

Service Bulletin



JAGUAR

Daimler

Date: DECEMBER 1985/JANUARY 1986

Sheet: 1 of 7

Bulletin: JD 01/86

ITEM: 01

37 CLUTCH FAULT DIAGNOSIS

XJ-S 3.6/XJ-SC 3.6

Inspection of warranty returned clutch components has highlighted many cases of incorrectly or inaccurately diagnosed clutch faults on the above models. The two main areas of concern are: a) difficult gear selection and b) heavy/stiff pedal operation. In addition to these a number of reported gearbox gear selection faults have, on further investigation, also been found to be caused by poor clutch operation.

The following information, used in conjunction with the XJ-S 3.6 Service Manual, should help in the diagnosis and rectification of these problems prior to replacing a gearbox.

Please Note: Any components replaced under warranty, which on inspection are subsequently found to be in a serviceable condition, will be returned to the Dealer.

<u>SYMPTON</u>	<u>POSSIBLE CAUSE</u>	<u>CHECK/REMEDY</u>
Difficult Gear Selection	Air Ingress	Measure release arm travel at the clutch housing aperture. If less than 17.5 mm (0.7") bleed the clutch hydraulic system.
	Fluid Leaks	Check master cylinder, slave cylinder, damper and all joints for leakage. Replace any defective components.
		NOTE: Leaks are often caused by dirt ingress. When replacing components in the hydraulic system, absolute cleanliness is essential. It is often useful to flush the system with fresh hydraulic fluid.
Pedal Heavy/Stiff	Poor Release Mechanism Lubrication	With the transmission removed from the vehicle check for stiffness/binding of the release mechanism. If binding is evident, replace affected components,

clean other components and lubricate the following points with Molykote FB 180 grease:-

- a) Release arm/clutch housing pivot
- b) Release arm/release bearing carrier contact area.
- c) Release bearing carrier/gearbox snout contact area.
- d) Both ends of slave cylinder push rod.

ITEM: 02

44 BORG WARNER AUTOMATIC TRANSMISSION

S.III 3.4/4.2

When investigating complaints of a 'clonk' during rollout, a short road test should be carried out to assess the extent of the problem.

Ensure that the transmission is at normal operating temperature, select 'D' position and increase the road speed to 30 m.p.h. (50 km/hr). Release the accelerator and ensure that the transmission upshifts to 3rd gear. Allow the vehicle to come to rest, preferably on a slight uphill gradient with minimum use of the brakes, and monitor the quality of the downshift to 1st gear.

If the 1st gear downshift quality is unacceptable check and adjust:-

- 1) Engine idle speed.
- 2) The gap between the threaded portion of the downshift cable and the ferrule crimped on the inner cable. This should be 0.5 to 0.75 mm (0.020 to 0.030 in).

Carry out another short road test. If the quality of the 1st gear downshift is still unacceptable proceed as follows:-

- 3) Connect pressure gauge CBW 1C to the transmission using adaptor CBW 1C-5
- 4) Run the engine at normal operating temperature, apply the handbrake and footbrake and select 'D'. The pressure gauge should read 3,85 to 5,3 kgf/cm² (55 to 75 lb/in²) at idle speed.
- 5) Increase the engine speed by 500 rev/min, and note the pressure gauge readings. The pressure must increase by a minimum of 1,4 kgf/cm² (20 lbf/in²) to a maximum of 2,8 kgf/cm² (40 lbf/in²).

If the above readings are not obtained, proceed as follows:-

- 6) Drain the transmission fluid into a suitable container. Where possible the fluid is to be re-used.
- 7) Remove the oil pan.
- 8) Disconnect the downshift cable from the downshift cam and rotate the cam to ensure that the throttle valve moves freely in the valve body.

- 9) With the kickdown valve against the cam, an exhaust gap of 0,025 to 0,38mm (0.001 to 0.015 in) should exist between the valve land and the casting.

This can be measured by the following method:-

- a) Check visually that an exhaust gap exists, if no gap is evident proceed to operation 10.
 - b) The exhaust gap should be fully closed when a 1mm (0.040in) feeler gauge (A, Fig. 2) is inserted between the downshift valve (B, Fig. 2) and the heel of the cam (C, Fig. 2).
 - c) If a gap is still evident then proceed to operation 10.
- 10) Loosen the two screws (A, Fig. 1) securing the cam bracket to the valve body and move the valve body until a gap exists. Repeat operation 9b and tighten the retaining screws.
 - 11) Reconnect the downshift cable to the downshift cam and adjust the cable length at the throttle adjustment bracket to lightly tension the inner cable. Ensure that the exhaust gap is not reduced.
 - 12) Refit the oil pan and fill with fluid to the correct level.
 - 13) Start the engine and recheck the idle speed.
 - 14) Remove the pressure gauge and adaptor. Refit and tighten the plug to the correct torque i.e. 8,1 to 10,8 Nm (6 to 8 lbf/ft).
 - 15) Road test the vehicle.

