 06:-

1. Please note that the restrictor valve detailed in kit JLM 2295 reads CCC 3587; this should read CCC 3537.
- 2 An error has also been noted whereby the installation details for valve CCC 3587 have been omitted.

Please refer as follows:-

With the right hand side centre console panel removed, locate the centre vent restrictor valve (blue ident) = (A). See illustration on following page.



Note which direction the blue ident is positioned.

Jaguar Cars Limited

Remove the blue restrictor and replace with the yellow restrictor (CCC 3537), install the restrictor in the same orientation.

ALL V12 ENGINES

ITEM: 10

12 ADDITIONAL USE OF RTV SEALANT

Removing/Replacing Sump Sandwich Plate Gasket

When removing or replacing the sump sandwich plate gasket, would Dealers please note that to help prevent the possibility of oil leaks, additional RTV sealant should be applied as follows:-

A bead of RTV sealant approximately 3 mm wide and 10 mm long should be applied in the middle of the joint line between the cylinder block and the rear main bearing cap in two positions (Fig 1) before the sump sandwich gasket is fitted.

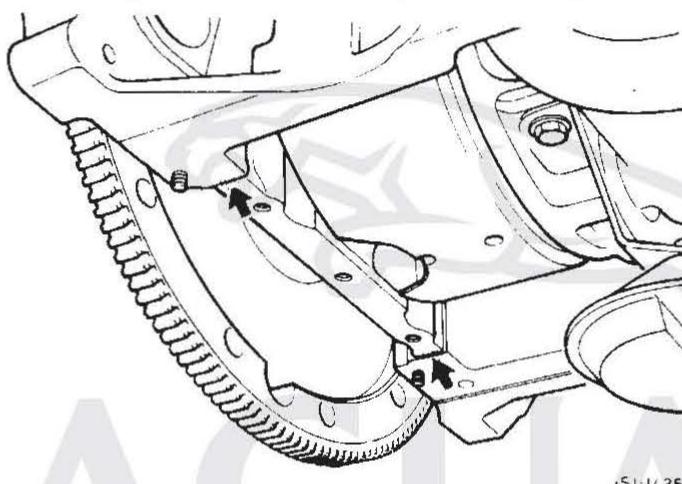


FIG 1

JSI-1435

A small spot of RTV approximately 3 mm diameter, should be applied in the middle of the split line between the timing cover and the sump face (Fig 2), after the paper timing cover gasket has been shaved and just before fitting the sump sandwich gasket.

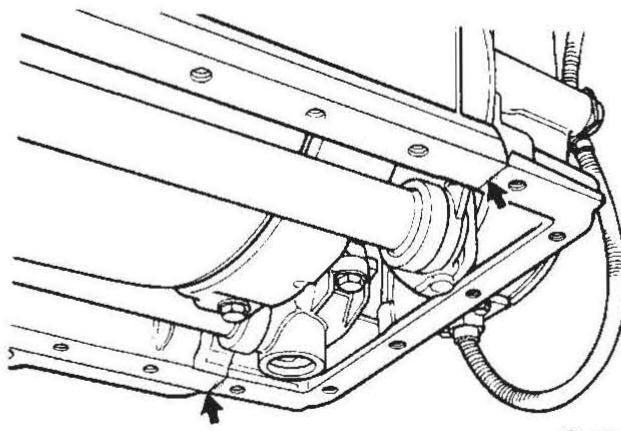


FIG 2

XJR-S AND XJR-SALOON**ITEM: 11****76 SATIN BLACK EXTERIOR FINISHERS (WHERE FITTED)**

When polishing vehicles equipped with satin black exterior finishers during PDI, showroom preparation or service valeting, care should be exercised to avoid excessive rubbing, particularly with power tools otherwise the satin finish may become glossy in appearance, detracting from the original specification.

In order that owners are discouraged from similar practices in service, reference in the form of a caution note will be contained within future editions of the vehicle handbook under Section 9 – Vehicle Care.

XJS COUPE**ITEM: 12****76 DOOR GLASS – INCORRECT OPERATION**

Service reports have identified some incidence of door glass sticking and juddering whilst it is being powered up and down. The reports also point out that the adjustments incorporated within the window lift assembly do not, in all cases, provide an effective means of eliminating the problem.

To redress this situation and prevent further occurrences of the fault, a modified lower door glass guide channel and improvements to the door assembly have been introduced on all XJS coupes manufactured from VIN 176860. Coupes built prior to VIN 176860, which are affected by this problem, can be corrected by carrying-out the following procedure.

Rectification Procedure:

1. Remove the door trim (refer to S.R.O. 76 34 01) to gain access to the door glass window lift regulator assembly.
2. Disengage the regulator assembly from the door glass and allow it to rest in the lower door panel.
3. Place hands on either side (surface) of the door glass, then move the glass up and down. Refer to Fig 1, Point 'A'. The glass movement becomes restricted at this point as full contact is made between the glass and upper to lower guide channels. Close observation of the glass channel seal at the foul point 'A' will invariably show signs of pressure marking and wear.

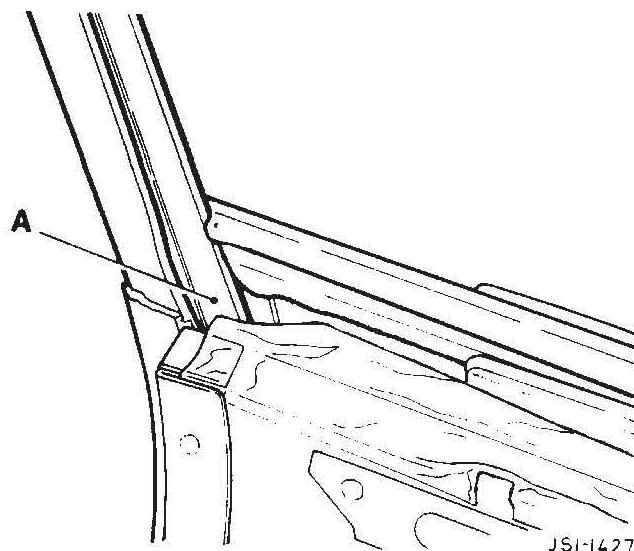


FIG 1

Note: When excessive wear is apparent on the inner surface of the seal, it MUST be renewed.

4. Remove the lower door glass channel from the door and place it on a work bench.
5. Refer to Fig 2, which shows the lower guide channel being measured at the position it must be opened out to prevent the door glass sticking. The nominal dimension at this position should be 19.8 to 20.8 mm; subsequently the channel should be opened up to 26,0 to 28,0 mm.

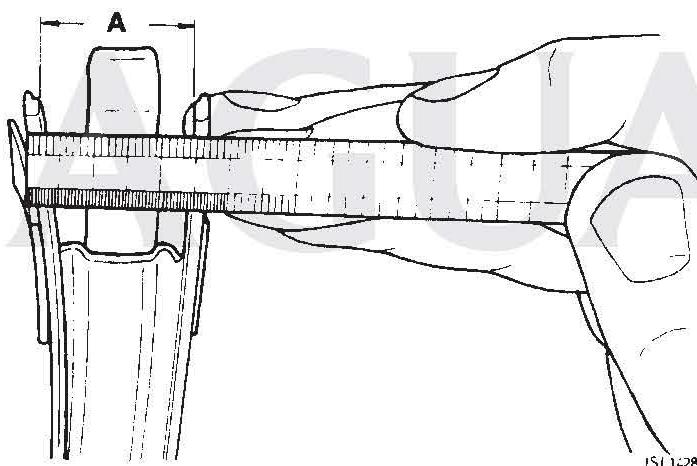


FIG 2

6. To open-up the channel, using soft face jaws, secure it firmly in a vice (Fig 3). Using a pair of pliers; equally bend each side of the channel outward until the increased channel width of 26,0 to 28,0 mm is achieved (A Fig 3).

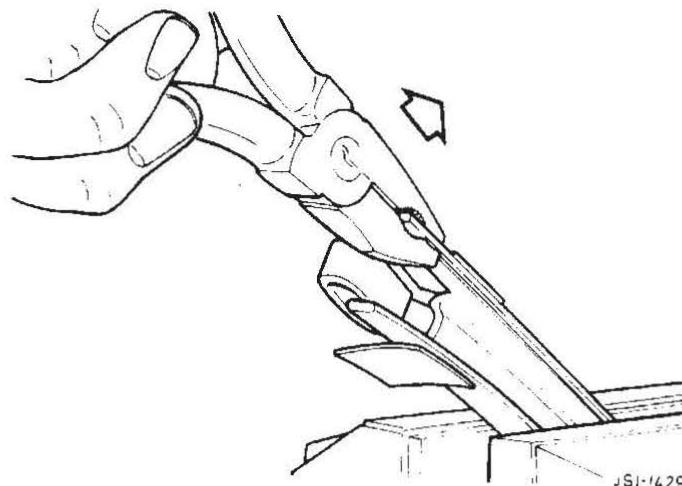


FIG 3

7. Refer to Fig 4; using an engineer's steel rule, measure the external width of the frame as shown. The correct dimension should be 19.5 to 20.5 mm.

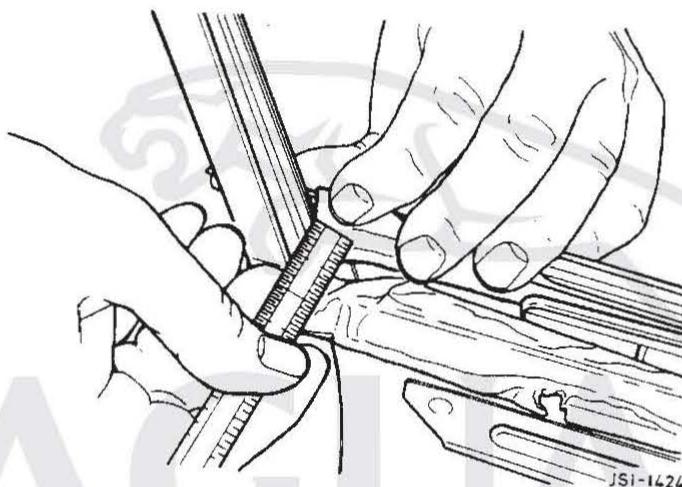


FIG 4

8. If this dimension is less than 19.5 mm, the door glass movement will still be restricted at this point. Should this dimension be correct, items 9 to 11 can be disregarded. When this width is less than 19.5 mm, the door/window frame channel will have to be opened out.
9. To open out this channel, insert a 15 mm thick steel drift approximately 12 cm long x 25 mm wide into the channel as shown in Fig 5.

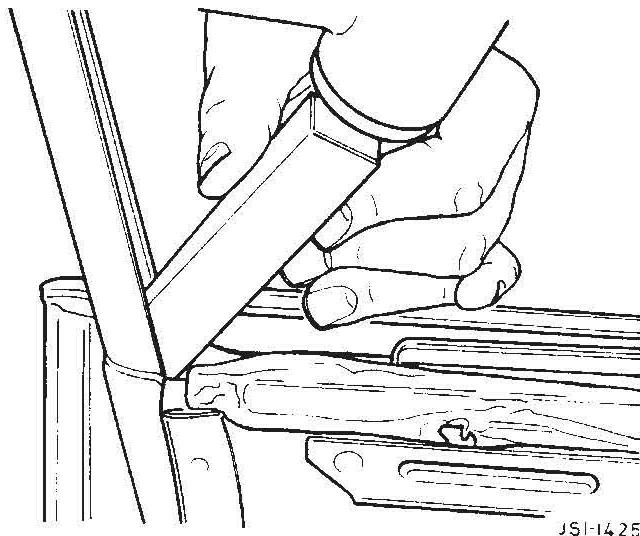


FIG 5

10. Using a pair of pipe grips secured to the drift. twist the drift in the direction shown in Fig 6. This action should be repeated until a dimension of approximately 21 mm is achieved at the position shown in Fig 4. This 0.5 mm increase above the upper limit of 20.5 mm, will compensate for any "spring back" of the channel due to integral latent stresses.

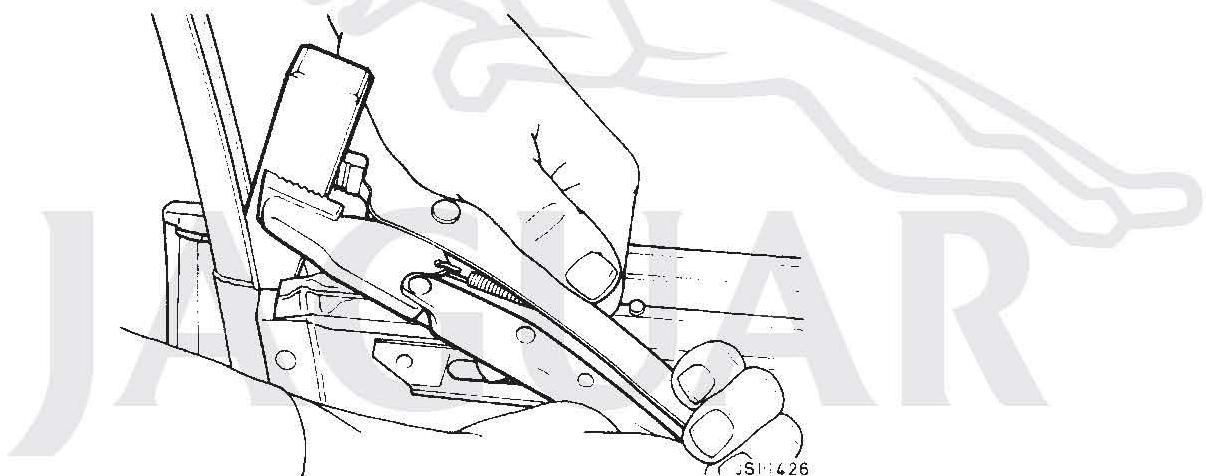


FIG 6

11. On completion of the previous action, the steel drift should be removed and the inner surface of the channel inspected for damage (paint removal). Any area of the inner channel where 'bare metal' is found should be repaired in line with Jaguar's current full paint specification. This will require the application of:-
 - (i) A brush applied air dry anti-corrosive primer (etch primer).
 - (ii) A brush applied air dry black top coat, e.g. BASF (synthetic) Code No. L21 K013.
12. When the paint is fully dried, refit the door glass lower guide channel and the glass channel seal. Reset the channel so that the door glass moves freely up and down. Ensure there is no excess sideways movement which may allow the glass to tilt and subsequently jam.

13. Refit the regulator and motor assembly and check for correct functioning of the door glass during powered operation.
14. Refit all door trim, then carry-out a final test for correct functioning of the door glass.

Warranty repairs should be claimed quoting the following details:-

R.O.T:

Single Door – 76 92 04 Window Lower Guide Channel Repair.
Time Allowance: 0.90 hrs.

Both Doors: 76 92 05 Window Lower Guide Channel Repair.
Time allowance: 1.80 hrs.

XJS AND S.III V12

ITEM: 13

80/ AIR CONDITIONING/HEATER MICROPROCESSORS 82

Some confusion has recently occurred over the interchangeability of Mk.3 Air Conditioning/Heater Microprocessors, due to the incorrect issue of supersession information concerning Part Nos: CAC 8032 and DAC 7601. This information has subsequently been corrected, with Part No. CAC 8032 being re-instated.

To clarify the situation, CAC 8032 and DAC 7601 are NOT interchangeable.

CAC 8032 was the original microprocessor and was fitted in conjunction with a red water temperature switch, Part No. JLM 763.

DAC 7601 replaced CAC 8032 as a running change around November 1989 and was fitted in conjunction with a black water temperature switch, Part No. JLM 2121.

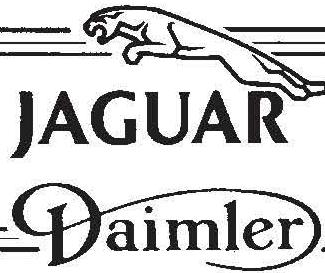
If the identification or compatibility of the microprocessor/harness and water temperature switch is suspect, identification can be determined as follows:-

- a) DAC 7601 may be identified by a blue edge connector colouring and a DAC 7601 label.
- b) CAC 8032 was only identified using the supplier part number on the rear of the microprocessor, Part No. 36900200.
- c) With the Air Conditioning/Heater unit switched on, disconnect the water temperature switch and measure the harness voltages. These should be nominally 0 volts or 5 volts. If they are the same voltage, the ECU and harness are incompatible (a switch between them will have no effect).

Measure Pin 21 of the microprocessor; if this is 0 volts, a red water temperature switch should be fitted.

If this is + 5 volts, a black water temperature switch should be fitted.

Service Bulletin



DATE: JUNE 1991

PAGE: 1 of 8

REF: JD 05/91

ERRATA

JD 03/91, Item 16, paragraph 2 should read:-

"86-55-35 Door Lock Infra Red Receiver Module Repair Time should read:-
0.45 hours and not 0.10 hours."

ALL AJ6 MODEL ENGINES

ITEM: 29

12 RECOMMENDATIONS ON SPS FIXINGS

A feature of the engine is the adoption of the SPS joint control system on the cylinder head bolts, crankshaft main bearing bolts and connecting rod nuts and studs. This system ensures that the joints receive maximum clamp loading for a given fixing size and type of material by tightening the fixing to its particular yield point.

Revised torque figures for cylinder head bolts are as quoted below. All other SPS fixings remain unchanged. The Service Manuals will be updated at the next reprint.

- * All SPS fixings should be used only once. Set aside fixings on removal and replace with new bolts every time a 'strip down' has been carried out.
- * The tolerance relating to the angle through which the bolts are rotated has been deleted; the angle is now 90° exactly.

XJ6 / XJS
3.6 / 4.0 litre

Cylinder Head Bolts.

Torque figure:

59-61 Nm

XJ6 / XJS / S.III V12 / LIMO

ITEM: 30

70 BRAKE FLUID

Brake fluid is hygroscopic, which means that it takes in moisture from the air. Water affected brake fluid has a reduced boiling point. The water also helps corrosion start

Jaguar Cars Limited

in the braking system. Therefore, the brake fluid should be changed **every two years irrespective of mileage.**

This recommendation is included in the Vehicle Maintenance Sheets as follows:

SIII	JJM 10 51 02 / 02	
XJ6	JJM 10 51 05 / 04	2.9 / 3.6 / 4.0
	JJM 10 51 05 / 10	3.2 / 4.0 (91 MY)
XJS	JJM 10 51 06 / 02	3.6 / V12
	JJM 10 51 06 / 20	4.0 / 5.3 / 6.0 (92 MY)
LIMO	JJM 10 51 01	

The above part numbers cover English Language publications. For translated publications, the first two digits after the letters JJM (i.e. 10) identify the relevant language as follows:-

10	English
11	French
12	Dutch
13	German
14.	Italian
15.	Spanish
17.	Japanese

Please ensure that your Service staff are aware of this requirement and that they use the correct Vehicle Maintenance Sheets.

XJ6 / XJS

ITEM: 31

74 FORGED ALLOY WHEELS

These road wheels (Part No. CBC 9643 for XJ6 and CBC 9175 for XJS) differ from cast alloy wheels in having an anodised finish as opposed to being lacquered.

It is, therefore, essential that they are only cleaned using a non-acid-based cleaner, such as the Jaguar cleaning kit, Part No. JLM 10149.

Fluids containing phosphoric acid must not be used, otherwise the surface finish of these wheels will turn a dull 'milky' colour.

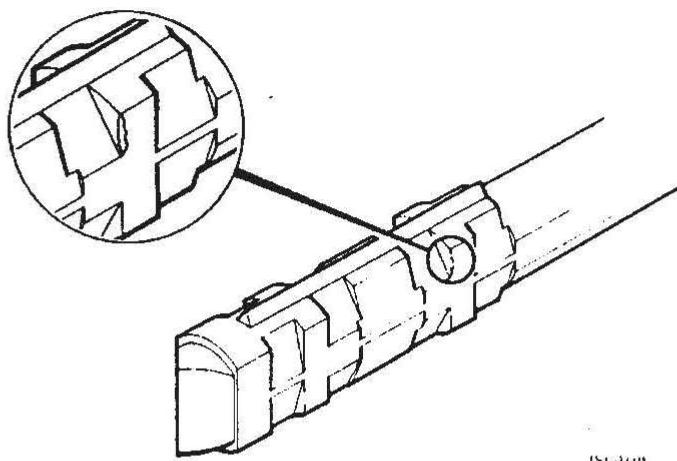
Please inform your service staff and relevant customers, as failure to follow these instructions may result in rejection of any subsequent claims.

90 / 91 MY XJS SALOONS

ITEM: 32

76 TIBBE KEY / LOCK POOR OPERATION

Reports have been received of keys sticking, baulking or not turning in the lock, as a result of key damage, in particular to the edge of the No.1 key cut – see Fig 1:-



Investigations into this problem have identified that key damage occurs when the key is rotated whilst not being fully inserted into the lock barrel. Subsequently, the resulting damage to the edge of the No. 1 cut prevents the key being rotated when correctly inserted into the lock barrel.

A new lock has been fitted to all saloons built from VIN 646128. The new lock has a re-profiled driving disc which transfers the initial lock open / close loading from the No.1 cut to the No.3 cut position on the key.

In the event of customer complaint follow the lock repair / procedures outlined in Service Bulletin JD 06 / 90 – Item 27 and replace the damaged key.

NOTE: All lock sets and lock replacement kits / assemblies ordered from Jaguar Parts Division from the 1/2/91 are to the new condition as outlined within this Bulletin, e.g. a new driving disc is now incorporated.

1992 MY EXTERIOR COLOUR RANGE**ITEM: 33****79 ALL MODELS**

The Sales Department are now taking orders for vehicles to be painted in the 1992 range of exterior body colours.

The following information is provided to enable workshop staff and body shop staff to identify quickly the correct body colour, if so required.

COLOUR	TYPE	JBC NO.	SALES CODE
Glacier White	Solid	742	NDP
Black	Solid	333	PDH
Signal Red	Solid	748	CFC
Brooklands Green	Solid	753	HFB
Meteor Red *	Solid	736	CFJ
Westminster Blue	Solid	712	JFG
Solent Blue	Metallic	715	JFJ
Oyster	Metallic	751	SDE
Silver Frost	Metallic	750	MDK
Diamond Blue	Metallic	743	JFN
Platinum *	Metallic	775	LEP
Kingfisher Blue *	Metallic	779	HFE
Regency Red	Mica	734	CFA
Gunmetal	Mica	740	LEH
Tuscany Bronze	Mica	754	SDD
Catkin *	Mica	777	HFD
Flamenco *	Mica	765	CFH
Black Cherry	Mica	737	PDP
The following Colours are DELETED from the 91 MY range:			
Arctic Blue	Metallic	337	JFE
Bordeaux Red	Metallic	340	CEK
Savoy Grey	Metallic	731	LEK
Tungsten	Metallic	718	JEX
Jade Green	Mica	735	HEV
NOTE: * New Colour introduction for 1992 MY			

XJS**ITEM: 34****82 AIR CONDITIONING MICROPROCESSOR**

We have been advised that a small quantity of air conditioning units equipped with microprocessor assembly, Part No. DAC 7601, were initially supplied with the microprocessor incorrectly labelled DBC 7601.

In the event that replacement of one of these units is required in service, will Dealers please Quote DAC 7601 when re-ordering.

XJS**ITEM: 35****86 ALPINE RADIO / TAPE ASSEMBLY**

As a result of a rationalisation programme now in place, the Alpine removable Radio 'ARI' version (Automatic Road Traffic Information), Part No. DAC 5931, is now supplied for fitment to the following models:-

XJS Convertible	UK Market	Standard
XJS Coupe	UK Market	Option
XJS Coupe / Convertible	European Market	Standard

It has recently become apparent that some confusion still exists over the ARI facility.

The ARI system enables traffic information broadcasts to be received only in certain European Markets.

To access this function requires the SDK / Loud button to be pressed for less than two seconds. Simultaneously the 'SDK' symbol will be illuminated in the liquid crystal display panel.

In the event that the SDK function is accidentally selected in a market not covered by the traffic information service, the following condition will occur:-

With either the FM waveband selected, or the tape play in operation, the sound will disappear after approximately 30 seconds and will be replaced by a continual bleeping tone. To cancel this and return the radio / tape operation, press the SDK / Loud button again for less than two seconds.

To access the loudness function, press the SDK / Loud button for more than two seconds; this will simultaneously be accompanied by the 'Loud' symbol being illuminated in the liquid crystal display panel. To remove the loudness function, press the button again for more than two seconds.

XJ6 1991 MY MODELS**ITEM: 36****86 HEELBOARD BASS SPEAKER**

Should complaints of the following arise:-

- * A loud 'thump' noise when the radio / cassette is switched on or off.
- * No radio / tape sound.
- * Poor bass speaker operation.

The following action should be taken:-

When diagnosing the above conditions prior to replacing the radio / cassette, first check the routing of the heelboard bass speaker wiring.

Note: REPLACING THE RADIO / CASSETTE BEFORE CORRECTING A FAULTY WIRING CONDITION COULD RESULT IN DAMAGE TO THE REPLACEMENT RADIO.

If the wiring is trapped between the speaker housing retaining clips (Fig 1) and the steel heelboard panel, the insulation may wear away, allowing the wire to ground.

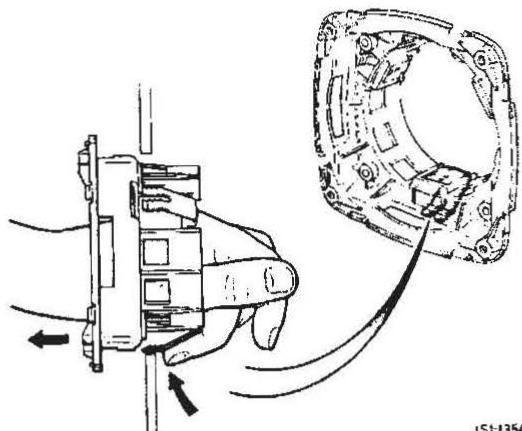
**FIG 1****FIG 2**

BEFORE replacing the radio / cassette, check both speakers for correct wire routing (Fig 2) using the following procedure:

Gently pry the rear bass speaker grill from the speaker.

Remove the four retaining screws securing the speaker assembly to the housing. Remove the speaker.

Reach in and locate the three retaining clips holding the speaker housing to the heelboard (Fig 3). Depress the clips and remove the housing.

**FIG 3**

Disconnect the speaker harness multi-plug. Remove the speaker and inspect the wiring for damage.

If wiring damage exists, repair as necessary.

WARRANTY ADMINISTRATION

Where repairs are carried out within the Warranty period, a Warranty claim may be submitted quoting the following information:-

Complaint Code:	7QFJ
Time:	0.35 hrs.
SRO No.:	86.91.37

Note: To enhance the heelboard bass speaker installation and prevent possible harness contact with the housing retaining clips, modifications to the speaker cable length and routing have been introduced from VIN 644135.

AJ6 AND CURRENT V12 ENGINES

ITEM: 37

86 ALTERNATOR BELT TENSION

Information on alternator drive belt tension in current Service Manuals has been superseded. The following information details the latest figures and method of adjustment. This will be incorporated at the next manual updates.

AJ6 Engines

A belt in service should be set at 510 Newtons (115 lbs).

A new belt should be set at 600 to 625 Newtons (135 to 140 lbs). After a short initial period of running, the new belt will relax, stretch and will then need to be readjusted to the service figure of 510 Newtons (115 lbs).

V12 Engines

A belt in service should be set at 310 Newtons (70 lbs).

A new belt should be set at 350 Newtons (79 lbs). After a short initial period of run-

ning, the new belt will relax, stretch and will then need to be readjusted to the service figure of 310 Newtons (70 lbs).

The method of adjusting the belt is as follows :

Raise the vehicle on a ramp. From below, fit a belt tension gauge to the belt (see Fig. 1) and take a reading (see Fig. 1 inset). Remove the gauge and, if necessary, readjust the belt. Refit the gauge and take a further reading. Repeat this procedure until the belt tension is correct. When the correct reading is achieved, remove the gauge, ensure all alternator fixings are tight, then lower the vehicle to the ground.

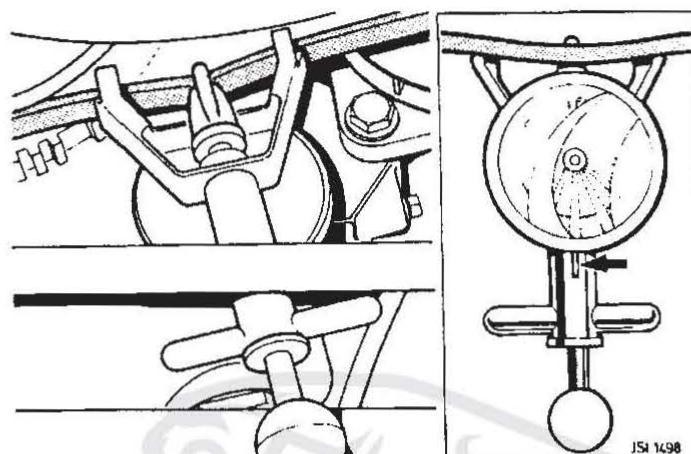
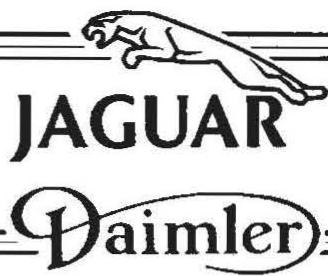


FIG 1

JAGUAR

Service Bulletin



DATE: JULY 1991

PAGE: 1 of 12

REF: JD 06/91

ERRATA

JD 05 / 91, Item 32, heading should read:-

"90 / 91 MY XJ6 Saloons" instead of "90 / 91 MY XJS Saloons".

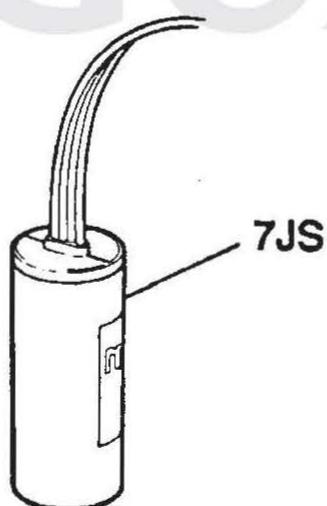
WARRANTY CODE BOOK

ITEM: 38

00 XJS MODELS

Following the release of the new XJS Warranty Code Book incorporating face-lift additions (Publication No. JJJM 10 06 06 / 20), discrepancies have been noted in Section 7J Instruments:

1. The illustration covering Code 7JK "Low Coolant Sensor" has been incorrectly annotated 7JS, would you please amend your copy accordingly to read 7JK.
2. The illustration covering Code 7JS "Low Coolant Control Unit" has been omitted, see below :-



(To update your Code Book accordingly, photocopy the above illustration and place it in Section 7J).

Jaguar Cars Limited

ECU VACUUM SENSOR UNDER-FLOOR PIPE**ITEM: 39****18 XJS V12**

As a result of reports of the under-floor ECU vacuum pipe coming loose due to the plastic "P" clip breaking (Part No. C32746/3), a revised steel clip (Part No. C1040/6) has been introduced from VIN 177600.

Fitting instructions for these clips are as follows:-

1. Remove the propeller shaft following procedure 47.15.01 for coupe or 47.15.01/70 for convertible, in the relevant workshop manual.
2. Using a suitable drill, carefully drill out the old pop rivet, making sure the drill does not penetrate the body panel. Displace and remove the broken "P" clip.
3. Fit and align the steel clip C1040/6 to the vacuum pipe and pop rivet to the body using a suitable rivet and the existing hole.
4. Refit the propshaft.

Claims should be made quoting complaint code 1TQC and SRO 19.91.27 for coupe or SRO 19.91.27/70 for convertible. Labour times are 2.20 hours and 2.60 hours respectively.

HOOD SEALING TECHNIQUES UPDATE**ITEM: 40****76 XJS CONVERTIBLE PRE 1992 MY**

This Bulletin is intended to assist Dealers in correcting problems which cannot be resolved using the Technical Guide "XJS Hood Sealing Techniques". This information, coupled with that already published, should enable the sealing of all problem vehicles.

Work outlined in this Bulletin should only be done when approved by the Regional Service Manager for your area.

All new Part Numbers required are specified in the text; in all other cases, required parts will be those specified in the latest edition of the Parts Microfiche - Part No. RTC 9900 FV (Jaguar XJS Range).

Further to the issue of the Technical Guide "XJS Hood Sealing Techniques" (Part No. JJM 10 15 06/01), this Bulletin identifies additional methods that can be used in conjunction with the guide. The techniques highlighted here enhance those in the Technical Guide and do not replace them.

1. Hood-Cam Fitment

Inspect the hood frame to determine whether an adjustment cam has been fitted. This cam is fitted as standard on vehicles after VIN 162147, but on older vehicles the method for fitment is specified in Service Bulletin JD 09/90, Item 76; (ensure that the measurement from the front cantilever mounting bush is 39 mm and not 29 mm as incorrectly stated previously).

