Service Bulletin

JAGUAR

Daimler

DATE: APRIL 1992

REF: JD 03/92

Owing to revised information received from Engineering, pages 11 of Service Bulletin JD 01/92, 3/4 and 9/10 of Service Bulletin JD 02/92 are being re–issued and are provided at the end of this Bulletin, marked " *Issue 2* ".

Existing pages of the above should be removed and discarded to be replaced with the revised version.

XJ6 3.2 & 4.0 **ITEM: 20**

03 ADDITIONAL REPAIR OPERATION TIME

The following Repair Operation Times are now available:

12.29.16	– Cylinder Head Gasket Rear Blanking Plate Gasket	– Renew	– 1.40 Hrs
12.29.17	– Cylinder Head Rear Blanking Plate	– Renew	– 1.40 Hrs

Please amend your Repair Operation Time Schedule accordingly.

No other Repair Times are affected.

XJ6 / XJS **ITEM: 21**

10 BRAKE SYSTEM SERVICE RECOMMENDATIONS

With the introduction of new brake components on the above models, the brake servicing recommendations have changed.

No routine replacement of system seals is necessary as the seals are designed to last for the life of the vehicle.

The braking system must still be inspected for satisfactory operation and condition at the regular service intervals.

Brake fluid to be renewed at 2 years or 30 000 miles (48 000 km) intervals, whichever is the sooner. For North America only, 18 months or 30 000 miles (48 000 km).

Note: Service Manuals will be up–dated at the next reprint.

ALL AJ6–ENGINED VEHICLES **ITEM: 22**

26 WATER PUMPS

A revised water pump assembly has been introduced on AJ6 engines. The assembly now has a gasket between the two halves, instead of RTV sealant as previously used.

The revised assembly is fitted from the following engine numbers:

3.2 : 107696 4.0 : 157275

The part number of the new assembly is EBC 8550 and replaces EBC 4437. The part number of the gasket is EBC 9220.

Note: THE GASKET CANNOT BE RETRO–FITTED TO RTV–SEALED WATER PUMPS. IF A LEAK BETWEEN THE TWO HALVES IS APPARENT, THE OLD STYLE PUMP ASSEMBLY MUST BE REPLACED BY EBC 8550.

When EBC 8550 has been fitted to an engine, the bolts securing the two halves together must be re–torqued to 21.5 Nm – 28.5 Nm, to overcome the possibility of gasket relaxation.

XJ6 / XJ–S / S.III **ITEM: 23**

80 AIR CONDITIONING/HEATER MICROPROCESSOR
82

Refer to Service Bulletin JD 09/91, Item 62.

To improve the retention of the air conditioning/heater servo drive motor ICs (integrated circuits) secured to the microprocessor unit heatsink, the supplier has now changed the process to "Rivscrews".

This modification commenced during mid–November 1991 and replaced the previous bolt–type fixings.

Air conditioning/heater units fitted with revised microprocessors were progressively introduced from VINs:

XJ6	–	659029
XJS	–	183501
S.III	–	486299

XJ6 **ITEM: 24**

84 WINDSCREEN WIPER ARM AND BLADE

From VIN 657725, all XJ6 vehicles have been fitted with a revised wiper arm and blade assembly.

These new parts are interchangeable with cars built prior to this VIN, when changed as an assembly only. Dimensional changes prevent the fitment of a mixed condition of arm and blades.

Dealers are reminded that wiper blade replacement remains a part of the 7500 mile (12000 km) service schedule for all vehicles.

XJS **ITEM: 25**

86 STOP LIGHT FAILURE SENSOR MODULE – LOCATION

From VIN 179737 (92MY Facelift XJS), the stop light failure sensor module is located in the boot of the vehicle, attached to the inside of the boot side reinforcement panel (drainage channel) L.H. (Fig. 1).

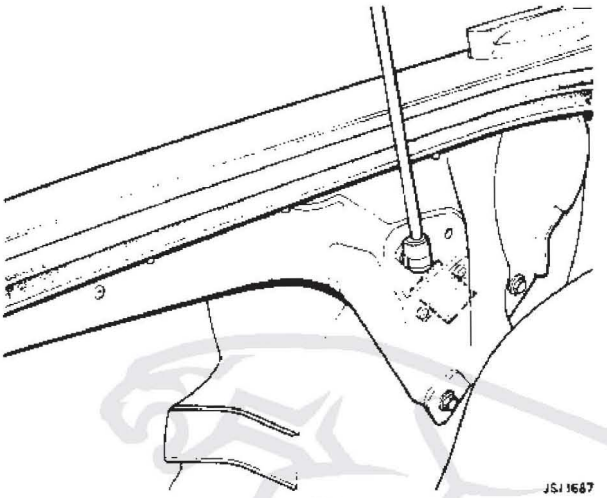


FIG. 1

Prior to VIN 179737 (90MY XJS), the module is located beneath the centre console veneer finisher, attached to a bracket in front of the stowage compartment (Fig. 2).