FIG. 1

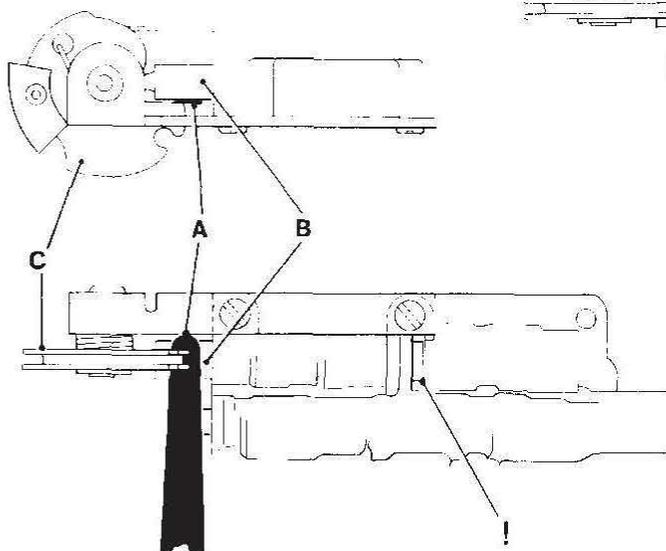
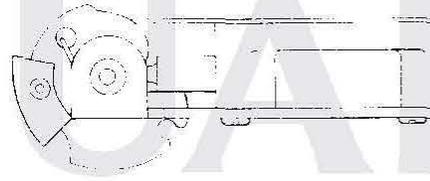


FIG. 2

J51448

·025mm to ·38mm
(0·001 inch to 0·015 inch)

70 FRONT BRAKE PADSALL MODELS

Investigations into reports of vehicles exhibiting intermittent brake pull, have resulted in the introduction of a scorched finish being applied to the front brake pads to help to achieve earlier "bedding-in" performance. These pads will be initially identified by white paint on the top edge of the pad backing plate which will later be superseded by a "+" sign after the batch number.

The new part number for these pads is JLM 536, and they were introduced at the following Vin's:

434370 - S.III
125760 - XJ-S

Existing stock should be used up but when re-ordering or carrying out repairs to overcome brake pull, brake pads JLM 536 should be ordered.

ITEM: 04

76 SUNROOF CREAKS/RATTLESS.III

Service have identified the following sources of sunroof noise on S.III vehicles.

- 1) Rattles emanating from the rack cable mounting brackets on the sliding roof underpanel.
- 2) Creaks from contact between the roof headlining and the sunroof assembly.

Dealers rectifying complaints of creaks or rattles from a factory fitted sunroof should refer to this Bulletin and JD 05/85 Item 38.

Item one 76-01-04

- 1) Remove sliding roof panel.
- 2) Fully close underpanel, de-tab and remove the nuts and tab washers securing the rack cable brackets (Fig. 1).

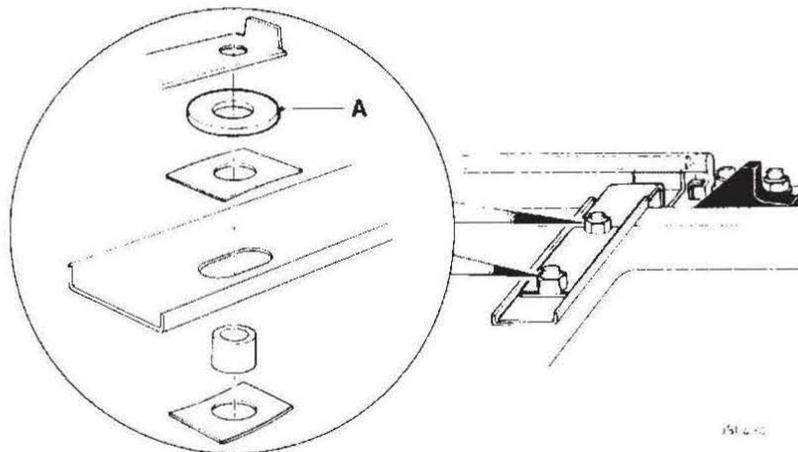


FIG. 1

- 3) Position one 10 mm I.D. plain washer over the distance collar of each stud "A" Fig. 1, to increase tension on the bracket. Refit tab washer and nuts, tighten and re-tab.

NOTE: When the nuts are tight the brackets must be able to slide on the mountings to allow cable movement during operation.

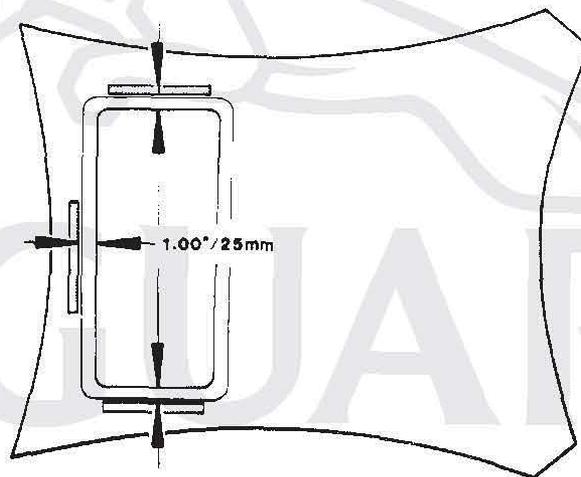
- 4) Refit the sliding roof panel.