Drips at top of 'A' Post: Additional information – the position of the 'A' post relative to the hood and door-glass is critical to the achievement of good hood fitment. A simple method to determine what adjustments are required has been devised:-

1. With the vehicle in 'park' and the handbrake 'on', operate the hood to its fully open position.
2. Close the hood but do not latch it; check that the hood pins locate centrally into the latch-block cups. If the hood does not latch correctly, this is a good indication that the 'A' post position will need adjustment. The 'A' post position is critical if hood and 'A' post seals are to form the correct relationship with the door-glass.
3. If the hood latches correctly, this is a good indication that the body condition is accurate and sealing can be achieved by adjustment to the glass setting, the cheater and / or the hood seals.
4. When satisfied with the 'A' post position, close the door and check that the door-glass runs parallel with the 'A' post seal carrier. If adjustment is required, this can be achieved by one or more of the following:-
 - a. Adjustment of the door-glass height
 - b. Adjustment of the door-glass tilt
 - c. Adjustment of the door-glass fore / aft position
 - d. Packing of the 'A' post seal carrier

These operations are outlined in the XJS Hood Sealing Techniques Technical Guide and explained in detail in the Service Manual.

Points to note:-

- * If the 'A' post seal carrier is removed to apply additional packing, it should be re-fitted to its most outboard position. If the hood seals are aligned, but the pressure on the door-glass is affecting the door closing loads, the door-glass may be adjusted outboard to improve this condition.
- * If the 'A' post seal has been re-packed, this may now mean that the 'A' post seal and front cantrail seal are misaligned either inboard/outboard or up/down. This condition must be rectified by packing (or removing packing from) the cantrail seal carriers, as appropriate.
- * If the rear cantrail seal carrier is removed, Wedge Packer (BDC 7963) must be used when re-fitting. This packer ensures that the rear cantrail seal follows the contour of the rear quarter-glass.
- * If all of the cantrail seals have been removed, they should be re-fitted from front to rear. Seals should only be re-fitted using a mix of water and screenwash as a lubricant. Greases or other lubricants which do not evaporate will allow the seals to shift when the hood is operated.
- * Should the 'A' post position require rectification, this can only be achieved using suitable body-jigging equipment.

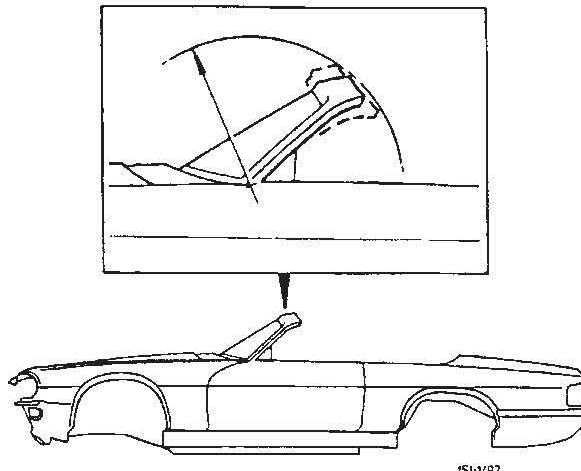


FIG 1

Because the 'A' post will move in an arc during re-positioning, each 'A' post must be moved separately to a tolerance of + or - 2mm. N.B. These adjustments can be made with the screen in situ.

The 'A' post will need to be pushed forwards or backwards between 5 and 10 times more than the required amount of adjustment, e.g. a 20 mm movement would result in approximately 2 mm to 4 mm adjustment when the 'A' post springs back, (i.e. is not under load).

- * Following adjustment to the 'A' post, it may then prove necessary to adjust the door-glass and / or pack / adjust the 'A' post seal carrier. It is critical to ensure that the seals follow a consistent line (front to rear and inboard / outboard) if a sealed vehicle is to be achieved. The seals should exhibit a smooth line along their entire length. Henceforth, it is assumed that the 'A' post is in the correct position with the 'A' post seal carrier bearing the correct relationship to the door-glass.

Following the adjustment to the 'A' post and / or the 'A' post seal carrier, it may be found that the cheater frame does not make good contact (form a seal) with the 'A' post seal.

The optimum performance is as follows:-

- * With Glass Down: A good contact should be made by the cheater on to the 'A' post seal but the seal 'flip' must not be trapped by the cheater bezel.
- * With the Glass Up: The door glass must not trap the seal 'flip' and the cheater top seal should be in contact with the door-glass radius.

Should the cheater require adjustment, the following method is recommended:-

1. Cut away and remove the cheater bezel to door frame front rubber moulding.
2. With the door casing removed, loosen and remove the cheater frame fixings, (two off fixing nuts at the top, inside the door inner panel and two off adjuster nuts inside the door behind the window regulator).
3. Remove the cheater and clear the area of all sealant debris. Do not replace the inner bezel at this stage; wait until the door casing has been re-fitted so that the bezel does not foul the casing.
4. Replace the cheater frame, sealing its base with a silicon or polyurethane sealant.

5. Adjust the cheater to the seal for fore and aft position in the door top fixing slots.
6. Adjust the cheater frame for inboard / outboard position using the weld stud and adjusting nuts inside the door. The optimum position for the cheater is when the outer bezel almost touches the chrome screen finisher.
7. Fit a new front rubber moulding and seal its base with silicon sealant.
8. Adhere the thin, feathered lip to the outer bezel using a cyanoacrylate adhesive (e.g. Loctite 424). Use a silicon / polyurethane sealant to fill the joints of the cheater / door-top (in line with the Technical Guide).
9. Setting of the cheater may result in the door-glass needing fine tuning to its optimum position. (See door-glass setting).

Guidelines for Cantrail Seal Fitment

- * The front cantrail seal must form a 'touch' condition with the 'A' post seal (at their abutment ends) when the hood is closed.
- * The hood seals above the door-glass must exhibit a small gap (2 to 3 mm) at their abutment ends. A 'touch' condition here is incorrect and will allow water to track between the seals.
- * The main column seal should touch the rear cantrail seal with the hood in the closed position.
- * The seals must form a continuous and smooth aspect to the door-glass and quarter-glass when the hood is closed.

Glass Setting – Ground Rules

The optimum condition for door and quarter-glass is as follows:-

- * The door-glass radius will make good contact with the cheater top-seal without overstretching it. The aim should be to form a continuous smooth run along the line of the cheater, its top seal and on to the door-glass. A good line here will not only reduce the risk of water ingress, but will also improve wind-noise characteristics.
- * The door-glass rear edge and the 'D' glass must run parallel with each other when raised.
- * The door-glass and 'D' glass must be at the same height when fully raised.

Note: The higher that the 'D' glass is raised, the more forward it will move when the hood is being closed. This is simply due to the action of the main column seal.

- * With the hood open and the door / quarter-glasses raised, an approximate 4 mm parallel gap should exist between the rear glass carrier and the door-glass rear edge. (Note: This gap may change when the hood is closed due to the pressure exerted by the main column seal; this is acceptable).
- * Always set the rear quarter-glass to match the door-glass and never the other way round.
- * The door and quarter-glasses must not 'cross-over' at the top when raised. This condition is best alleviated by adjusting the top of the rear quarter-glass inwards.

- * If the glass setting is correct but the cantrail seals are not exerting sufficient pressure to seal the vehicle, either:-
 - a. Operate the adjustment cam to bring the seals downwards to meet the glass.
 - b. If the adjustment cam is set to maximum (or the hood shape is becoming distorted), the cantrail seal carriers must be packed.
 - c. As the hood cam's effect is reduced nearer to the 'A' post, it will be necessary to pack the front cantrail seal carrier if insufficient pressure exists (this assumes that all glass settings are correct).

Door-glass Setting

If the door-glass needs to be adjusted, the following method is recommended:-

- * Fully loosen the door-glass fixings so that the glass is free to move.
- * Locate and loosen the glass guide rail fixings (there are two of these; one beneath the door inner panel and the other on the door inner panel itself).
- * Slacken the two window regulator quadrant stops by loosening the locking nuts and turning the cams away from their stops. This operation must be carried out with the glass in its mid-position to prevent damage to the screw slot.
- * Power the glass full up and tighten the guide rail top fixings. The guide rails are now positioned correctly.
- * The glass should now be lowered to a height level with the waist seal. Set the glass in this position by adjusting the regulator bottom stop; (turn the cam using a screwdriver hard against its stop. Hold this position while the locking-nut is tightened to ensure the adjustment remains correct).
- * Adjustment of the door-glass should now be possible to achieve a good seal to the 'A' post and cantrail seals.
- * Manually set the glass, ensuring that a good line is maintained along the entire length of the glass.
- * With the door-glass in its optimum position, tighten the adjuster brackets.

Note: Tighten the lower fixings, firstly with the glass in the set position. The glass can then be lowered to give access to the upper fixings.

- * With the glass set on its fixing brackets, ensure that the glass (in its highest position) forms a good seal and not a foul condition with the cantrail seal outer edge. A foul condition can be eliminated by adjustment of the regulator up-stop.
- * With all door-glass setting, it will prove necessary to displace the door water curtain. This curtain must be replaced intact and positioned correctly.

Quarter-glass Setting

Should the rear quarter-glass require adjustment, the following method is recommended:-

- * Having gained access to the rear quarter panel, lower the quarter-glass and slacken the adjuster nuts. Ensure that the tab washers are clear of the B.I.W. slot.

- * Loosen the glass up-stop (positioned behind the plastic cover and above the regulator).
- * Set the rear quarter-glass so that:-

Door and quarter-glasses are the same height.
The glasses do not overlap.

With the hood open, a gap of approx. 4mm exists between the rear-glass carrier and the rear edge of the door-glass. Remember that this gap will change as the hood is closed.

- * With the glass in this position, tighten the up-stop and adjuster screw locknuts.
- * The quarter-glass should now be set, but the hood must be operated through one full cycle to ensure that the rear quarter-glass operates in its correct sequence.

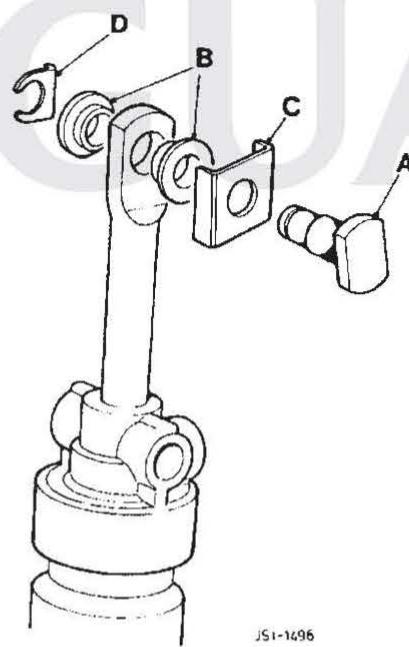
Re-check the door / quarter-glass condition and fine-tune as necessary.

Replacement Hoods For Vehicles Prior to VIN 173246

Since VIN 173246, all replacement hoods for Service have been manufactured to incorporate all identified modifications.

When fitting a hood in service to a vehicle built before this VIN, some supplementary parts will be required. This is due to a change to the size of the eyelet at the end of the hood-actuating arm. The parts required are as follows:-

A	Pivot Pin	BDC 3115	2 off
B	Bush	BCC 7642	4 off
C	Lock Washer	BDC 3116	2 off
D	Circlip	AGU 2479J	2 off



JSI-1496

FIG 2

Insert a bush into either side of the hood-actuating arm eyelet. Push the pivot pin through the lock-washer with the lock-tab facing inboard. Offer the actuating-arm

up to the hood-securing bracket and fit the pivot pin and lock-washer assembly through the bracket and eyelet.

Press the circlip over the bevel in the pivot pin to secure the assembly.

SCREENWASH JET SETTINGS

ITEM: 41

84 XJ6 ALL MODELS

If adjustment of the windscreens washer jets is required, Dealers should adhere to the following procedure:

1990 TO CURRENT MODEL YEAR

Passenger's side – Remove the styled cover by rotating anti-clockwise. Set the angle of the jet to deliver the main body of spray on to the screen approximately 16in (40 cm) from the bottom edge of the screen (A fig 1). Refit the styled cover.

Driver's side – Remove the styled cover by rotating anti-clockwise. Set the angle of the jet to deliver the main body of spray on to the screen approximately 16in (40 cm) from the bottom edge of the screen (A fig 1) and in-line with the steering wheel vertical centre line. Refit the styled cover.

Re-check the spray to ensure a clear passage of fluid through the cover aperture and on to the screen. Re-adjust as above if necessary.

Top-up the screenwash reservoir with a solution of soft water and a proprietary cleaning fluid mixed in accordance with the manufacturer's specification.

These settings allow the efficient operation of both jets at all speeds providing maximum screen coverage.

1987 TO 1989 MODEL YEAR

On vehicles manufactured prior to 1990 MY, access to the washer jet is obtained by sliding back the styled cover.

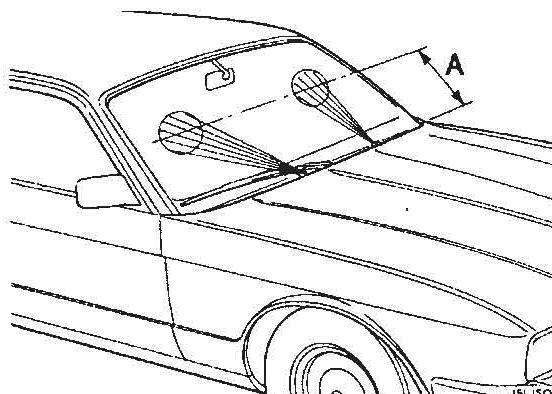


FIG 1

IN CAR SENSOR (SERVICE FIX)**ITEM: 42****86 XJS 3.6 / V12 MODELS**

Ref. Service Bulletin JD 01/91, Item 06 – Harness Assembly DAC 7856 (part of Kit JLM 2295):

Dealers fitting the above kit have encountered instances of harness Part No. DAC 7856 with cables transposed in the multi-plug connectors, which has resulted in the motorised aspirator (Part No. DBC 5724) failing to operate.

All parts stock of Kit JLM 2295 has been reworked to correct the supplier error.

FUSES**ITEM: 43****86 XJ6 3.6 / 4.0**

It has been identified that on 1990/91 MY vehicles, the following fuses, when blown, will fail to illuminate the "circuit" failure warning lamp, with the exception of centre fuse box, Fuse No. 9 and RH "A" post fuse box A7, which will display a circuit failure under certain operating conditions.

Fuse Box	Fuse No.	Model Year Affected	Reason / Occurrence
LH "A" Post	A3	1991	All three fuses provide supply to the instrument pack affecting its VCM function.
LH "A" Post	B3	1990 / 91	
Centre	6	1990 / 91	
Centre	9	1991	Circuit failure is not detected unless reverse gear is selected on passive restraint – equipped vehicles only.
RH "A" Post	A7	1990 / 91	All vehicles: circuit failure is only displayed when the heated back light is switched-on.

The following list identifies the vehicle functions affected by centre fuse box, Fuse No.9, if this fuse blows.

- a) Wiper inoperative; if switched-on, the reverse lamps will illuminate.
- b) Passive restraint driver's belt; no inhibition when reverse gear is selected with the driver's door open.
- c) Dealer fit accessory fuse box ignition supply relay inoperative; if this fuse box is fitted, the reverse lights will be permanently illuminated.
- d) Air conditioning motorised aspirator inoperative.
- e) Front fog, dip and main lamps inoperative.
- f) CPU malfunctions, therefore, no directional indicators, heated backlight, heated seats, panel light dimmer and seat belt warning. In addition the auto "not in park" warning will sound for approximately 10 seconds when in the "park" position, when the ignition is switched-on.

BATTERY ISOLATION SWITCH**ITEM: 44****86 XJ6 ALL MODELS**

In order to offer a facility to customers who need to leave vehicles unused for extended periods of time (e.g. airport parking), a battery isolation switch is now available through Parts Operations suitable for all XJ6 derivatives on Part No. JLM 10778.

Note: This switch is not suitable for installation on to XJS or S.III vehicles.

Full fitting instructions will be provided with each part and should be accurately followed. Installation will be adjacent to the battery and bonnet cable release, as shown below (Fig 1). A multi-language warning label will also be provided and must be fitted to the lower screen area / finisher (dependent upon model year) adjacent to the switch itself.

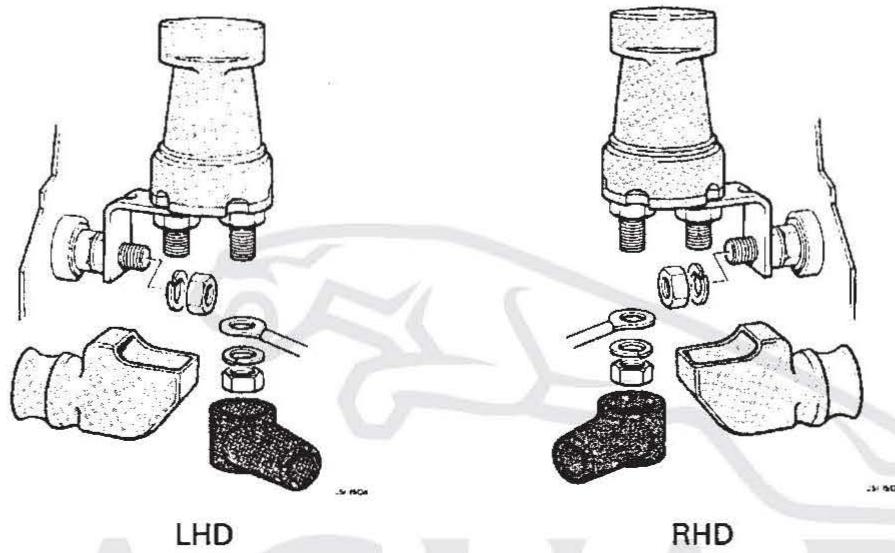


FIG 1

It is important that before installation of the switch, dealers clearly indicate to customers the full implication of its use in respect of electrical feed to components.

- * All electrical supply will be isolated by the use of the switch.
- * Customers will be unable to utilise vehicle alarm systems whilst the isolation switch is activated.
- * Usage of the isolation switch may require customers to re-programme the alarm system transmitters in order to re-use the system (instructions for this will be found in the owners' documentation).
- * The memory retention of the radio in respect of security codes and programmes will be affected by usage of the isolation switch.

On vehicles with an Alpine radio fitted, customers will need to re-programme the security code only for re-use and will, therefore, need to be advised to carry their code card.

Where vehicles have a Clarion radio fitted as standard equipment, units may initially require the security code to be entered prior to use (dependent upon model) and will then need to be fully re-programmed for station memory. Customers should be ad-

vised to ensure their security code card is kept safely and carried, should the in-car entertainment be required after use of the isolation switch.

Details on re-programming of units will be found in the owners' documentation.

* When operating the battery isolation switch, customers should be advised of the following procedure:

- 1) Release the bonnet using the catch
- 2) Exit the vehicle and lock, using the central locking function – not the alarm / infra-red transmitters
- 3) Activate the isolation switch
- 4) Close the bonnet

On returning to the vehicle, it will be necessary to open the driver's door using the vehicle key and to release the bonnet in order to turn-off the isolation switch. Customers must be aware that the central locking function will not operate initially until the isolation switch is in the 'off' position. Where additional non-standard Jaguar electrical accessories are fitted, customers should seek manufacturer's advice prior to using the isolation switch.

Use of the isolation switch is not considered satisfactory for general service work and the battery must be disconnected.

FITTING PROCEDURE

The following procedure applies to both RHD and LHD installations:-

- * Open the vehicle bonnet
- * Fit the wing protection

CAUTION

- 1) Under no circumstances should a battery be disconnected whilst the ignition circuit is live as permanent damage to / corruption of the instrument pack and central processor can be incurred.
- 2) Disconnect the negative (each terminal) first.
 - * Ease back the battery covers and slacken the pinch bolts (13mm spanner required).
 - * Disconnect the battery leads – negative lead first.
 - * Remove the battery.
 - * Pull back the rubber cover from the bulkhead positive stud connection.
 - * Remove the nut and disconnect the positive lead.
 - * Using a suitable file, enlarge the eyelet hole at the end of the battery positive lead to 9.8mm i.d. to allow it to be fitted over the battery isolation switch terminal stud.
 - * Fit the isolation switch rubber cover over the positive stud on the bulkhead.

- * Fit the right angle bracket of the switch body on to the positive stud and secure, using the existing fixings. Tighten the nut to a torque of 8–9 Nm.
- * Pull the rubber cover over the completed connection.
- * Connect the battery positive lead to the switch terminal and secure with the spring washer and nut.
- * Pull down the rubber cover over the terminal connection.
- * Refit and connect the battery, positive lead first. Secure and tighten the pinch bolts.
- * Fit the information label (using the appropriate language version) supplied with the switch on to the screen lower finisher / body adjacent to the switch.

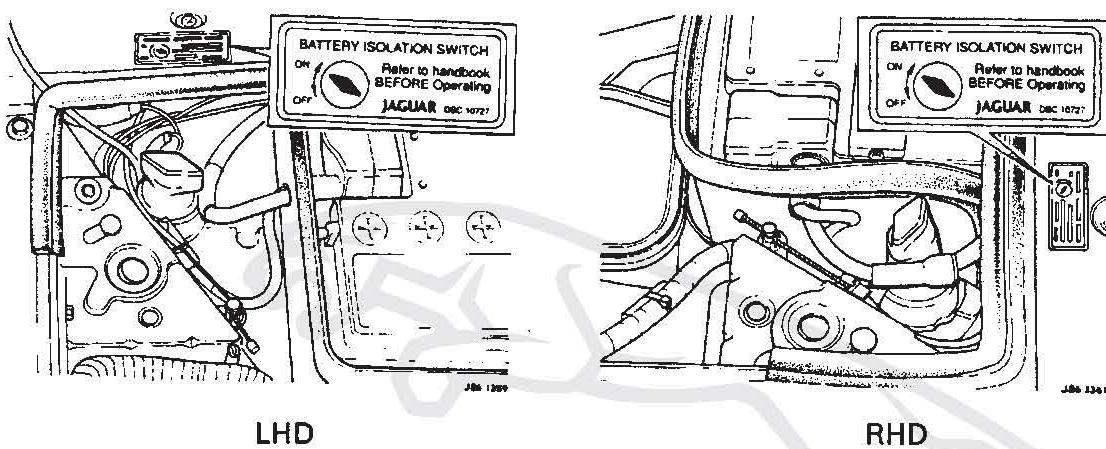


FIG 2

- * Remove the wing protection and close the bonnet.

Service Bulletin



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XJS

ITEM: 49

WARRANTY CODES

In the latest edition of the XJS Warranty Code book, codes for the battery and spare wheel covers have been duplicated.

To rectify this situation and prevent further confusion when submitting claims, the following codes have been removed from the warranty system:-

CODE	DESCRIPTION
------	-------------

9DS	Spare Wheel Cover
8PZ	Battery Cover Boot

Therefore, with immediate effect, Dealers should NOT submit further claims for these codes.

All future claims for the above parts should be submitted, using the following codes only:-

9DQ	Battery Cover
9DR	Battery Cover Support Panel
8NU	Spare Wheel Cover

XJS (FACELIFT)

ITEM: 50

WARRANTY CODES

The following new warranty complaint code has been allocated to cover the fuel gauge "anti-slosh module", introduced on XJS Facelift models.

Code	Description	SRO
7JU	Anti-Slosh Module	88.25.25

Jaguar Cars Limited

ALL MODELS**ITEM: 51****12 CYLINDER PRESSURE CHECK**

WARNING: Would all technicians please note that before performing a cylinder pressure check, Repair Operation No. 12.25.01, all fuel should be purged from the fuel rail.

Purging of the fuel rail may be achieved by disconnecting the fuel pump relay and then cranking the engine for ten seconds.

XJ6 ALL MODELS & XJS 3.6 / 4.0**ITEM: 52****19 CRUISE CONTROL ACTUATOR LINKAGE ADJUSTMENT**

Should customer complaints be received of an increase in the cruise control response time and a degree of hunting of the set speed, the cruise control actuator linkage adjustment should be checked in accordance with the following procedure, before taking any further action.

Dealers should ensure that the clearance between the end of the actuator to throttle link slot (A Fig 1) and the shoulder bolt (B Fig 1) is 0.5mm to 1mm (C Fig 1).

S.R.O.	19.75.11
Allowance	0.10 hrs
Complaint Code	7VCP

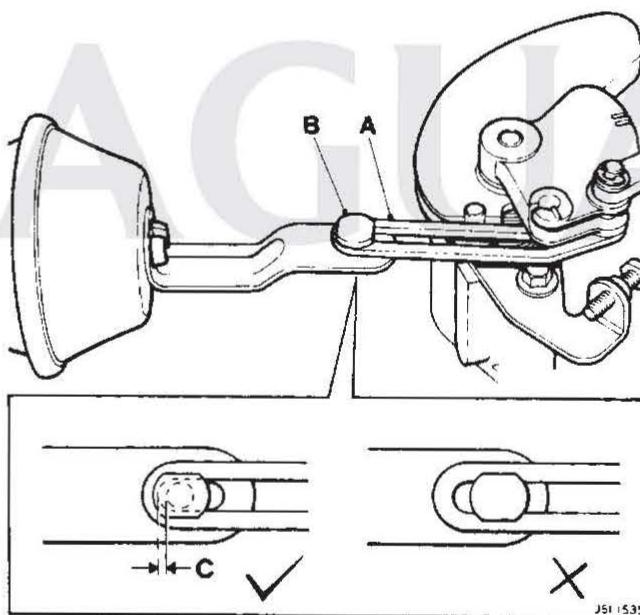


FIG 1

XJS V12**ITEM: 53****44 TRANSMISSION OIL COOLER CONNECTION**

There have been a number of oil coolers returned with damaged coupling connector bosses, the cause of which can be attributed to poor workshop practice where backing spanners have not been used to support the integral hexagon connector of the oil cooler. This results in a fracturing of the connecting tube when torque is applied upon tightening or loosening the connection.

Technicians should use a backing spanner to hold the integral boss whilst tightening the cooler pipe connection to a torque of 15 – 17 Nm.

XJ6 / XJS / S.III / LIMOUSINE**ITEM: 54****60 FRONT HUB END FLOAT ADJUSTMENT**

The following instructions supersede all previous instructions provided in service manuals. Manuals will be updated at the next reprint.

Front hub end float on the above models should be set between 0,0254 to 0,0762mm (0.001 to 0.003in). To achieve this in service use the following method:

Note: Prior to adjusting the hub end float an absorbent cloth should be placed around the brake fluid reservoir cap.

Slacken the road wheel nuts $\frac{1}{4}$ turn each.

Jack up the front of the vehicle and support with axle stands.

Remove one wheel nut, mark the wheel relative to the stud and remove the remaining wheel nuts.

Remove the roadwheel and tyre assembly.

Dependent upon model, gently prise the brake pads free or manipulate the brake caliper to ensure the brake pads are free within their mountings, i.e. the disc is free to rotate.

Prise off the hub grease cap (1 Fig. 1).

Fit a Dial Test Indicator (DTI) to the hub (Fig. 2).

Grasp the hub unit. Firmly pull and push the unit, oscillating at the same time, to determine the DTI end float reading.

If the reading is within the specification quoted there is no need to carry out the adjustment. If not, remove the hub nut split pin and cover (2, 3 Fig. 1).

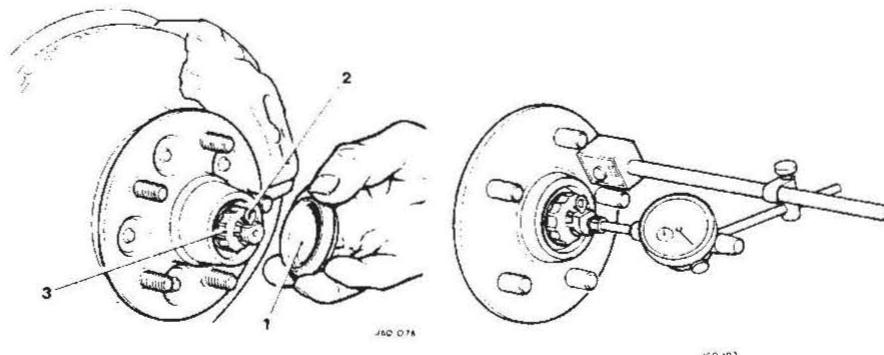


Fig. 1

Fig. 2

Note: For identification purposes only,
 Fig. 1 shows XJS, S III & Limo. type hub.
 Fig. 2 shows XJ6 hub.

Adjust the nut, as necessary, to give a reading of 0,0508mm + / - 0,0254mm (0.002in + / - 0.001in).

Always try to achieve the mid-point of the tolerance i.e., 0,0508mm (0.002in).

Align the hub nut cover and secure with a new split pin.

When the new split pin is fitted, ensure the end float is re-checked using the DTI gauge (Fig. 2).

If necessary, re-adjust using the same method, until the end float is correct.

Always finish the adjustment by checking with a DTI gauge.

Always ensure the end float is within the limits quoted.

Refit the grease cap.

Refit the road wheel.

Carry out the adjustment procedure on the opposite front hub.

When finished, lower the vehicle from the stands.

Ensure the wheel nuts are tightened to the specified torque.

Remove the absorbent cloth from around the brake fluid reservoir cap, ensuring the area is clean and dry.

Before moving the vehicle, pump the brake pedal to centralise the pads.

ALL MODELS

ITEM: 55

77 BODY REPAIR

To avoid the risk of causing permanent damage to vehicle ECUs during body repairs, the following precautions must be observed prior to using any electrical welding equipment.

1. Disconnect the vehicle battery and alternator.
2. Disconnect and remove all ECUs in the immediate area of any panels to be electrically welded. As a general rule, all ECUs within 2 feet of the area to be welded should be removed; for more detailed information, refer to the relevant Service Manual.
3. When using welding equipment, the earth return clamp should be located as close as possible to the area of repair.

XJ6 ALL MODELS

ITEM: 56

82 DRIVER'S BLOWER MOTOR ASSEMBLY

The repair operation time for renewing the driver's side blower motor assembly has changed on all XJ6 Vehicles from VIN 629286.

The repair operation times are now as follows:-

Left Hand Drive Vehicles:

82.25.13 Blower assembly – Left Hand – Renew 01.25 Hours

82.25.13/09 As 82.25.13 (Less J.D.S. Allowance) 00.90 Hours

Right Hand Drive Vehicles:

82.25.14 Blower Assembly – Right Hand – Renew 01.25 Hours

82.25.14/09 As 82.25.14 (Less J.D.S. Allowance) 00.90 Hours

Please amend your repair time schedules accordingly.
No other repair times are affected.

To achieve these times in service, adhere to the following procedure:-

REMOVE

Open the bonnet and disconnect the battery earth lead.

Remove the driver's side dash liner.

Remove the retaining clip from the air conditioning unit's pliable trunking.

Displace the pliable trunking from the air conditioning unit.

Displace the relay bases from their mounting brackets.

Cut and remove the ratchet straps securing the brake switch harness.

Disconnect the vacuum hose from the blower motor assembly servo unit.

Disconnect the blower motor multi-way connectors.

Undo and remove the steering column lower mounting securing nuts.

Undo and remove the steering column upper mounting securing nuts.

Lower the steering column assembly.

Retrieve the column upper packing shims.

Remove the washer bracket from the column.

Manoeuvre the steering column towards the centre of the vehicle for access.

Undo and remove the steering column outer stabilizer bar's upper and lower securing nuts.

Displace and remove the steering column stabilizer bar (Fig. 1).

Reposition the vehicle harness connectors to gain access to the blower motor assembly securing bolts.

Undo and remove the blower motor assembly securing bolts.

Displace and remove the blower motor assembly.

Remove and discard the unit intake gasket.

Remove the pliable trunking to assembly securing tape.

Remove the trunking from the unit.

REFIT

Fit and align trunking to the new blower motor assembly.

Secure the trunking to the assembly with tape.

Smear the new intake gasket with a suitable adhesive.

Fit the gasket to the blower motor assembly intake.

Fit and align the blower motor assembly into its mounting position.

Connect the pliable trunking to the air conditioning unit.

Refit and tighten the blower motor assembly securing bolts.

Fit and align the trunking retaining clip.

Connect the blower motor multi-way connectors.

Connect the vacuum hose to the blower motor assembly servo unit.

Fit and align the steering column stabilizer bar and tighten the securing bolts (10 – 14 Nm).
 Fit and align the washer bracket to the column.
 Loosely fit the steering column upper mounting securing nuts.
 Fit the steering column packing shims as necessary.
 Fit and tighten the steering column lower mounting securing nuts (20 – 22 Nm).
 Fully tighten the steering column upper mounting securing nuts (20 – 22 Nm).
 Reposition the brake switch harness to the blower motor assembly.
 Secure the brake switch harness to the unit with ratchet straps.
 Fully seat the relay bases to their mounting brackets.
 Refit the driver's dash liner assembly.
 Reconnect the battery earth lead and close the bonnet.

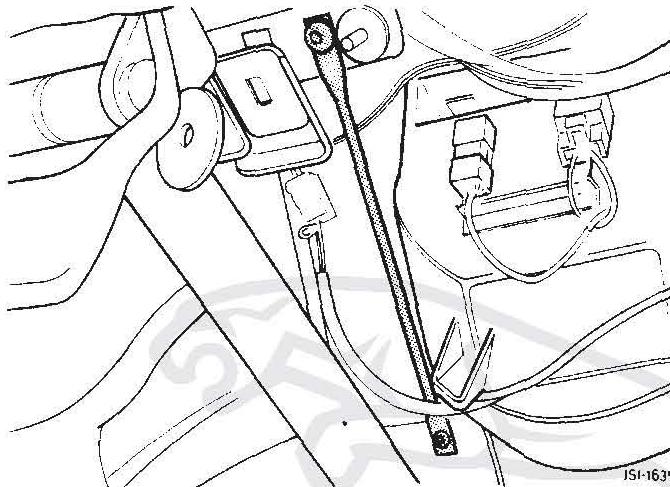


Fig. 1

S.III, XJS & XJ6 UP TO VINs:-
506664 – USA
506448 – CANADA
507471 – R.O.W.

