Reference	SSM71869
Models	F-TYPE / X152 XE / X760 XF / X260 XJ / X351
Title	Unable To Unlock / Start Vehicle With Smart Key
Category	Electrical
Last modified	03-Sep-2015 00:00:00
Symptom	203000 Basic Electrical
Attachments	111Instructions to record a CAN trace.pdf (111Instructions to record a CAN trace.pdf) Non start RFA BCM RGTM - SSM flowchart 28_07_15.pdf (Non start RFA BCM RGTM - SSM flowchart 28_07_15.pdf)
Content	

Models affected

XJ / X351 – 13MY onwards
F-Type/ X152 – 14MY onwards
XF-X260-16MY onwards
XE-X760-16MY onwards

<u>Issue</u>
Jaguar are currently investigating Body Control Modules (BCM) and Remote Function Actuators (RFA) replaced for a non-start condition.
Following supplier analysis the modules have been categorised as "No Fault Found".
<u>Cause</u>
Currently under analysis.

<u>Action</u>
If a vehicle is presented with the following symptoms please follow the test procedure outlined below before consideration is given to component replacement:
Vehicle does not lock or unlock using the key fob, or passive entry exit is not functioning.
After gaining entry to the car using key blade it does not start.
Even if entry is possible to the car, the car does not start when start button is pressed.
The vehicle has not had a software download immediately prior to the failure.
Test procedure:
Please follow the test procedure as detailed in the flowchart attached. Please note details at all important decision points. If this process is unsuccessfull in resolving the issue please submit a Technical Assistance(TA) request.
Process for obtaining a can trace are also attached.
Please Note:
1. Do not disconnect the battery or perform a hard reset on the vehicle at least until this flow chart has been followed.
2. Do not disconnect or move any connectors on the BCM
3. If entry is gained in the vehicle with the key blade the alarm may sound, do not press the ignition switch to shut the alarm off instead muffle the alarm sounder first then follow the test process in the flowchart.

Instructions to record a CAN trace

Pre-requisites

To carry out a CAN link monitor recording you must ensure you have the appropriate SW version and Firmware version *for the device under use* is updated as per the following procedure

SW= Software installed on tester (updated through Windows Start > All Programs > JLR > SDD > VCI Device Drivers)

FW= Firmware installed on device (updated through DA App Hub for DA devices & I-View Device Manager for I-View)

> 1. VCM - N/A (automatically updated but DVD137+ recommended)
> 2a. DA-Dongle - SW: V4.0 / FW: V57
> 2b. DA-Davina - SW: V4.0 / FW: V57
> 2c. DA-ST512 - SW: V4.0 / FW: V57
> 3. I-View - SW: V1.4.0 / FW: V5.1.0
> 4. MongoosePro JLR - SW: V1.1.12 / FW: N/A (automatically updates)

To run the CAN Link Monitor without diagnostics in Symptom Driven Diagnostics (SDD):

1. Select 'START' (Windows 7) or the Windows icon (Windows XP) from bottom tool bar.
2. Select 'All Programs'.
3. Select 'JLR'.
4. Select 'SDD'.
5. Select 'CAN Link Monitor'. A pop-up box will show.
6. Select 'Capture'.
7. Select 'Configure'.
8. Select the vehicle from the Platform drop-down menu.
9. Make sure both the Low Speed and High Speed CAN Networks are selected.#
10. Select "'MONITOR WITHOUT RUNNING DIAGNOSTICS' from the Filter range box
11. Insert USB Flash Drive into a USB port on the SDD machine.
12. Select the drive location for the USB Flash Drive from the Log File box.
13. Enter in the vehicle VIN as the File Name.
14. Select 'OK'.
15. Select 'CAPTURE'
16. Select 'START LOGGING'.A pop-up box will show 'Logging started successfully'.
17. Minimise the CAN Link Monitor window to the tool bar.
18. Start the vehicle function that needs to be monitored.
19. When the vehicle function has completed, select CAN Link Monitor tab from the tool bar.
20. Select 'CAPTURE'.
21. Select 'STOP LOGGING'. A pop-up window will display 'Logging stopped successfully'.
22. Locate the CAN Link Monitor file on the USB Flash Drive.
23. Open file and make sure the data has recorded correctly.
24. Close the file.
25. Remove the USB flash drive from SDD machine.