Repair Operation No: 76-91-04

Repair Time 0.45 hrs

Item two 76-91-03

- 1) Fully open the sliding roof panel.
- 2) Carefully displace the aperture flange finisher from the front and side flanges.
- 3) Remove six headlining retaining clips.
- 4) Pull down the headlining sufficiently to insert three self adhesive foam strips, BAC 1982, to the back of the headlining (Fig. 2).



JS1433

FIG. 2

- 5) Refit the headlining clips, and re-position the flange finisher.
- 6) Close the sunroof.

Repair Operation No: 76-91-03

Repair Time: 0.35 hrs

ITEM: 05

82 AIR CON. REFRIGERANT HOSE

S.III 4.2 (AIR.CON. MODELS)

Following the introduction of the large bore low pressure refrigerant hose at VIN 424475, ref. Service Bulletin 05/85 Item 40, vibration problems have been experienced with the location bracket welded to the low pressure hose, See Fig. I (A).

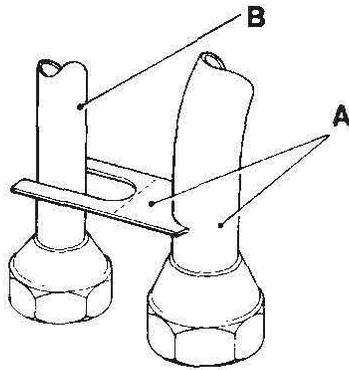


FIG. 1

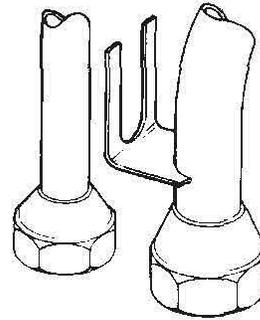


FIG. 2

JS1447

This bracket is required for production purposes to ensure that the refrigerant hoses are correctly aligned when assembled.

To prevent a possible foul condition occurring between the bracket and the high pressure hose Fig. 1 (B), which can cause vibration and a metallic rattling noise being detected within the car, this location bracket is now being deflected upwards 90° after hose assembly (See Fig. 2).

This modification was incorporated at VIN 437067.

Should problems be encountered in service then the above modification should be carried out.

ITEM: 06

86 ELECTRIC DOOR MIRROR

S.III/XJS

A change of actuating motor has been introduced into the current electric door mirror at the following VIN numbers:-

390466 - S.III
117350 - XJS

This has enabled the manufacturer to make the mirror glass a serviceable item. Replacement of a detached mirror glass has been detailed in Service Bulletin JD 06/85 Item 45.

Mirror Glass Part Numbers: JLM 551 Flat Glass
JLM 552 Convex Glass 1400 visibility
JLM 553 Convex Glass 1000 visibility

Repair Operation No: 76-10-53) Remove and Replace Glass only
0.25 hrs)

ITEM: 07

86 WINDSCREEN WIPER SWITCH

S.III

Recent investigations into inoperative windscreen wiper switches, have found that the problem is due to loose switch body securing rivets. This is caused by inconsistent striking of the rivets and results in inadequate 'roll-over' onto the switch body. To improve consistency of striking and 'roll-over', the diameter of the riveting leg has been increased.

This change was implemented from supplier build week 32.85 and was introduced at VIN 443097.

ITEM: 08

86 DIRECTION INDICATOR SWITCH

S.III

The supplier recently introduced a change in the type of paint, used on the column stalk decal, from a stove drying to an air drying type. However, this new paint has been found to react with a solvent present in the lubricant, resulting in the loss of definition and the smudging of the paint.

To overcome this a solvent resistant paint was introduced from supplier build week 43-85 and VIN 443097.

ITEM: 09

86 ALTERNATORDAIMLER LIMOUSINE
(AIR/CON. MODELS ONLY)

A new Bosch '90' High Speed Alternator has been introduced, replacing the previous Leece-Neville type on all Daimler Limousine Air/Con Models from VIN 200793.

Interchangeability with the Leece-Neville Unit is at present affected, however, a service kit is being arranged to overcome this. Part number of the alternator/kit will be advised in a further Service Bulletin.

ITEM: 10

86 CLARION RADIO/CASSETTES.III/XJS/DAIMLER LIMO
(UK/EIRE ONLY)

A high percentage of Clarion Radio/Tape units returned under warranty are confirmed as 'no fault found'. A significant proportion of these have been returned because of alleged reception problems, which are in fact due to insufficient knowledge of the Local and National Broadcasting frequencies and ignorance regarding the operation of the audio equipment. It is anticipated that during early 1986 a customer instruction tape will be included in the vehicle literature pack which will clarify in detail:-

- a) The operation of the audio equipment fitted to that particular vehicle.
- b) The correct tuning procedure required to achieve optimum reception.
- c) VHF (FM) reception irregularities which can adversely affect all car radio reception. The tape will also include actual recordings of interference/noise patterns caused by atmospheric, geographical or urban conditions, which may be interpreted as a fault with the set.
- d) Maintenance procedures required to ensure the correct operation of the tape and problems which can occur through lack of attention of both equipment and cassettes.

