

LTB01238NAS1

# TECHNICAL BULLETIN

02 NOV 2018

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NOTE: The information in Technical 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 this bulletin applies to a specific vehicle.

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## SECTION:

419-00

## SUBJECT/CONCERN:

'Smart key not found' Message Displayed and Poor Smart key Operation

## AFFECTED VEHICLE RANGE:

MODEL:	MODEL YEAR:	VIN:
Discovery (LR)	2018	047448-079570
Range Rover Sport (LW)	2018	181320-813922
Range Rover (LG)	2018	380217-516166

## MARKETS:

### **NORTH AMERICA**

## CONDITION SUMMARY:

#### SITUATION:

A 'Smart key not found' message may be displayed on the Instrument Cluster and poor Smart key operation may be evident.

### CAUSE:

This may be caused by a wiring harness issue or faulty Radio Frequency (RF) antenna.

### **ACTION:**

Should a customer express this concern, follow the Diagnostic Procedure and Workshop Procedure below.

## PARTS:

PART NUMBER	DESCRIPTION	QUANTITY			
Discovery	Discovery				
LR112609	RF Antenna with Coaxial Cable	1			
BNP3996	Adhesive Pad(s)	12			
LR091317	Headliner trim clip	1			
LR034879	B-pillar trim clip(s)	4			
LR036129	C/D-pillar trim clip(s)	16			
LR090727	C/D-pillar trim clip(s)	6			
LR082272	C/D-pillar trim clip(s)	4			
Range Rover Sport					
LR112609	LR112609 RF Antenna with Coaxial Cable				
BNP3996 Adhesive Pad(s)		12			

PART NUMBER	DESCRIPTION	QUANTITY		
LR043263	Headliner trim clip	1		
LR034879	B-pillar trim clip(s)	4		
LR006101	C-pillar trim clip(s)	4		
LR036129	C-pillar trim clip(s)	4		
LR034879	C-pillar trim clip(s)	4		
LR038293	D-pillar trim clip(s)	8		
Range Rover				
LR112609	Radio Frequency (RF) Antenna with Coaxial Cable	1		
BNP3996	Adhesive Pad(s)	16		
LR043334	Headliner trim clip	1		

## TOOLS:



Jaguar Land Rover-approved Midtronics battery power supply



Jaguar Land Rover-approved diagnostic equipment with latest PATHFINDER software

## WARRANTY:

## △ NOTES:

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 JLR claims submission system to obtain the latest repair time. The JLR Claims Submission System 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
RFA coaxial cable Range Rover	86.54.39	2.00	07	LR112609
RFA coaxial cable Range Rover Sport	86.54.39	1.8	07	LR112609
RFA coaxial cable Discovery	86.54.39	2.1	07	LR112609



## ∧ NOTE:

Normal Warranty procedures apply.

#### DIAGNOSTIC PROCEDURE:

## **CAUTIONS:**

- A Jaguar Land Rover-approved Midtronics battery power supply must be connected to the vehicle startup battery.
- All ignition ON/OFF requests MUST be performed; failure to do these steps may cause damage to vehicle control modules.
- Connect the Jaguar Land Rover-approved Midtronics battery power supply to the vehicle startup battery.

## ∧ NOTE:

The Jaguar Land Rover-approved diagnostic equipment must be loaded with PATHFINDER version 197 (or later).

Connect the Jaguar Land Rover-approved diagnostic equipment to the vehicle and begin a new session.



## ∧ NOTE:

The Jaguar Land Rover-approved diagnostic equipment will read the correct Vehicle Identification Number (VIN) for the current vehicle and automatically take the vehicle out of Transit mode (if required).

Follow all on-screen instructions.

Select ECU Diagnostics.