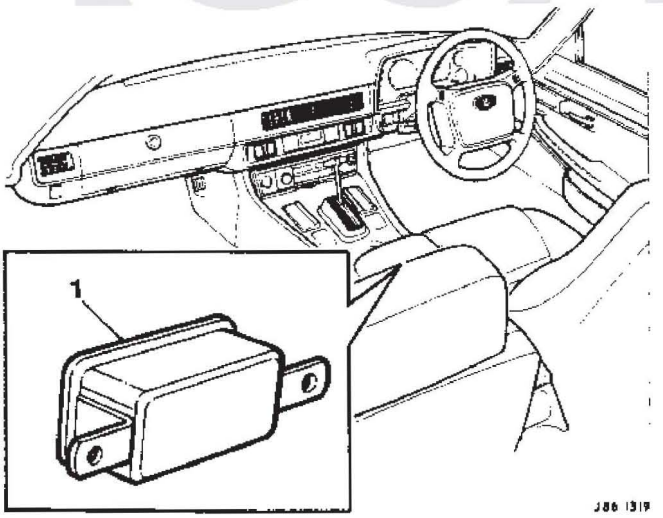


FIG. 2

XJ6 **ITEM: 26**

88 EXTERNAL SPEED SENSOR BRACKETS – IDENTIFICATION

Two external speed sensor brackets are available for use on XJ6 models. To avoid any confusion, they are identified as follows:

Bracket Part No	Description Of Use
CAC 9884	For all Drive Units prior to the introduction of EBC 9750 and EBC 9751 (no colour identification).
EBC 9820	For all Drive Units from the introduction of EBC 9750 and EBC 9751 (identified by a "spot" of **blue** paint).

Service Bulletin

JAGUAR

Daimler

DATE: SEPTEMBER 1992

REF: JD 14/92

ALL MODELS **ITEM: 40**

12 FLUOROELASTOMERS – HAZARDS AND PRECAUTIONS

Further to recent media publications pointing out the problems involved in the use of fluoroelastomers, the following information **should be read and the precautions adhered to:**

When used within the designed operating conditions, fluoroelastomers are safe and **do not** present hazards to health.

In fire or conditions with temperatures greater than 315^{0}C, fluoroelastomers will decompose and can become potentially hazardous. Physical signs of decomposition may be in the form of charring or a black sticky mass. Some decomposition may occur at temperatures above 200^{0}C.

Hazards

Fluoroelastomers are synthetic rubber-like materials which contain fluorine. They are commonly present in seals, gaskets, diaphragms, hoses and 'O' rings.

If heated beyond normal operating conditions, for example during attempts to remove a tight coupling flange or in a fire, they can not only break down to become toxic, but a highly corrosive acid may also form. This acid can cause serious burns on contact with skin. Avoid skin contact with fire-damaged fluoroelastomers.

Precautions

1. Assume, unless you know otherwise, that seals, gaskets, diaphragms, hoses and 'O' rings are fluoroelastomers.
2. Allow all overheated, burnt or decomposed fluoroelastomer materials to cool down before inspection, investigation, tear-down or removal.
3. **Do not** touch, or allow skin / eye contact with any blackened or charred materials.
4. **Always** wear PVC or Neoprene protective gloves to handle **cooled** parts containing decomposed fluoroelastomers.

5. Clothing, gloves and any other contaminated parts or materials should be disposed of according to national and local regulations.

6. If contact with a decomposed fluoroelastomer is suspected, either physical (skin or eye) or through the inhalation of fumes, seek **medical attention immediately.**

For Information:

Technical instructions for Service Action R 374 call for the removal of the injector by burning through the injector hose with a soldering iron.
Please be advised that the injector hose contains no fluoroelastomer.

XJ6 3.2/4.0 & XJS 4.0 **ITEM: 41**

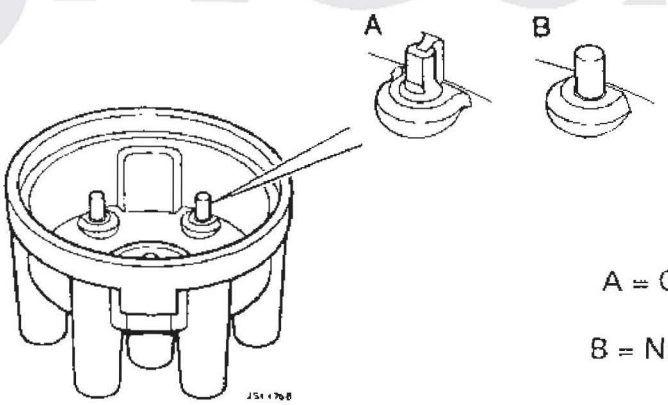
18 DISTRIBUTOR CAP

There has been a material change and revised electrode terminals introduced on AJ6 distributor caps.