With immediate effect and as a continuing requirement in order to ensure that the radio is operating correctly prior to the customer taking delivery, the radio is to be pre-set by the Dealer to the frequencies appropriate to the Dealers area. This requirement will be included at the next reprint of the pre-delivery check sheet.

The following button to station relationship should be used by all Dealers.

PUSH BUTTON MODEL PU-7009A

<u>Button</u>	<u>Channel</u>
L	Radio 4 - BBC
M	Radio 3 - BBC
U	Radio 1/2 - BBC
U	Radio 3 - BBC
U	Radio 4 - BBC
Free Button	Local IBA UKW (VHF FM)

ELECTRONIC MODEL PU-9021A

	<u>Pre-Set Button</u>						<u>Channel</u>
	1	2	3	4	5	6	
Radio 1/2		3	4	Local BBC	Local IBA	Local IBA	UKW (VHF FM)
Radio 1		2	3	Local IBA	Local BBC	Local IBA	MW
Radio 4				Overseas Broadcasts			LW

It will be the responsibility of the salesman to explain to the customer to ensure that he is fully conversant with the operation of the set, especially the correct procedure required to pre-set tuning frequencies. The latter is most important in the event that the operating territory of the vehicle is different to that where purchased.

Long, medium (AM) and VHF (FM) frequencies for areas within the UK may be obtained from the "Clarion Radio on the Move" booklet which is incorporated in the Vehicle Literature Pack.

For a full specification description of both the Push Button Stereo Radio/Cassette model No. PU-7009A, Part No DAC 3373, and the Electronic Stereo Radio Cassette Model No. PU-9021A please refer to Service Bulletin JD 09/83 Item 63.

Model improvements, Part Number and VIN change points affecting the electronic model PU-9021A are listed as follows:-

<u>Part No.</u>	<u>Model</u>	<u>Vin Range</u>
DAC 3372	S.III XJS V12	367026 to 384609 112205 to 116927
DAC 3716	S.III XJS V12	384610 to 439814 116928 to 124764
DAC 4006	S.III XJS V12	430815 124764

(Introduction of Dolby noise reduction circuit)

To clarify the tuning procedure for both models and to obtain correct operation and optimum performance, please refer to the following instructions.

To demonstrate frequency tuning, let us assume that the vehicle in question is to be based in the South-East Midlands area which is covered under area 5B, Page 26-27 (long-medium wave) and page 30 VHF (FM) of the "Clarion Radio on the Move" booklet.

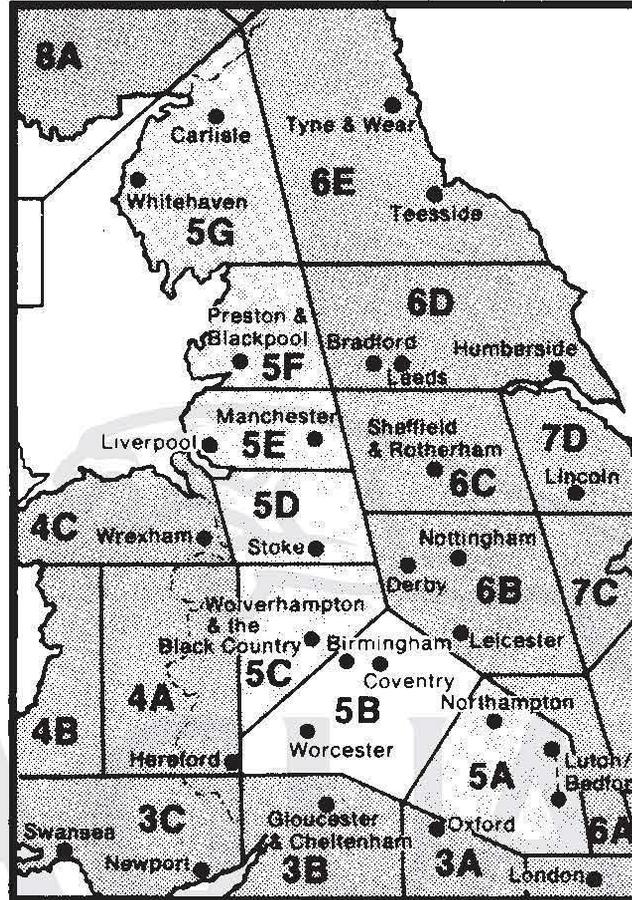


FIG 1.