## Select All DTCs.

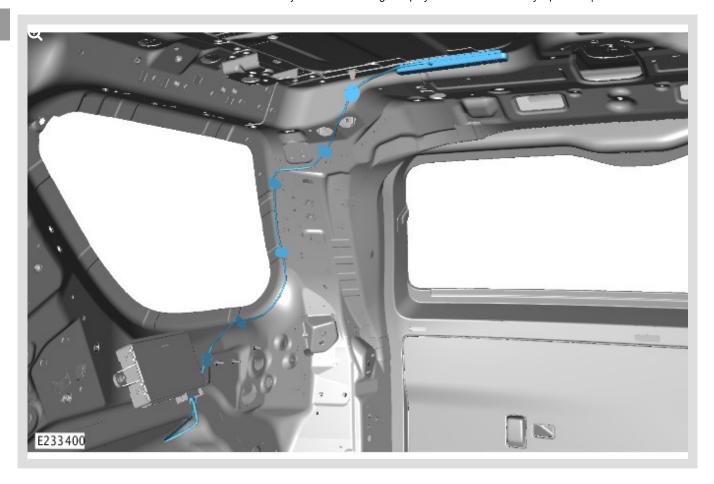
- If any DTC (Diagnostic Trouble Code) is stored in the Remote Function Actuator (RFA), do not continue with this Technical Bulletin; investigate and repair (see TOPIx Workshop Manual section 419-01: Anti-Theft -- Passive -- Diagnosis and Testing -- Anti-Theft -- Passive). To be performed as a separate claim.
- If there are no <u>DTC</u>s stored in the RFA, continue to the Workshop Procedure below.
- Exit the current session.
  - 1 If required, reset the vehicle to **Transit mode**.
  - 2 Select the Exit icon.
- Disconnect the diagnostic equipment and battery power supply from the vehicle.

#### SERVICE INFORMATION:



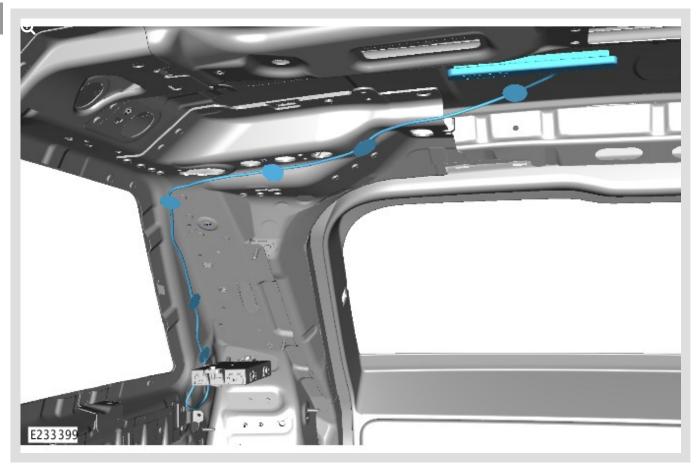
## △ NOTE:

Some components have been removed for clarity.



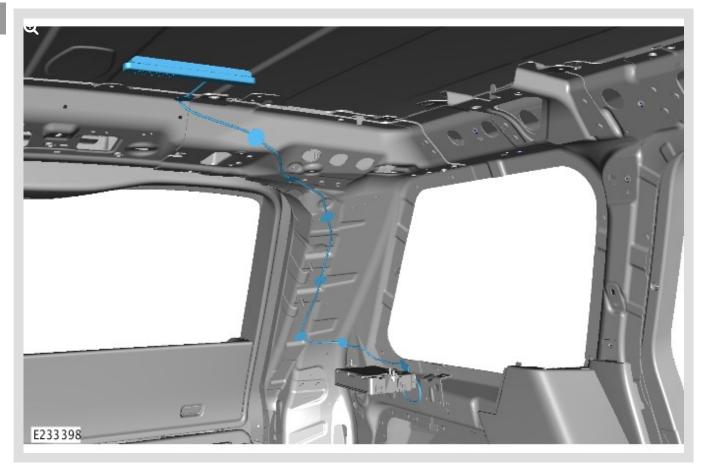
**Discovery:** Coaxial cable wiring harness route.





Range Rover Sport: Coaxial cable wiring harness route.





Range Rover: Coaxial cable wiring harness route.

## △ NOTES:

- If the keyless entry functionality is correct, do not continue with this Technical Bulletin. Continue diagnosis using the Jaguar Land Rover-approved diagnostic equipment and see TOPIx Workshop Manual.
- Check the voltage of the Smart key battery and replace if required.
- The coaxial cable and Radio Frequency (RF) antenna cannot be replaced separately.

### **WARNING:**

Avoid damaging the headlining.