Distributor assemblies incorporating caps to the revised condition were progressively introduced from 1st April 1992 production build, with the following safe engine numbers and VINs provided:

				ENGINE NO		VIN
XJ40	–	(4.0)	=	9EPCNA	160563	663458
"	–	(3.2)	=	9BPMNA	109324	663448
XJS	–	(4.0)	=	9EPCNA	160566	184714

Please note that the part number for the distributor cap, JLM 150, remains unchanged and is fully interchangeable on vehicles with engine numbers prior to those listed above.



A = Old condition

B = New condition

FIG 1

XJ6 / XJS / SERIES III **ITEM: 42**

86 CD AUTOCHANGER UNIT (PT. NO DBC 5130)

There have been isolated incidences reported of compact discs becoming displaced within the CD autochanger unit, accompanied by error code E.02 being displayed on the radio-cassette display screen.

If a vehicle is returned for this concern together with E.02 displayed, the following pro-

a) Slide back the door on the CD unit and press the eject button.

b) Remove the CD cartridge from the unit.

c) Remove all discs from the cartridge.

d) Replace the empty cartridge back into the CD player.

e) The disc should now eject into slot (1) in the cartridge.

f) Remove the cartridge.

g) Replace the remaining compact discs into the cartridge.

h) Test operation.

NOTE: If the cartridge does not eject from the changer unit, as in (a) above, the disconnect the lead connecting the CD autochanger to the radio–cassette for approximately 30 seconds. Reconnect and test operation.

Should the disc(s) still fail to eject, do not attempt to remove the disc(s) by any other means.

Remove the CD autochanger unit and return, following normal warranty returns procedures.

NOTE: Please ensure that the transit screws are in position when returning units to prevent mechanism damage during transit.

FOR INFORMATION PURPOSES

COMPACT DISCS

The specification of compact discs for use with CD autochanger DBC 5130 should comply with BS 7064 or equivalent. This Standard refers to the following criteria:

Outer diameter	120mm	+	0.3mm
		–	
Thickness of disc	1.2mm	+	0.3mm
		–	0.1mm

Compact discs outside these parameters may cause the E.02 error message.

Compact discs which do not comply with this Standard should be avoided.

If any other error code appears on the radio–cassette refer to Service Bulletin JD 03/91, Item 25 for advice.

XJS FACELIFT ITEM: 43

86 BRAKE PEDAL SWITCH

Isolated reports have been received concerning the driver's side blower motor recirculation flap being held partially open, due to the flap fouling the brake pedal switch mounting bracket.

To provide adequate clearance, the blower motor assembly is now positioned slightly forward by the introduction of a rubber spacer mounted on the rear face of the blower

This modification was introduced from VIN 184622.

The rubber spacer is attached to the blower surface using "Butyl" tape (double sided adhesive tape).

In the event that a driver's side blower motor assembly requires replacement on a vehicle after the above VIN, Dealers should ensure that the spacer is removed and refitted to the new blower motor assembly.

Please note the "Butyl" tape remains flexible and may be re-used to secure the spacer to the new motor. (Refer to Fig 1 for position and dimension references).

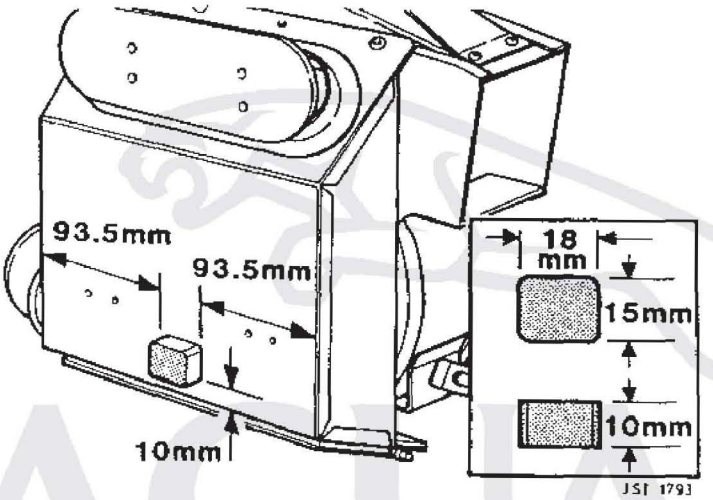


FIG 1

Fig 1 shows the right-hand blower motor assembly for RHD vehicles. The blower motor assembly for LHD vehicles is symmetrically opposite.

