LAND-ROVER

TECHNICAL BULLETIN

No: **LS-415-001**
Issue: 1
Date: 27 Sep 2005

CIRCULATE: TO	Service Mgr X	Warranty X	Workshop X	Body Shop X	Parts X

SECTION: *415-00 – AUDIO SYSTEM*

"Infotainment" System Diagnosis

AFFECTED VEHICLE RANGE:

Range Rover Sport (LS)   **VIN:**   **All**

CONDITION SUMMARY:

REPORTED SYSTEM FAULTS REQUIRE DIAGNOSIS

A customer may report a concern or a fault with the infotainment system.

Cause: A number of faults may exist. Details of the symptoms are provided in a table below. Most faults are likely to be software-related and can be corrected with a software update without requiring hardware replacement.

Action: Should a customer express concern regarding Infotainment System performance, refer to the Repair Procedure in this bulletin to correctly diagnose the issue **before** replacing any system components.

TOOLS:

WDS disc 10 or later

WARRANTY:

⚠ **NOTE: Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Always refer to DDW to obtain the latest repair time.**

DDW requires the use of causal part numbers. Labor only claims must show the causal part number with a quantity of zero.

Description	SRO	Time (Hours)	Condition Code	Causal Part
Disengage and re-engage transit mode.	86.90.89/30	0.30	42	VUX500311
Install Power Amplifier	86.50.36	0.60		
Remove integrated head unit transit bracket	86.50.89/39	0.50		
Software download - IHU/HLDF/Amplifier modules	86.50.89/40	1.40		

Normal warranty policy and procedures apply.

NOTE: The information in Technical Information bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment required to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers."

If you are not a Retailer, do not assume that a condition described affects your vehicle. Contact an authorized Land Rover service facility to determine whether the bulletin applies to a specific vehicle.

REPAIR PROCEDURE

"INFOTAINMENT" SYSTEM DIAGNOSIS

⚠ **NOTE: A battery disconnect/hard reset involves removal of the battery ground lead for a minimum of two minutes.**

⚠ **NOTE: All three units, the audio front control module (or integrated head unit - IHU), the front entertainment module (or high line display function - HLDF) and the audio amplifier module (Amp), MUST be updated to the latest software levels together.**

⚠ **NOTE: When an audio amplifier module is replaced, the new unit will require programming to ensure the latest software level is installed.**

1. Refer to the following diagnostic table and determine the action required to correct the customer complaint:

Symptom	Cause	Action
Integrated head unit (IHU)/Infotainment system switches off by itself after approx 30 seconds.	Security set on media orientation system transport (MOST) software error.	Place vehicle into 'Transit mode' and out again using WDS disc 10 or later ensuring Security on MOST is not activated.
Cannot insert CD and/or 'CD Error' on screen. Issue does not go away with battery hard reset.	The transit bracket has been left in the IHU.	Remove IHU transit bracket.
Vehicle has Harman Kardon Hi-line in-car entertainment (ICE) and customer is complaining of poor or weak sound with too much bass.	Possible wrong amplifier installed.	Check for correct amplifier and change for correct one if required.
Vehicle has Harman Kardon Logic7 Premium ICE, customer is complaining of poor or weak sound and/or too much bass and/or some speakers not working.	Possible wrong amplifier installed.	Check for correct amplifier and change for correct one if required.
CD continues to run/change disc even though cabin audio is listening to another audio source.	Same source lockout issue where one or more of the headphone sockets are still set to CD even though there are no headphones attached.	Complete a battery disconnect/hard reset then upload latest software to IHU/HLDF/Amp. (This will introduce a fix which sets the headphone sockets inputs to Aux on each ignition cycle and stops the CD running in the background. However, if CD is selected by any one or more of the headphone sockets and not selected back during that ignition on period the CD will continue until ignition is cycled again.)
Vehicle has Harman Kardon Hi-line ICE and customer is complaining of poor or weak sound with too much bass but has the correct amplifier installed.	No equalization (EQ) function file in the amplifier	Complete a battery disconnect/hard reset then upload latest software to IHU/HLDF/Amp.