Lower the headliner for access:

- DISCOVERY: (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Headliner -- Removal Steps 1-22).
- RANGE ROVER SPORT: (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Headliner Remove for Access and Refit).
- Remove the loadspace right trim panel (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Right Loadspace Trim Panel).
- Remove the luggage compartment right upper trim panel (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Luggage Compartment Upper Trim Panel).
- Inspect the coaxial cable from the Radio Frequency (RF) antenna to the Remote Function Actuator (RFA) is correctly routed, secured in position, and is not trapped. Inspect the condition of the connectors and the connector pins between the RF antenna and RFA for damage. Make sure that connections are secure. Refer to the Service Information section above for wiring harness routes and locations.
  - If the coaxial cable is damaged, incorrectly routed, or trapped, go to Step 7.
  - If the coaxial cable and/or connectors and connector pins are damaged, go to Step 6.
  - If the coaxial cable is incorrectly routed or trapped, but no damage has occurred, go to Step 5.

## ∧ NOTE:

Re-use the adhesive pads where possible.

Route the coaxial cable as shown in the Service Information section above and secure in place with adhesive pads to make sure the cable will remain in its position.

1 When all tasks are finished, go to Step 7



## ∧ NOTE:

The RF antenna must be located correctly in place by applying gentle pressure only to both sides -- not in the middle -- of the antenna body.

Renew the RF antenna and Coaxial cable.

- 1 Route the coaxial cable as shown in the Service Information section above; secure in place with adhesive pads to make sure the cable will remain in position
- 2 When all tasks are finished, go to Step 7
- 7 Test the Smart key functions.
  - If the customer concern is not evident (Smart key does function correctly), go to Step 8.
  - If the customer concern is evident (Smart key does not function correctly), diagnosis using the Jaguar Land Rover-approved diagnostic equipment and TOPIx Workshop Manual.
- Install the luggage compartment right upper trim panel (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Luggage Compartment Upper Trim Panel).
- Install the loadspace right trim panel (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Right Loadspace Trim Panel).

10

## **WARNING:**

Avoid damaging the headlining.

Install the headliner.

- DISCOVERY: (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Headliner -- Install Steps 8-11 only).
- RANGE ROVER SPORT: (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Headliner Remove for

Access and Refit).

#### WORKSHOP PROCEDURE 'B' - RANGE ROVER:



#### ∧ NOTES:

- If the keyless entry functionality is correct, do not continue with this technical bulletin. Continue diagnosis using the Jaguar Land Rover (JLR) approved diagnostic equipment and see TOPIx workshop manual.
- Check the voltage of the Smart key battery and replace if required.
- The coaxial cable and RF antenna cannot be replaced separately.

#### **WARNING:**

Avoid damaging the headlining.

Lower the headliner for access: (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Headliner Remove for Access and Refit).

- Remove the loadspace left trim panel (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Left Loadspace Trim Panel).
- Remove the luggage compartment left upper trim panel (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Luggage Compartment Upper Trim Panel).
- Inspect the coaxial cable from the Radio Frequency (RF) antenna to the Remote Function Actuator (RFA) is correctly routed, secured in position, and is not trapped. Inspect the condition of the connectors and the connector pins between the RF antenna and RFA for damage. Make sure that connections are secure. Refer to the Service Information section above for wiring harness routes and locations.
  - If the coaxial cable is damaged, incorrectly routed, or trapped, go to Step 7.

- If the coaxial cable and/or connectors and connector pins are damaged, go to Step 6.
- If the coaxial cable is incorrectly routed or trapped, but no damage has occurred, go to Step 5.

5

## ∧ NOTE:

Re-use the adhesive pads where possible.

Route the coaxial cable as shown in the Service Information section above and secure in place with adhesive pads to make sure the cable will remain in its position.

**1** When all tasks are finished, go to Step 7

6

## ∧ NOTE:

The RF antenna must be located correctly in place by applying gentle pressure only to both sides -- not in the middle -- of the antenna body.

Renew the RF antenna and Coaxial cable.

- 1 Route the coaxial cable as shown in the Service Information section above; secure in place with adhesive pads to make sure the cable will remain in position
- 2 When all tasks are finished, go to Step 7
- 7 Test the Smart key functions.
  - If the customer concern is not evident (Smart key does function correctly), go to Step 8.
  - If the customer concern is evident (Smart key does not function correctly), diagnosis using the Jaguar Land Rover-approved diagnostic equipment and TOPIx Workshop Manual.
- Install the luggage compartment left upper trim panel (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Luggage Compartment Upper Trim Panel).



Install the loadspace left trim panel (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Left Loadspace Trim Panel).

10



### **WARNING:**

Avoid damaging the headlining.

Install the headliner (see TOPIx Workshop Manual section 501-05: Interior Trim and Ornamentation -- Removal and Installation -- Headliner Remove for Access and Refit).