AREA 5

Long and medium wave (AM) coverage (Page 26/27)

Programme and station Area 5B	Wavelength in meters	Frequency in kHz	Remarks
Radio 1: S.E. Midlands	285	1053	BBC
Radio 2: S.E. Midlands	433	693	BBC
Radio 3: S.E. Midlands	247	1215	BBC
Radio 4: S.E. Midlands	1500	200	BBC
Mercia Sound: Coventry area	220	1359	IBA (Local)
Radio W. Midlands: Birmingham area	206	1458	BBC (Local)
BRMB Radio: Birmingham area	261	1152	IBA (Local)

VHF (FM) Coverage (Page 30)

Area 5B	Programme and frequency in MHz				
	Radio 1/2	Radio 3	Radio 4	Local BBC	Local IBA
Midland Counties	88.3	90.5	92.7	-	-
Mercia Sound: Coventry area	-	-	-	-	95.9
BRMB Radio: Birmingham area	-	-	-	-	94.8
Radio W.Midlands: Birmingham area	-	-	-	95.6	-

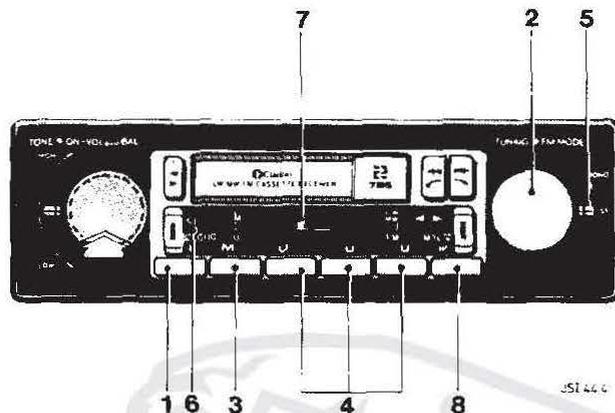


FIG. 2

MODEL PU-7009A (DAC 3373)

STEREO RADIO CASSETTE

Tuning for Push Button Operation

NOTE: The ignition key must be in either the "ON" or "Auxilliary" position.

With the set switched "ON" and no tape loaded, press in button "L" (1), turn the tuning knob (2) until the station required is at its most clear (e.g: Radio 4, 1500 meters/220 kHz), pull the button out approximately 5 mm (.197 in) then push fully in. This will lock the station to that button. Repeat using the "M" button (3), (e.g: Radio 3, 247 meters/1215 kHz) then the three "U" buttons (4), (e.g: 88.3, 90.5, 92.7 mHz).

When setting the "U" buttons (4), ensure that the stereo/mono switch (5) is on stereo so that the stereo beacon light (6) will indicate the best reception on the station selected.

The stereo switch (5) is on the same control as the tuning knob (2). The stereo switch may be left in the stereo position at all times but reception of a stereo broadcast is only denoted by the illumination of the stereo beacon (6).

Movement of the tuning knob is indicated on the dial face by a pointer (7).

Use of the Free Programme Button (8)

This button enables an optional station on any one wavelength to be selected, i.e. one additional longwave station or one additional medium wave station or one additional VHF station.

To tune the free button, first press a button of the same wavelength as the station required. Then turn the tuning knob to the station required. Lock the station to the free key as before by pulling, then pushing the free button fully in.

If after following the tuning procedure as detailed above, poor reception qualities are still being experienced, the aerial trimming should be checked to ensure that it is correct - Service Bulletin JD 12/84 Item 91 refers.

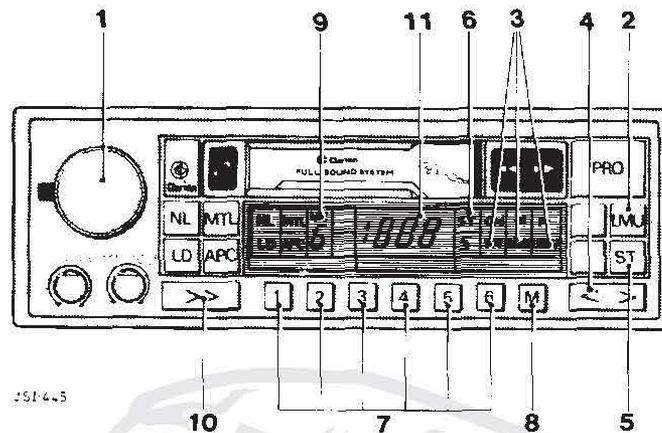


FIG 3

MODEL PU-9021A (DAC 3372/3716/4006)

STEREO RADIO CASSETTE

On-Off Volume Control (1)

Turn the knob clockwise to switch on the unit. Continue turning until the volume is to the required level.

NOTE: The ignition key must be in either the "ON" or "Auxilliary" position.

RADIO TUNER CONTROLS

LW/MW/FM Band Switch (LMU)

Press switch (2) to change the radio frequency band. The frequency will change in the following sequence, FM (UKW) to MW to LW to FM (UKW).

The band indicator (3) will illuminate to show which radio frequency has been selected.

Manual Tuning Switch

Press the right hand side of switch (4) to increase the radio frequency shown on the digital display. Press the left hand side of the switch to decrease the radio frequency.