Start

Please note down the answers to all questions in this flowchart and update the TA at the end of the process!
Note vehicle condition as delivered i.e.
- Mirrors folded in or out? (powerfold)
- Look through windows are the doors locked or not on the inside?
- Are the smart keys in the vehicle or outside? If possible photograph key location in vehicle before moving anything.
    Confirm smart key is not being blocked by smart phone, laptop, phone chargers / invertors etc.
    NOTE:- You can do this by making sure that any of the above are turned off and removed from the vehicle.

Press key fob button or Pull door handle on passive entry vehicles.
(Please note what you have done.)

Doors unlock?
Power fold Mirrors fold out? (If fitted)

If required, gain entry using key blade.

Does Alarm sound?
Muffle sounder if required.

Check Battery Voltage and record it on the TA.
Do NOT disconnect the Battery.
Connect Battery to a power source.

Do NOT press ignition/ Start button

Connect SDD machine

Start CAN link Monitor, start CAN log as per correct process.

Start SDD session

Check CAN integrity screen & Note any modules with a RED Cross.

Stop CAN Link Monitor and attach it to the TA.

Start another CAN link Monitor, start CAN log as per correct process.

Press start button without pressing brake pedal.
NOTE:- this should be pressed for between 1-3s

Ignition ON ? — Yes — The RFA & BCM are responding as required.

— No —

Smart Key Not Found displayed? — Yes — Place key at IAU. Press start button without pressing brake pedal — Ignition ON ? — Yes — Switch ignition OFF — All functions restored? — No — Remove and put back fuse 17 from BCM to RESET RFA

— No

Ignition ON ? — No — Confirm the correct keys are being used by confirming the correct key blades.
Run SDD IAU replacement App.

All functions restored? — Yes

All functions restored? — No — Check RFR for any RFA HW related fault codes (i.e. RFA reports DTC B12EA-96 or U201F-00 or U201F-31 or U201F-95. Rectify as required.

If available, remove and put back the **Upper** RGTM power connector to reset the module. — Check the RGTM — No — All functions restored? — yes

All functions restored? — Yes

— No

If available, remove and put back the **Lower** RGTM power connector to reset the module. — All functions restored? — Yes

— No

Check the BCM

Check the BCM

Carry out Hazard flasher test, press hazard light switch

Side repeaters work? —Yes→ The BCM is responding as required.

No

If available, does the Hazard Switch illumination work? —Yes→ The BCM is responding as required.

No

Hazard Switch issue?

IPC Cluster indicator tell-tale works? —Yes→

No

Exterior Lights: Turn the master exterior light switch to position light position

IPC Cluster position light tell-tale ON? —Yes→
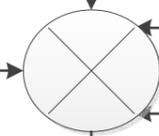
No

Is the switch illumination ON? —Yes→

No

Are the exterior position lights ON? —Yes→ The BCM is responding as required.

No

Make sure RFA has the latest software

If vehicle does not start or unable to get ignition on then it is Now outside the scope of this flow chart.

Follow SDD system mapping and navigate to:-
Powertrain / Engine system / Starting system (& any further sub-symptoms) or
Electrical / Battery / Power distribution / Ignition supplies (& any further sub-symptoms)
Then perform the None Start application process.

Stop SDD session then stop CAN Link Monitor, Enter details on TA and then attach CAN log and session files. Mention any further comments from customer that may be relevant.

End

If the the data is too large at the end of this process contact DTS for help in recovering this data. Or attach to TA.

To stop the CAN Link Monitor :

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19. When the vehicle function has completed, select CAN Link Monitor tab from the tool bar.
20. Select 'CAPTURE'.
21. Select 'STOP LOGGING'. A pop-up window will display 'Logging stopped successfully'.
22. Locate the CAN Link Monitor file on the USB Flash Drive.
23. Open file and make sure the data has recorded correctly.
24. Close the file.
25. Remove the USB flash drive from SDD machine.