Service Bulletin

JAGUAR

Daimler

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REF: JD 16/92

ERRATA

Owing to revised information, the torque figure for the coolant temperature transmitter to engine, XJS models, is 14,5 to 19,5 Nm.

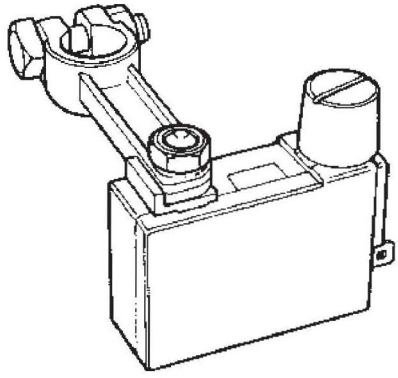
The torque figure given in Service Bulletin JD 10/92 and Section 88 of XJS Service Manual, JJM 10 04 06/20, should be ignored and only the revised figure used.

Service Manuals will be amended at the next reprint.

XJ6 93 MY (FROM VIN 667829) **ITEM: 44**

BATTERY TRANSIT RELAY – REMOVAL

Owing to the relocation of the battery into the boot at 93 MY, a revised battery transit relay has been introduced, (see Fig 1).



JSH-1779

FIG 1

The procedure for the removal of this new relay is as follows:

WITH THE IGNITION OFF:

1. Open the boot and remove the battery cover, (see Fig 2).
2. Remove the negative lead from the battery.
3. Disconnect the transit relay from the battery.
4. Remove the white / yellow (W/Y) ignition wire from the transit relay.

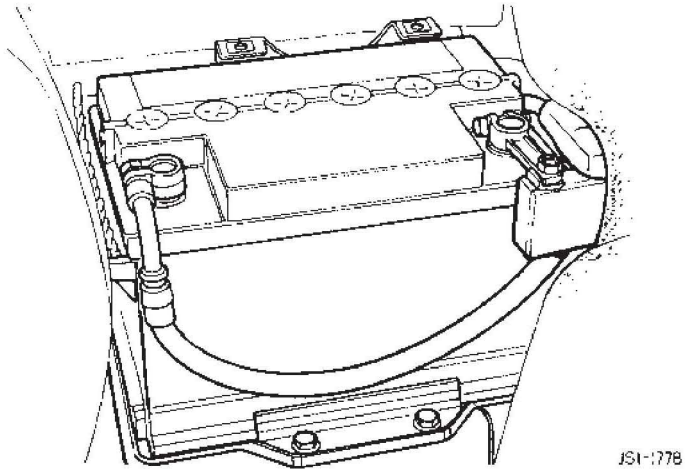


FIG 2

5. Remove the positive lead from the transit relay terminal post, (A, Fig 3).
6. Reverse the positive lead clamp and refit the clamp to the positive lead (B, Fig 3).

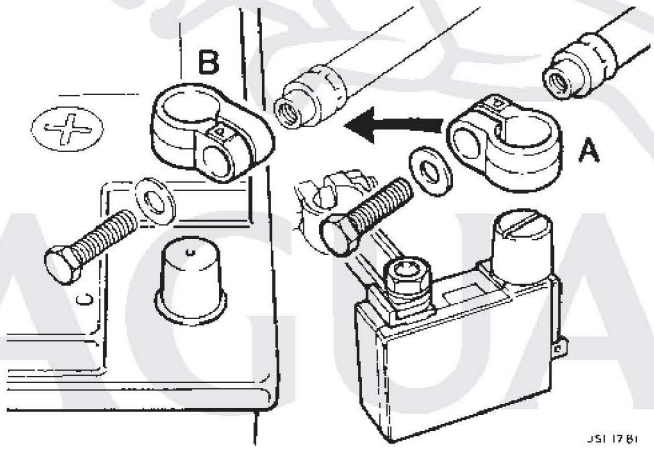


FIG 3

7. Displace the battery.
8. Tie back and secure the white / yellow (W/Y) ignition wire, (see Fig 4).

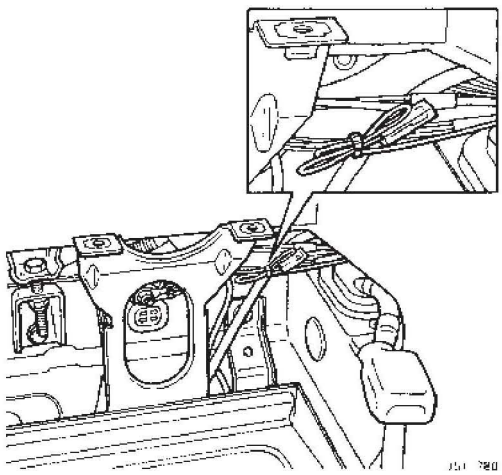


FIG 4

ENSURE THAT THIS LEAD REMAINS FULLY INSULATED WHEN SECURED

9. Refit the battery.
10. Refit and secure the positive and then negative lead of the battery.
11. Replace the battery cover.