ITEM: 57

82 AIR CONDITIONING COMPRESSOR (GM A6 TYPE)

Investigations have confirmed the unnecessary replacement of compressors for noise and leaks.

If excessive compressor noise exists, check the following items:-

- . Compressor drive belt tension.
- . Compressor mountings.
- . A/C refrigerant hose routing (ensure that hoses are not in contact with other components).
- . Ensure that the refrigerant charge weight is correct (refer to Section 82 of the Service Manual for additional information).

- Ensure that the compressor is filled to the correct level with oil. A MAXIMUM of 4 ozs (114 cc) of refrigerant oil can be added to the compressor without discharging the refrigerant. Using an oil injector tool (such as 'Snap-on' oil injector tool ACT 111), add oil in 2 oz (57 cc) increments. (Refer to the procedure detailed below).

NOTE: LOW OR EXCESSIVE CHARGE WEIGHT OR A LOW OIL LEVEL WILL CAUSE COMPRESSOR NOISE.

- Clutch drag or bearing noise (refer to the clutch replacement procedure, Section 82 of the Service Manual).
- Compressors which leak oil or Freon must have the seals replaced in accordance with the procedure detailed in Section 82 of the Service Manual.

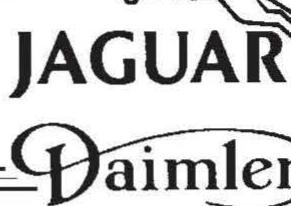
Replace the compressor only after checking all of the above-mentioned items.

NOTE: All returned compressors must be complete and sealed, using the blanking plate provided on the replacement unit.

Procedure for compressor oil injector tool usage:-

- Operate the A/C system. Make sure that the system is full of Freon. Refer to Section 82 of the Service Manual for the test procedure.
- Remove the sealing gaps from the high and low pressure A/C charging points.
- Check that the valve on the oil injector tool is closed.
- Remove the threaded end cap from the oil injector tool and add 2 ozs (57 cc) of compressor oil. Replace the end cap.
- Attach the short flexible hose on the oil injector to the low pressure fitting of the vehicle A/C system.
- Attach one end of an A/C system extension hose to the fitting on the side of the valve of the oil injector tool. Attach the other end of the extension hose to the high pressure fitting of the vehicle A/C system.
- Run the engine at idle with the A/C system operating.
- Slowly open the oil injector tool valve until it is fully open. Allow the oil to flow into the compressor for 2 minutes.
- Close the oil injector tool valve. Let the engine run an additional minute, then switch off the ignition.
- Carefully remove the charging hoses from the high and low pressure fittings and install the sealing caps.
- Check the A/C system for compressor noise. If noise still exists, repeat the procedure once more, adding an additional 2 ozs (57 cc) of compressor oil.
- NOTE: NEVER ADD MORE THAN 4 OZS (114 cc) OF OIL TO THE A/C SYSTEM.
- Attach a self-adhesive label to the A/C hose (adjacent to the low pressure hose fitting), stating how much oil was added and the date.

Service Bulletin



DATE: JULY 1992

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REF: JD 08/92

ERRATA

WITH REFERENCE TO SERVICE BULLETIN JD 02/92, ITEM 16, THE FOLLOWING IS A CORRECTION TO THE FAULT DIAGNOSIS PROCEDURE ITEM:

"FUEL GAUGE ALWAYS READS EMPTY"

PLEASE NOTE, DURING THE CHECK PROCEDURE DETAILED, THE LOW FUEL WARNING LIGHT WILL ALSO REMAIN ILLUMINATED WHEN THE UPPER WIRE IS CONNECTED TO GROUND TO CHECK THE GAUGE NEEDLE MOVEMENT. THE CURRENT BULLETIN ONLY STATES THAT THIS WILL OCCUR WHEN DISCONNECTING THE UPPER WIRE TO CHECK IF THE GAUGE READS EMPTY.

XJ6 & XJ-S

ITEM: 27

00 WARRANTY CODE BOOK

To enable dealers to diagnose customer concerns of "brake pull" accurately, a new 4th digit code of "R" has been introduced into sections 6E and 6J of the XJ6 Warranty Code Book and section 6J of the XJ-S Warranty Code Book.

Dealers should amend their code books immediately to reflect this addition.

XJ6 3.2 & 4.0

ITEM: 28

03 REPAIR OPERATION TIME AMENDMENT

An error has been discovered within the XJ6 Repair Time Schedule Section 30-15, Exhaust Manifolds. The incorrect times have been issued and affect 3.2 and 4.0 catalyst non-EGR vehicles only. The correct times are as follows:

30-15-09	Exhaust Manifold Heatshield – Renew	0.20 Hrs
30-15-12	Exhaust Manifold Gasket – Engine Set – Renew	1.15 Hrs
30-15-20	Front Exhaust Manifold Gasket – Renew	0.95 Hrs
30-15-21	Rear Exhaust Manifold Gasket – Renew	1.00 Hrs
30-15-36	Front Exhaust Manifold – Renew	0.95 Hrs
30-15-37	Rear Exhaust Manifold – Renew	1.00 Hrs
30-15-38	Exhaust Manifold – Engine Set – Renew	1.15 Hrs

Please amend your Repair Time Schedules accordingly.

No other times are affected.

ALL V12 ENGINED VEHICLES**ITEM: 29****12 REVISED GASKET AND FIXING BOLT (FASTENER) PACKAGE**

A revised gasket and fastener package has been introduced on production for V12 engines to overcome complaints of oil leaks in service.

The package was fitted from the following engine numbers:

7P 67281	S. III
8S 86317	XJ-S
8W 10641	XJR-S 6.0L

The gaskets and fasteners are available from Jaguar Parts Operations and are all able to be retro-fitted to earlier engines. Where specified below, the correct fasteners MUST be used. The new fasteners are designed to reduce torque relaxation.

Part numbers and fitting details are as follows:

Oil filter mounting gasket: EBC 9624 replaces EAC 6337. EBC 9624 should be fitted without RTV sealant.

Sump gasket: EBC 9623 replaces EAC 7251. EBC 9623 should be fitted without RTV sealant and must only be used with fasteners JZS 100033 and JZS 100035 in place of C 37175/4 and BH 505141/J, respectively.

The fasteners should be torqued to 21–27 Nm. The dished serrated washer C 30075/2 should not be used.

Sump sandwich plate gasket: EBC 9637 replaces EAC 7252. EBC 9637 should be fitted without RTV sealant on split lines between the cylinder block and the timing cover and must only be used with fasteners JZS 100034 and JZS 100035 in place of SH 505081/J and BH 505141/J respectively. The fasteners should be torqued to 21–27 Nm. The dished serrated washer C 30075/2 should not be used.

"A" bank cam cover gasket: EBC 9627 replaces C 29428. EBC 9627 should be fitted without RTV sealant and must only be used with M6 bolts, Pt No FS 106251/J in place of SN 106251/J, torqued to 9.5–11.5 Nm.

"B" bank cam cover gasket: EBC 9628 replaces C 29429. All other details are as for the "A" bank cam cover gasket.

NOTE: RTV sealant should continue to be used on the rubber half-round seal located at the rear of the cam carrier.

Water rail gasket: EBC 9634 replaces C 30344. EBC 9634 should be fitted without RTV sealant.

Throttle body gasket: EBC 9635 replaces EAC 9759. EBC 9635 should be fitted without RTV sealant and with the tab on the gasket facing downwards.

Water pump elbow gasket: EBC 9636 replaces EAC 9805. The gasket should be fitted without RTV sealant and with the black side of the gasket to the pump body. This makes disassembly easier, should it be necessary.

Water pump gasket: (Between the 2 halves of the water pump) EBC 9630 replaces C 36542. EBC 9630 should be fitted without RTV sealant and grease should not be used to retain the gasket during assembly.

Water pump gasket – pump assembly to timing cover: EBC 9629 replaces C 29626. EBC 9629 should be fitted without RTV sealant and grease should not be used to retain the gasket during assembly.

Top cover gasket: (Also known as "Valley" gasket). EBC 9631 replaces C 29485. EBC 9631 should be fitted without RTV sealant or grease, with the black side of the gasket to the cylinder block. This makes disassembly easier, should it be necessary.

"A" bank timing cover gasket: EBC 9632 replaces EBC 3280.

"B" bank timing cover gasket: EBC 9633 replaces EBC 3281.

Timing cover top gasket: EBC 9625 replaces EBC 3282.

The three timing cover gaskets above must be fitted without RTV sealant or grease. After fitting the timing cover, the ends of the gaskets should be trimmed flush with the block, using a sharp knife.

All fixing bolts/screws and their torques, not mentioned above, remain as before.

XJ-S & S.III V12

ITEM: 30

12 OIL PUMPS

To improve quality, Jaguar is now using an alternative supplier for the V12 oil pump.

In most cases, the new pump can be used as a direct replacement with no modification to the block; however, in some cases, a foul condition may exist between the pump and certain areas of the old sand-cast block. To check for any foul condition, the pump should be offered in the correct position to the mounting bosses. If it lies flat against the bosses, the condition is correct. If the pump lies proud of the bosses, material should be removed from the foul area of the block (refer to shaded areas in Fig. 1 for possible foul areas) by careful use of a rotary file or similar implement.

WARNING: PROTECTIVE EYE WEAR MUST BE WORN WHEN USING ROTARY FILES.

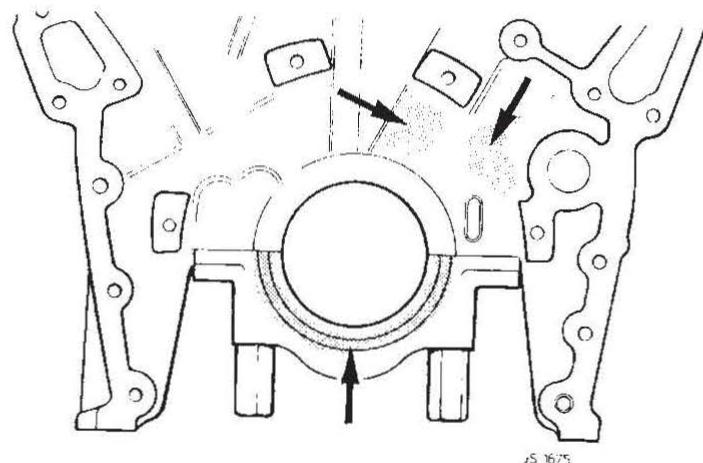


FIG 1

Care should be taken when removing material to ensure that swarf produced by the operation is completely cleared from the area and that no other part of the engine, i.e. crank, main bearing, is damaged during the operation.

In some cases, the new pump may appear to be seized or difficult to turn. This can be explained by "stiction", arising due to storage, and does not mean that the pump is damaged in any way.

If the pump does appear to be seized, 10 ccs of engine oil should be poured into the suction port and the inner rotor of the pump turned, using a suitable implement.

The repair method is as outlined in the relevant Service Manual. Note: the torque for the fixing bolts remains the same at: 21.5 – 28.5 Nm.

Service Tools are as outlined in the relevant Service Manual.

The new part number is EBC 3163 for the pump and EBC 4240 for the adaptor collar, which must be used in conjunction with the pump.

In addition, shorter fixing bolts must be used: 4-off Part No SH 505071J. The washers for the bolts remain the same, Part No C30075 2.

WARRANTY CODE:

1EA

REPAIR OPERATION CODE:

SRO 12-60-26

ALL AJ6 ENGINES

ITEM: 31

12 CYLINDER HEAD EROSION

On removal of AJ6 cylinder heads for service work, it has been reported that in some cases a certain amount of erosion exists on the gasket face around the inlet side water jacket holes.

As a guide to whether the cylinder head should be changed, dealers should proceed as follows:

Clean the gasket mating face using fine emery cloth or a soft wire brush.

NOTE: CARE SHOULD BE TAKEN NOT TO SCORE OR DAMAGE THE SURFACE.

Make a paper template of the cored holes in the cylinder block that correspond with the affected water holes in the head. To orientate the template to the head water holes, include the cylinder head bolt holes on the template. (See Fig. 1)

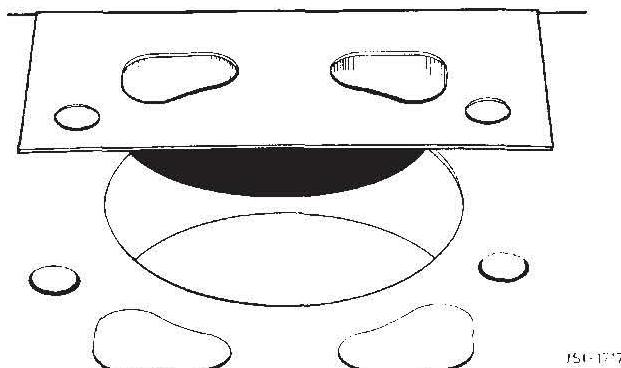


FIG. 1

Position the template on the cylinder head by aligning the cylinder head bolt holes on the template to those on the head.

ONLY IF THE EROSION ON THE HEAD OVERLAPS THE CORED HOLE CUT-OUTS SHOULD THE HEAD BE CHANGED.

If the erosion is within the cut-out the cylinder head should be refitted in the normal manner.

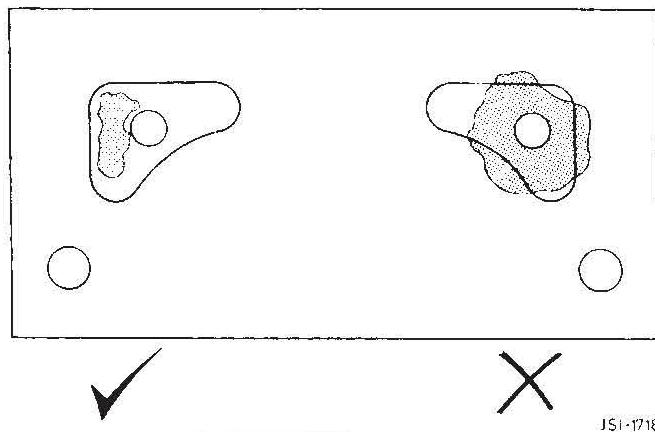


FIG. 2

Dealers should ensure that Jaguar coolant / anti-freeze / corrosion inhibitor is used in the cooling system at the correct concentration, or, where this is not available, phosphate-free anti-freeze to BS 6580 should be used.

NOTE: CYLINDER HEADS SHOULD NOT BE REMOVED TO LOOK FOR THIS CONDITION. THE ABOVE SHOULD ONLY BE NECESSARY WHEN THE CONDITION IS NOTICED ON REMOVAL OF A CYLINDER HEAD FOR OTHER REPAIR WORK.

AJ6 ENGINES

ITEM: 32

12 DISTRIBUTOR / ROTOR ARM – SETTING GAUGE

Initial setting of the distributor body and rotor arm may be carried out with Service Tool JD 189 as follows:

Unclip and remove the distributor cap (H.T. leads remain connected).

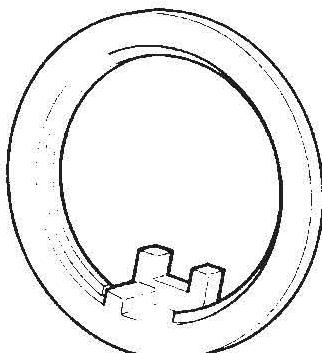
Set the engine to T.D.C., firing on No.1 cylinder (rotor arm at approx. 5 o' clock).

Slacken the distributor clamp bolt.

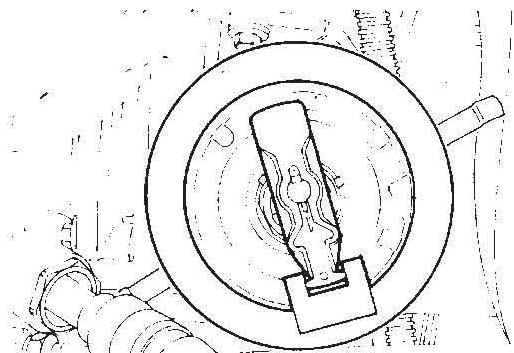
Fit Service Tool JD 189 ((setting gauge) Fig. 1) to the distributor body.

Adjust the distributor body to enable the tool to engage the distributor body and rotor arm (Fig. 2).

Tighten the distributor clamp bolt.



JSI 1684



JSI-1683

FIG. 1

FIG. 2

Remove tool JD 189, setting gauge.

Fit the distributor cap and clamp with the securing clips.

XJ6

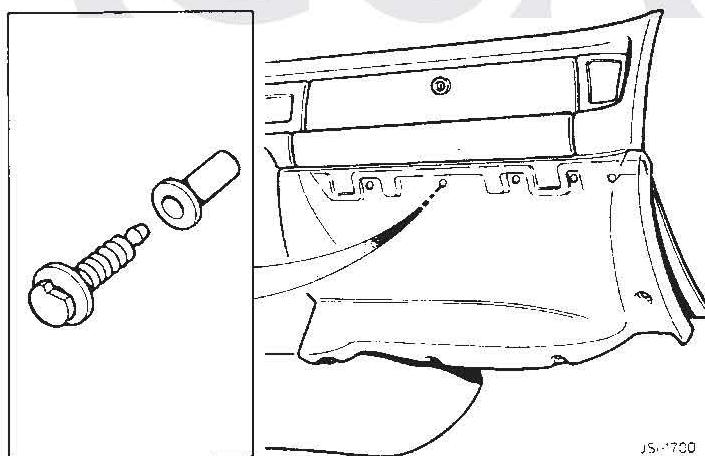
ITEM: 33

76 DASH LINERS R/H & L/H

Problems associated with the cosmetic appearance, fit and removal of the dash liners have prompted the following corrective actions.

To assist removal and prevent damage to the dash liner pads, a removal tool JD 188 and Service Bulletin JD 02/92 Item 13 have been issued to all Jaguar Dealers / Importers.

The visual appearance of the facia glovebox lid hinges has been improved on all vehicles built from VIN 658676. Hinges fitted to cars from this VIN are now finished in black.



JSI-1700

FIG 1

When renewing / refitting a dash liner, the only fixings that should currently be used are the stud fastener push-in fixings (Part No AGU 1425). These should be used in conjunction with the stud anchor plastic retainers (Part No AJU 1136).

NB: The fixings identified above are the only ones that should be used to secure dash liners. Any other fixing currently being used for this purpose should be discarded IMMEDIATELY.

WARRANTY CODES

8RG Dash Liner Driver's side
 8RH Dash Liner Passengers' side

REPAIR OPERATION CODES

SRO 76-41-11
 SRO 76-46-15

XJ-S

ITEM: 34

76 BONNET – LOCKING GAS-FILLED SUPPORT STRUTS

To provide a positive method of supporting the XJ-S bonnet when in the fully open position, a locking support strut is now fitted to the L.H. side of all bonnets from VIN 184672. This revised strut has been designed to be retrofittable to all XJ-S vehicles.

PROCEDURE FOR OPENING / CLOSING:

- * The method of opening the bonnet has not changed, however the bonnet should be opened fully to engage the locking strut.
- * To close the bonnet: pull the bonnet down slightly, then push it fully open to disengage the lock, then lower the bonnet and close as normal.

SERVICE REPLACEMENT:

To fit this new strut to existing vehicles, the following parts will be required.

PARTS:

BEC 15544	L.H. gas strut – locking	1 off
BEC 13584	Ball pin	2 off
BEC 17641	Label – underbonnet closing	1 off

FITTING INSTRUCTIONS:

- * Unlock the bonnet and support it in the fully open position – use a wooden wedge.
- * Unbolt and remove the L.H. strut. Discard this strut and its securing bolts.

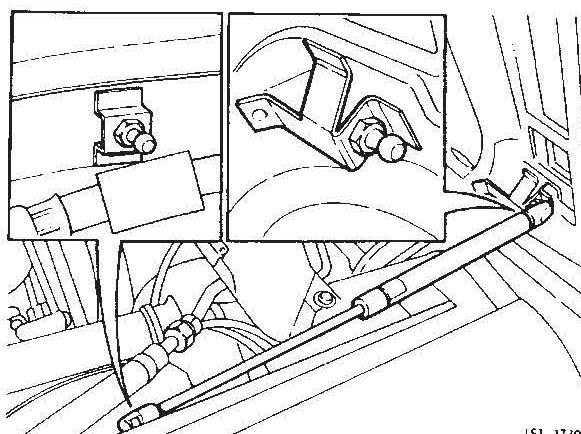


FIG 1

- * Refer to Fig 1. Fit the "Ball Pin" strut mountings into the mounting brackets on the bonnet and the inner wing. Secure by applying a torque of 10 Nm minimum to 12 Nm maximum.

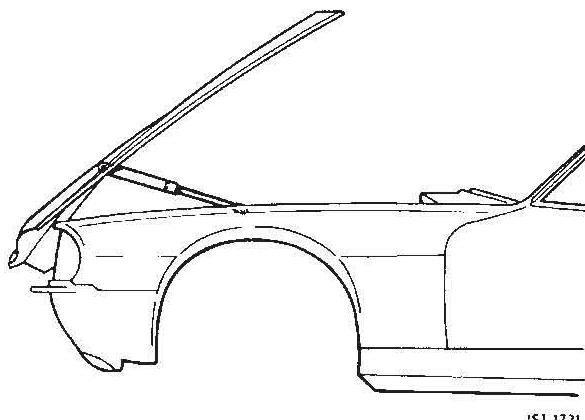
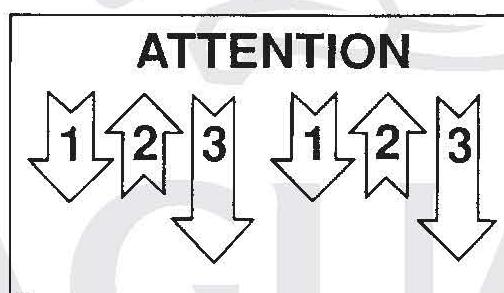


FIG 2

- * Refer to Fig 2. Mount the lockable strut as shown.

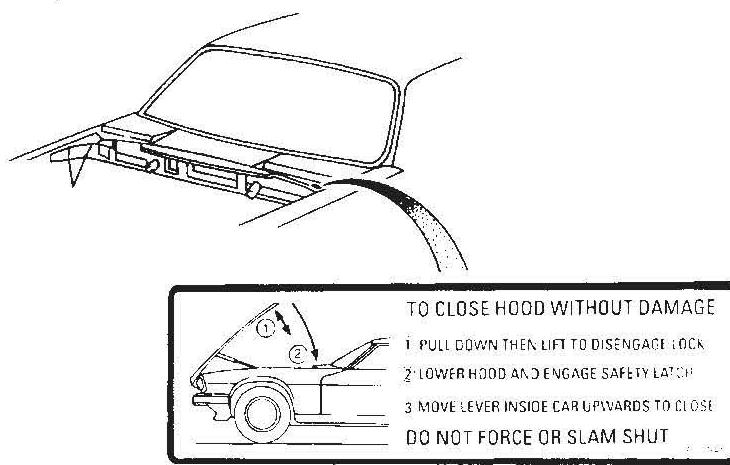
Note: This strut has a bright red warning label, showing the method of operation
– Refer to Fig 3.



JSI 1723

FIG 3

- * Remove the bonnet temporary support.
- * Test bonnet open / close function.



JSI 1724

FIG 4

* Refer to Fig 4. Fit bonnet open / close warning label to the left-hand side of the vehicle exactly as shown.

NOTE: From VIN 184672 both L.H. locking and R.H. non-locking struts will be fitted into the vehicle using the "Ball Pin" swivel mountings.

PARTS DETAILS:

The following parts are fitted to all XJ-S models from VIN 184672. All of these parts are retrofittable.

PART NOS	DESCRIPTION	QUANTITY / VEHICLE
BEC 15544	L.H. bonnet gas strut locking	1 off
BEC 13515	R.H. bonnet gas strut	1 off
BEC 13584	Ball pin	4 off
BEC 17641	Label – underbonnet closing	1 off

APPLICABLE WARRANTY CODES AND SRO:

WARRANTY CODE: R.H. Strut 9CK
L.H. Strut 9CL

SRO: 76-16-14

XJ6

ITEM: 35

82 HEATER TO AIR CONDITIONING RETRO-FIT CONVERSION

Further to Service Bulletin JD 02/92, Item 15, the following comprehensive air conditioning retro-fit kits are now available.

All kits contain the necessary parts for conversion for the relevant model year and vehicle specification and supplementary parts are not required.

JLM 10639 A/C Kit – 91 MY from VIN 629285

JLM 10755 A/C Kit – 90 MY from VIN 607111 to 629284

JLM 10796 A/C Kit – 88 – 90 MY	2.9 after Engine No. 107821
	3.6 after Engine No. 106424

JLM 10797 A/C Kit – 2.9 from 1986 to Engine No. 107821

JLM 10798 A/C Kit – 3.6 from 1986 to Engine No. 106424

XJ6 & XJ-S

ITEM: 36

86 HIRSCHMANN ELECTRICAL AERIAL

There has been a recent increase in the number of Hirschmann electrical aerial assemblies replaced, following complaints of abnormally slow operation of the telescopic mast.

Investigations have confirmed that the cause was a change to the carbon brush assembly composite, introduced by the supplier following some minor concerns with brush / commutator noise.

Our supplier has now revised the carbon brush specification to address the concern.

Aerials to the latest condition are identified by a "green spot" on the motor housing and were progressively introduced from VINs:

659651 – XJ6
183682 – XJ-S

Parts Operations' stock has been reworked to the latest level and may also be identified by a "green spot".



Service Bulletin

JAGUAR

Daimler

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S.R.O: 86-25-04
76-31-44
76-31-45

- | | | |
|--------------------|---|--|
| MODEL | : | XJS ALL MODELS |
| SUBJECT | : | WINDOW LIFT MOTOR / REGULATOR ASSEMBLIES |
| CUSTOMER CONCERN | : | Poor operation / sticking / noisy. |
| ADVICE TO CUSTOMER | : | Installation of a revised motor or a motor regulator assembly (which incorporates a new motor) will overcome sticking or noisy operation.

New window lift motors have been introduced in production from VIN 184117. |
| DEALER ACTION | : | Yes. |
| REPAIR METHOD | : | Window lift assemblies incorporating the new motor are fully interchangeable with previous assemblies. All motors will be supplied with the necessary additional parts for fitment to vehicles prior to VIN 184117. If the new motor is required to be fitted to vehicles after VIN 184117, the additional parts supplied with the kit should be discarded. For details of part numbers and components relative to VIN, please refer to "Parts Information" below.

Replacement of window lift motors and / or regulators should be carried out in accordance with the Service Manual instructions. This Bulletin contains relevant information on the fitment of the additional parts supplied with the kit, when fitting to vehicles prior to VIN 184117.

Prior to the replacement of parts, Dealers must ensure that on vehicles built prior to VIN 176860, the customer concern is not the result of poor channel guide setting, and action as detailed in Service Bulletin JD 02/91, Item 76, must be carried out before parts are removed from the vehicle. A Service Bulletin will be issued shortly, detailing the setting procedure for Facelift vehicles to ensure that the alignment of the door glass is suitable to allow correct sealing. |

When the motor is confirmed as being the cause of concern, it should, where possible, be removed from the regulator and be replaced as a single part. Refer to "Parts Information" below.

SERVICE TOOLS

: N / A

PARTS INFORMATION

: As a result of changes during production to the connector, the channel guide regulator arm and the quadrant, it is important that VINs are accurately recorded before parts are obtained.

Coupe

1. Up to and including VIN 174361

Parts required for motor and / or regulator fault
 JLM 11002/3 (LH/RH motor)
 JLM 11018/9 (LH/RH regulator)
 DBC 11503 (adaptor link lead)

2. VIN 174362 to 179736 inclusive

Parts required for motor fault
 JLM 11002/3 (LH/RH motor)
 DBC 11503 (adaptor link lead)
 Parts required for regulator fault
 JLM 11018/9 (LH/RH regulator)

3. VIN 179737 to 184116 inclusive

Parts required for motor fault
 JLM 11002/3 (LH/RH motor)
 Parts required for regulator fault
 BEC 22008/9 (LH/RH regulator)

4. From VIN 184117

Parts required for motor fault
 JLM 11002/3 (LH/RH motor)
 Parts required for regulator fault
 BEC 22008/9 (LH/RH regulator)

Convertible

5. Up to and including VIN 179736

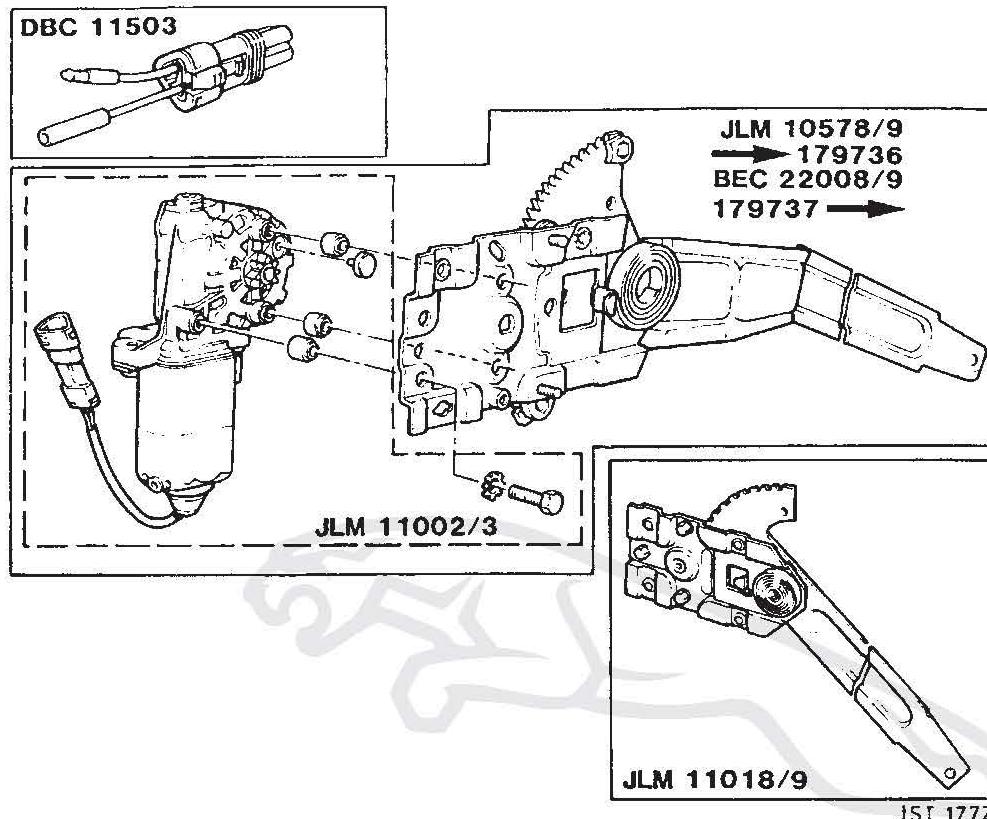
Parts required for motor and / or regulator fault
 JLM 10578/9 (LH/RH regulator assembly)
 DBC 11503 (adaptor link lead)
 BD 48949/3 (bolts)

6. VIN 179737 to 184116 inclusive

As Coupe 3.

7. VIN 184117 onwards

As Coupe 4.



JSI 1772

FIG 1

The "Motor Pack" (JLM 11002/3) includes a trim clip to replace the upper foremost clip for retaining the door casing, the use of which will avoid any possible foul condition.

ADMINISTRATION INFORMATION

: WARRANTY CODES

- XJS = 7MA (RH motor, motor assembly)
- = 7MB (LH motor, motor assembly)
- = 8AF (RH regulator)
- = 8DF (LH regulator)

REPAIR OPERATION CODES AND TIME ALLOWANCES

SRO 86-25-04 (RH/LH motor only)

1.50 hours

SRO 76-31-44 (RH/LH regulator only – less motor)

1.50 hours

SRO 76-31-45 (RH/LH motor/regulator assembly)

1.55 hours

Where motors / regulators only are available and full assemblies have been replaced, claims will be subject to audit.

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Date FEBRUARY 1985
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ITEM 12

76 EXTERIOR TRANSIT PROTECTION

S.III/XJS

Jaguar have carried out extensive trials of exterior transit protection coatings with a view to replacing the soft wax currently applied to vehicles for certain markets.

Trials have been completed and a new transit coating accepted. This is an acrylic water based copolymer system, Tempro 20, manufactured by I.C.I. Tempro 20 will be applied to S.III and XJS vehicles for all markets with the exception of the U.S.A. from February 25th 1985.

The new coating has been formulated to protect exterior painted surfaces and bright trim by drying to a hard slightly opaque finish within minutes of application.

Jaguar anticipate that Tempro 20 will provide the following benefits to new vehicles during transit or extended storage:

- 1) Improved resistance to contamination by oil spillage, petrol, bird lime and industrial fallout.
- 2) Improved resistance to surface scratching.
- 3) Improved appearance to facilitate inspection for transit damage upon arrival at a Dealer's premises.
- 4) Improved resistance to dirt and grime during storage.
- 5) Easy removal using a cold remover, followed by rinsing with cold water.

Tempro 20 may be left on a vehicle for up to nine months without detrimental effect whilst in storage. Removal is by special solvent Tempro 91 and must be carried out according to the instructions detailed in this Bulletin.