Continuous pressure on the switch will cause the frequency to change without interruption. If the switch is pressed in steps, the frequency will change in increments, i.e. 25 kHz for FM, 9 kHz for MW and 1 kHz for LW.

Stereo/Mono Switch

Press switch (5) and the stereo/mono switch "ON" indicator (6) will be illuminated. The stereo switch may be left in the stereo position at all times, but reception of stereo broadcasts is denoted by the illumination of the stereo beacon indicator 'ST' (6).

Where poor reception is being experienced, switching to the mono position will improve reception, but in a monaural mode.

To overcome constantly changing reception conditions the set will automatically switch between stereo or monaural reception depending on the actual signal condition, thereby ensuring optimum FM reception with little noise interference. This function may be carried out manually if desired by pressing the mono/stereo switch (5).

Pre-Set Buttons (7)

It is possible to pre-set six stations on each frequency band, i.e. six each on FM, MW and LW.

Pre-Setting Procedure

1. Set the frequency band for either LW, MW or FM reception.
2. Select the station using either the Seek Tuning or Manual Tuning switches.
3. Press the Memory Switch "M" (8). The Memory Indicator "ME" (9) will be illuminated and the function will remain active for approximately five seconds.
4. Press the required pre-set button, while the indicator light is illuminated, the station will be memorized and the number of the pre-set button will be displayed on the channel indicator.

This feature makes it possible to select and receive broadcasts on the memorized stations by pressing the appropriate pre-set button.

As in this example, the set is being programmed to cover area 5B, this is how the pre-set buttons should be allocated:-

<u>Pre-Set Button</u>						<u>Frequency Band</u>
1	2	3	4	5	6	
88.3	90.5	92.7	95.6	95.9	94.8	UKW-(VHF-FM)
1053	693	1215	1359	1458	1152	MW-(Medium Wave)
200	155	164	236	245	255	LW-(Long Wave)

Please Note: When programming the Long Wave (LW) frequency band, the only recognised channel broadcast is Radio 4 (200 kHz) other stations obtainable on the frequency are limited and are predominately overseas broadcasts.

The additional 5 frequencies listed above were those obtained in the S.E. Midlands area during a tuning exercise.

Seek Tuning Switch

Press switch (10) to obtain the automatic selection of the stations. The frequency will increase automatically until an adjacent station of the required strength is found. The frequency will increase in increments of 50 kHz for FM, 9 kHz for MW and 9 kHz for LW. This is displayed on the frequency digital display (11).

To explain this in more detail; if for instance the driver is listening to Radio 1/2 VHF 88.3 MHz, and his journey takes him into area 5A, Home Counties north of London, he would experience transmission interruptions whilst tuned to 88.3 MHz. By simply touching the self seek tuning switch (10) the radio will automatically search for the next strongest signal for that particular channel, which in this case would be 89.1 MHz.

It is possible that transmission difficulties could be experienced, if there is not a stronger frequency available for a particular channel when the self seek function is put into operation. In such instances the next strongest channel will be locked into and the frequency displayed on the channel indicator.

It must be emphasised that the self seek function only searches forwards, so should the channel frequency required be lower than that displayed, the driver can either:

- a) press the left hand side of the manual tuning switch (4) until the frequency required is displayed or
- b) continue pressing the self seek tuning switch (10) so that the frequency band completes a full cycle eventually returning to the frequency required.

RADIO TRANSMISSION AND RECEPTION

Understanding some of the limitations of radio transmission and reception can explain many 'problems' in receiving a particular station or waveband, and save hours wasted trying to rectify a non-existent 'fault'.

Put simply, radio waves are modified and diverted by certain atmospheric and geographical features. Without going into the complexities of the propagation of radio waves, the following table summarises the most important limitations experienced on the three wavebands; long wave, medium wave and FM. Under these conditions there is little practical that can be done to any car radio or its installation to improve reception.

The short-term problems may provide only momentary annoyance before passing. For the others, the only solution is to re-tune the radio to another frequency. Check if the same station broadcasts on another band or at another frequency, since this may avoid the problems altogether.

There is one key point to note from the outset: many factors have a different effect in AM transmissions - i.e. those on medium-wave and long wave - to that which they have on FM signals.

Factors affecting radio reception	AM signals (i.e. MW and LW)	FM signals
The distance that signals travel from the transmitter to give good car radio reception - but do make allowances for the limitations below.	Medium-wave: 100 to 200 km (60 to 130 miles) Long-wave: 1000 km (600 miles)	FM: 40 to 50 km (25 to 30 miles) Stereo reception in a car however is limited to about half this distance.
Hills, large buildings etc.	Generally such geographical features have little effect (although large hills, mountains and heavily built-up areas will all reduce signal strength)	These large objects can block out the signal altogether, if they come between the transmitter and the car. In certain parts of the country this makes good FM signals very hard to find.
Driving through tunnels or under bridges.	Signals may be lost altogether	Signals may be lost altogether.
Overhead power cables street/traffic lights & other outside sources of electrical interference.	These will disrupt the signal, but this will clear again as the car moves away from the cause.	In general, these will not cause serious interference.
Night-time	AM Signals travel further after dark. The unfortunate result is a high level of interference from foreign transmitters which share the same frequencies as ours. the only solution for radio users is to tune to another frequency, preferably on the FM band.	Darkness makes no appreciable difference, so FM stations are the best ones to listen to after dark.
Multiple signals	In some areas it is possible for a car radio to simultaneously pick up signals from two transmitters sharing the same frequency. The result is distortion and fading of the signal but this will cease as the car moves out of the affected area.	If a car radio receives one (or more) reflected signal, in addition to the main one, this produces distortion. Most noticeable is a hissing sound on 's' and 'z' sounds. This is known as "Multipath" and will only clear once the car moves away from the affected location.