NOTE: ALL UK DEALERS MUST CONTINUE TO RETURN THE DISPLACED TRANSIT RELAYS.

REMOVAL OF THE TRANSIT RELAY SHOULD BE CARRIED OUT NO LONGER THAN 24 HOURS BEFORE THE VEHICLE IS HANDED OVER TO THE CUSTOMER.

THE RADIO AND TIME CLOCK MUST BE RESET AFTER THE RELAY IS REMOVED.

IMPORTANT: UNDER NO CIRCUMSTANCES SHOULD THE RELAY BE USED OR RETAINED AS AN ISOLATION DEVICE FOR ROAD USE.

XJS **ITEM: 45**

03 REPAIR OPERATION TIMES

Air Conditioning Blower Motor Assembly

The repair operation times for renewing the air conditioning blower motor assemblies have been re-studied on 1992 MY vehicles.

The new operation times for vehicles from VIN 179737 are as follows:

Right-hand drive vehicles

82-25-13	Blower Assembly - Left-Hand - Renew	0.95 Hrs
82-25-13/09	As 82-25-13 (Less JDS Allowance)	0.60 Hrs
82-25-14	Blower Assembly - Right-Hand - Renew	1.60 Hrs
82-25-14/09	As 82-25-14 (Less JDS Allowance)	1.25 Hrs

Left-hand drive vehicles

82-25-13	Blower Assembly - Left-Hand - Renew	1.60 Hrs
82-25-13/09	As 82-25-13 (Less JDS Allowance)	1.25 Hrs
82-25-14	Blower Assembly - Right-Hand - Renew	0.95 Hrs
82-25-14/09	As 82-25-14 (Less JDS Allowance)	0.60 Hrs

Please amend your repair times accordingly.

No other repair times are affected.

XJ6 / XJS **ITEM: 46**

10 BRAKE SYSTEM SERVICE RECOMMENDATIONS

Note: This bulletin supersedes Item 21 of Service Bulletin JD 03/92.

With the introduction of the ABS brake system, from the following VINs, the brake servicing recommendations have changed:

1. XJ6 from VIN 594576.
2. XJS (5.3 convertible) from VIN 147269.
3. XJS (5.3 coupe) from VIN 148782.
4. XJS (3.6 coupe) from VIN 148945.

No routine replacement of system seals is necessary. The system and components, which are sealed for life, require no maintenance. Repair is by replacement.

The braking system must still be inspected for satisfactory operation and condition at the regular service intervals.

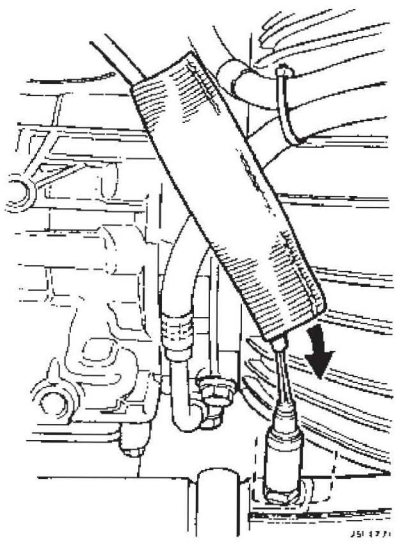
Because of its hygroscopic nature, brake fluid must be renewed at 2 year or 30 000 mile (48 000 km) intervals, whichever is sooner.

XJ6 ALL MODELS **ITEM: 47**

18 LAMBDA SENSOR SPLASH-SHIELD

Following reports of the intermittent display of "Fuel Failure 44" on the instrument pack, it was found that this symptom could be caused by water penetrating the lambda sensor.

A lambda sensor splash-shield has been introduced from VIN 664941, which can be fitted retrospectively and should be installed whenever a lambda sensor is changed. This will reduce the possibility of water ingress.



SLEEVE
C.33139/4

The six–inch silver heat–proof sleeve is fitted by sliding it over the sensor, prior to its replacement. After the sensor has been fitted, Dealers should ensure that the sleeve is pushed fully back down to cover the whole sensor.

ALL MODELS **ITEM: 48**

18 IGNITION SPARK PLUGS

Spark plugs have been returned under warranty with a yellow / brown stain visible on the insulator housing. Dealers have incorrectly interpreted this as leakage of combustion gases between the insulator and metal housing and the cause for spark plug misfire. The following is an explanation for the staining and the more likely cause for spark plug misfire.