Tempro 91 Availability

For three months following introduction a five litre container of Tempro 91 will be supplied in the boot of each vehicle coated with Tempro 20. After three months the remover will cease to be supplied with the vehicle, and Dealers must obtain their supplies from I.C.I. sources.

United Kingdom Dealers will be supplied through I.C.I. countrywide outlets. Export markets will be supplied by local I.C.I. distributors.

Tempro 20 Removal

Preparation:

- * Perform at ambient temperature (above 0°C).
- * Protect from direct sunlight where possible.
- * Rinse car thoroughly with cold tap water to remove abrasive particles and surface grime.
- * Fill portable stainless steel or plastic garden spray (or equivalent equipment) with cleaning solution (Tempro 91).

Removal:

- * Pressurise garden spray container and adjust fan to 75-100mm (3 to 4ins.).
- * Spray solution on area to be cleaned, ensuring that a continuous film of remover is applied. Maintain a wet film where warm conditions prevail to ensure that cleaner does not dry out.
- * Allow to soak for 8–10 minutes.
- * Rinse thoroughly with a large volume of tap water.
NOTE: Volume is more important than pressure.
- * If removal of Tempro 20 is incomplete due to excess application, repeat removal procedure.
- * Wash and rinse car with detergent and water, re-rinse with water.
- * Blow out behind mouldings, drip channels, etc., using compressed air. Then dry car with chamois leather.
- * After dry-off, if there are any slight residues, wipe affected areas with a proprietary wax and grease remover, or mild detergent.

Safety

- * Remove splashes from skin and eyes using copious quantities of tap water.
- * Wash hands thoroughly before handling food.

CAUTIONARY NOTE: A NUMBER OF OTHER VEHICLE MANUFACTURERS ARE USING TRANSIT COATINGS SIMILAR TO TEMPRO 20 WHICH ARE ALSO REMOVED BY SPECIAL SOLVENT. DEALERS SHOULD ENSURE THAT THE REMOVER THEY USE ON JAGUAR VEHICLES IS TEMPRO 91, AS OTHER REMOVERS MAY PROVE INEFFICIENT OR DETRIMENTAL TO THE PAINT FINISH.

Equipment

- a) Portable garden sprayer of the hand held or knapsack variety, with a minimum capacity of 5 litres, and capable of being pressurised to provide a fine spray of 75-100mm (3-4ins.).

Two suitable sprayers are listed below:

CP 15	
Supplier:	
Cooper, Pegler & Co. Ltd.	
Burgess Hill	
Sussex RH15 9LA	
Telephone (04446) 42526	

8 ltr Sprayer	
Supplier:	
Solo Sprayers	
Brunel Road	
Leigh-on-Sea	
Essex	
Telephone (0702) 525740	

- b) As Tempro 91 is washed off using large quantities of water, a suitable facility with a hose should be provided.

NOTE: Tempro 20 and Tempro 91 are bio-degradable products which can be washed away through normal drainage systems.

ITEM 12 continued

ASSOCIATED COMPANIES AND EXPORT DISTRIBUTORS SHOULD REFER TO THE I.C.I. DATA SHEET ATTACHED TO JAGUAR SERVICE POLICY LETTER JOSC 38 OR ADDRESS ANY CONCERNS TO JAGUAR EXPORT SERVICE DEPARTMENT.

ITEM 13**86 ALTERNATOR****S.III 4.2 EMISSION 'B' (UK/EUROPE)
AIR CON. MODELS ONLY**

Further to Service Bulletin JD 04/84 Item 34, S.III 4.2 Emission 'B' Air Con. UK/Europe Spec. Vehicles are now equipped with A133 75 amp alternators Part No. AEU 1929, introduced at VIN 390951.



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Date MARCH 1985
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ITEM 14

12 OIL PRESSURE SWITCH

ALL MODELS

As a result of investigations into oil leakage from the oil pressure switch, the manufacturer has now overhauled and recalibrated all production test equipment. The test method has also been reviewed to incorporate effective leak testing.

In addition to this a fixing torque of 4–5.5 Nm (3–4 lb ft) is now specified.

Assured oil pressure switches fitted at this torque were introduced at the following engine numbers.

8A 15752	—	3.4
8L 176784	—	4.2
7M 4993	—	Limo
7P 52073	—	S.III V12
8S 33518	—	XJS V12
9D 101820	—	XJS 3.6

Please Note: The above fixing torque should now be used when fitting replacement oil pressure switches.

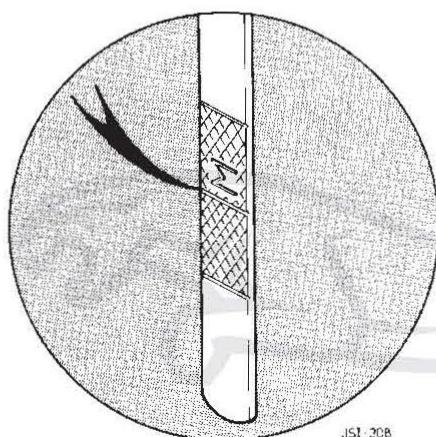
12 ENGINE DIPSTICK

XJ-S 3.6/XJ-SC 3.6

To improve oil level checking, a new dipstick with revised marking has been introduced on AJ6 engines. The oil level checks detailed below MUST be used with this new dipstick.

1. Forecourt Check:
 - (a) Stop engine – wait one minute.
 - (b) If oil is **on cross hatch** add no oil.
 - (c) If oil is below the cross hatch – add 1 litre and recheck.

2. Overnight Check:
 - (a) If oil is above the mark 'M' Fig. 1 – add no oil.
 - (b) If oil is below 'M' – add 1 litre and recheck.



The dipstick part number is EAC 7321 and this was introduced at Engine No. 9D 101808.

12 OIL CONSUMPTION

XJ6 4.2

Further to Service Bulletin JD 09/84 item 72, the new piston ring packs recently introduced on 4.2 engines to improve oil consumption, are now available through Parts Division.

New Part No.	Description	Replaces
JLM 324/S	Ring Pack	RTC 2573/S
JLM 324/20	Ring Pack	RTC 2573/20
EAC 6865/S	Piston & Rings Assy (H Comp)	EAC 2041/S
EAC 6865/20	Piston & Rings Assy (H Comp)	EAC 2041/20
EAC 6866/S	Piston & Rings Assy (S Comp)	EAC 2042/S
EAC 6866/20	Piston & Rings Assy (S Comp)	EAC 2042/20

Should it be necessary to replace pistons or piston rings, then the latest components should be used on all 4.2 engines after engine number 8L 103481 (introduction of struttetd pistons, ref. JD 06/82 item 44).

Please note: If the cylinder bores require glazebusting only, the method detailed in Service Bulletin JD 07/83 item 47 should be used.

ITEM 17

26 XK WATER PUMP

S.III 3.4/4.2 & LIMO

To improve the durability of the XK engine water pump, a modification has been introduced to increase the size of the pump bearing and improve the impellor seal. This modification was incorporated from engine numbers:

8A 15831	-	3.4
8L 179779	-	4.2
7M 5019	-	Limousine

Further details and part numbers will be issued when parts are available.

ITEM 18

74 WHEEL BALANCING

ALL MODELS

Would all service personnel please note that when balancing a wheel and tyre assembly, the maximum permissible weight that can be added to overcome any out of balance, is 100 grams (3.5 oz).

If, when balancing a wheel and tyre assembly, it is found that the weight required exceeds this maximum, the tyre should be rotated around the wheel 180 degrees and the balance rechecked.

Should this not improve the condition, inspect the wheel and tyre assembly for incorrect bead seating or damage. If the tyre is seated correctly and there is no damage to either wheel or tyre, then the tyre manufacturer's local agent should be consulted and involved in determining the cause of the excessive out of balance condition.

ITEM 19

78 APPROVED REFINISH PAINTS – T.P.A. VEHICLES
ADDITION OF SIKKENS PAINTS

S.III/XJS

INTRODUCTION

As a result of close liaison with Sikkens Paints, Jaguar are able to announce approval of a range of refinish materials, suitable for use in the rectification of vehicles finished in thermoplastic-acrylic paint. These materials have undergone stringent tests and are considered satisfactory both for compatibility and colour match.

Tests have taken into account a complete vehicle paint process from bare metal, as well as rectification of an existing T.P.A. finish.

Restoring a paint finish to an acceptable standard is provided for by the materials listed, these range from bare metal treatments through to a choice of topcoat systems.

Approved topcoat materials Autofine, Autocryl and Autobase are all incorporated into Sikkens mixing scheme systems, with up-to-date formulations recorded on microfiche.

Supply of materials and technical support are identified in later sections of this Bulletin.

Section I	-	Safety Precautions in the handling of paint containing isocyanates
Section II	-	Approved Preparatory Materials and Application
Section III	-	Approved Topcoats and Application
Section IV	-	U.K. Service Technical Support
Section V	-	U.K. Stockists
Section VI	-	Sikkens Worldwide Service Support

SECTION I – SAFETY PRECAUTIONS IN THE HANDLING OF PAINTS CONTAINING ISOCYANATES

This section deals with the basic precautions which should be taken by Refinishers when using paints containing isocyanates.

Spray operations should be carried out in a booth which provides compressed airline breathing equipment to BS 4275 – 1974.

The supply of air to the compressor should be drawn from an uncontaminated source, and an efficient oil/water and fume filter must be fitted to provide respirable air. Within the booth an alarm system should be fitted to warn the operator when the air pressure of the breathing apparatus falls below the minimum safe working level.

Persons entering a spray booth whilst spraying is taking place should wear a suitable respirator to BS 2091 – 1969.

A respirator should continue to be worn whilst the operator stays in the booth after the spraying has ceased until the spray mist has cleared.

Persons engaged in handling these products should wear protective clothing to avoid skin and eye contact. Wash off any splashes with copious amounts of water.

WARNING: Persons with a history of Asthma should not be engaged in spraying or handling of materials containing isocyanates, as they are liable to cause irritation to the respiratory system.

SECTION II – APPROVED PREPARATORY MATERIALS AND APPLICATION

(A) METAFLEX W.R. PRIMER:

A two pack etch primer which performs the dual function of adhesion promoter and metal conditioner.

Metaflex W.R. Primer should be overcoated **within two hours** of application with Autocryl Filler.

Surface preparation:	Degrease the surface thoroughly.									
Mixing ratio:	100 parts by volume of Metaflex WR Primer 100 parts by volume of Metaflex WR Hardener									
Spraying viscosity:	When mixed with hardener in the specified ratio, the product has the proper spraying viscosity of 15–16 secs DIN Cup 4 at 20°C.									
Reaction time to be allowed for after mixing:	– 15 minutes at 20°C – 30 minutes at 15°C									
Pot life at 20°C:	8 hours									
Spray gun fluid tip and working pressure:	<table><tr><td>Gravity feed spray gun:</td><td>1.2–1.5mm</td><td>3–5 bar</td></tr><tr><td>Suction feed spray gun:</td><td>1.8mm</td><td>3–5 bar</td></tr><tr><td>Airless spray:</td><td>0.011"–40"</td><td>140–160 bar</td></tr></table>	Gravity feed spray gun:	1.2–1.5mm	3–5 bar	Suction feed spray gun:	1.8mm	3–5 bar	Airless spray:	0.011"–40"	140–160 bar
Gravity feed spray gun:	1.2–1.5mm	3–5 bar								
Suction feed spray gun:	1.8mm	3–5 bar								
Airless spray:	0.011"–40"	140–160 bar								

Recommended conditions of application:	Temperature: Relative humidity:	at a minimum of 15°C minimum: 35% maximum: 75%
Cleaning of equipment:	In Sikkens Solvent or nitrocellulose thinner	
Spraying technique:	Spray one full-flowing, continuous coat	
Film thickness:	7.5–10 µm per coat	
Drying times at 20°C:	Dust dry: after 10 minutes Dry to fix: after 45 minutes Recoatable: after 30 minutes to 8 hours	
Shelf Life:	1 year if stored at shop temperature	
Caution:	Metaflex WR Primer must NOT be sanded.	

(B) AUTOCRYL FILLER:

A two pack primer surfacer which can be applied to well flattened original T.P.A. finishes, or to suitably prepared bare metal surfaces (see Section II (A) on Metaflex WR Primer).

Autocryl filler can be overcoated with Autofine Autocryl or Autobase.

CAUTION – This paint contains isocyanates. Please refer to Section I of this Bulletin.

APPLICATION DATA:

Mixing ratio and spraying viscosity:

The spraying viscosity of 15 s DIN Cup 22 secs BSB 4 at 20°C is reached by mixing the components in the following ratio:
 100 parts by volume of Autocryl Filler
 50 parts by volume of Autocryl Hardener
 30 parts by volume of thinner APS

This mixing ratio corresponds to the graduation on the Autocryl dip-stick.

Reaction time to be observed after mixing:

None

Pot life at 20°C:

4 to 5 hours

Spray gun fluid tip and working pressure:

	Spray gun fluid tip	Working pressure
Gravity feed spray gun	1.2–1.5mm	3–5 bar
Suction feed spray gun	1.5mm	3–5 bar
Pressure feed spray gun	1.0–1.2mm	4–6 bar
Airless spray	011"/65°	160–200 bar

Cleaning equipment:

Use Sikkens Solvent, nitrocellulose thinner or acrylic thinner.

PROCESS:

- Spray booth: For reasons of health and safety at work to avoid dust ingress, apply this product only in spray booths with extraction facilities. The spraying technique to be used depends on how the substrate has been pre-treated.
- Number of coats: – always start by spraying a thin single coat
– allow 6 to 10 minutes flash off
– then proceed by spraying one single full flowing coat OR one double coat OR one double coat to be followed by a second double recoat after 6 to 10 minutes flash off.
The number of coats to be applied depends on the film thickness required.
- Spot repair: A mist coat of Autocryl Filler can be applied if any spot repairs are made. First spray the area under repair by the method desired. Then add an additional amount of thinner in accordance with the following ratio:

100 parts Autocryl Filler at spraying viscosity
100 parts of Autocryl Thinner

Fade out with this mixture once, then thin down this mixture again with Autocryl Thinner in the ratio 1:1 and fade out once more.
- Recoatability/drying time (without sanding): Following application of the last coat, allow for the following flash-off times:
- | | Minimum | Maximum |
|---------|---------|---------|
| At 15°C | 25 min | 5 days |
| At 20°C | 15 min | 4 days |
| At 25°C | 10 min | 3 days |
- (If sanding is necessary): Sanding may be necessary in the case of dust ingress or surface damage. If two double coats have been applied, Autocryl Filler can be sanded:
– at 20°C after 7 hours
– at 40°C after 2 hours
– at 60°C after 60 minutes
- Recommended abrasive paper grades: If wet flattened (mechanically and manually) P800 to P1000
If dry sanded (mechanically) P240 to P280
If dry sanded (manually) P280 to P320

(C) AUTOFINE PRIMER SURFACER:

A one pack primer surfacer for application over flatted original T.P.A. finishes, prior to the application of Autofine.

NOTE: This is a repair material only, and is not recommended for use as a primer-surfacer coating on to bare metal. See Autocryl Filler.

APPLICATION:

Mixing ratio:	1 part by volume of Autofine Primer Surfacer, 1 part by volume of Autofine Thinner Fast or Slow, or a combination of these mixed in any proportion.		
Spraying viscosity:	14–16 s DIN Cup 4 at 20°C 17–20 s BSB Cup 4 at 20°C		
Spray gun fluid tip and working pressure:	Spray gun fluid tip	Working pressure	
	Gravity feed spray gun: Suction feed spray gun:	1.5–1.8mm 1.8mm	43–57 psi 43–57 psi
Method of application:	Apply one or two single coats, allowing for 5 minutes flash-off between coats at 20°C.		
Drying time:	Dry to sand (wet or dry) after:		
	At 20°C	At 40°C	At 60°C
1 coat:	30 min	20 min	15 min
2 coats:	60 min	40 min	30 min
			At 80°C
			10 min
			20 min
Film thickness:	40–45 µm per double coat		
Flatting paper:	Dry P360–P400 Wet P800–P1000		
Coverage:	6–7m² /ltr of unthinned primer per double coat		
Recommended topcoat:	Autofine		

(D) AUTOCRYL SEALER TRANSPARENT:

A two pack transparent sealer, which should also be used as an adhesion promoter on flatted original T.P.A. finishes, where Autocryl or Autobase topcoats are to be applied without the benefit of a primer surfacer.

CAUTION: This sealer contains isocyanates. Please refer to Section 1 of this Bulletin.

Mixing ratio:	100 parts by volume of Autocryl Sealer Transparent
	50 parts by volume of Autocryl Hardener
	30 parts by volume of Autocryl Thinner

The mixing ratio corresponds to the graduations on the Autocryl Measuring stick.

Spraying viscosity: 14 secs. DIN Cup 4 at 20°C

Pot life at 20°C: 2.5–3 hours at 20°C

Spray gun fluid tip and working pressure:	Spray Gun fluid tip	Working pressure
Gravity feed spray gun:	1.2–1.5mm	3–5 bar
Suction feed spray gun:	1.5mm	3–5 bar
Pressure feed spray gun:	1.0–1.2mm	4–6 bar
Airless spray:	011"/65°	160–200 bar
Cleaning equipment:	In Sikkens Solvent, nitrocellulose thinner or acrylic thinner.	
Application in spray booth:	For reasons of safety at work and to prevent dust ingress, apply this product only in spray booths with extraction facilities.	
Number of coats:	Spray 1 single wet coat or up to 2 single wet coats allowing for 5 minutes flash off time between coats.	
Recoatability:	After the last coat has been applied, allow for 15 minutes flash off time at 20°C. Autocryl Sealer Transparent may be coated wet on wet with Autocryl or Autobase within 3 hours after applying the last coat.	
Selection of sandpaper grades:	P800–P1000 for either mechanical or manual wet flatting. P240–P280 for mechanical dry sanding. P280–P320 for manual dry sanding.	
Film thickness:	Approx. 20 µm of 1 single wet coat is applied. Approx. 30 µm of 2 single wet coats are applied.	
Coverage:	16–19m ² /ltr for 1 single wet coat. 10–12m ² /ltr for 2 single wet coats.	
Addition of Autocryl colour:	In the case of colours that have less satisfactory hiding power Autocryl colour (base paint) may be added to pure Autocryl Sealer Transparent (maximum ratio 1:1 in parts by volume). Next add hardener and thinner to this mixture, adopting the ratio of 100:50:30. This will result in improved opacity of the area under repair.	
Colour:	Transparent	
Container sizes:	1 & 5 ltr.	

SECTION III – TOPCOATS

(A) AUTOFINE

An air drying acrylic lacquer for spot repairs and resprays. This lacquer can be applied to flatted original T.P.A. finishes or on to surfaces prepared with Autofine Primer Surfacer.

NOTE: This system is not recommended as a complete refinish process from base metal on vehicles in warranty. See Autocryl.

Product and additives:	Autofine. Autofine Thinner Slow: Autofine Thinner Fast: Autofine Retarder (up to 30 parts by volume may be added to Autofine Thinner Slow):	to be used for complete resprays and at higher temperatures. to be used for spot repairs and panel repairs at lower temperatures. to be used at temperatures above 25°C or when large surfaces are to be sprayed, or if flow out is inadequate.
The Autofine Thinners Slow and Fast can be intermixed so that the thinner composition can be adjusted to the circum- stances of application.		
Preparation of the surface:	Wet flat with P800–P1000 grit paper Dry sand with P360–P400 grit paper	
Recoatability:	An Autofine topcoat can only be recoated with Autofine Primer Surfacer.	
Mixing ratios:	(a) Non metallic colours 100 parts by volume of Autofine 100 parts by volume of Autofine Thinner (b) Metallic colours 100 parts by volume of Autofine 150 parts by volume of Autofine Thinner	
Spraying viscosity:	12–15 s DIN Cup 4 at 20°C (15–19 s BSB4)	
Cleaning of equipment:	In Sikkens Solvent, Autofine Thinner or a regular nitro- cellulose thinner.	
Spray gun fluid tip and working pressure:	Gravity feed spray gun: Suction feed spray gun:	Spray gun fluid tip Working Press. (gauge press.) 1.5mm 2–4 bar (30–60 psi) 1.8mm 2–4 bar (30–60 psi)
Process at 20–30°C:	Spray three single coats, allowing for a flash-off time of 4–8 minutes between coats. Colour variegation of metallic colours can be avoided by adding 30% by volume of Autofine Clear to the Autofine metallic colour prior to applying the last coat of metallic.	

Recommended process for spot repairs and fading out areas of one-coat metallic colours:

Blending the patch into the background:

It is recommended to apply one coat of Autofine Clear after application of the metallic colour in order to avoid variegation when spot repair and fade out areas are polished.

Drying times at 20–30°C:

The patch can be blended invisibly into the background by misting-over the edges with pure Autofine Thinner immediately after application of the last coat.

Reduce the working pressure by 0.5 bar (7.5 psi) for this operation.

Finishing touch:

Dust dry: after 5 minutes

Tack free: after 15 minutes

Dry to polish: after 24 hours

Autofine can be polished to the desired high-gloss level with any current polish.

AUTOCRYL

A two pack acrylic enamel suitable for application over original T.P.A. finishes, and surfaces prepared with Autocryl Filler.

NOTE: Where Autocryl is to be applied directly on to T.P.A., adhesion will be improved if the surface is initially coated with Autocryl Sealer Transparent.

CAUTION: This paint contains isocyanates. Please refer to Section I of this Bulletin.

Surface preparation: Sand with P800–P1000 (360–400) grade paper.

Mixing ratio: 100 parts by volume of Autocryl, 50 parts by volume of Autocryl Hardener and 30 parts by volume of Autocryl Thinner or Autocryl Temp-O-Actif.
Use the Autocryl measuring stick with graduation for easy mixing, even for the smallest quantities.

Spraying viscosity: 20–21 s BSB4 16–17 s DIN Cup 4 at 20°C, also if applied by pressure feed spray gun, airless spray and electrostatic spray.

Pot life: 4 hours at 20°C

Cleaning equipment: With Sikkens Solvent, nitrocellulose thinner or Autocryl Thinner.

Spray application:	Spray gun fluid tip	Working pressure
Gravity feed spray gun:	1.2–1.5mm	3–5 bar
Suction feed spray gun:	1.5mm	3–5 bar
Pressure feed spray gun:	1.0–1.2mm	4–6 bar
Airless spray (not possible for metallics):	0.011"/65°	160–200 bar

Brush application: Use supple brushes and do not thin (for door edges).

PROCESSES

Standard method: Apply 2 double coats or 3 single coats allowing for sufficient flash-off between coats.

Flash-off: The flash-off time depends on the temperature.

At 10°C	At 20°C	At 30°C
10–15 mins	6–10 mins	4–6 mins

On thermoplastic acrylic finishes: Because of the sensitivity of this substrate, the film thickness required should be built up with greater care. In this case, apply 3 single wet coats, i.e. no double coats. Allow for sufficient flash-off time between coats as specified above.

Matching metallic colours: If the colour is too light, apply another single coat. If the colour is too dark, add an extra amount of Autocryl Thinner (up to 33%) to the ready-for-use mixture and apply a final mist coat. Never add an extra amount of Autocryl Temp-O-Actif.

Drying of Autocryl: IF THINNED WITH AUTOCRYL THINNER

	10°C	15°C
Dust dry	1.5 hrs	50 mins
Tack free	12 hrs	4 hrs
Dry to handle	24 hrs	16 hrs
Hard dry	36 hrs	24 hrs

	20°C	40°C	60°C
Dust dry	30 mins	15 mins	5 mins
Tack free	1.5 hrs	45 mins	15 mins
Dry to handle	10 hrs	1 hr	30 mins
Hard dry	16 hrs	1.5 hrs	45 mins

IF THINNED WITH AUTOCRYL TEMP-O-ACTIF

	10°C	15°C
Dust dry	1 hr	40 mins
Tack free	5 hrs	2.5 hrs
Dry to handle	12 hrs	7 hrs
Hard dry	18 hrs	12 hrs

	20°C	40°C	60°C
Dust dry	25 mins	10 mins	5 mins
Tack free	1 hr	15 mins	10 mins
Dry to handle	5 hrs	30 mins	15 mins
Hard dry	8 hrs	50 mins	20 mins

Spreading rate: 8–9m²/litr of base paint if 2 double coats are applied.

Recoatability: A subsequent coat of Autocryl can be applied when the previous coat is semi-set or fully dry.

Polishing: Defective areas may be sanded lightly and polished after 45–50 minutes drying at 60°C or 16 hrs drying at 20°C.

AUTOBASE SYSTEM

A two coat system of metallic colours consisting of a base coat, Autobase Metallic, and a two pack clearcoat, Autobase Clear. The Autobase system can be applied over original T.P.A. finishes and surfaces prepared with Autocryl Filler.

NOTE: Where Autobase is to be applied directly on to T.P.A., adhesion will be improved if the surface is initially coated with Autocryl Sealer Transparent.

CAUTION: This paint contains isocyanates. Please refer to Section I of this Bulletin.

Mixing ratios:

Autobase Metallic:

100 parts of Autobase Metallic, 100 parts by volume of Autobase Metallic Thinner (or Slow Thinner).

Autobase Clear:

100 parts by volume of Autobase Clear, 50 parts by volume of Hardener for Autobase Clear, 30 parts by volume of Thinner for Autobase Clear or Autocryl Thinner or Temp-O-Actif.

Spraying viscosities:

Autobase Metallic:

14–15 s DIN Cup 4 at 20°C (17–19 s BSB4)

Autobase Clear:

15–16 s DIN Cup 4 at 20°C (19–20 s BSB4)

Pot life:

Autobase Metallic: 24 hrs at 20°C

Autobase Clear: 4 hrs at 20°C

Cleaning equipment:

First flush with a small amount of Autobase Metallic Thinner next with Sikkens Solvent or nitrocellulose thinner.

Spray gun fluid tips
and working pressures:

	Spray gun fluid tip	Working pressure
Autobase Metallic	1.2–1.5mm	2–4 bar
Gravity feed spray gun	1.3–1.5mm	2–4 bar
Suction feed spray gun	1.1–1.2mm	4–5 bar
Pressure feed spray gun		

	Spray gun fluid tip	Working pressure
Autobase Clear	1.2–1.5mm	3–4 bar
Gravity feed spray gun	1.3–1.5mm	3–4 bar
Suction feed spray gun	1.1–1.2mm	4–6 bar
Pressure feed spray gun		

Application:

Autobase Metallic:

General – spray a single coat to the repair area first. After 2–5 minutes flash off time, spray a single wet coat overall. After 2–5 minutes flash off time, apply one or two single coats depending on the hiding power (observe a 2–5 minute flash off period between coats). Allow the base coat to set to a matt finish. Reduce the working pressure to 2 bar and apply one or two mist coats.

Spraying technique for spot repairs:

When making spot repairs reduce the working pressure to 1–1.5 bar and spray light single coats until opacity is achieved. Allow the base coat to set to a matt finish. Next, liberally fade out the repair area twice, using a pressure of 1–1.5 bar. If desired, Autobase Metallic can be masked after 10–15 minutes at 20°C and overcoated with Autobase Metallic of a different colour. After 10–20 minutes setting at 20°C, Autobase Clear can be applied.

Autobase Clear:

Apply 3 single coats. Allow for a flash off time of 5–10 minutes between each coat.

Drying:**Autobase Clear (thinned with Thinner for Autobase Clear):**

	15°C	20°C	40°C	60°C
Dust dry	50 mins	30 mins	20 mins	5 mins
Tack free	4 hrs	3 hrs	1 hr	15 mins
Dry to handle	16 hrs	13 hrs	1 hr	30 mins
Hard dry	24 hrs	20 hrs	1.5 hrs	50 mins

Autobase Clear (thinned with Temp-O-Actif or with Temp-O-Actif 2):

Dust dry	40 mins	20 mins	10 mins	5 mins
Tack free	2.5 hrs	1.75 hrs	20 mins	15 mins
Dry to handle	7 hrs	5.5 hrs	30 mins	20 mins
Hard dry	12 hrs	12 hrs	50 mins	30 mins

Coverage:**Autobase Metallic:**

7–8m²/ltr of unthinned paint for 3 single coats

Autobase Clear:

6–7m²/ltr of unthinned paint for 3 single coats

Film thickness:**Autobase Metallic:** 15–25 µm**Autobase Clear:** 55–85 µm

These film thicknesses are achieved provided the above application methods are followed.

Polishing:

Dust ingress and minor damage in the Autobase Clear finish can be removed by polishing, provided the following drying times are allowed for:

	15°C	20°C	40°C	60°C
3 days	2 days	4 hrs	1.5 hrs	

First rub carefully with P1200 grade paper, then polish the area manually or mechanically.

Points to note:

- do not use Autobase Metallic Thinner in Autobase Clear. This would lead to considerable delays in drying and thorough hardening.
- do not use Thinner for Autobase Clear in Autobase Metallic. This combination is not compatible and would result in too high a spraying viscosity as well.
- do not use Autobase over any coating in which thinner ABM has been used.

SECTION IV – UNITED KINGDOM SERVICE TECHNICAL SUPPORT

Approved materials and repair processes are identified in Sections II and III. U.K. and world market distribution of Sikkens materials are identified in Sections V and VI.

This section identifies action to be taken by Dealers if problems are encountered with Sikkens materials.

1. A Dealer should initially address any queries to the stockist from whom the materials were purchased.
2. If satisfaction cannot be provided by this method, the Dealer should contact his local Sikkens Area Sales Manager who may give on the spot technical support if required.
3. Contact with Sales Managers should be made through Sikkens U.K. Telephone 0235 815141.

Mr. J.A.A. Clarke
49 Rylstone Way
Saffron Walden
Essex
Area Sales Manager – North Thames

Mr. C.D. Cruickshank
7 Pickletullum Road
Perth
Scotland
Area Sales Manager – Scotland

Mr. J. Griffin
Erika
Plough Road
Tibberton
Nr. Droitwich
Worcs.
Area Sales Manager – Midlands

Mr. F.K. McGarty
211 Bickershaw Lane
Wigan
Lancs.
Area Sales Manager – Northern

Mr. R.N. Smith
Little Timbers
Tudor Village
Washington
West Sussex
Area Sales Manager – South Thames

Mr. P.C. Williamson
7 Thorningdown
Chilton
Nr. Didcot
Oxon.
Area Sales Manager – South West

SECTION V -- U.K. STOCKISTS

There are currently 156 stockists of Sikkens refinish materials throughout the United Kingdom. Primarily marketing is through the Brown Bros. organisation of which there are 93 outlets, the remainder of the outlets being local refinish paint suppliers.

Sikkens will provide refinishers with any of the materials identified in this Bulletin through their stockists. Any concern regarding these materials should be addressed initially to the supplier.

Any queries concerning local supply should be directed to:

Sikkens U.K. Ltd.
Telephone 0235 815141

SECTION VI – SIKKENS WORLDWIDE AGENTS

Sikkens are represented worldwide through extensions of the Sikkens Organisation under the trade name of Sikkens or Akzo Coatings, or through importers.

A number of the overseas agents have their own training facilities and are able to provide product training on site, alternatively enquiries will be directed to the relevant Sikkens or Akzo representative.

Only a limited number of Sikkens/Akzo outlets are listed in this section although there is representation in most countries worldwide.

Enquiries concerning local agents or material stockists should be directed to one of the addresses listed here:

NORTHERN EUROPE

Belgium: Akzo Coatings Belgium N.V.
Donkerstraat 38
B-1740 Ternat
Belgium
Tel: (02)-5823110

Germany: Deutsche Akzo Coatings
Magirusstr 26
7000 Stuttgart 30
BRD
Tel: 0711-89511, Telex: 721693

France: Astral S.A.
B.P. 140
Rue Ambroise Croizat 164
93204 St. Denis
France
Tel: 01-8206164

Holland: Sikkens Verkoop Nederland B.V.
Autolakken Sector
PO Box 3
Sassenheim
Holland
Tel: 1711-86944

Sikkens also represented in Denmark, Finland, Sweden and Norway.

SOUTHERN EUROPE

Italy: Akzo Coatings Italia
20090 Cesano Boscone (Mi)
Via Benedetto Croce 9
Milan
Tel: (02) 44 042 42 Telex: 315387 SIKLIN I

Spain: Ivanow SA
Feixa Llarga s/nº (Zona Franca)
Apartado de Cooreos 7072
Barcelona 4
Spain
Tel: 03-3352058

Greece: Delpaco
64 Panepistimiou Street
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Greece
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ITEM 20

80 BLOWER MOTOR (PARTS REPLACEMENT) S.III NON AIR-CON. MODELS

To overcome re-occurring vibration problems experienced in Service when replacing blower motor/bracket assembly, Part No. RTC 690, the blower motor/bracket is now supplied complete with balanced fan assembly.

Part Numbers: JLM 355 RH
 JLM 356 LH

The above part numbers supercede RTC 690 motor/bracket and RTC 765 fan assembly and should be quoted when ordering replacement parts.

ITEM 21

80/82 HEATER/AIR CON. BLOWER MOTORS S.III

To ease production assembly of blower motor units and prevent possible damage to the blower motor plenum flap linkages, the body panel aperture size has been slightly increased.

In conjunction with the increase in size of the panel aperture, blower motors are now equipped with a new seal Part No. CAC 9764 and were introduced at VIN 410733.

The new seal which MUST be used from the above VIN, may also be fitted on vehicles prior to this.

XJS HE/XJS 3.6 Models, with the revised body panel aperture, will be introduced in the next few months and a further Service Bulletin will be issued clarifying introduction points.

