



V8 XJ Series/XK

DATE 10/00
Amended 12/01

414-06

SERVICE

TECHNICAL BULLETIN

Intermittently Discharged Battery – Diagnostic Procedure

MODEL
1999 MY-ON XK Range
1999 MY-ON V8 XJ Series
VIN refer to chart

Remove and destroy Bulletin 414-06, dated 10/00.
Replace with this Bulletin.
Revisions are marked with a bar and in **bold text**.

MODEL	MODEL YEAR	START VIN	END VIN
XKR	2000 MY	A00116	A01257
XJR/VDP	2000 MY	F00103	F01967
XK8	1999 MY to 2000 MY	031303	A01789
XJ8	1999 MY to 2000 MY	853936	F02752

Issue:

In the event of customer complaints of incidents of an intermittent fully discharged battery, a diagnostic procedure may be required to determine the source of a possible intermittent current drain. The condition is most likely to arise after the vehicle has been parked or garaged overnight, particularly in cool or cold ambient conditions.

Action:

Discuss with the customer the use of the vehicle during the previous week prior to the fully discharged battery. Determine that the incident did not result from leaving the lights on when parked, or from another load having been imposed on the battery (including the battery being fully discharged due to non-start). If this is the case, recharge the battery, carry out the battery quiescent drain test, fill out the battery quiescent drain test form and fax it to the Jaguar Product Investigation Dept 1-201-**236-4410**.

Look for evidence that the car has been started and run normally prior to the incident and not run only for a short time (typically just running the engine for long enough to drive the car into a garage on the previous day).

Refer to page 3 for Diagnostic Routine.

The Diagnostic Routine refers to the following notes:

Note No.	Models	Instructions	Comment
1	All	Connect Digital Volt Ohmmeter (DVOM) positive lead to center of Fuse 10.	
	XK8/XKR	Connect DVOM negative lead to ground at EM1 stud on right side false bulkhead or EM2 or LF3 stud on left side false bulkhead.	If relay is de-energized, indicated voltage should be less than 0.4 volts.
	X8 XJ Series	Connect DVOM negative lead to ground at EM16, 17 or 18 stud in center of bulkhead.	
2	All	DVOM Positive to center of Fuse 10.	
	XK8/XKR	Connect DVOM negative lead to ground at EM1 stud on right side false bulkhead or EM2 or LF3 stud on left side false bulkhead.	If voltage is 2.5 volts or more, it is likely that the Upstream HO2 Sensor relay failed to drop out, or remains energized.
	X8 XJ Series	Connect DVOM negative lead to ground at EM16, 17 or 18 stud in center of bulkhead.	

Note: Ground stud locations are shown in the appropriate Electrical Guide available on JTIS.

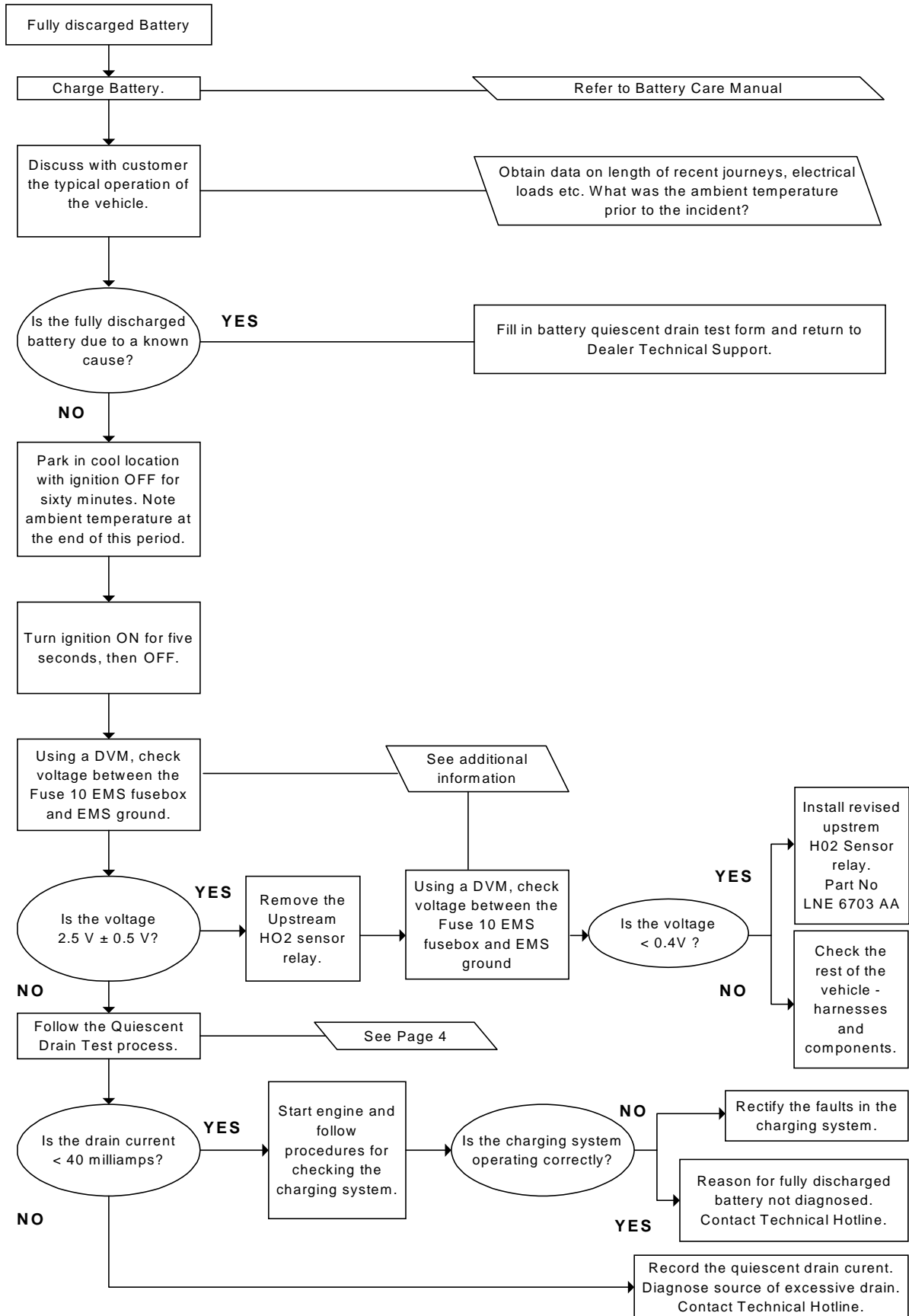
If the Diagnostic Routine followed by the Quiescent Drain process shows that an excessive current drain is present, contact the Technical Hotline, particularly in regard to taking action to trace a possible leak path in the Upstream HO2 Sensor relay or any other line.