During most atmospheric conditions a form of static discharge, common to high voltage conductors, can occur, which is commonly known as "Corona discharge".

Ignition systems are particularly prone to this effect during wet weather, when the air space surrounding the spark plugs becomes charged with a gas composed of electrons, ions and air particles, forming a state of general ionization. Too much ionization counteracts the spark plug insulation and causes a partial discharge, which in turn gives out a blue light.

Under normal circumstances this will in no way affect the running of the car, providing the spark plug insulators are kept clean.

Running problems would normally only occur if the spark plug insulators were coated in a film of dirt, which would allow high voltage tracking, known as "flashover", between the spark plug terminal stud and earth, thus causing a misfire.

However, protection is provided against this eventuality by the inclusion of "ribs" along the insulator body. To identify whether or not the spark plugs have been subjected to Corona discharge, plugs should be examined in daylight for the presence of a yellow / brown stain at the base of the insulator, next to the metal housing.

The actual stain is caused by oil–contaminated particles, in suspension around the spark plug insulator, receiving the electrostatic charge of ionization and fusing themselves to the plug. The stain is quite harmless and can usually be wiped off easily.

Corona discharge will cause no deterioration in service or malfunction of the spark plug.

Moisture or dirt may cause "flashover" but Corona discharge does not. Cleanliness is vital, therefore, spark plug insulators should be kept clean and dry at all times.

Note: Spark plugs returned under warranty may be rejected as "no fault found" for the reasons given above.

XJ6 ALL MODELS **ITEM: 49**

64 REAR SHOCK ABSORBERS

From VIN 667829, a new rear shock absorber is fitted to all non–ride–levelling vehicles. This new part is fully interchangeable with all previous components when

This new part, number CCC 6923, should be used in all cases where rear shock absorbers are replaced, with immediate effect.

Under no circumstances should this new part be mixed with old condition parts on a vehicle axle.

When failures are identified in service, single shock absorbers only need to be changed if the parts have less than 25,000 miles (40,000km) service use.

The new units, which have a black finish, can be easily distinguished from the previous parts by a new sealed gaiter, which will reduce dirt ingress.

XJS 6CYL / V12 AND SERIES III V12 ITEM: 50

82 RECEIVER DRIER BOTTLE

When replacing the receiver drier bottle, Part Number CAC 1881, it is essential that the receiver drier bottle is mounted with the sight glass vertical. This is to ensure that the pick-up tube inside the drier bottle is always immersed in liquid refrigerant. If the receiver drier bottle is mounted at angles in excess of +/-20 degrees from the vertical, there is a risk, under certain conditions, that vapour rather than liquid may enter the pick-up tube. Should this occur, erratic air conditioning performance may result.

XJS 4.0L / V12 ITEM: 51

86 LOW COOLANT WARNING LIGHT FAULT DIAGNOSIS

Dealer investigations into low coolant warning light concerns have resulted in a high number of low coolant probes and control units being replaced unnecessarily, as most probes and control units tested by the supplier reveal no faults. In order to reduce this unnecessary replacement, the following electrical checks should be carried out by Dealers before condemning or replacing components where the cause is found to be low coolant level. The checks should include inspection of the coolant system for leaks, which is best achieved by pressure testing the coolant system to locate the source of the leak.

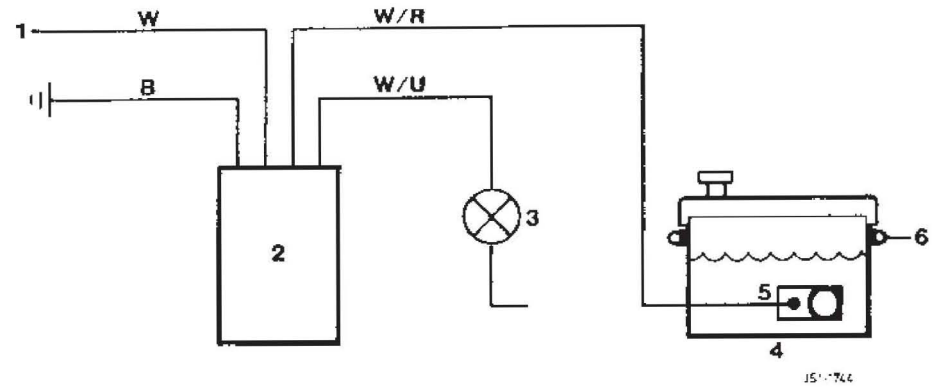
Coolant leaks may be caused by: loose hose clip connections, worn or damaged pressure cap seals, or damaged hoses. Lack of coolant recovery from the atmospheric recovery bottle may be a further reason for low coolant level in the header tank.