ITEM 22

86 IGNITION COIL S.III 4.2 MODELS

To improve the ignition performance on S.III 4.2 Models, a new ignition coil and ballast resistor together with a new ignition amplifier and engine harness were introduced at VIN 412543. Service Bulletin JD 01/85 Item 11 refers.

Should replacement of an ignition coil be required prior to the above VIN, the new ignition coil and ballast resistor may be fitted in conjunction with a slight modification to the existing engine and ignition amplifier harness. Modification details are as follows:

Parts required

Description	Part No.	FIG Code
Ignition Coil/Ballast Resistor	DAC 3795	
3 off Lucas Connector (Female)	GHF 2051	A
3 off Insulator Sleeve	GHF 2151	B
1 off Insulator Sleeve	GHF 2153	C
2 off Eyelet	GHF 2431	D

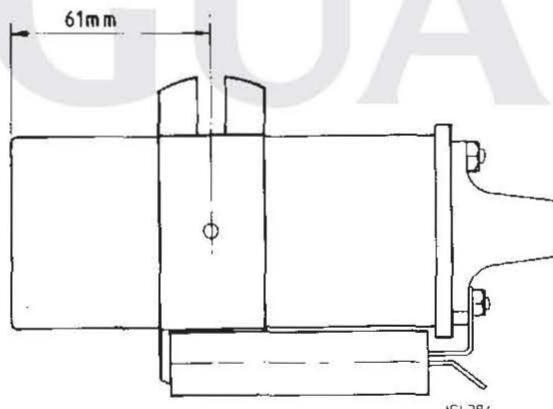
When ordering the above connectors/sleeves, please note they are supplied in packs of 100, 200, 250 or 500 depending on component.

Labour allowance	0.50 hrs.
Warranty Code	7A8-Z
Repair Operation Time	86-91-01

Modification Procedure

NOTE: All new harness connectors should be properly crimped or soldered. Wiring colour coding: W = White, B = Black, S = Slate, U = Blue.

1. Disconnect the battery earth lead.
2. Disconnect and remove the existing coil.
3. Fit the new coil and ballast resistor assembly to the engine. It is necessary to slide the mounting bracket along the coil to gain access to the slot on the fixing bracket hidden by the ballast resistor. Fit and tighten the outboard fixing screw securing the bracket to the engine.

**FIG 1**

Move the coil to the position shown in Fig. 1 and tighten the bracket clamping bolt to the correct torque, DO NOT overtighten. Fit and tighten the coil bracket inboard fixing screw.

4. Construct a link harness as shown in Fig. 2, and connect it between the ignition coil feed wire (W) and the coil ballast resistor, Za, Fig. 4.

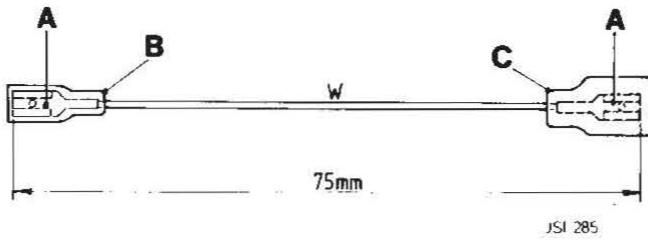


FIG 2

JSI 285

5. Modify the existing ignition harness by cutting off the terminals. Fit lucar connector (GHF 2051) and sleeve (GHF 2151) A & B, Fig. 3 to the white (W) wire and eyelet (GHF 2431) D, Fig. 3 to the white/black (WB) wire. Connect the white (W) wire to the ballast resistor.

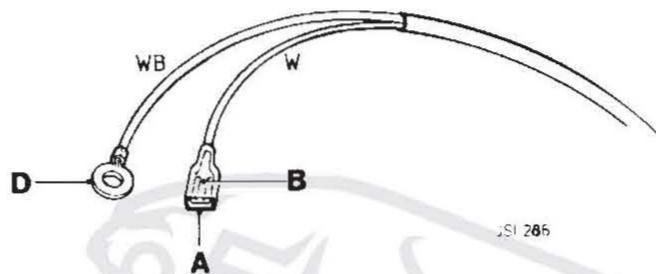


FIG 3

JSI 285

6. Cut off the existing terminals from the white/black (WB) engine harness — coil to ECU wire, and the white/slate/blue (WSU) tachometer feed wire. Join these two wires together and fit the other eyelet (GHF 2431) to them.

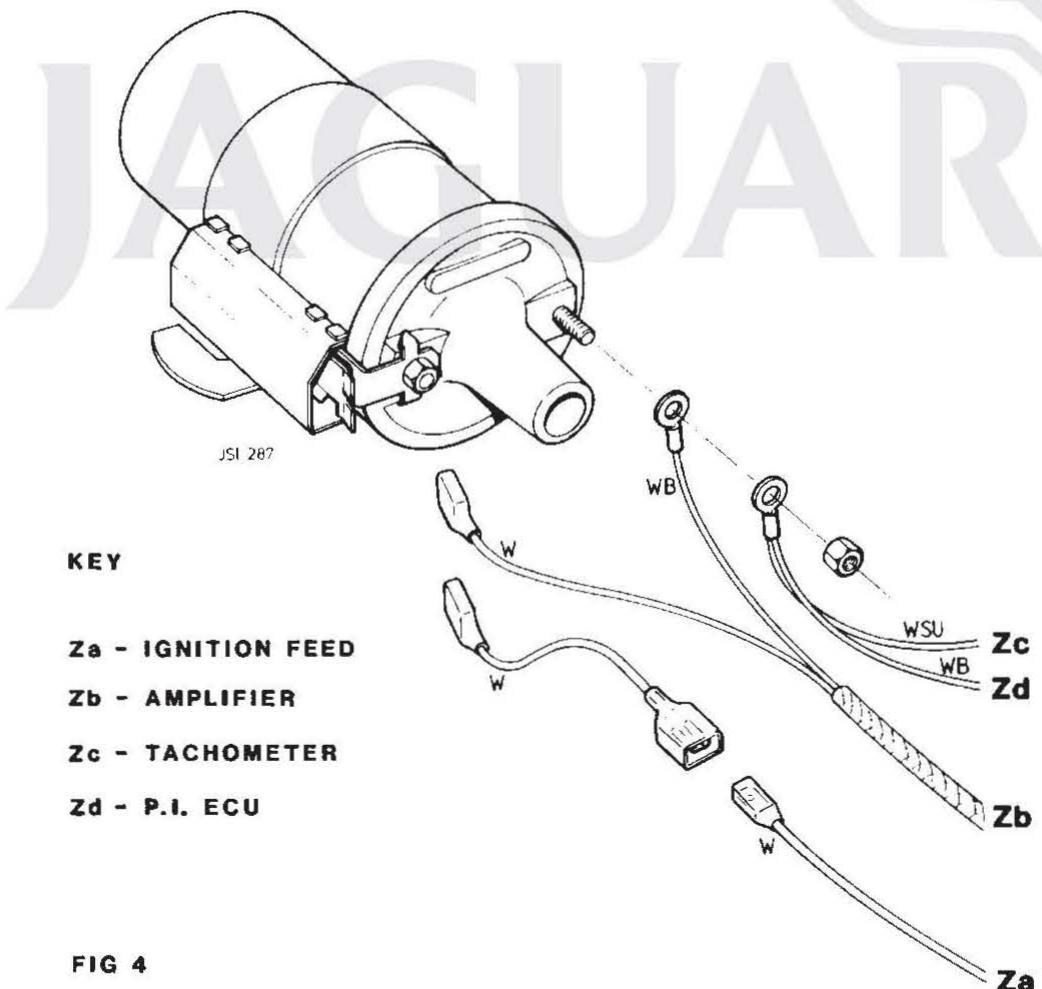


FIG 4

7. Connect the two eyelet connectors, one on the ignition amplifier harness and the other on the engine harness, to the coil negative stud and secure, (see Zb, Zc and Zd, Fig. 4).
8. Reconnect the battery earth lead and check operation.

ITEM 23**86 ELECTRIC DOOR MIRRORS****XJS HE/XJ-S 3.6/XJ-SC 3.6**

To improve the working margin of the fuse controlling the electric door mirror circuit, the fuse rating has been increased from 1.5 amp continuous/3 amp fuse to 2.5 amp continuous/5 amp fuse. Introductory VIN 122344.

On vehicles prior to the above VIN, where fuses are blowing and there is no apparent fault in the electric door mirror circuit, the fuse specification should be uprated to the latest condition. Will Service Personnel also ensure that vehicle fuse box labels are altered accordingly.

The fuse is located as follows:-

Main Fuse Box No. 8 RH and LH Steering

ITEM 24**86 TRIP COMPUTER****S.III/XJS HE/XJ-S 3.6/XJ-SC 3.6**

A revised trip computer featuring CMOS technology has been introduced to replace the NMOS type at VIN's:

416768	—	Saloon
121421	—	XJS

Part Number DAC 3749 European Vehicles
 Part Number DAC 3758 Federal Vehicles

Interchangeability with the previous NMOS unit is unaffected.

Operational features and improvements of the CMOS system are summarised as follows:-

1. When 999.9 miles or kilometers is reached, the decimal place is dropped and the computer will continue to function with all other display modes unaffected until 9999 miles is reached.

On reaching 9999 miles the display automatically returns to zero (with the one decimal place), resetting all speed and fuel functions to zero. Since all the calculations are performed in Imperial measurements then converted to metric when required, the metric odometer will revert back to zero on reaching 9999 Km, then continue to 6092.39 Km, which added together is the equivalent to 9999 miles, and at which point all the trip computer information is reset as detailed above.

2. A condition known as "wipe out" or "crash out" could occur with the previous NMOS computer, which resulted in the display totally disappearing or only showing random segments.

The action required to restore the computer functions was the temporary removal of the controlling fuse.

The new CMOS version incorporates a watchdog circuit which will limit any data loss, i.e. "wipe out" to a few milli-seconds and ensures that the display is restored without loss of fuel/distance or speed calculations.

3. The minimum voltage to retain the memory is reduced from 7.5 to 5.7 volts.
4. The battery drain with the ignition switched off is reduced from 8/12 to 5 milli-amps.

To improve the overall reliability of the computer there have been a number of design alterations to the printed circuit board (PCB) hardware.



Service Bulletin



Date APRIL 1985
Sheet 1 of 8
Bulletin JD 04/85

ITEM 25

03 PAINT REPAIR TIMES

LIMOUSINE

Will you please update the Daimler Limousine Paint Repair Time constants as published in Policy Letter JHSC 42, to the following values:

Strip/ Repaint	Flat/ Repaint	Flat, Compound and Polish	Compound and Polish
2 02.35	2 00.95	4 00.40	5 00.35

No repair times are affected.

ITEM 26

51 DANA FINAL DRIVE

XJS HE

Jaguar Cars have progressively introduced the Dana final drive to the XJS HE. The present policy on repair stages are as follows:

1. Pinion oil seal remove and refit.
2. Output shaft seals remove and refit.
3. Output shaft bearing remove and refit.

For these operations certain special tools are required which are listed below:

1. Pinion Oil Seal Remove and Refit

- 18G 1205 Propeller Shaft Wrench
18G 2 Universal Two Legged Puller
18G 1428 Pinion Oil Seal Installer. This tool will require modification as shown in Fig. 1.

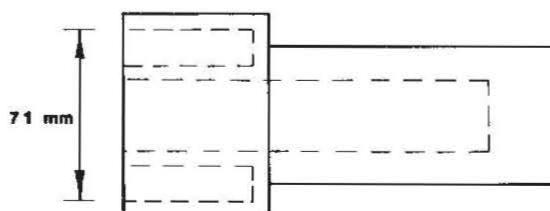


FIG. 1

The inside diameter of the tool will require to be enlarged from 68mm to 71mm. To identify the tool the prefix 'A' should be added after the tool number. This modification will not affect the tool's use on Salisbury final drive units. All existing stocks of V.L. Churchill Tool No. 18G 1428 have been modified and will in future be supplied under the Part No. 18G 1428A.

The procedures to carry out this operation are identical to Series III and XJS with a Salisbury final drive.

2. Output Shaft Seals

No Special Tools required.

The procedure to carry out this operation is as follows:—

Remove the output shaft from the final drive unit and remove the seals from the output shaft carrier assembly.

Clean the output shaft carrier mating faces and grooves, fit new seals to the carrier assembly and refit the output shaft to the final drive unit.

3. Output Shaft Bearings

47 Multipurpose Handpress.

18G 2 Universal Two Legged Puller.

SL 47-1 (GKN 47-3) detail 1 and 2. Pinion Bearing Cone Remover Adaptor (For this application the tool description is Output Shaft Bearing Assembly and Retaining Collar Installer).

SL 47-2 (GKN 47-4) detail 1. Diff Bearing Cone Remover Adaptor (For this application the tool description is Adaptor Remover/Replacer Bearing Tracks from Housing).

18G 1400-1 Adaptor/Remover Mainshaft 5th Speed Gear Synchro Hub (For this application the tool description is Output Shaft Outer Bearing Cone Remover).

Two other tools (locally made) are required:

- (1) A 100mm length of suitable tubing having an outside diameter of 48mm, and a wall thickness no less than 3mm, (or Imperial equivalents), see Fig. 2.

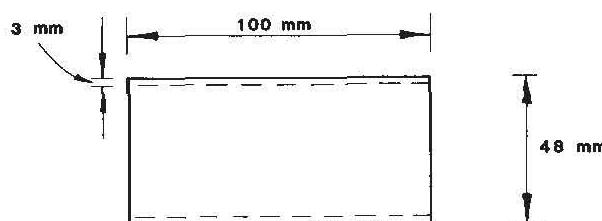


FIG. 2

- (2) Two pieces of angle iron 200mm long and no greater than 45mm wide (or Imperial equivalents), see Fig. 3.

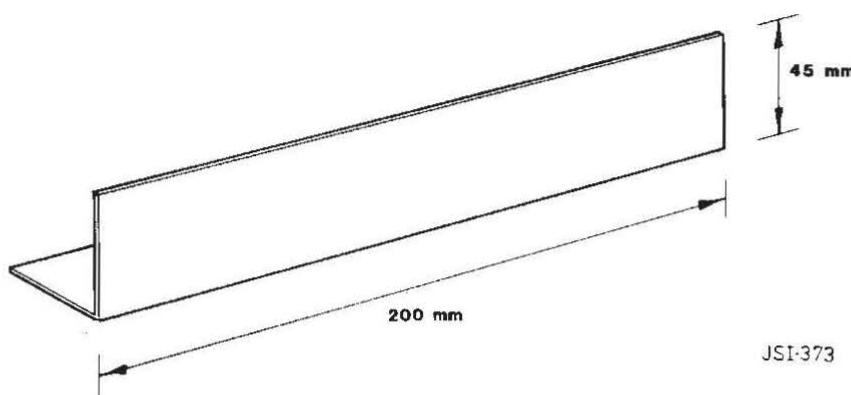


FIG. 3

The procedures to carry out this operation are listed below.

Remove the output shaft from the final drive unit.

Place the shaft in a vice and using a 6mm or 0.25" drill, drill a hole in the outer face of the bearing retainer ring $\frac{3}{4}$ of the way through. Using a chisel positioned across the drilling strike sharply to snap the ring.

Using the two pieces of angle iron mounted in press 47 and a piece of suitable tube, press off the bearing and housing assembly. Place SL 47-2 in press 47 and using a suitable piece of tube press off the bearing.

NOTE: If the outer bearing cone remains on the shaft, place the bearing assembly back on the shaft and using 18G 1400-1 and 18G 2 remove the bearing cone from the shaft.

Fit the replacement bearing to the housing using press 47 and SL 47-2.

Fit the bearing and housing assembly to the shaft using SL 47-1/1 and /2 together with press 47.

Remove the unit from the press, position the collar over the end of the shaft, position the unit in the press and press on the collar. Remove the assembly from the press and fit to the axle unit.

ITEM 27

74 PIRELLI WINTER TYRES

S.III/XJS

Due to the non availability of the Dunlop Weathermaster snow tyre, Jaguar have now satisfactorily completed snow, clearance and performance tests on the Pirelli Winter 190 215/65 R15 M+S tyre, and can now approve this tyre for service fitment.

Production of this tyre has commenced and supplies will be available world wide in the near future.

This is a winter specification tyre, rather than a full off road snow tyre and hence has a maximum speed capability of 190 kph (118 mph).

Jaguar approved Rud Katenspur snow chains may be fitted to the rear wheels only, if great care is taken in tensioning and full tensioning of the chains is achieved.

The tyre may be fitted to both XJS and S.III vehicles and must be fitted in sets of four only.

The maximum road speed recommended when using these tyres without snow chains is 190 kph (118 mph) and 50 kph (31 mph) when snow chains are fitted.

Tyre pressures should be set as on standard equipment tyres.

76/86 ELECTRIC SLIDING/TILTING ROOF

XJS

An electrically operated sun roof will shortly be available as an original equipment option on XJS coupe models.

The following are the recommended repair procedures and allowed times for this option.

A new service tool is available, and must be used when aligning the pilot plates.

Tool Description

Pilot Plate Alignment Keys

Tool Part Number

JD 113

This tool is mandatory and will be available in the UK direct from V.L. Churchill and outside the UK from the local V.L. Churchill dealer.

HEADLINING SLIDING ROOF CONDITION	Renew	76-64-15
SLIDING ROOF CHANNEL – VEHICLE SET	Renew	76-82-08
SLIDING ROOF CONTROL RELAY	Renew	86-76-03
SLIDING ROOF CONTROL RELAY HARNESS	Renew	86-70-02
SLIDING ROOF DRAIN PIPES		76-00-00
SLIDING ROOF LIFTING BLOCK	Renew	76-82-27
SLIDING ROOF MOTOR	Renew	86-76-01
SLIDING ROOF MOTOR MICRO SWITCH	Renew	86-76-04
SLIDING ROOF MOTOR RELAY	Renew	86-76-02
SLIDING ROOF MOTOR SWITCH	Renew	86-76-05
SLIDING ROOF PANEL	Renew	76-82-05
SLIDING ROOF PANEL PLASTIC FINISHER	Renew	76-82-06
SLIDING ROOF PANEL SEAL	Renew	76-82-15
SLIDING ROOF PANEL SLIDING BLOCKS	Renew	76-82-30
SLIDING ROOF PANEL TRIM ASSEMBLY	Renew	76-82-19
SLIDING ROOF RACK	Renew	76-82-42
SLIDING ROOF CONTROL RELAY HARNESS	Renew	86-70-02

Open the door and release the motor cover fasteners.

Remove the motor cover and disconnect the feed block connector.

Remove the relay securing bolt and the relay harness assembly.

Remove the relay from the connector.

Reverse the removal procedure to refit.

SLIDING ROOF CONTROL RELAY	Renew	86-76-03
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Open the door and release the motor cover fasteners.

Remove the cover and relay control securing bolt.

Remove the relay from the connector.

Reverse the removal procedure to refit.

SLIDING ROOF MOTOR MICRO SWITCH	Renew	86-76-04
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Open the door and remove the sliding roof motor.

Pull out the switch to motor securing rivets and remove the micro switch.

Reverse the removal procedure to refit.

SLIDING ROOF MOTOR	Renew	86-76-01
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Open the door and remove the motor cover.

Disconnect the feed block connector 1 (Fig. 1).

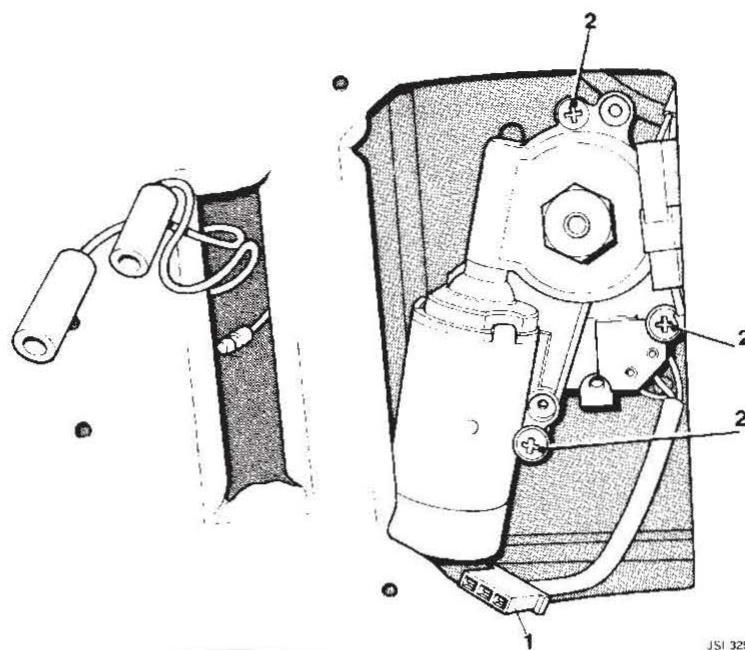


FIG. 1

Undo and remove the slide/tilt relay securing bolt and remove the harness assembly. Remove the motor securing screws 2 (Fig. 1) and remove the motor assembly.

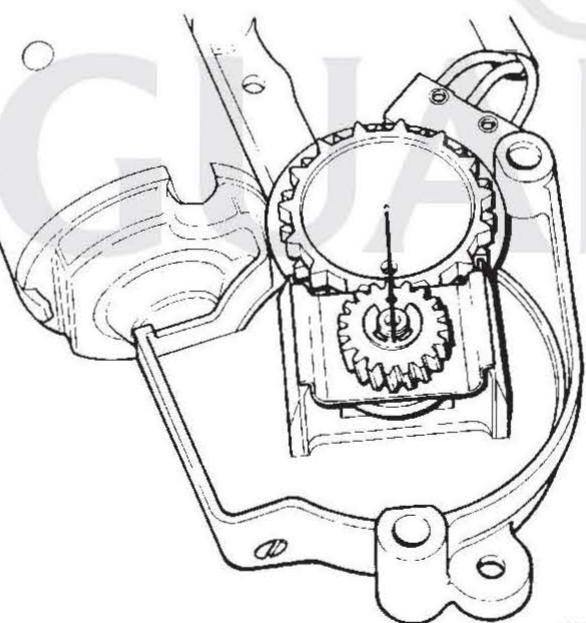


FIG. 2

Prior to fitting replacement motor ensure that the motor is centralised (Fig. 2). Should it require adjustment fit the key situated behind the cover (Fig. 3), and fit to the spindle (Fig. 4) and turn as required to align the gears, see (Fig. 2).

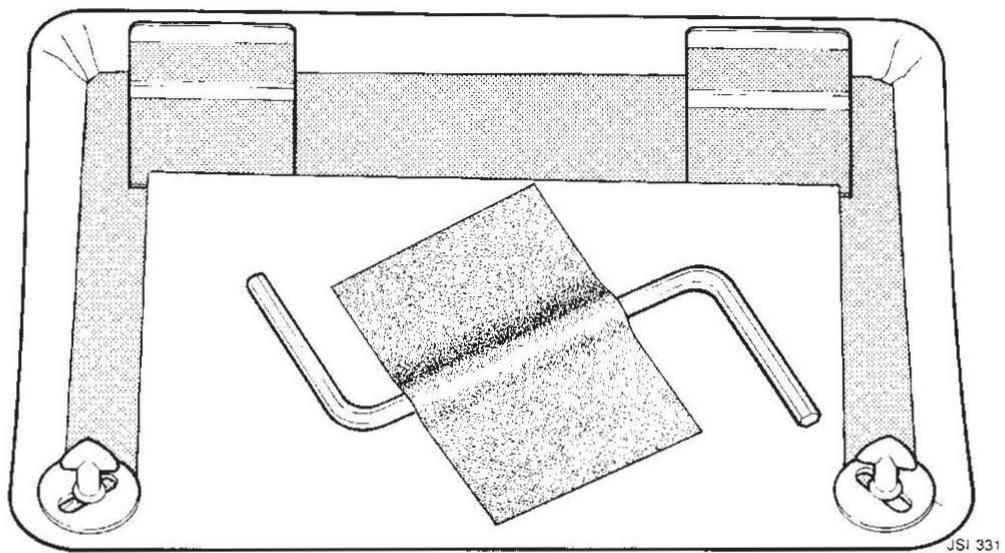


FIG. 3

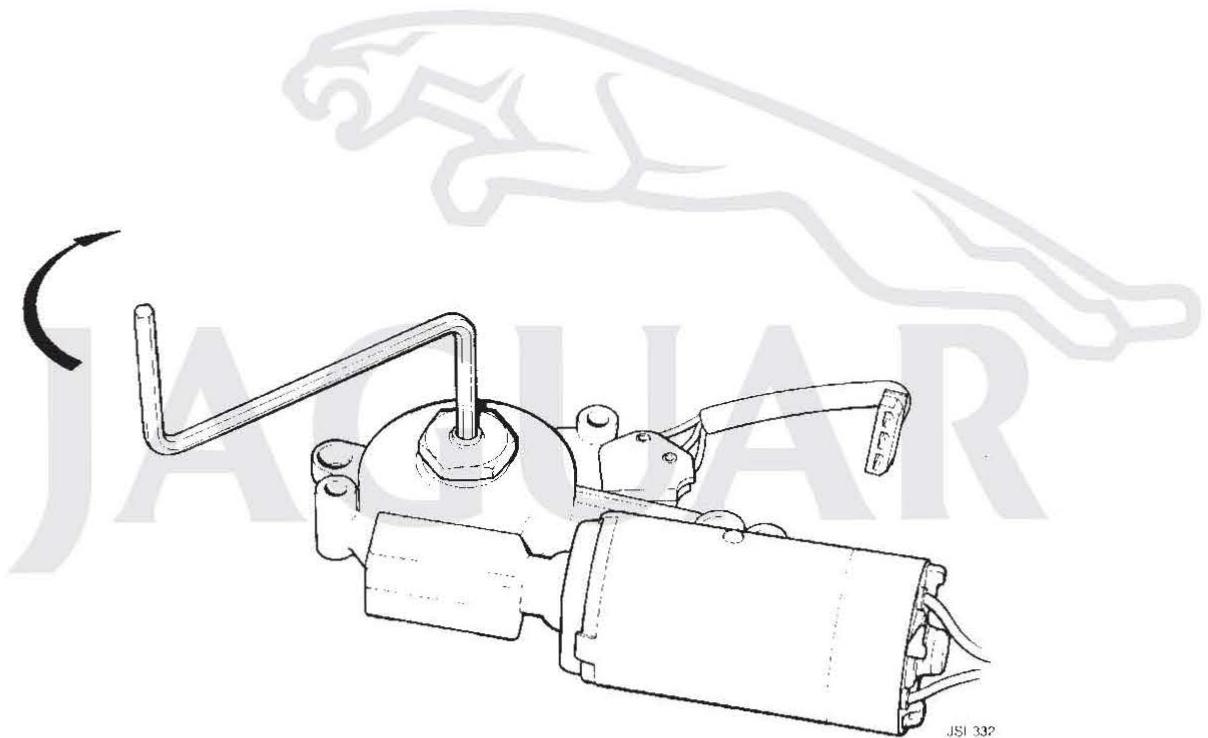


FIG. 4

Reverse the removal procedure to refit.

SLIDING ROOF PANEL

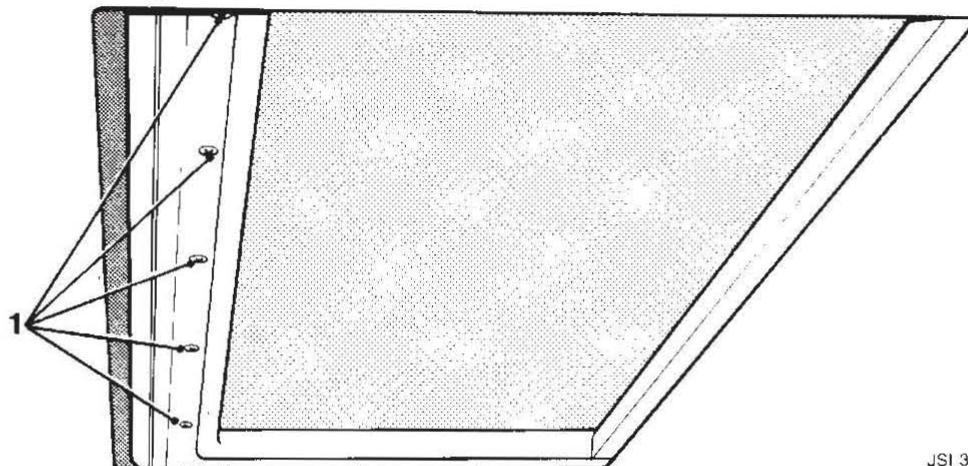
Renew

76-82-05

Position the roof trim panel rearwards for access.

Switch on the ignition and move the roof panel rearwards for access.

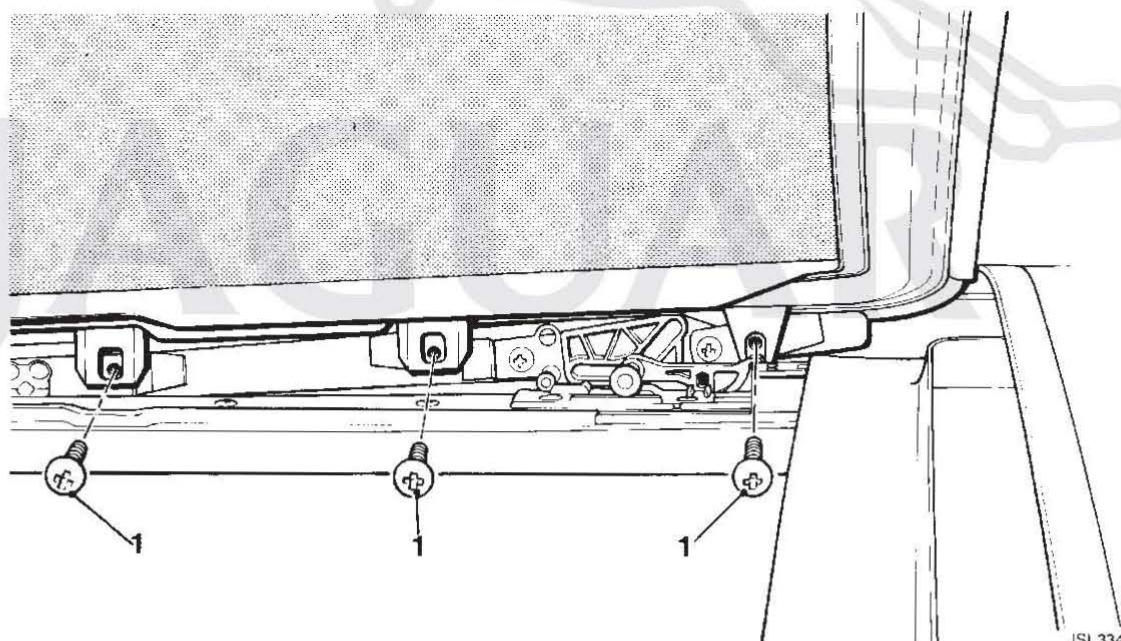
Remove the panel plastic finisher securing screws 1 (Fig. 5) and move the finisher rearwards.



JSI 333

FIG. 5

Motor the sliding roof to the full tilt position and remove the sliding roof panel to carrier securing screws 1 (Fig. 6).



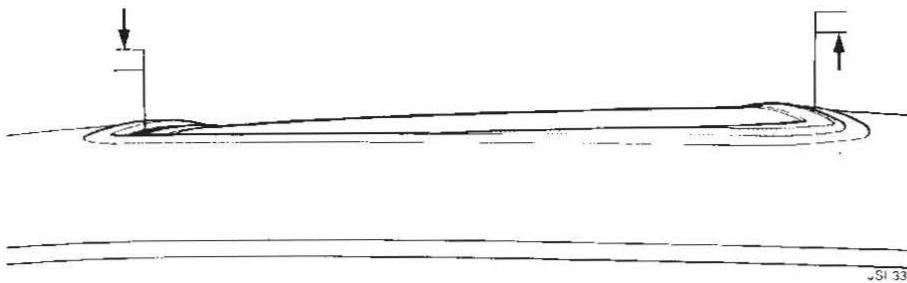
JSI 334

FIG. 6

Remove the sliding roof panel.

Reverse the removal procedure to refit.

NOTE: When adjusting the sliding roof panel ensure that the roof is adjusted so that the front edge of the panel is 1mm below the roof line and the trailing edge of the roof panel is 1mm above the roof line (Fig. 7).



JSI 335

FIG. 7

SLIDING ROOF LIFTING BLOCK

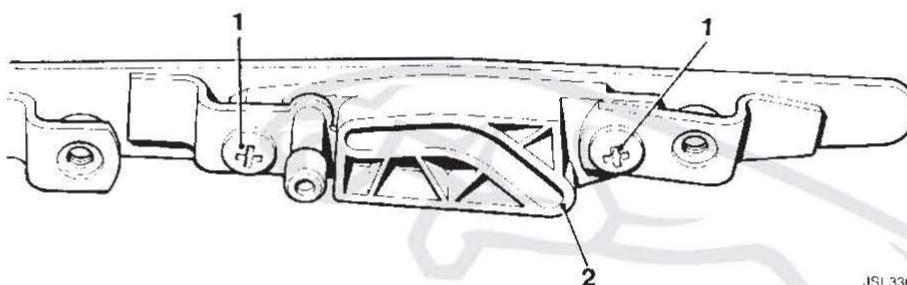
Renew

76-82-27

Open the door and remove the sliding roof panel.