To assist the Technical Hotline, make a photocopy of the Quiescent Drain Report Form (see page 5) and complete all technical details so that information can easily be supplied.

Note: This report must be faxed to Product Investigation in all instances, whatever corrective action has been taken.

A revised upstream HO2 Sensor relay is available for affected vehicles only (see parts information). The revised relay does not supersede relay LJA 6703AA normally used in vehicles that do not exhibit the condition of a fully discharged battery.

Diagnostic Routine



BATTERY QUIESCENT DRAIN TEST

Ensure that the battery is fully charged. Allow thirty minutes to elapse following any recent charging cycle, to allow the battery to stabilize.

A DVOM (capable also of reading currents up to 10 amps) is required. The DVOM must have leads of sufficient length to allow connection to the battery with the DVOM located outside the luggage compartment.

1. Set the DVOM to 10 amps or 20 amp range.
2. Check that all electrical loads on the vehicle are switched OFF - including mobile telephone, etc.
3. Connect the DVOM in series with the battery positive connection.
4. Carefully close the lid of the luggage compartment so that the luggage compartment lamp switch is off and the DVOM leads are not damaged where the lid seals compress them.
5. Turn the ignition ON (position II); wait five seconds; turn the ignition fully OFF. Close and lock all doors.
6. Wait thirty seconds. Check that all interior lamps have 'timed out'. Record the current reading on the DVOM. (Select a more sensitive range where appropriate). This reading should normally be 250 - 500 milliamps.
7. Wait for a further sixty minutes; again record the DVOM reading. This reading should not exceed 40 milliamps. If a final reading in excess of 40 milliamps is recorded, this is an indication of a spurious current drain from the battery, this must be traced and rectified.

Note: Technical Hotline telephone number is: 1-888-524-3577

Parts Information:

DESCRIPTION

Relay - upstream HO2 sensor

PART NUMBER

LNE 6703 AA

Warranty Information:

<u>FAULT CODE</u>	<u>R.O. NUMBER</u>	<u>DESCRIPTION</u>	<u>TIME ALLOWANCE</u>
BB GH 42	86.92.59	Remove/replace the upstream HO2 Sensor Relay and perform quiescent drain test	0.3 hrs.

Note: This time includes filling in the quiescent drain test form. Other work to be carried out should be claimed separately using the appropriate R.O. number and times.

QUIESCENT DRAIN REPORT FORM

To be returned to Product Investigation regardless of outcome.

Dealer Identification:			
Date:			
Vehicle Model:			
VIN:			
Technician:			
CATS Case No:			
Lowest temperature between vehicle last operating correctly and discovery of fully discharged battery.		°F	°C
Temperature that the vehicle was stored for 1 hour immediately before this Diagnostic Procedure.		°F	°C
Battery - Specific Gravity for each cell or Midtronics test code			
Battery - voltage prior to test:			
Voltage measured at fuse 10:			
Quiescent current after thirty secs:			
Quiescent current after sixty mins:			
Battery - voltage after test:			
Contact at Technical Hotline:			
Suspect module/component substituted:			
Parts replaced:			
List part numbers:			