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

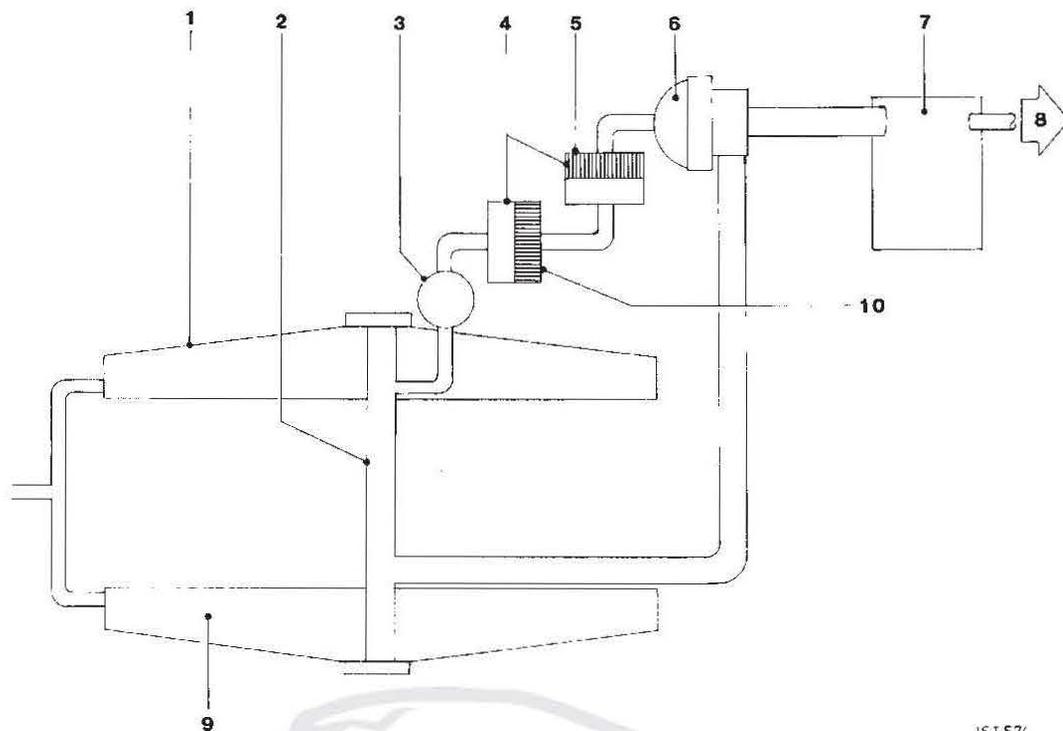
XJS V12

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 manouvering 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.



JST-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 BUMPERS

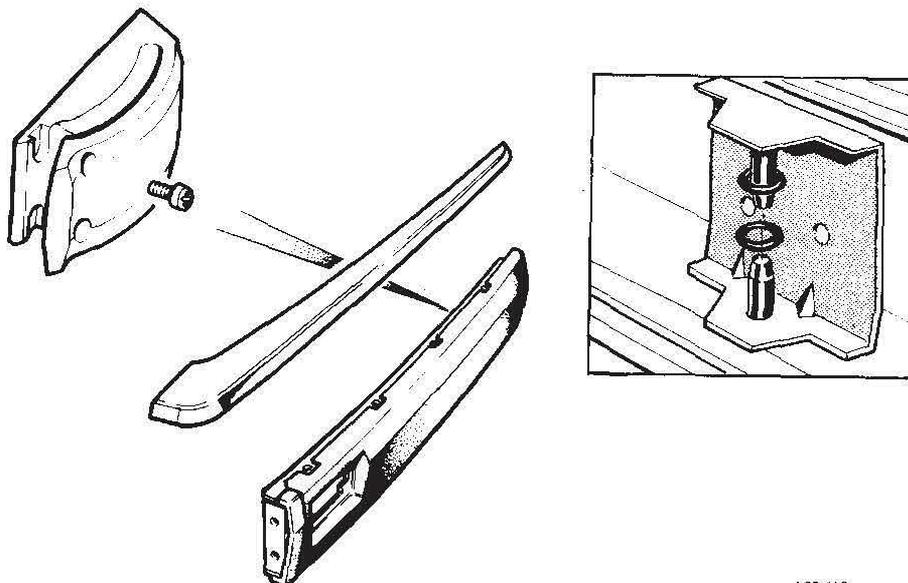
XJ6 2.9/3.6 (EUROPEAN MARKETS)

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.