Remove the panel carrier assemblies and the lifting block to carrier arm securing screws 1 (Fig. 8).

Remove the blocks 2 (Fig. 8).



JSI 336

FIG. 8

Reverse the removal procedure to refit.

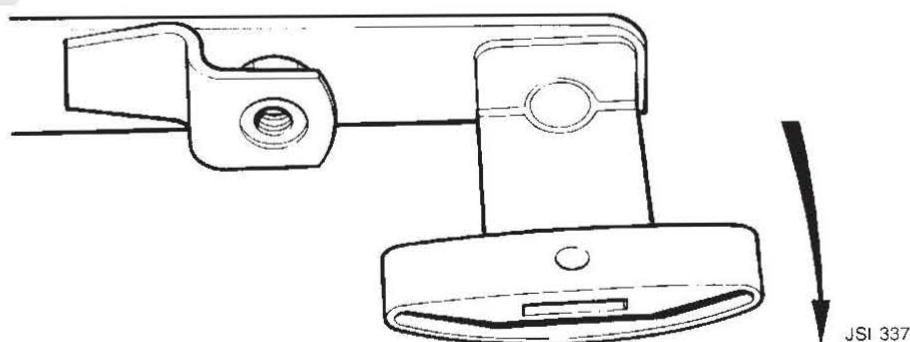
SLIDING ROOF PANEL SLIDING BLOCKS

Renew

76-82-30

Open the door and remove the sliding roof panel.

Remove the sliding roof carrier assemblies and remove the sliding blocks from the carrier assemblies 1 (Fig. 9).



JSI 337

FIG. 9.

Reverse the removal procedure to refit.

SLIDING ROOF PANEL PLASTIC FINISHER

Renew

76-82-06

Open the door and remove the sliding roof panel.

Remove the pilot plate upper slide securing screws 1 (Fig. 10) and remove the plate 2 (Fig. 10).

Remove the panel carrier arm upper slide 3 (Fig. 10).

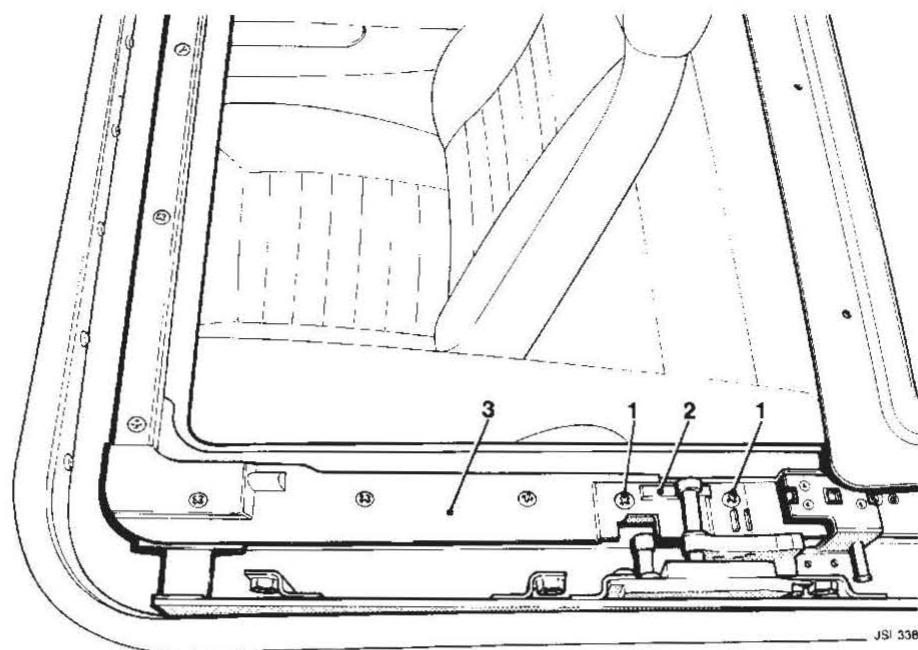


FIG. 10

Carefully slide the rack carrier assembly from the rear channel 1 (Fig. 11). Repeat the operation for the second rack block.

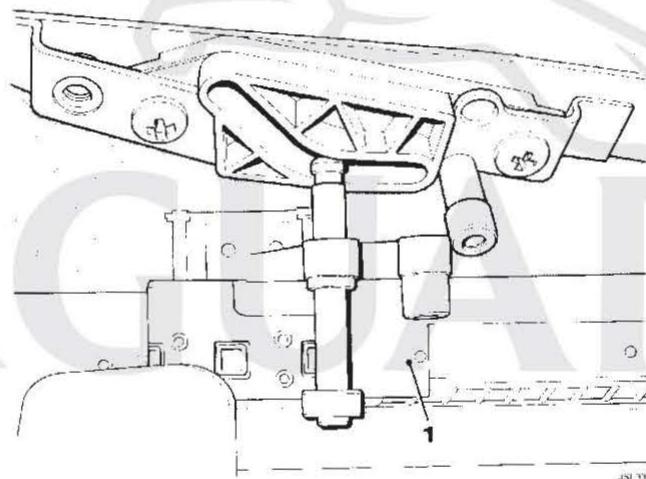


FIG. 11

Remove the finisher from the rear channel (Fig. 12).

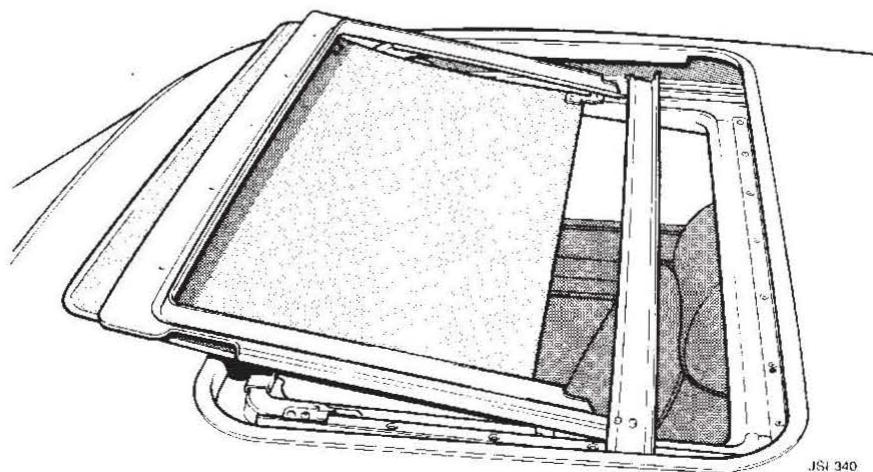


FIG. 12

Reverse the removal procedure to refit.

SLIDING ROOF PANEL TRIM ASSEMBLY

Renew

76-82-19

Open the door and remove the sliding roof panel.

Remove the plastic finisher and the trim panel from the rear channel.
Reverse the removal procedure to refit.

SLIDING ROOF RACK

Renew

76-82-42

Open the door and remove the sliding roof panel and motor.

Remove the upper slide pilot plate securing screws 1 (Fig. 9) and remove the pilot plate 2 (Fig. 9).

Remove the carrier assembly and the upper guide 3 (Fig. 9).

Displace the block from the rear channel and remove the rack assembly from the tube 1 (Fig. 13).

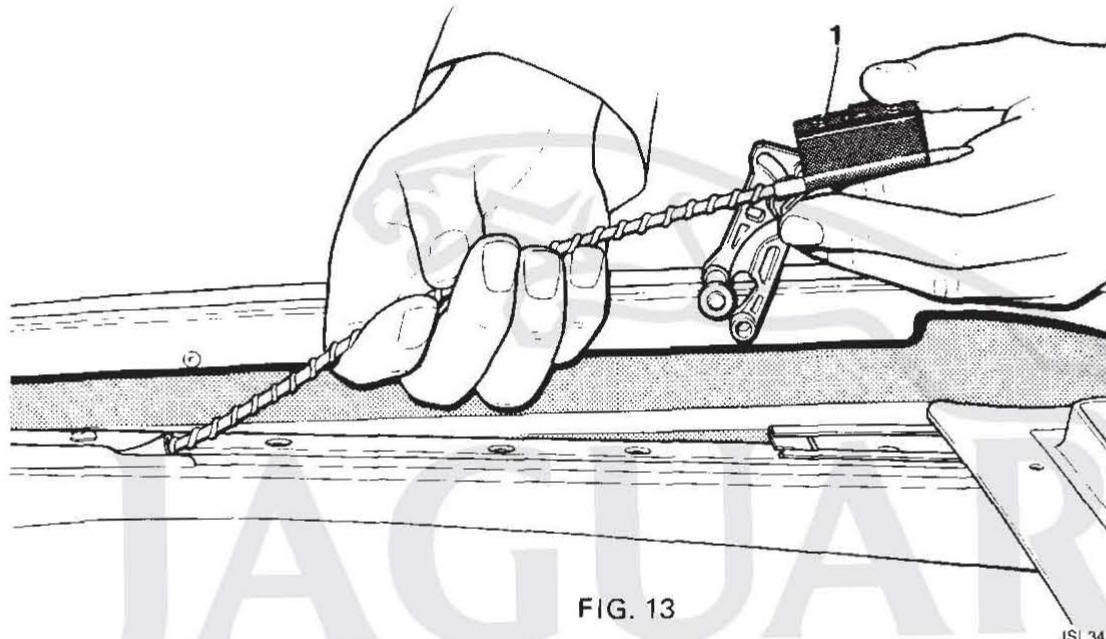


FIG. 13

JSI 341

Grease the replacement rack and reverse the removal procedure to refit.

NOTE: When refitting, fit and seat the Pilot Plate Alignment Keys JD 113, 1 (Fig. 14) check the alignment of the pilot plate and block and tighten the securing screws.

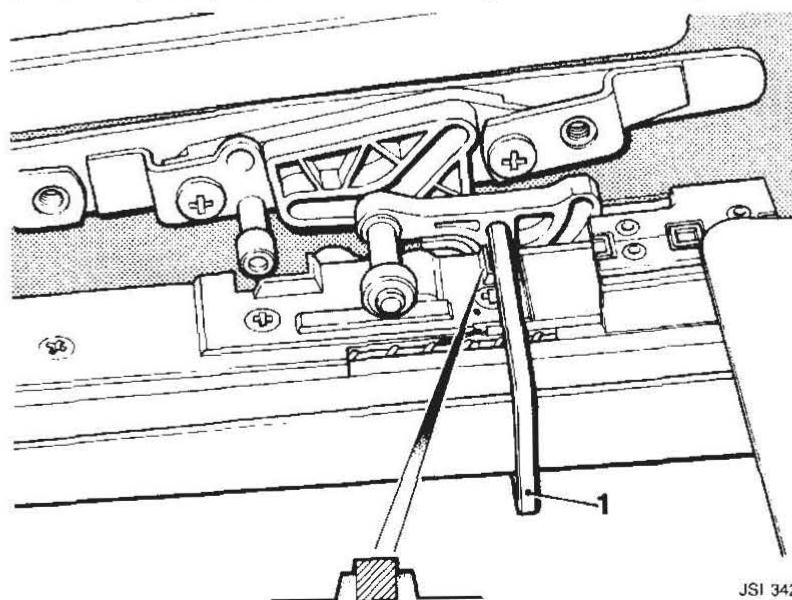


FIG. 14

SLIDING ROOF CHANNEL – VEHICLE SET

Renew

76-82-08

Open the door and remove the sliding roof panel, the motor and both operating racks.
Remove the sliding panel finisher and trim panel.

Remove the channel securing screw by twisting the front of the channel through approx. 100 degrees, 1 (Fig. 15).

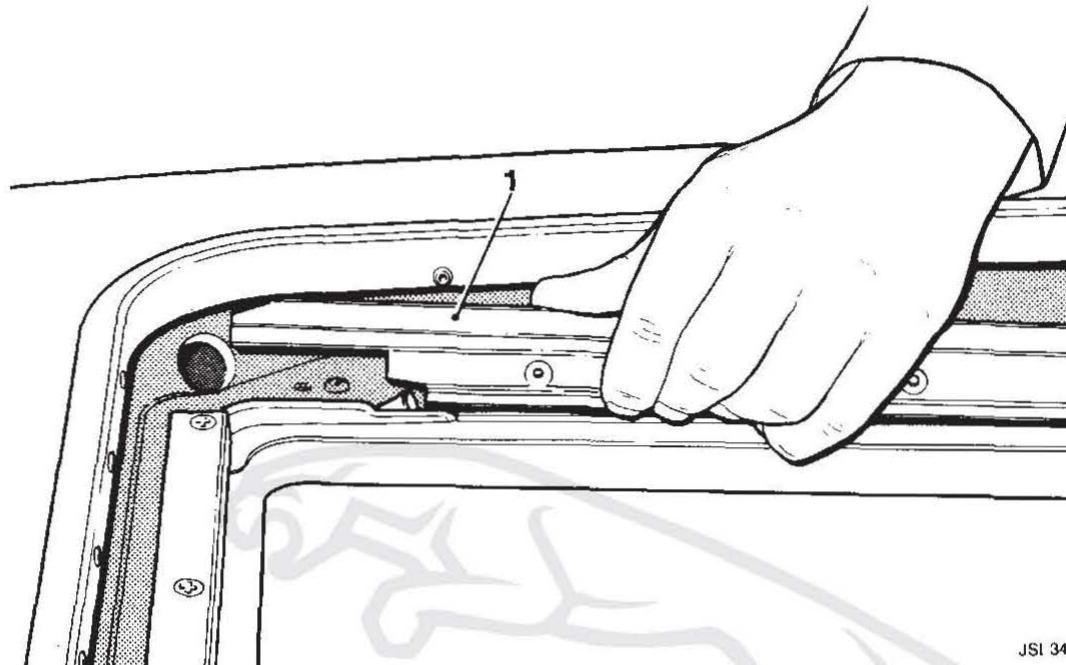


FIG. 15

Release the channel from the rack tube and remove the channel.
Repeat the operation for the second channel.
Reverse the removal procedure to refit.

SLIDING ROOF MOTOR SWITCH

Renew

86-76-05

Open the door and open the console glove box.
Remove the gear selector surround panel securing screws and carefully manoeuvre the panel away for access.
Remove the switch from the panel and disconnect the electrical connectors.
Reverse the removal procedure to refit.

SLIDING ROOF MOTOR RELAY

Renew

86-76-02

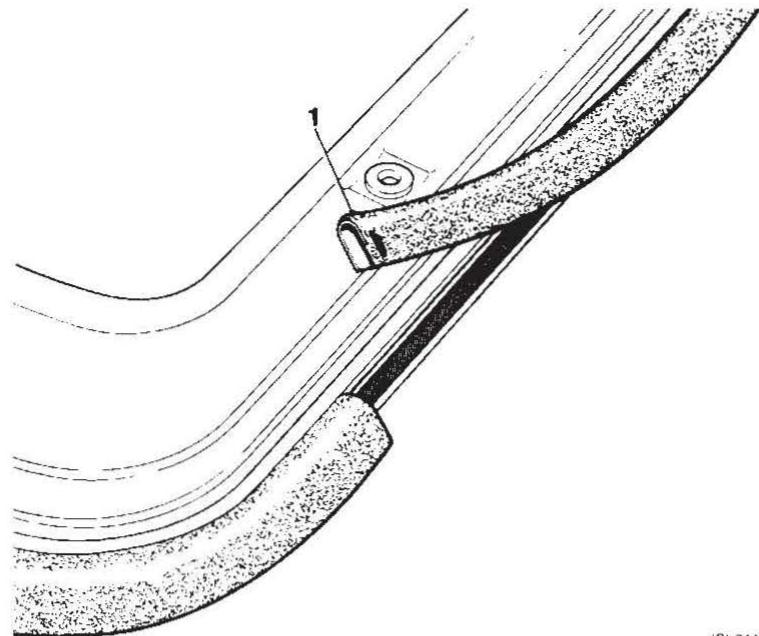
Open the door and remove the inertia switch cover.
Remove the drivers dash liner securing screws and lower the liner for access.
Disconnect the relay connector from the mounting bracket and remove the relay from the connector.
Reverse the removal procedure to refit.

SLIDING ROOF PANEL SEAL

Renew

76-82-15

Open the door and remove the sliding roof panel.
Carefully remove the seal from the panel edge 1 (Fig. 16).



JSI 344

FIG. 16

Reverse the removal procedure to refit ensuring that when fitting the new seal it is fully seated.

HEADLINING SLIDING ROOF CONDITION

Renew

76-64-15

Open the doors and move both seat backs forward.

Remove the 'A' post upper securing screw and release the cantrail trim pad securing clips.

Remove the cantrail trim pad.

Remove the upper quarter trim pad securing screw and the securing clip from the body.

Repeat the operation for the other side.

Release the rear headlining finishers securing clips and remove the rear headlining finisher.

Remove both sun visors, the interior mirror and the roof lamp.

Remove the sliding roof motor cover.

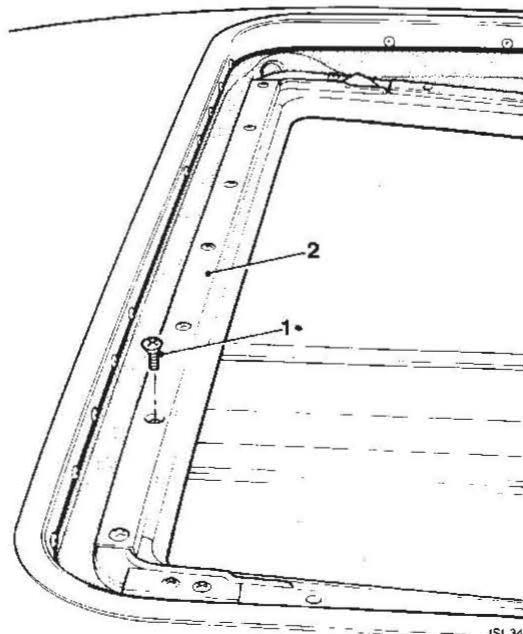
Carefully release the headlining from the interior lamp and sliding roof motor apertures.

Release the headlining from the roof edges.

Remove the sliding roof panel and motor.

Remove the sliding roof rack and channel.

Remove the headlining to sliding roof aperture front retainer securing screws 1 (Fig. 17) and remove the retainer 2 (Fig. 17).



JSI 345

FIG. 17

Remove the headlining to sliding roof aperture rear retainer securing screws 1 (Fig. 18) and remove the rear retainer 2 (Fig. 18).

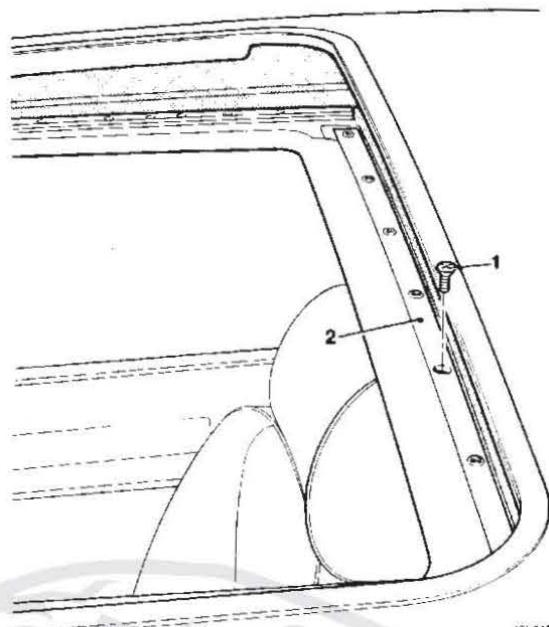


FIG. 18

Carefully displace and remove the sliding roof aperture side finishers.
Release the headlining from the sliding roof aperture.
Apply glue to the sliding roof aperture and to the headlining aperture.
Apply glue to the headlining and allow time to go 'off'.
Fully stretch and seat the headlining and trim the edges to suit the apertures.
Reverse the remaining operations to refit.

SLIDING ROOF DRAIN PIPES

The drain pipes situated in the corners of the sun roof aperture should always be kept clear. Should these become blocked, the position and access of the pipes are illustrated in (Figs. 19, 20 and 21).

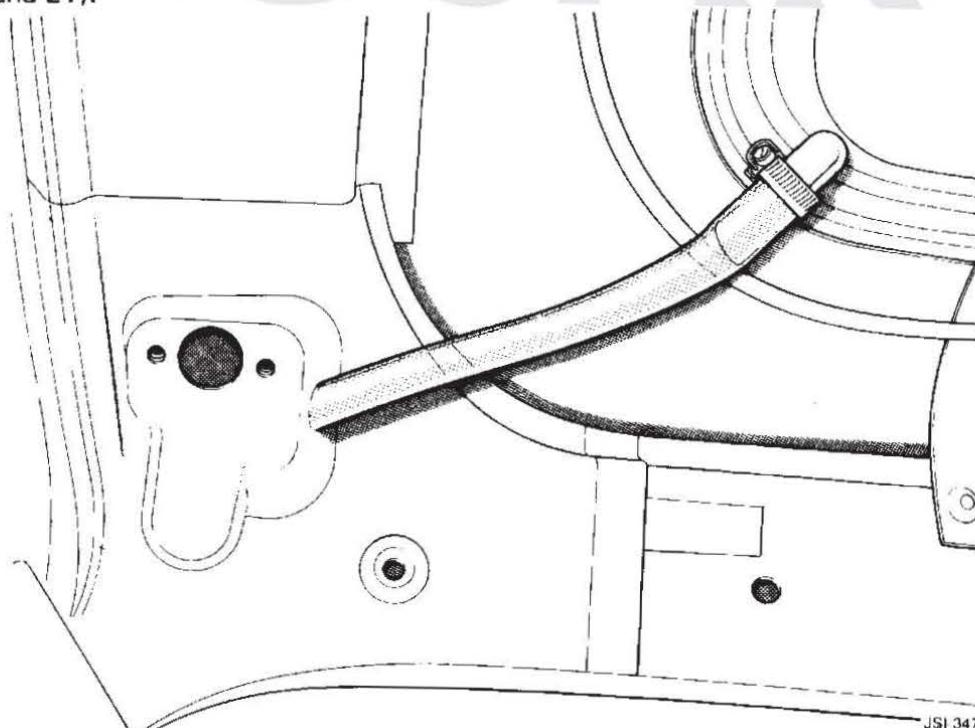


FIG. 19

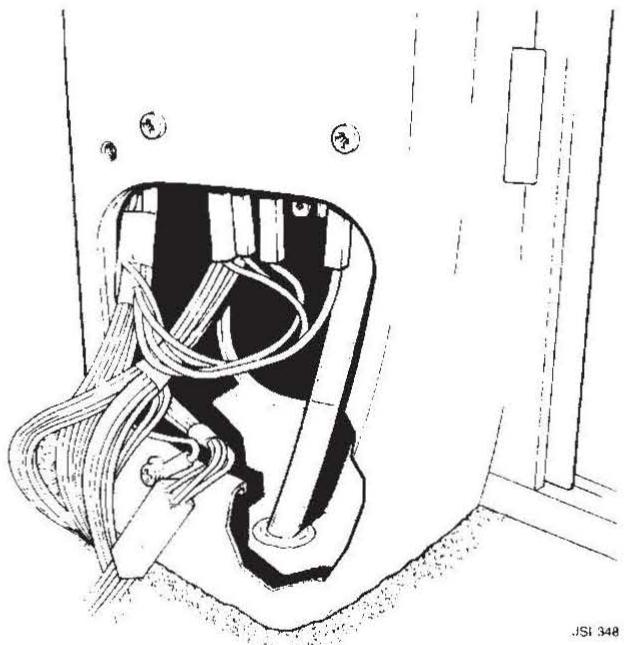


FIG. 20

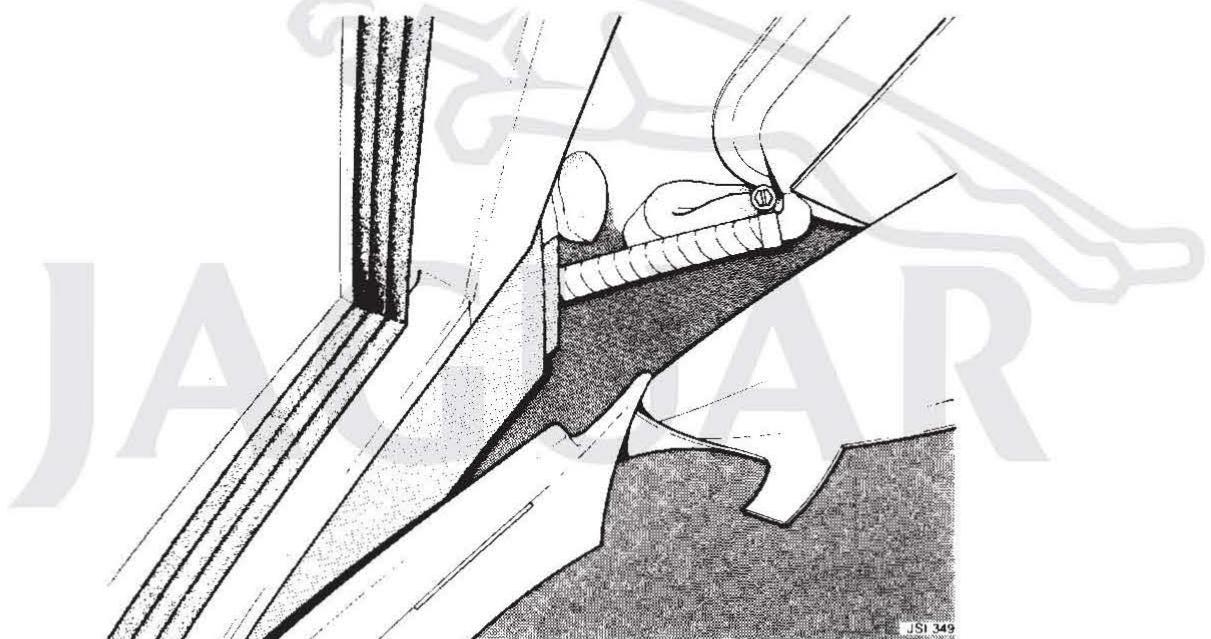


FIG. 21

REPAIR OPERATION TIMES

HOURS

76 BODY

76.64	Headlinings:	
76.64.15	Headlining/Sliding Roof Condition – Renew	02.70
76.82	Sliding Roof:	
76.82.05	Sliding Roof Panel – Renew	00.60
76.82.06	Sliding Roof Panel Plastic Finisher – Renew	00.85
76.82.08	Sliding Roof Channel – Vehicle Set – Renew	01.30
76.82.15	Sliding Roof Panel Seal – Renew	00.75
76.82.19	Sliding Roof Panel Trim Assembly – Renew	00.90
76.82.27	Sliding Roof Panel Lifting Block – Vehicle Set – Renew	00.75
76.82.30	Sliding Roof Panel Sliding Blocks – Vehicle Set – Renew	00.65
76.82.42	Sliding Roof Rack – Renew	00.95
76.82.43	Sliding Roof Rack – Vehicle Set – Renew	01.15

86 ELECTRICAL

86.70	Wiring and Fuses:	
86.70.02	Sliding Roof Control Relay Harness — Renew	00.25
86.76	Electrically Operated Sliding Roof:	
86.76.01	Sliding Roof Motor — Renew	00.30
86.76.02	Sliding Roof Motor Relay — Renew	00.25
86.76.03	Sliding Roof Control Relay — Renew	00.25
86.76.04	Sliding Roof Motor Micro Switch — Renew	00.40
86.76.05	Sliding Roof Motor Switch — Renew	00.25

ITEM 29

82 COMPRESSOR THERMAL FUSE

S.III/XJS HE/XJ-S 3.6/XJ-SC 3.6

Amendment to Service Bulletin JD 11/84 Item 85

Reference to Step 1, the lower pressure gauge readings should be as follows and not as previously detailed:

"The low pressure gauge should indicate a pressure not higher than 2.67 kgf/cm² (38 lbf/in²) when the compressor clutch engages, and not lower than 1.27 kgf/cm² (18 lbf/in²) when the compressor clutch disengages."

ITEM 30

86 ALTERNATOR

S.III 4.2

A revised A133-75 amp alternator and alternator harness have been introduced on S.III 3.4/4.2 Air Conditioned Models from VIN 415694. The revised alternator incorporates a single eyelet connector replacing the previous Lucas terminals.

Unfortunately it is possible that a small batch of vehicles may have been despatched with the eyelet securing nut inadequately tightened. Corrective action in plant to prevent this occurring has been assured from VIN 422892.

Should Jaguar Franchise Holders receive reports of problems being experienced with the charging system on vehicles between the above VIN's, they should initially check that the eyelet terminal is secured correctly.

Service Bulletin

JAGUAR

Daimler

Date: JULY 1985
Sheet: 1 of 4
Bulletin: JD 07/85

ITEM 46

00 MODEL CODE

XJ-SC V12

To identify warranty claims against the XJ-S V12 Cabriolet model, the following model code should be used:

Model Code	4232	SAJJNACW 3 CC	UK
	4232	SAJJNACW 4 CC	Germany
	4232	SAJJNACY 4 CC	Switzerland
	4232	SAJJNACY 3 CC	Australia
	4232	SAJJNLCX 4 FC	Canadian '85
	4232	SAJJNVCV 4 FC	USA 50 State '85
	4232	SAJJNACZ 4 CC	Middle East
	4232	SAJJNJCX 4 CC	Japan

ITEM 47

12 PISTON RINGS

XJ6 4.2

Further to Service Bulletin JD 03/85 Item 16, the fitted gap specifications for the new piston rings are as follows:

Top Ring	0.38 – 0.51 mm (0.015" – 0.020")
2nd Ring	0.41 – 0.66 mm (0.016" – 0.026")
Oil Control Ring	0.31 – 0.61 mm (0.012" – 0.024")

ITEM 48

12 REAR CRANKSHAFT SEAL

V12 MODELS

Investigations into reported oil leaks from the area of the rear crankshaft oil seal on V12 engines have identified a possible leak path between the rear main bearing cap joint faces and the outer fixing stud holes. To prevent the possibility of leakage from this area, a sealant is now applied to the joint during assembly. This was introduced at Engine Nos:

7P 53571
8S 36990

Jaguar Cars Limited

Jaguar Cars Limited 2005

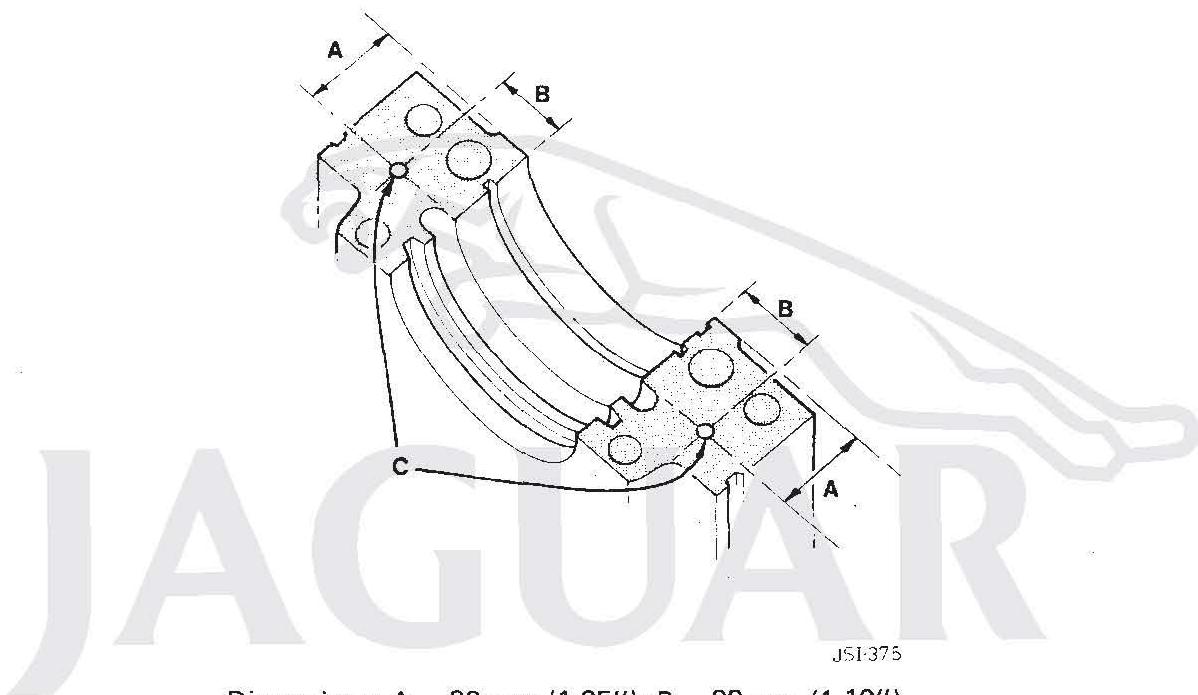
When reassembling V12 engines in Service, Loctite Superfast 573 Flange Sealant should be applied to the rear main bearing cap, as detailed below. In overseas markets this sealant is identified as Loctite 567 P.S.T. A Jaguar part number for this sealant will be advised when stocks are available through Parts Division.

Application Instructions

1. Fit Crankshaft and main bearing caps 1 – 6, S.R.O. 12.21.33 refers.
2. Remove all traces of oil from the joint faces of the rear main bearing cap and the cylinder block joint face. A small amount of cellulose paint thinners on a soft lint free cloth should be used, taking care to avoid contact with the seal material.
3. Apply 5.0 mm (3/16") dia. quantities of the sealant to the bearing cap at the positions marked C, Fig. 1.
4. Fit bearing cap, tighten all fixings to specified torque and continue engine rebuild.