Symptom	Cause	Action
Vehicle has Harman Kardon Logic7 Premium ICE, customer is complaining of poor or weak sound and/or too much bass and/or some speakers not working but has the correct amplifier installed.	No EQ file in the amplifier.	As above – hard reset and software upload
Vehicle has no sound but everything otherwise is working correctly.	Failed EQ file download muting amplifier.	As above – hard reset and software upload
Infotainment system switches on but on some occasions there is no sound, IHU/Infotainment does not respond to any inputs yet appears to be on. System okay on next ignition cycle.	System software error.	As above – hard reset and software upload
Infotainment system switches on but occasionally switches off on its own.	System software error.	As above – hard reset and software upload
Infotainment system appears to freeze with the NAV screen showing the Land Rover logo page. Does not respond to any inputs. Okay on next ignition cycle.	System software error.	As above – hard reset and software upload
Infotainment system does not switch off when key removed and remains on for over one hour. (Please note with key out system will still switch on and is set to switch off automatically after one hour if not switched off manually).	System software error.	As above – hard reset and software upload
Cannot insert CD and/or 'CD Error' on screen. Issue goes away following battery hard reset.	System software error.	As above – hard reset and software upload
Cannot eject CD and/or 'CD Error' on screen. Issue goes away following battery hard reset.	System software error.	As above – hard reset and software upload
Audio does not return following voice command.	System software error.	As above – hard reset and software upload
Voice command, 'CD play', sometimes does not work.	System software error.	As above – hard reset and software upload
CD plays wrong track following voice command even though it acknowledged the requested track.	System software error.	As above – hard reset and software upload
CD appears to jump or skip playing sound only in short bursts.	System software error.	As above – hard reset and software upload
Navigation comes up with white screen stating 'awaiting download'.	System software error.	As above – hard reset and software upload
Navigation comes on and freezes in the Land Rover logo screen.	System software error.	As above – hard reset and software upload

⚠ **NOTE: If the vehicle infotainment system displays a fault as detailed in the above table, the appropriate fix must be attempted before replacing hardware.**

⚠ **CAUTION: Software uploads may take up to 45 minutes <u>per module</u>. Precautions must be taken to avoid excess battery voltage drop during the process, which could result in upload failure. A battery charger set at low amps should always be installed.**

2.   Connect a suitable battery charger to the vehicle battery.

⚠ **NOTE: WDS disc 10 or later must be used.**

3.   Connect T4/WDS to the vehicle.

4.   Follow the on-screen instructions and proceed to 'Vehicle Configuration'.

5.   Proceed to the 'Module Programming' menu.

6.   Enter the 'Configure Existing Modules' menu.

7.   From the drop down menu that appears, select the 'front entertainment module' (also referred to as the high level display function - HLDF).

⚠ **NOTE: The upload time for this software update may take up to 45 minutes. During this process, the user will be asked to select the ICE specification level. The levels are defined as:**

- **Low Line - Standard system (NON-NAS)**

- **High Line - Harmon Kardon system**

- **Premium - Harmon Kardon with Logic 7**

8.   Follow the on-screen instructions to upload the latest software level (automatically selected).

9.   When complete, return to the 'Configure Existing Modules' menu.

10. From the drop down menu that appears, select the 'audio amplifier module' (Amp).

11. Follow the on-screen instructions to upload the latest software level (automatically selected).

12. When complete, return to the 'Configure Existing Modules' menu.

13. From the drop down menu that appears, select the 'audio front control module' (also referred to the integrated head unit - IHU).

⚠ **CAUTION: Unlike the other module updates, no progress status will be displayed on the vehicle display unit. Do not abort the upload process until WDS reports complete.**

14. Follow the on-screen instructions to upload the latest software level (automatically selected).

15. Exit WDS and disconnect T4 from the vehicle.

16. Retest the system to ensure the fault has been rectified.