ITEM: 90

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"

ITEM: 91

82 AIR CONITIONING 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

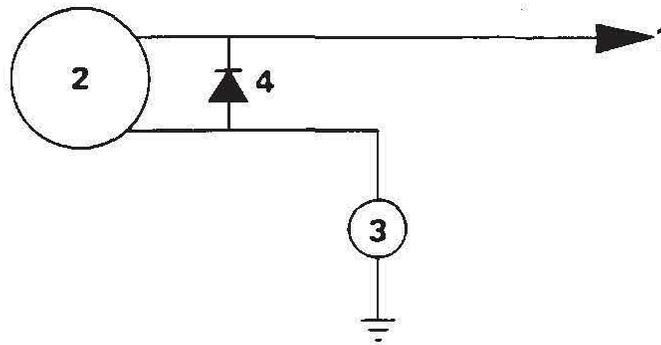
The superheat switch design was such that it detected super heated refrigerant vapour on the low pressure line.

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.



J 86-510

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.

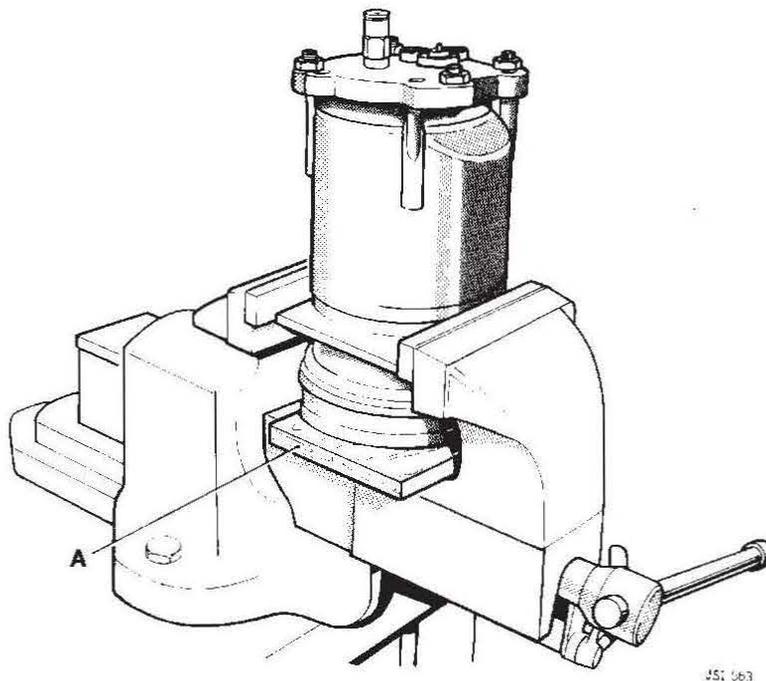


FIG.1

- 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.

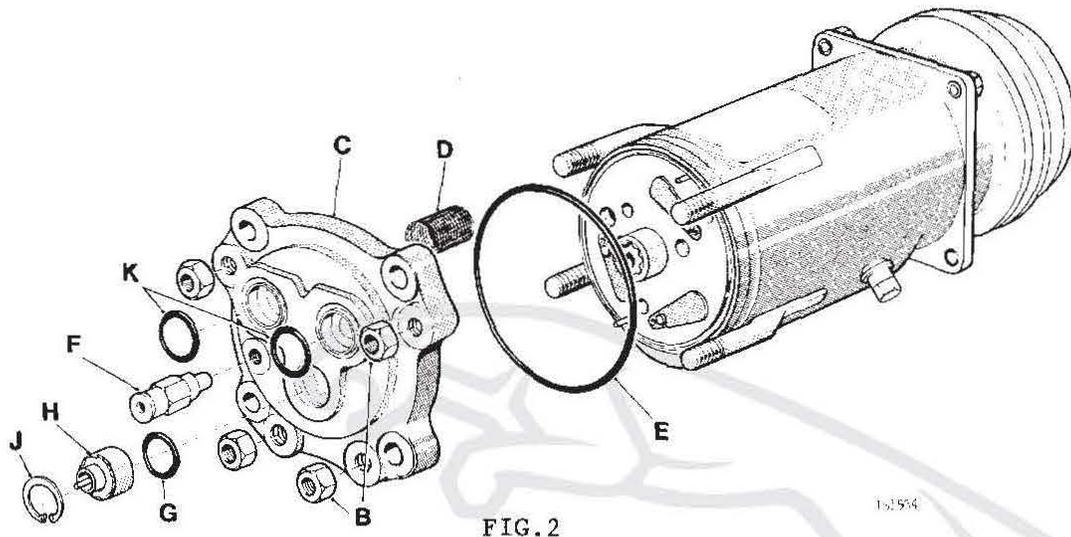


FIG. 2

1s1954

ITEM: 92

86 PRECAUTIONS WHEN HANDLING ELECTRONIC LOGIC MODULESXJ6 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.