To remove old sealant from the joint faces, cellulose paint thinners on a soft lint free cloth should be used.

DO NOT SCRAPE SURFACES TO REMOVE OLD SEALANT.



Dimensions: A — 32 mm (1.25"); B — 28 mm (1.10")

FIG. 1

ITEM 49

19 FUEL ODOUR

S.III

Following the installation of telephone equipment by Communication Specialists, isolated reports of fuel odours emanating from the luggage compartment have been reported.

Investigations have traced the fault to a punctured fuel line, caused during installation of the amplifier unit in the boot compartment, A, Fig. 1. The fuel line concerned, Part No. CAC 2474, is routed beneath the raised floor level of the boot compartment and connects the RH and LH recirculation solenoids to the main fuel return pipe. The damage is caused either when drilling the location holes, or by the fixing screws penetrating or chafing the fuel line.

Would all Dealers involved in telephone installations please ensure that their Communications Engineers are made fully aware of the position of ALL fuel lines prior to fitting the telephone equipment.



FIG. 1

ITEM 50**26 XK WATER PUMP****S.III 3.4/4.2 and LIMO**

Further to Service Bulletin JD 03/85 Item 17. The modified water pump recently introduced on production is now available through the Parts Department under Part No. JLM 206.

This water pump is interchangeable with JLM 9699 providing the fan drive bush, Part No. EAC 4382, is removed from the viscous coupling to allow the coupling to fit the larger diameter water pump spindle.

This improved water pump will be made available for several non-current vehicles. The relevant Part Nos. will be issued in a Parts Technical Bulletin when they are available.

ITEM 51**44 GM 400 TRANSMISSION****S.III XJ12, XJS and LIMO**

Some GM 400 transmissions manufactured during 1984 may exhibit the following faults:—
Slipping in all gears, loss of drive.

If either of these symptoms is evident then the unit should be dismantled and the forward clutch ring checked to ensure that it is correctly seated. If it is found that the forward clutch snap ring is incorrectly located, or not seated correctly and that some seals have also been dislodged from their seats then the reverse boost valve must be removed from the oil pump and the depth of the bore checked, see Fig. 1. If this measurement exceeds 15.8mm (5/8") then the valve should be replaced with Part No. AAU 6640.

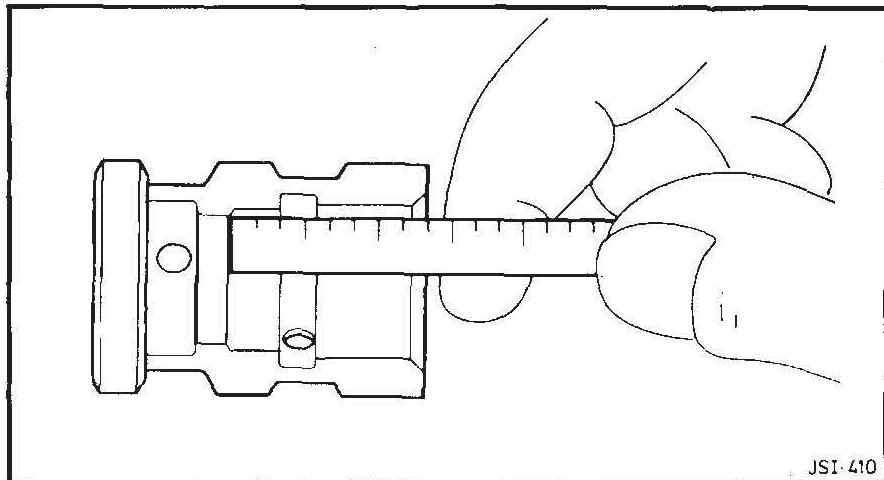


FIG. 1

The suspect transmissions are between Serial Numbers:

842V3608 – 842V6011	Saloons
842D1164 – 842D1165	Limousine

ITEM 52

76 ELECTRIC WINDOWS

XJS

Following complaints of the window glass becoming separated from the carrier, an improved glass and carrier assembly have been introduced on all XJS vehicles from VIN 122470. The new assembly comprises 4mm pre-drilled glass secured to a carrier by two pop rivets. These new components can be fitted to earlier vehicles, provided they are fitted as a complete assembly.

PART NUMBERS

BBC 2996 Glass and carrier assembly RH replaces BD 48100/1
 BBC 2997 Glass and carrier assembly LH replaces BD 48101/1

Fitting the New Assembly

1. Remove the door trim casing. Service Manual operation no. 76-34-01 refers.
2. With the glass in the raised position, remove the two screws (1, Fig. 1) securing the lower guide channel. Release the silent channel seal and remove the guide channel from the door.
3. Remove the two bolts (2, Fig. 1), securing the stop to the base of the door and remove the stop (3, Fig. 1).
4. Lower the glass, guiding by hand.
5. Tilt the glass assembly forward to release it from the regulator mechanism (1, Fig. 2) and remove from the door.
6. Insert the new glass and carrier assembly into the door, fit to the regulator mechanism and into the channels.
7. Raise the glass fully, insert and fit the metal guide channel but do not tighten the screws.
8. Apply a little adhesive to the silent channel and press into position.
9. Refit the glass stop.
10. Lower the window fully and adjust the guide channel using light finger pressure against the glass. Tighten the screws.
11. Check the window operation and refit the door trim casing.

Warranty Claims should be submitted using Complaint Code 8G3C

Repair Operation No: 76-31-01

Labour Allowance: 0.65 hrs.

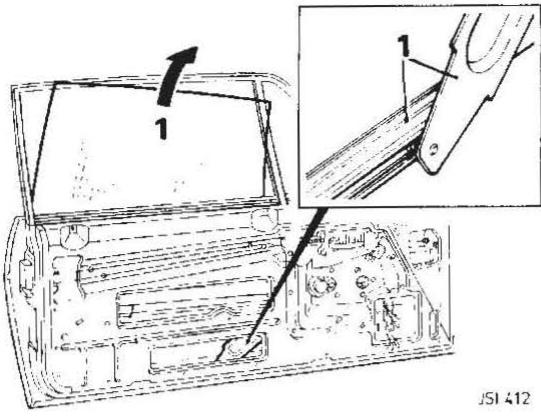
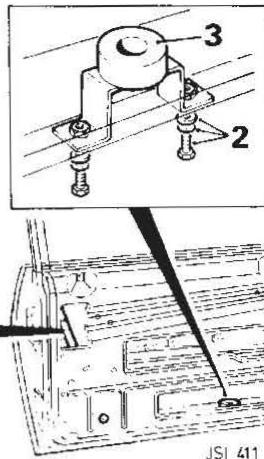
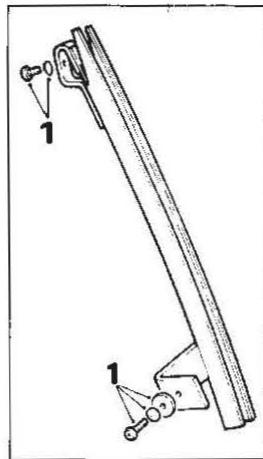


FIG. 1

FIG. 2

ITEM 53**78 REFINISH PAINT MATERIALS****ALL MODELS**

In view of apparent confusion in the service network, there is a need for Jaguar to reiterate current policy on **approved** paint materials for the refinish trade in U.K.

For the refinish of vehicles coated in thermo-plastic-acrylic paint, there are four approved suppliers:

INMONT
I.C.I.
AULT AND WIBORG
SIKKENS

In the event of any changes or additions in the future, this information will be included in a Service Bulletin.

ITEM 54**80 VACUUM CONTROL SWITCHES****S.III (NON AIR CON.)**

Investigations into reports of loss of vacuum control at the vacuum valve assembly, which is situated behind the RH master control switch (DEF/HI/HEAT/LOW), have been identified as a result of incorrect alignment between the vacuum switch plungers and the cam assembly on the control shaft.

To prevent incorrect alignment, a spacer washer is now being fitted to the rear of the spindle. This correctly positions the cam and ensures centralisation of the switch plungers on the cams.

This was introduced at VIN 427425.

Parts Division stock is being reworked and a further Service Bulletin will be issued advising when stock is to the latest condition.

ITEM 55**86 ELECTRIC AERIAL****XJS HE/XJ-S 3.6 (NOT CABRIOLET)**

To improve the reliability of the electric aerial assembly on XJS HE and XJ-S 3.6 models (not Cabriolet), a new "Hirschmann" one piece aerial incorporating a permanent magnet motor, Part No. DAC 3579, has been introduced from VIN 123281.

The new aerial assembly and time delay relay are located on the right hand side rear boot panel adjacent to the RH rear lamp cluster.

Interchangeability with the previous "Merlin" assembly is affected.

To prevent the necessity of replacing complete aerial assemblies should the mast section become damaged, a replacement mast/Perlon drive cable assembly is available for the "Hirschmann" unit, and can be easily replaced without removal of the aerial motor. For removal/refit details please refer to the following procedure.

Mast Replacement Assembly	—	Part No. DBC 2200
Labour Allowance	—	0.25 hrs.
Repair Operation No.	—	86-50-29

1. MAST WITHDRAWAL PROCEDURE

With the radio switched off and the mast either fully retracted, or retracted as far as possible if a section has been damaged, loosen the locking nut between the sealing grommet and mast tip.

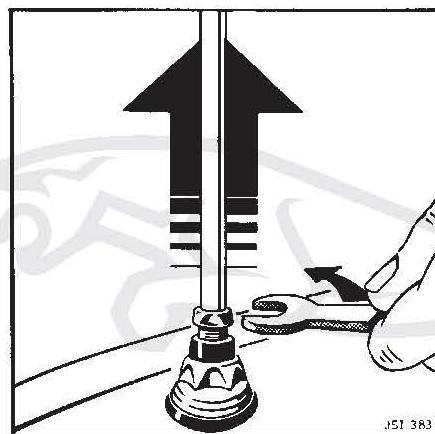


FIG. 1

Using someone to assist, switch on the radio.

As the mast becomes fully extended hold it with one hand pulling gently upwards, simultaneously with the other hand undo the locking nut fully. The mast complete with Perlon drive cable will come away from the aerial motor.

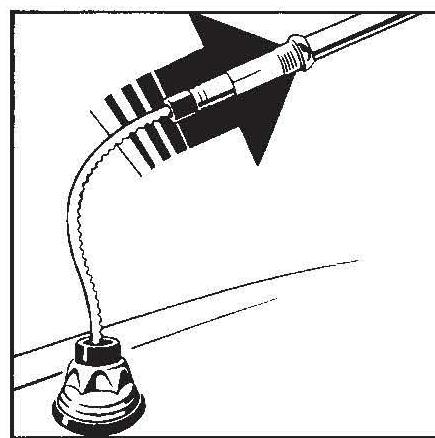


FIG. 2

The mast takes approximately 7 seconds to fully extend or retract, and an integral electronic timer in the aerial switches off the motor after approximately 12 seconds.

If for some reason, the Perlon drive cable does not disengage from the drive mechanism, again using an assistant switch the radio off, then immediately on again. Do not let go of the aerial mast once the locking nut has been undone, and do not attempt to free the Perlon cable by force.

LEAVE IGNITION AND RADIO SWITCHED ON.

2. MAST REPLACEMENT PROCEDURE

Insert the Perlon drive cable into the mast housing ensuring the teeth on the cable are facing towards the RH side of the car and at right angles to a line running from front to rear. Feed the cable in until it abuts the drive mechanism.

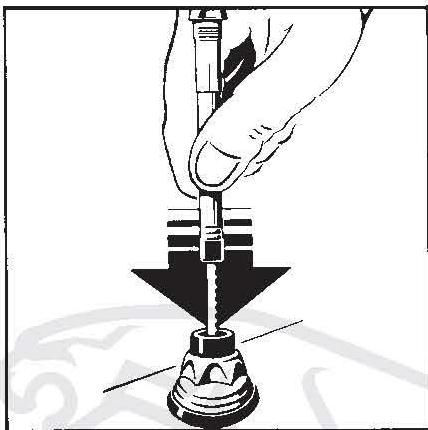


FIG. 3

Using an assistant, switch the radio off.

(NOTE: There will be a delay of approximately 15 seconds before the aerial motor will run, due to the external relay timing function being activated).

Maintain slight pressure on the drive cable until it engages the drive mechanism as the motor commences to run.

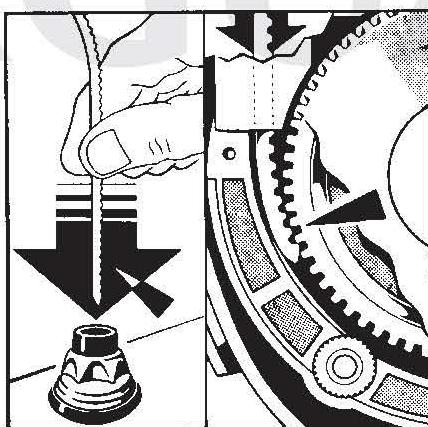


FIG. 4

When the mast is fully retracted, tighten the locking nut and check the operation of the aerial.

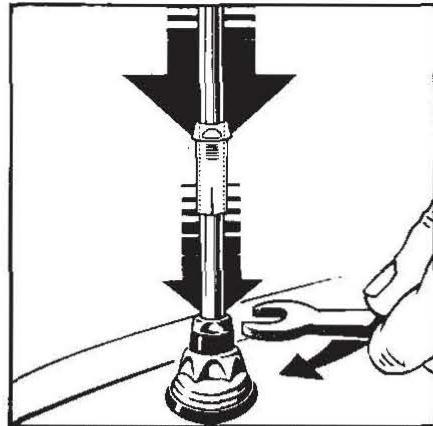


FIG. 5

NOTES:

1. If when the motor commences to run the Perlon does not engage with the drive mechanism, slightly twist the Perlon from side to side to assist engagement.
2. If the aerial motor stops before the mast is fully retracted, tighten the locking nut, switch on the radio to fully extend the mast, then switch it off. The mast will now fully retract.



Service Bulletin

**JAGUAR****Daimler**

Date AUGUST 1985
Sheet 1 of 3
Bulletin JD 08/85

ITEM: 56

12 SUMP GASKETS

V12 MODELS

Further to Service Bulletin JD 05/85 Item 34, improved sump gaskets are now available. Part numbers are as follows:

EAC 7251 replaces C 29362
EAC 7252 replaces C 29425

ITEM: 57

51 DIFFERENTIAL PINION SEAL

S.III 3.4/4.2

An improved differential pinion oil seal, manufactured using Viton material, has been introduced on GKN 3.058:1 axles from unit number 85H 427, and progressively introduced at Jaguar from VIN 430919. This modification is to be incorporated on all GKN differential units in the future.

Introduction details and part numbers will be advised when available.

ITEM: 58

76 SUNROOF SLIDING PANEL HEADLINING

S.III

REPLACEMENT OF SLIDING ROOF PANEL HEADLINING WITH SUNROOF IN VEHICLE.

1. Remove sliding panel lid (Service Bulletin JD 05/85 Item 38)
2. Disconnect the negative lead at the battery
3. With underpanel fully closed, release the rack cable brackets (Service Bulletin JD 05/85 Item 38, Fig. 5) and lift the brackets clear of the mounting studs.
4. Partially release the two screws securing each of the rear brackets (Service Bulletin JD 05/85 Item 38, Fig. 4) and slide the brackets sideways towards the panel edge. This will release the sliding panel from the runners.
5. Open the sliding panel by hand until the front brackets are clear of the wind deflector, remove two nuts and one plate from each bracket and remove the brackets from the panel.

6. Pull the panel forward and lift clear of the vehicle.
7. To remove the headlining, place the panel on a clean protected surface. Remove the two screws (where fitted) from the rear flange. Release the material from both sides. Unclip the trim cloth from the front and rear flanges and lift the cloth away from the panel.
8. Secure the new headlining to the under panel initially by clipping to the front and rear flanges, adhere the surplus cloth to the panel side using a suitable adhesive, e.g. Dunlop 1359 or similar. Refit the screws to the rear flange.
9. Position the underpanel in the partly open position and replace the front brackets.
10. Close the sliding panel by hand until it butts squarely against the front bump stops. Slide the front brackets towards the centre of the vehicle and tighten the nuts.
11. Using a screwdriver slide the rear brackets towards the centre of the vehicle. Note if the brackets do not move easily, it may be necessary to release the screws further and/or lift the panel slightly to help the brackets locate on the runners.
12. When tightening the screws ensure that the springs (Service Bulletin JD 05/85 Item 38 Fig. 2) are correctly located.
13. Re-fit the rack cable brackets and secure.
14. Re-fit the sliding panel lid.
15. Re-connect the battery and check the sunroof operation.

Repair Operation No: 76-82-19
Repair Time: 1.10 hrs.

ITEM: 59

76 DOOR HANDLES AND LOCKS

XJS

To overcome complaints of difficult door lock operation on XJS vehicles, a new exterior door handle assembly incorporating an improved lock barrel has been introduced onto all XJS vehicles from VIN 124819. This change has reduced the number of keys per vehicle by rationalising door, boot and glove box locks to a single lock barrel design. The new door handles may also be fitted to earlier vehicles, and can be readily identified by the vertical entry key slot.

Part Number changes:

BBC 5932 R.H. Handle replaces BAC 4540
BBC 5933 L.H. Handle replaces BAC 4541

New Part Numbers:

JLM 476 Key Blank (A.K. Series)
BBC 5931 Lockset for XJS Coupe including door handle R.H. and L.H. plus boot lock assembly and glove box lid lock (A.K. Series).
CAC 3565 Lockable petrol cap to Coupe (Waso "W" Series)
BBC 5935 Lockset for XJS Cabriolet including door handle R.H. and L.H. plus boot lock assembly, glove box lid and petrol filler lock (A.K. Series) except U.S.A. Canada and Japan.
BBC 5937 Lockset for XJS Cabriolet, U.S.A. Canada and Japan.

Service rectification of seized/stiff operation of lock barrel, one or both doors

1. Remove the door trim pad (Service Manual Op. 76-34-01)
2. Remove the door glass (Service Manual Op. 76-31-01)
3. Remove three clips securing the control arms to the outside handle
4. Disconnect the control arms from the outside handle
5. Remove the two nuts and washers securing the outside handle
6. Remove the securing bracket and remove the handle from the door
7. Fit the new handle assembly and reverse operations 1 to 6.

Repair Operation No. - One Door: 76-58-01

Repair Time: 0.95 hrs

Repair Operation No. - Vehicle Set: 76-58-09

Repair Time: 1.75 hrs

ITEM: 60

86 SPARKING PLUGS

XJ-S 3.6/XJ-SC 3.6

Following isolated reports of spark plug burning on 3.6 models, the spark plug specification has been revised. Spark plug EAC 8295 (Champion No. RC 9 YC) replaces AGU 1412 (RC 12 YC). These plugs were introduced at engine number 9D 102413 and should be used for all 3.6 AJ6 spark plug replacements.

NOTE: When replacing AGU 1412 Spark Plugs, a complete set of EAC 8295 Spark Plugs must be fitted.

ITEM: 61

86 START INHIBIT/REVERSE SWITCH

SIII 4.2 (AUTOMATIC TRANSMISSION)

Incorrect start inhibit and reverse light operation has been encountered in Service due to the possibility of a slight misalignment problem between start inhibit/reverse light switch and transmission gear selector shaft. To alleviate the problem, a modified switch with an adjustable slot enabling fine adjustment has been introduced continuously from VIN 420000

When dealing with start inhibit/reverse light problems on vehicles prior to the above VIN which result from an incorrect switch function, then the new switch may be fitted in accordance with the following procedure.

Parts required

<u>Description</u>	<u>Qty</u>	<u>Part Number</u>
Switch	1 off	DAC 4155
Nut	1 off	NY 108041
Strap	1 off	C 45099
Strap	2 off	DAC 3363

Labour Allowance - 0.45 hrs
Complaint Code - 7H2A
Repair Operation No. - 44-15-19

FITTING PROCEDURE

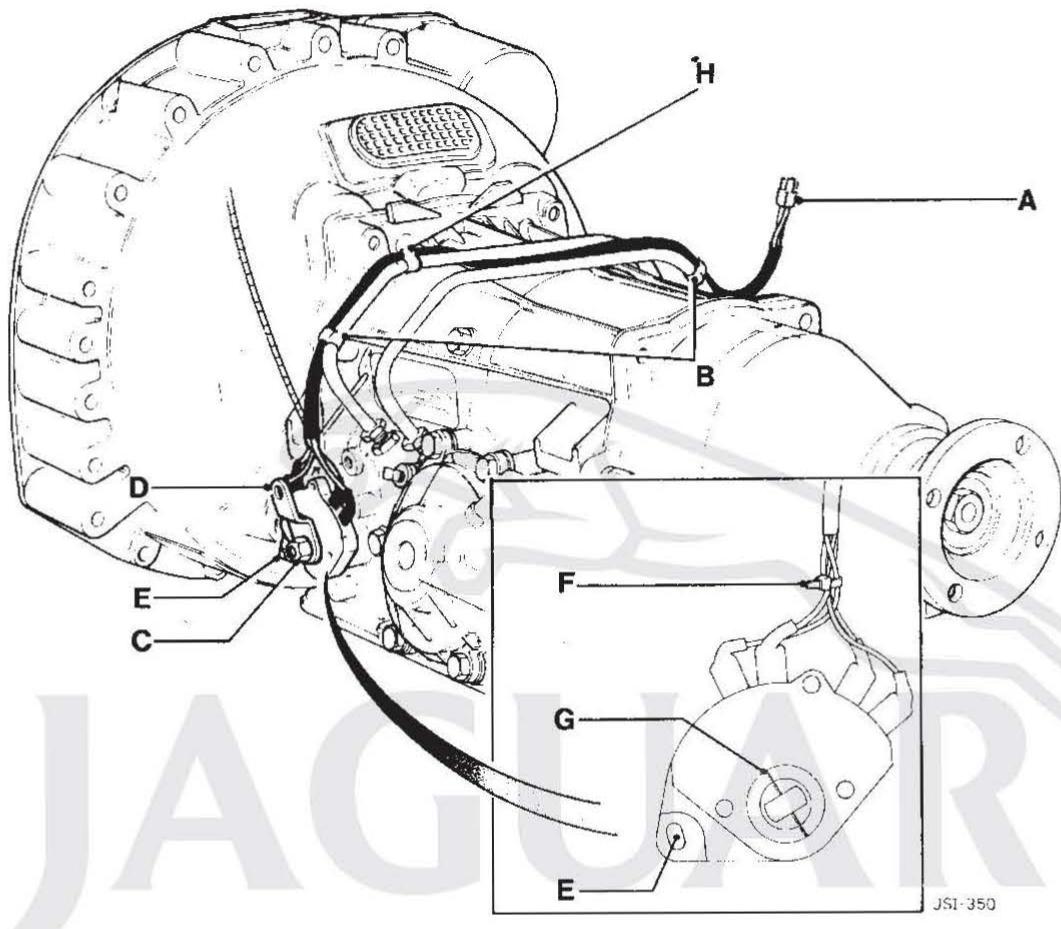
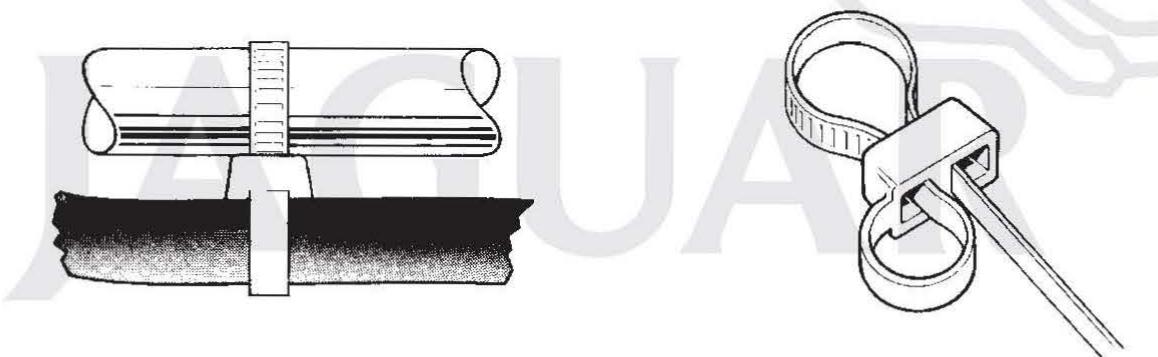


FIG 1

1. Drive the vehicle onto a ramp, chock the wheels and apply the handbrake.
2. Position the gear selector lever in NEUTRAL.
3. Disconnect the multiplug (A Fig.1) from vehicle harness.
4. Cut and remove the securing straps (B Fig.1).
NOTE: The LH side strap may be in the position as shown (H Fig. 1).
5. Remove and discard the nut (C Fig.1) and carefully slide the transmission selector lever (D Fig. 1) off the transmission selector shaft.
6. Remove the fixing nut and washer (E Fig. 1) securing the inhibit/reverse light switch.
7. Secure a length of suitable string or cord to the harness multiplug (A Fig. 1) and carefully pull the switch harness over the transmission case. Remove the switch, leaving the string in position to aid in the routing of the new switch harness.

8. Before fitting the new switch, fit and secure a strap Part No. C 45099 around the switch harness as shown (F Fig. 1).
9. Rotate the inner slot of the inhibit switch so that the adjustment marks are aligned as shown (G Fig. 1).
10. Carefully position the inhibit switch onto the transmission selector shaft, ensuring that the adjustment marks remain aligned. Fit and tighten the fixing nut and washer (E Fig. 1).
11. Refit the selector lever (D Fig. 1) and secure with a new nyloc nut Part No. NY 108041.
12. Attach the piece of string to the multiplug of the new switch harness and pull the harness over the transmission case. Route the harness as shown in Fig. 1.
NOTE: Do not wrap the harness around the kickdown cable even if that was the position of the original switch harness.
 Remove the string and connect the multiplug to the vehicle harness.
13. Attach the inhibit switch harness to the transmission oil cooler pipe (B Fig. 1) using the special ratchet straps Part No. DAC 3363.
NOTE: The nylon block of the straps should be positioned so that they are between the harness and transmission pipe, as shown in Fig. 2.



JSI 351

FIG. 2

IMPORTANT: ENSURE THAT THE INHIBIT SWITCH HARNESS IS ROUTED AWAY FROM THE SELECTOR LEVER TO PREVENT ANY POSSIBILITY OF A FOUL CONDITION OCCURRING DURING TRANSMISSION SELECTIONS.

14. Reconnect the battery, check the Start/Inhibit and Reverse light functions.
15. If the operation of either function is still incorrect, loosen the fixing nut (E Fig. 1) and adjust the switch until the correct position is obtained.

Service Bulletin

**JAGUAR****Daimler**

Date: November 1985
Sheet: 1 of 8
Bulletin: JD 11/85

ITEM: 75

03 FUEL AND IGNITION SYSTEM REPAIR TIMES

S.III V12/XJS V12

The following repair times have been published for 12 cyl. engined vehicles following the production fitment and retrospective fitment of the restyled fuel system. Where new numbers have been issued, insert the relevant descriptions and repair times into the repair time schedules. Where numbers are duplicated, i.e. 19-60-12 Injector - Engine Set - Renew, REPLACE the existing repair time with the new repair time.

Operation Number	Description	Time (Hrs)	
		S.III	XJ-S
19-20-15	Auxiliary Air Valve Feed Hose - Renew	0.25	0.25
19-22-01	Hot Start Switch - Renew	0.25	0.25
19-40-56	Hose - Fuel Cooler to Fuel Return Pipe - Renew	0.55	0.55
19-40-62	Hose - Fuel Feed Pipe to Pressure Regulator Valve - Renew	0.55	0.60
19-40-63	Hose - RHD Pressure Regulator Valve to Fuel Rail - Renew	0.30	0.30
19-40-64	Hose - LDH Pressure Regulator Valve to Fuel Rail - Renew	0.35	0.35
19-40-78	Hose - Pressure Regulator Valve to Fuel Cooler - Renew	0.60	0.60
19-45-09	Pressure Regulator Valve - LHD - Renew	0.45	0.45
19-45-10	Pressure Regulator Valve - RHD - Renew	0.35	0.35
19-45-13	Pressure Regulator Valve - Engine Set - Renew	0.55	0.55
19-45-18	Pressure Regulator Valve Vacuum Elbow - Renew	0.25	0.25
19-45-19	Pressure Regulator Valve Vacuum Hose - Renew	0.25	0.25
19-60-12	Injector - Engine Set - Renew	2.50	2.50
19-60-14	Fuel Rail and Injector Assembly - Renew	1.50	1.50
19-60-15	Injector - Renew	1.55	1.55
19-60-16	Injector - Extra Each - Renew	0.10	0.10
86-35-10	Distributor Cap - Renew	0.80	0.80
86-35-23	Distributor Breather Filter - Renew	0.25	0.25
86-35-32	Ignition Coil - Renew	0.40	0.40

No other repair times are affected.

12 AUXILIARY AIR VALVE

S.III V12/XJS V12
(JAPAN/CANADA/AUSTRALIA)

V12 vehicles supplied to the above markets are now fitted with auxiliary air valve EAC 2273 in place of EAC 4438. This is to prevent the possibility of engine stall during the warm up period and was introduced at Engine Numbers:

7P 54121 - S.III
8S 37841 - XJS

19 FUEL PRESSURE TEST

S.III V12/XJS V12

Due to the redesign of the V12 fuel injection rail and the introduction of union connections on the fuel hose assemblies, it is necessary to modify the Epitest fuel pressure gauge before it can be used on the latest fuel rail.

The modification to the gauge should be carried out as follows:

1. Remove the two short hoses (1 Fig. 1) from the existing gauge.

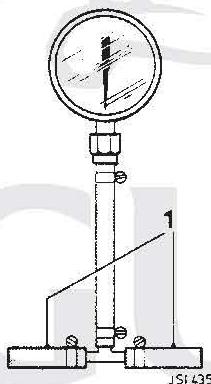


FIG 1

2. Obtain fuel hose assembly Part No. EAC 8088 from parts stock and cut the hose into two equal lengths of 60 mm (2.36 in) (Fig 2). Blow through the hose assembly to ensure all cutting debris is clear.

X = 60 mm (2.36 in)

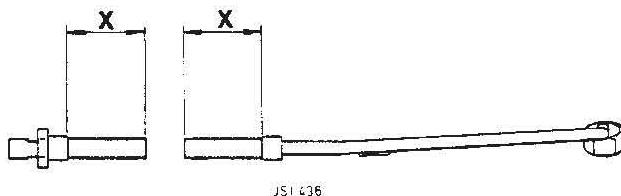


FIG 2

3. Insert the tee piece (1 Fig. 3) in the open ends of the hose (2 Fig. 3) and secure with hose clips Part No. EAC 3215/2. Tighten the clips to a torque of 17 - 21 lbf/ins (1.92 - 2.37 Nm).

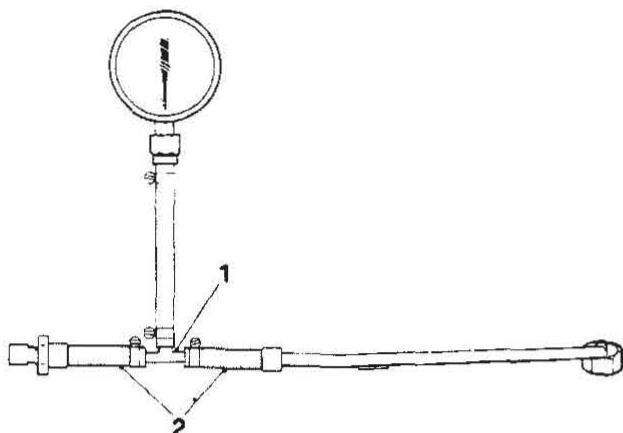


FIG. 3

This modified pressure gauge must now be used to check fuel pressure when required, using the following procedure:

1. Depressurise the fuel system.
2. Disconnect the battery.
3. Disconnect the fuel rail to the outlet pressure regulator hose assembly (EAC 8088) at the rail and regulator and remove the hose assembly (l. Fig. 4). Ensure that any fuel spillage is absorbed using suitable cloths.

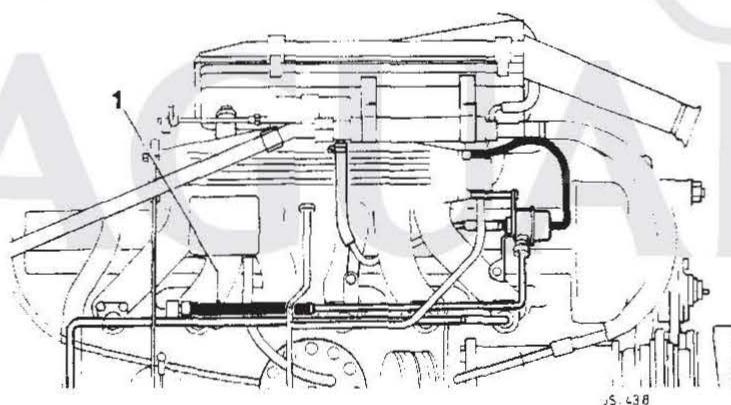


FIG 4

4. Replace the hose assembly with the modified pressure gauge. Tighten the connections to a torque of 9 - 11 lbf/ft (12.5 - 15 Nm).
5. Reconnect the battery.
6. Carry out the pressure test.