Transfer of coolant from the atmospheric recovery bottle relies on the presence of a vacuum, as the coolant contracts when the engine is turned off. Checks should be made to ensure that the recovery bottle and its connections through to the header tank are leak-free and unrestricted. In addition, the vacuum valve in the header tank should be checked to ensure that it operates correctly and does not stick.

ELECTRICAL CHECK PROCEDURE

CIRCUIT / SYSTEM DETAILS

The system operates by measuring the resistance of the coolant. With resistance below 5,000 Ohm, the warning light is off. The light will illuminate with the resistance



COMPONENT / CIRCUIT CODE

1 – Ignition (IGN) supply
2 – Low coolant control unit
3 – Warning light (W/L)
4 – Header tank
5 – Low coolant probe
6 – Header tank earth via fixing bolts

WIRING CODE

W – White
W/R – White / Red
W/U – White / Blue
B – Black

FAULT	CAUSE	ACTION
W/L does not illuminate at any time. (Bulb check does not occur i.e. @ 1 sec on following ign)	Blown W/L or open circuit on W/L wire	Check by shorting white / blue (W/U) wire to earth – W/L should come on.
	Earth wire at unit open circuit	Check resistance to good chassis ground – less than 2 Ohm.
	Ign supply to unit open circuit	Check supply at unit, should be battery voltage.

If the above checks are satisfactory replace faulty low coolant unit.

W/L on all the time with ign	Low coolant	Check and top up as required

If the coolant level is satisfactory, the following check will determine which part of the circuit is at fault.

Disconnect the probe wire at the tank and short to ground. If the W/L goes out, proceed to (A). If the W/L stays on, go to (B).

(A)	Poor connection, tank body to earth	Check resistance of tank body to good chassis earth – should be less than 2 Ohm.
	Poor connection on Lucar connector Red / White wire. Lucar rivet loose on low coolant probe	Visual check – clean, replace as required.
	Low coolant probe / plating contaminated	Remove probe from tank – clean with wire wool – if probe Lucar is damaged or loosened during re-

(B)	Short to earth in W/L wire or W/L bulb–holder pack	Unplug low coolant unit. If the W/L goes off, circuit OK – If W/L remains illuminated–locate short circuit.
	Short to earth on probe wire White / Red (W/R)	With unit and probe disconnected, check the White / Red wire resistance to good chassis earth – should be above 20,000 Ohm.

If all of the above checks are satisfactory, replace faulty low coolant unit.

W/L flashes on, then goes off	Low coolant level	Check – top up as required.
	Intermittent open circuit, on White / Red (W/R) low coolant probe wire	Ground probe wire at tank – test drive vehicle. If fault recurs, check harness / connectors, locate open circuit
Less likely causes but may in certain conditions, with an out of specification unit, cause a fault	Bad connection tank body to earth	Check resistance of tank body to good chassis earth – should be less than 2 Ohm.
	Poor connection on Lucar connector Red / White (R/W) wire. Lucar rivet loose on low coolant probe	Visual check – clean replace as required.
	Low coolant – probe / plating contaminated	Remove probe from tank, clean with wire wool – if probe Lucar is damaged or loosened during removal replace probe.

Service Bulletin

JAGUAR

Daimler

DATE: MAY 1994

REF: JD 28/94

** ISSUE 2 **

ALL MODELS **ITEM: 27**

66 POWER HYDRAULIC SYSTEM LEAKS

This Service Bulletin provides information on improvements introduced in production to reduce concerns of power hydraulic system leaks, together with rectification action to be taken by Dealers where leaks in the Power Hydraulic System are found, or are being traced.

1. REVISED TIGHTENING PROCEDURE FOR WORM-DRIVE CLIPS

A revised tightening procedure for the worm-drive hose clips has been introduced in production from the VINs below; the same procedure, which involves a re-tightening after 30 minutes, must be followed in the event of any leaks in service:

XJ6 & XJ12	VIN 698345
XJS	VIN 192222

The joints at which this pattern of clip are fitted are illustrated in Figs. 1, 2, and 3 overleaf, together with the torque wrench setting applicable to each clip.

In the event of any leak, take the following action:

- slacken off the clip concerned, just sufficient to allow a check that the hose concerned is fully home on the pipe stub.

- with the worm-drive hose clip in its original location on the hose, tighten the worm-drive clip to the designated torque wrench setting.

- **IMPORTANT:** **WAIT 30 MINUTES. THEN RE-TORQUE THE WORM-DRIVE CLIP TO THE DESIGNATED SETTING. (DO NOT SLACKEN OFF THE WORM-DRIVE BETWEEN THE FIRST AND SECOND TORQUE CHECKS).**

  This re-tightening procedure takes up the relaxation which occurs in the rubber hose after the initial clamping, which otherwise may lead to a leak at the joint concerned if only a single tightening procedure were to be followed.

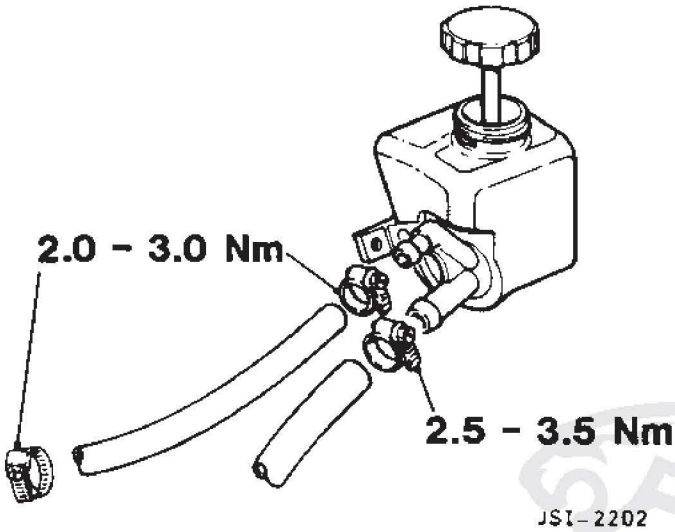


Fig. 1.

XJS

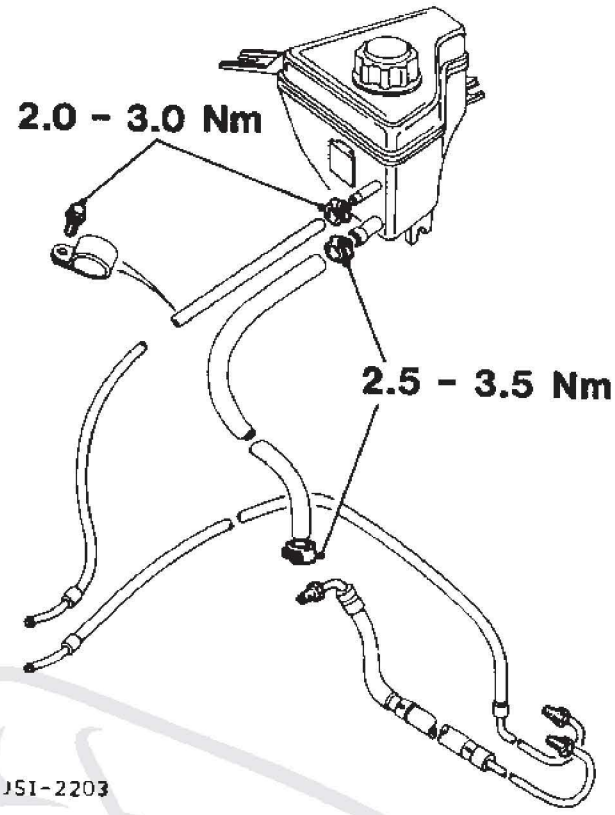


Fig. 2.

XJ6

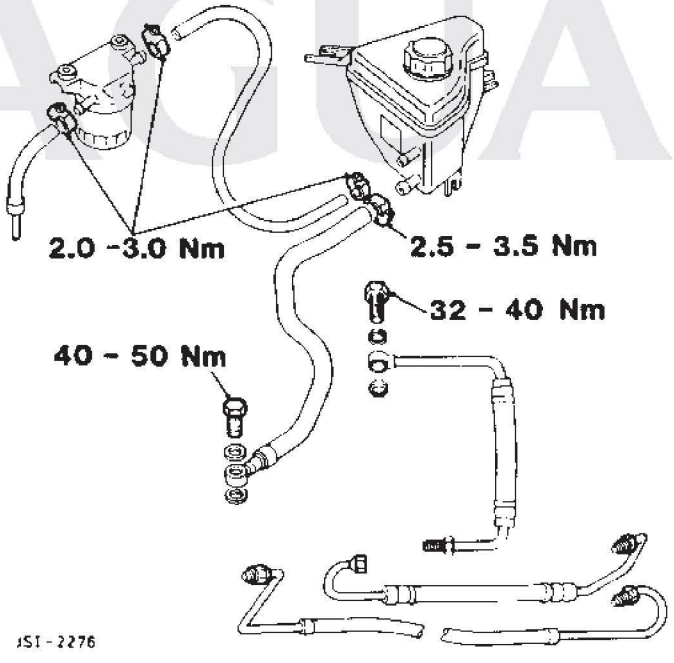


Fig. 3.

XJ12