REFIT:

1. Depressurise the fuel system.
2. Disconnect the battery.
3. Remove the modified pressure gauge and replace with the original hose assembly - tighten the union connections to a torque of 9 - 11 lbf/ft (12.5 - 15 Nm).
4. Reconnect the battery.

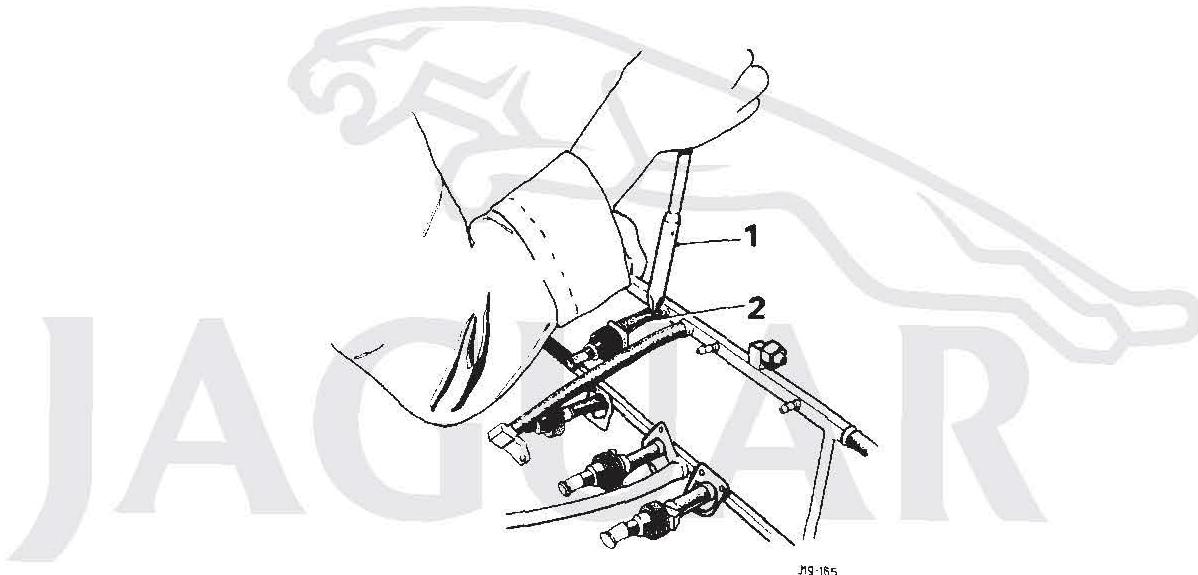
19 ELECTRONIC FUEL INJECTOR RENEWALS.III V12/XJS V12

Due to the introduction of the square section fuel rail on V12 engines, the following procedure must now be used when replacing fuel injectors:

- 1 Depressurise the fuel system
- 2 Disconnect the battery
- 3 Remove the fuel rail and injector assembly.

NOTE: Remove the rail and injector assembly to a suitable workbench to carryout the injector replacement.

- 4 Using a hot soldering iron (1 Fig. 1) at the top of the hose (2 Fig 1) burn through the hose until it is possible to remove the hose and injector assembly.

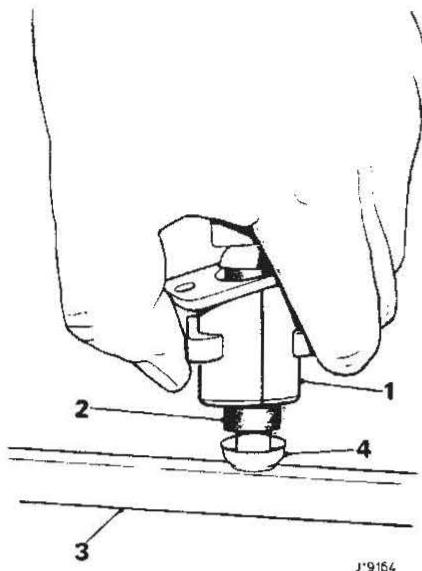


- 5 Remove the fuel rail collar.

IMPORTANT: Under no circumstances should the hose be cut as damage to the fuel rail stub may arise, leading to subsequent fuel leakage.

NOTE: Ensure that a note is made of the position of individual injector harness connectors and clamps prior to removal of the injector as their positions vary.

- 6 Fit Service Tools JD 116 (1 Fig. 2) to the replacement injector and hose assembly (2 Fig. 2).
- 7 Ensure that the face of the tool is located against the injector collar, and that an injector clamping plate is correctly located prior to fitment.
- 8 Push the assembly onto the rail stub, ensuring that the hose is fully seated in the hose to rail collar (4 Fig. 2) N.B. 3 Fig. 2 denotes fuel rail, and that the harness connectors and clamping plates are in the correct positions.



NOTE: The tool is not required on the longer hoses (1A and 1B injectors) as they can be fitted by hand.

- 9 Refit the rail and injector assembly.
- 10 Reconnect the battery.
- 11 Run the engine and check the hose integrity.

IMPORTANT: The torque figure for all screw type connections on the engine fuel injection system is 9 - 11 lbf/ft (12.5 - 15 Nm). The torque figure for clip type connections on the engine fuel injection system is 17 - 21 lbf/ft (1.92 - 2.37 Nm).

LABOUR ALLOWANCE

When changing injectors the following repair operation times must be used:

19-60-12	Complete injector set renewal	2.50 hrs.
19-60-15	One injector renewal	1.55 hrs.
19-60-16	Each subsequent injector renewal	0.10 hrs.
19-60-14	Complete fuel rail and injector renewal	1.50 hrs.

HOSE REPLACEMENT

When engine bay hose connections which incorporate clip EAC 3215/2 are disconnected, then the subject length of hose must be replaced with a new hose assembly and a new clip. Under no circumstances should the original hose be refitted.

The hose assemblies affected are as follows:

CBC 2179 - Underfloor pipe to valance
 EAC 7938 - Pressure regulator to cooler
 CAC 5868 - Cooler to return pipe.

INJECTOR PART NUMBERS:

The part numbers for the new injectors are:

EAC 7874 - Injector/hose assembly (short)
 EAC 7875 - Injector/hose assembly (long)
 EAC 7876 - Collar

19 EMISSION CONTROL SYSTEM - USA

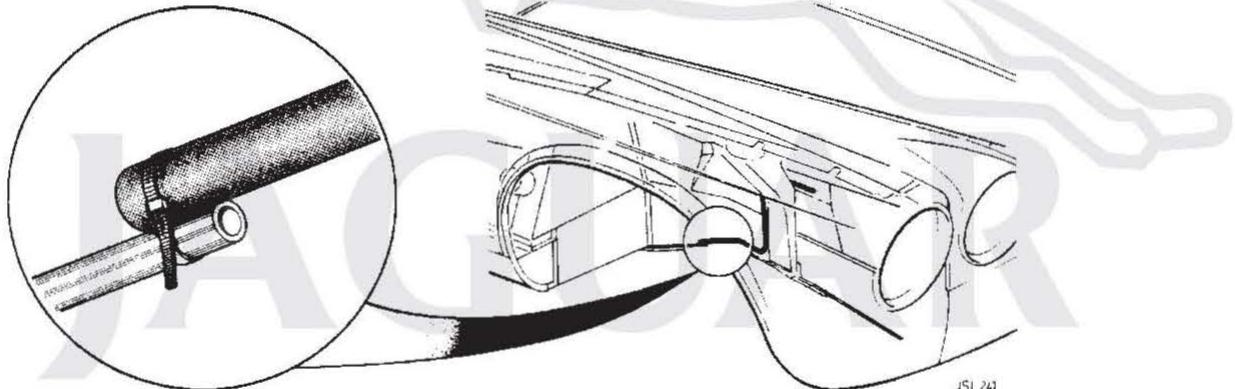
S.III

As part of an exercise aimed at improving the consistency of CO readings on vehicles supplied to the West Coast on the USA, vehicles destined for Los Angeles have had the carbon canister to the fuel tank venting system disconnected at the connection under the RH wheel arch. The carbon canisters have been disconnected at the RH wheel arch from the following VIN's:-

Track 1 - 436732
 Track 2 - 436841

Therefore between the above VIN's a mixed condition may exist, however after VIN 436841 all vehicles arriving at Los Angeles will be disconnected. During the vehicles PDI, the flexible breather pipe situated to the rear of the front right hand wheel arch, must be connected to the steel bundy pipe.

It is important that if a blanking cap is fitted to the vent pipe, then this must be removed prior to connection.



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44 TRANSMISSION OIL COOLER PIPES

S.III V12/XJS V12

To improve the integrity of the transmission oil cooling circuit, revised oil cooler pipes have been introduced on V12 Models from VIN's:

435665 - S.III
 126093 - XJS

The radiator/cooler and the transmission unit have also been modified to accommodate the revised pipes which now incorporate screw connector fittings. Further details and part numbers will be advised when parts are available.

57 P.A.S. PUMP DRIVE

XJ-S 3.6/XJ-SC 3.6

To improve the power steering pump drive durability on 3.6 models, a revised drive arrangement, illustrated in Fig. 1, has been introduced from engine number 9D 102539.

Jaguar Cars Limited 2005

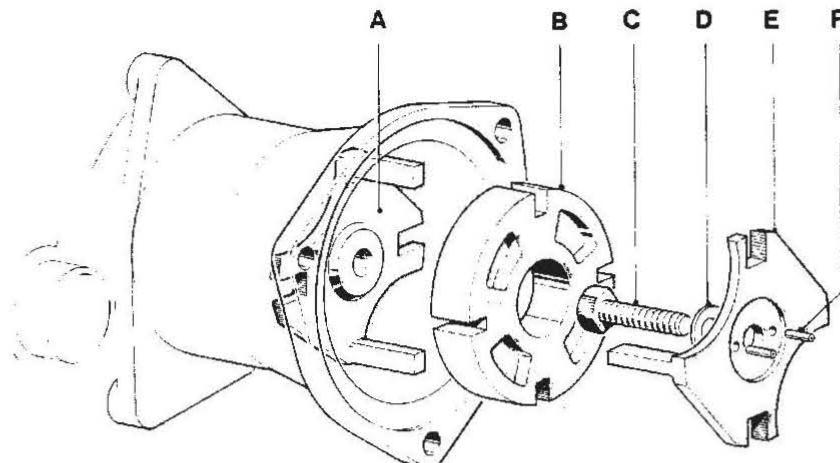


FIG 1.

Part numbers are as follows:

A - Pump Driving Dog	EAC 7081
B - Coupling	EAC 7107
C - Setscrew	SX 108255/J
D - Washer	FW 105E
E - Auxiliary Shaft Driving Dog	EAC 7080
F - Pins (2 off)	EAC 7643

The engine auxiliary shaft has been modified to accommodate the new driving dog. As a result these new components are not interchangeable with engines built prior to the above number. When replacement engines are supplied with the later type auxiliary shaft (Part No. EAC 6747) and drive dog fitted, the P.A.S. pump should be modified by fitting the later type drive dog (A Fig. 1) using Service Tool 18G 1445.

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76 KIEKERT LOCKING

S.III

Amendment to Jaguar Service Bulletin JD 09/85 Item 66. This Bulletin Item dealing with the introduction of Kiekert Locking on 1986 M.Y. S.III vehicles, contained certain components which were listed with the incorrect part numbers. The correct numbers are listed below:

BAC 8554 should read BBC 8554
 BAC 6728 should read BBC 6728
 BAC 6729 should read BBC 6729
 BAC 6727 should read BBC 6727

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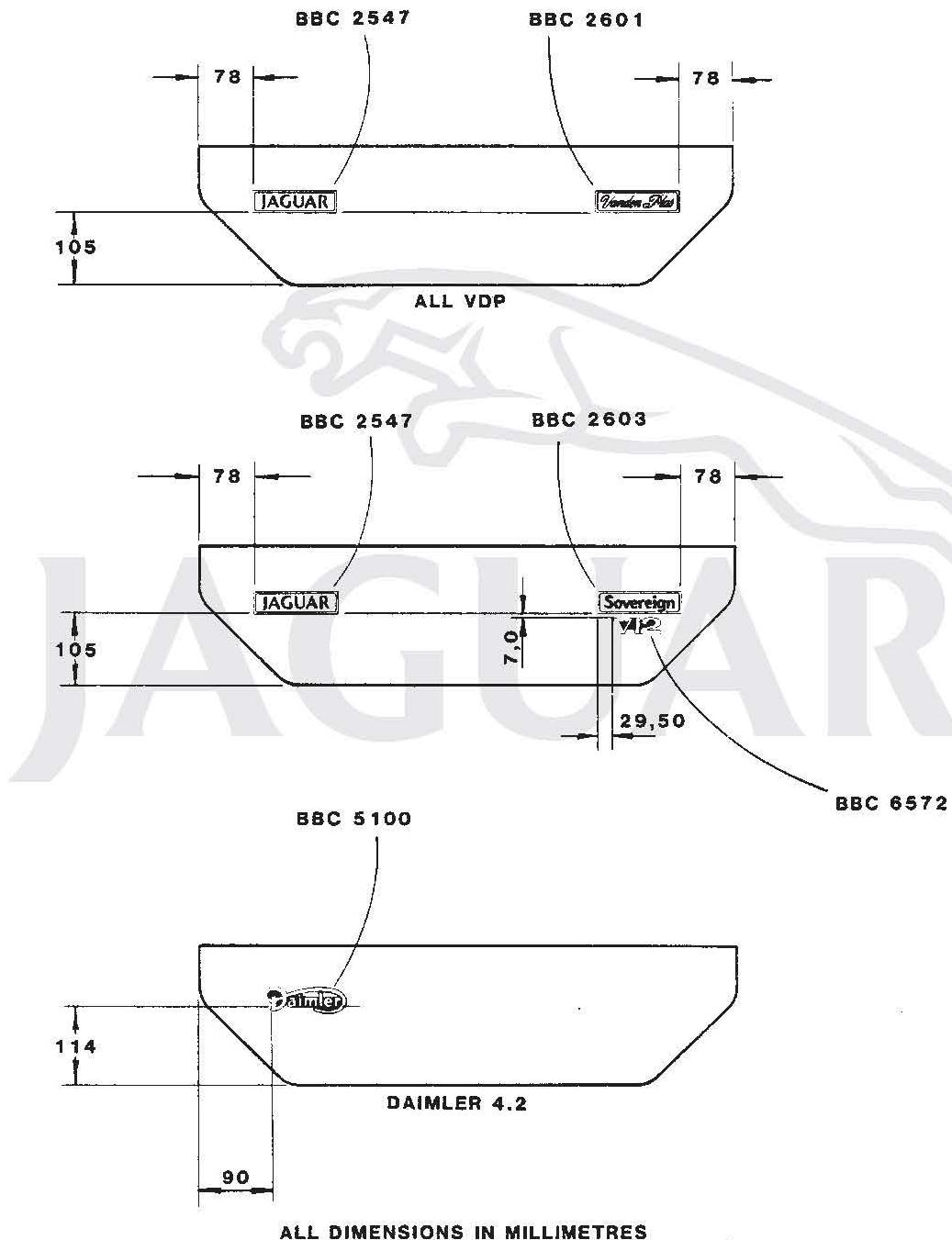
76 BOOT BADGES

S.III

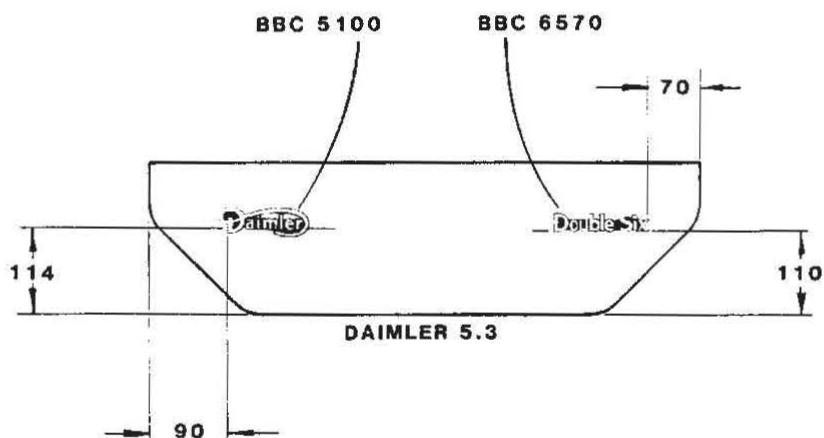
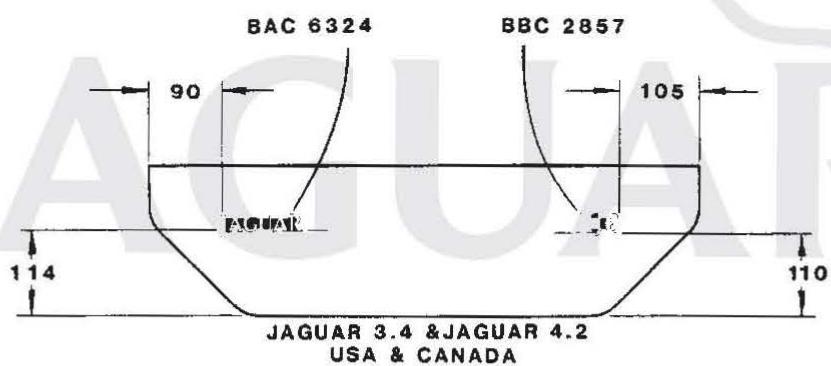
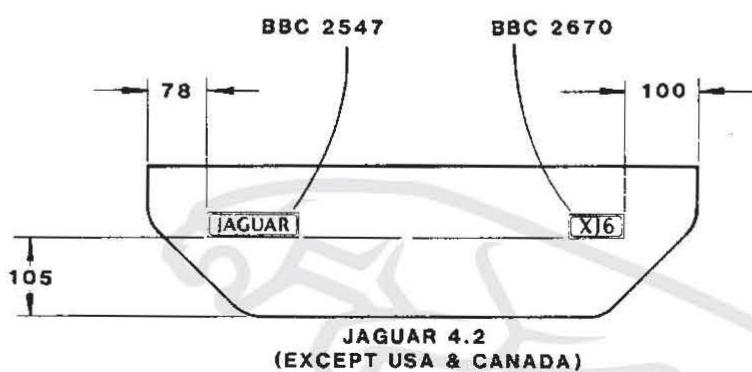
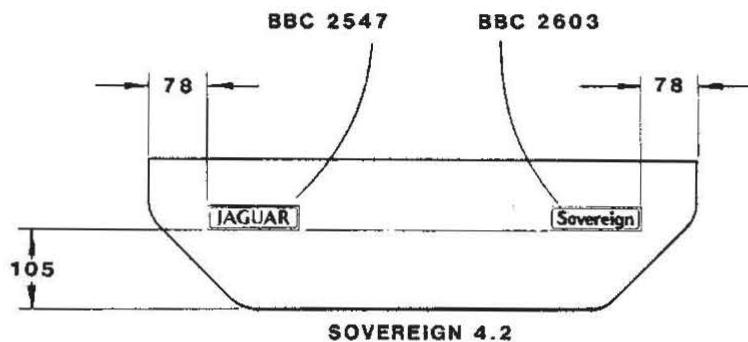
From the commencement of 1986 MY vehicles, all S.III Saloons are being fitted with self adhesive boot lid badges. These obviate the requirement for badge pin fixing holes in the rear boot lid vertical panel. This bulletin identifies, by illustration, the correct locations for fitting these new types of badges.

Fitment of Badge.

- 1) Thoroughly clean and dry the panel using a degreasing agent, such as SBP3 or similar.
- 2) Mark the badge location.
- 3) Peel off the badge backing strip and carefully position the badge to the marks on the panel. Secure by applying firm pressure.



JSI427



ALL DIMENSIONS IN MILLIMETRES

JSI426

The introduction on 1986 MY vehicles of:

- a). A centre console veneered panel - S.III saloons and
- b). A rationalisation of door cappings - ALL model variants

has brought about the need to restructure the veneer panel kits.

To keep the number of kits to a minimum, the console panels will be supplied separately.

When ordering a replacement veneer kit, Dealers should identify the relevant console panel and include it with their order.

Where possible, kit numbers released previously in Parts Technical Information Bulletins, Volume J5 Numbers J22 & 23, will remain unchanged. The following list, which includes all the new kit numbers, can also be found in Parts Technical Information Bulletin, Volume J6, Number J5.

Please note NEW kit numbers marked thus * only affect vehicles manufactured AFTER 1986 M.Y. introduction VINs.

431602 - SIII

125020 - XJS

The other kit numbers affect all model variants from 1983 M.Y., unless otherwise indicated.

Model	Part Number	Clock	Trip Computer
Jaguar RHD except Japan	JLM 198	JLM 196)	
" " Japan	JLM 199	JLM 197) Up to	
Jaguar LHD except Canada/Japan/USA	JLM 201	JLM 200) Vin 431601	
" " Canada/Japan/USA	JLM 203	JLM 202)	
Jaguar RHD except Japan	JLM 540	JLM 541 *	431602
" " Japan	JLM 542	JLM 543 *	431602
Jaguar LHD except Canada/Japan/USA	JLM 544	JLM 545 *	431602
" " Canada/Japan/USA	JLM 546	JLM 547 *	431602
Sovereign RHD	JLM 189	JLM 133	
" LHD except Canada	JLM 190	JLM 134	
" Canada	JLM 195	JLM 143	
Daimler RHD	JLM 191	JLM 139	
" LHD	JLM 548	JLM 549 *	431602
Jaguar LHD VDP Canada/Japan/USA	JLM 194	JLM 142	
" XJS 3.6 RHD		JLM 144	
" XJS 3.6 LHD		JLM 145	
" XJS V12 RHD		JLM 474 *	125020
" XJS V12 LHD		JLM 475 *	125020

CENTRE CONSOLE VENEERED PANELS

Model	Manual Transmission	Auto with Speed Control	Auto without Speed Control
Jaguar S.III <u>not</u> VDP)	BBC 6604	BBC 6598	BBC 6601
Jaguar Sovereign S.III)			
Jaguar VDP)			
Daimler 4.2)	BBC 7551	BBC 7552	BBC 7553
Daimler Double Six)			
Jaguar XJS	N/A	N/A	N/A

These veneer kits are primarily for vehicles in warranty and are to be ordered as required.

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76 REAR SCREENS

S.III

On S.III vehicles manufactured during 1983/84, Service have established that certain conditions can cause a fault to develop which results in the failure of the rear screen demister circuit.

The introduction of new screens,

BBC 6550 - Clear
BBC 6551 - Tinted

has eliminated any potential failures on vehicles manufactured after:-

VIN 426000 4.2/5.3
VIN 429462 3.4

To prevent any possibility of repeat failures on vehicles in Service, all stocks of rear screen BAC 3182 and BAC 3183 have been withdrawn.

When carrying out service replacements of ANY S.III rear screen, ONLY part No. BBC 6550 or BBC 6551 may be used.

On the latest condition screens the vertical hotline busbar has been repositioned to avoid possible contact with sealants or trim finishers. To identify whether a replacement screen is to the latest condition, measure the distance between the vertical busbar and the edge of the screen. Early condition will be 16 mm, later condition will be 28 mm.

Dealers who use subcontract screen repairers should inform them of these changes. Failure to do so may result in the rejection of any subsequent warranty claims.

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86 IGNITION AMPLIFIER

S.III V12/XJS V12

Reports in Service, of an intermittent misfire have been traced to a faulty connector in the ignition amplifier to fuel injection ECU harness.

The connector in question is a single bullet type (Fig 1), located adjacent to the ignition amplifier, connecting the white/slate wire from the ignition amplifier, to the white wire from the fuel injection ECU.

To prevent any further incidences of this problem occurring, a new type of posi-lock connector has been introduced from VINs:-

438567 - S.III
127026 - XJS

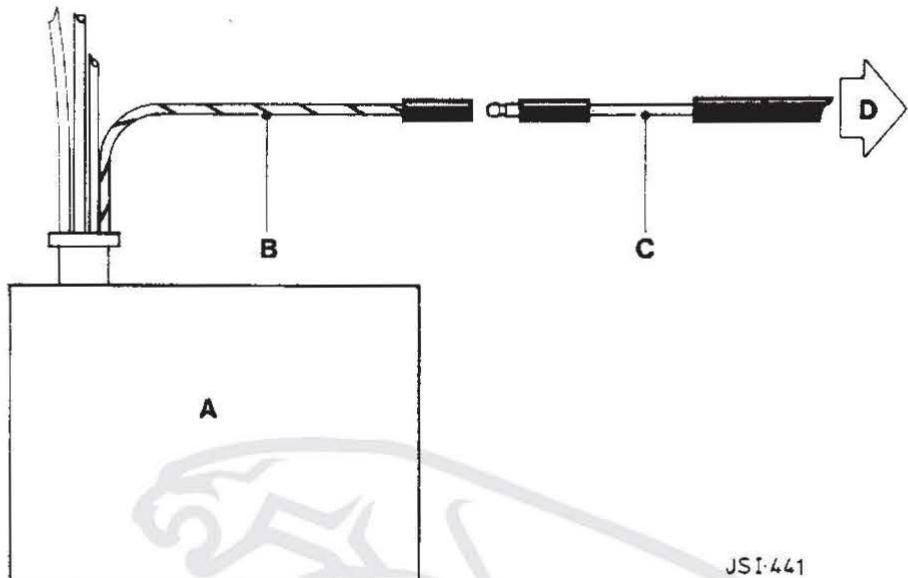


FIG 1

KEY

- A - Ignition amplifier
- B - White/slate wire
- C - White wire
- D - To ECU.

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86 CRUISE CONTROL

S.III V12/XJS V12

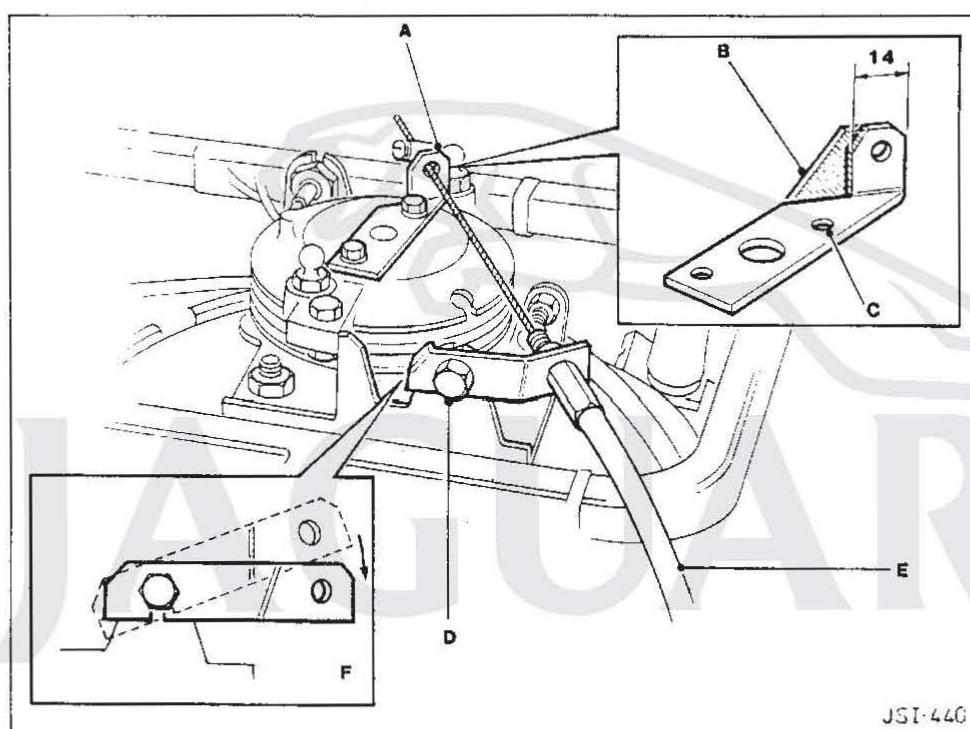
It has been brought to Jaguar Cars Ltd. attention that the Econocruise after market Cruise Control System is affected by the current modification to the V12 engine fuel rail. The following text is an extract from an Econocruise Service Bulletin issued to all Econocruise agents.

When carrying out the fuel rail modification on a vehicle fitted with an AFTER MARKET ECONOCRUISE SYSTEM then the following test MUST be followed.

- 1 Remove the throttle lever 'A' by unscrewing the two M5 hex head screws from the throttle turntable.
- 2 Using a junior hack saw cut off the material 'B' from one side of the throttle lever as shown.
- 3 Remove all sharp edges and burrs with a hand file.
- 4 Check to ensure the throttle goes to the fully closed position with the modified Jaguar throttle lever and ball joints fitted. If necessary, increase the clearance on the two fixing holes 'C'.
- 5 Refit the throttle lever to the throttle turntable using the two hex head screws. Again checking that there is adequate clearance.

- 6 Slacken the nut and bolt holding the cable abutment bracket 'D' and with the cruise control cable in position 'E' rotate the abutment 'F' to obtain clearance under the ball joint with the inner cable and clearance over the fuel rail with the outer cable.
- 7 Re-tighten the nut and bolt holding the abutment bracket.
- 8 Check the operation of the cruise control cable and throttle by squeezing the bellows unit to pull the throttle on and then releasing.
- 9 CHECK THAT THE THROTTLE LINKAGE OPERATES CORRECTLY FROM FULLY OPEN TO FULLY CLOSED.

N.B. Should any problems be encountered, contact your local Econocruise Agent.



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99 JAGUAR SPECIAL TOOLS

S.III/XJS

Due to improvements to the current range of vehicles, the following new special tools or modifications have been introduced.

POWER ASSISTED STEERING RACK

A modified steering rack with a deeper and chamfered centralising pin hole introduced from VIN's:

413000 - S.III
120500 - XJS

This requires the use of a new steering rack centralising pin. This tool supercedes the existing tool No. 18G 1466, and the Jaguar spares supply tool No. 12297. The new tool has a longer locating shank and a rounded end and is numbered JD 117. It is also suitable for use on steering racks prior to this modification. This tool is mandatory and is available from V.L. Churchill Ltd. or its dealers.

18G 1468 AUXILIARY DRIVES OIL SEAL REMOVER - AJ6

With the introduction of a modified auxiliary drives dog to the AJ6 engine, it is necessary to modify the existing 18G 1468 auxiliary drives oil seal remover. This modification requires the inside bore of the tool to be enlarged as shown in Fig. 1.

DIMENSION 'A' = 37.5 mm

DIMENSION 'B' = 22.15 mm

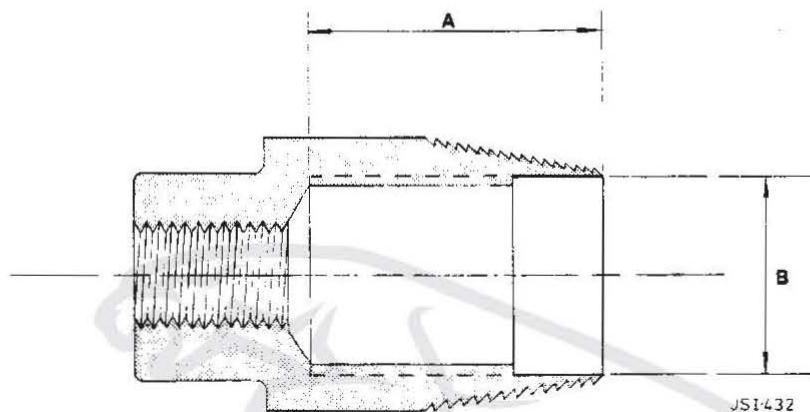


FIG 1

This modification will not affect its application on earlier engines and should be completed as soon as possible, as later engines have the modified auxiliary drive dogs fitted. Future supplies from V.L Churchill will already be modified and numbered JD 118.

18G 1445 POWER STEERING PUMP DRIVE DOG REMOVE/REPLACER - AJ6

A modified power steering pump drive dog on the AJ6 engine necessitates a new steering pump dog remover. The existing tool 18G 1445 is still required for replacing the drive dog. The new remover tool is JD 119 and should be used in conjunction with 18G 1445.

ELECTRICALLY OPERATED SUNROOF - XJS

With the introduction of the optional glass electric sunshine roof, two pilot plate alignment keys will be required to align the pilot plates after repairs. These keys are now available through V.L. Churchill or agents and are numbered JD 113.

OERLIKON CUT GEARS - S.III/XJS

Jaguar Cars are progressively introducing Salisbury axles with Oerlikon cut gears for the XJS and S.III range of vehicles. The ratios affected are the 2.88 and the 3.06. Identification of axle units containing Oerlikon cut gears is by a white 'O' painted on the axle cover. When overhauling these axle units, a new pinion height setting button will be required. This new tool is now available from V.L. Churchill or agents and numbered SL3 -2.

All the above tools are mandatory minimum standard tools and will be added to the Service Minimum Standards List at the next issue. Jaguar Cars Limited 2005

It is Jaguar policy to issue all new tools with a Jaguar Part Number JD --. Where a tool is modified e.g. 18G 1468, it will be issued in modified form from V.L. Churchill bearing a new JD number. Where a tool accessory is developed to a existing tool bearing an 18G number, then the new part will be JD -- e.g. JD 119.

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99 BODY SEALING AND PRESERVATION MANUAL - AKM 9137ALL MODELS

In the recently published English language copy of the above manual, the trading title of a company supplying wax injection equipment was quoted incorrectly.

Please note and amend your copy as follows:

Page 23 (2) SATA HKD 1

Supplier: Minden Industrial
Newmarket Road
Bury St Edmunds
Suffolk IP33 3TS

Telephone No: (0284) 3418.

