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INTERIOR LIGHTING (G2401025)

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PRINCIPLE OF OPERATION

For a detailed description of the interior lighting system and operation, refer to the relevant description and operation section of the workshop manual. REFER to: [Interior Lighting](#) (417-02 Interior Lighting, Description and Operation).

INSPECTION AND VERIFICATION

 CAUTION:

Diagnosis by substitution from a donor vehicle is **NOT** acceptable. Substitution of control modules does not guarantee confirmation of a fault, and may also cause additional faults in the vehicle being tested and/or the donor vehicle.

 NOTES:

- If the control module or a component may be at fault and the vehicle remains under manufacturer warranty, refer to the Warranty Policy and Procedures manual (section B1.2), or determine if any prior approval program is in operation, prior to the installation of a new module/component.
- When performing voltage or resistance tests, always use a digital multimeter accurate to three decimal places, and with an up-to-date calibration certificate. When testing resistance, always take the resistance of the digital multimeter leads into account.

1. Verify the customer concern

2. Visually inspect for obvious signs of mechanical or electrical damage

Visual Inspection

MECHANICAL	ELECTRICAL
■ Main interior lamp condition and installation ■ Map reading lamp(s) condition and installation ■ Vanity mirror lamp(s) condition and installation ■ Glove compartment lamp condition and installation ■ Footwell lamp(s) condition and installation ■ Door mirror approach lamp(s) condition and installation ■ Puddle lamp(s) condition and installation ■ Luggage compartment lamp condition and installation ■ Ambient lighting LEDs in rear door handles, door pockets, floor consoles (front and rear) condition and installation	■ Bulbs ■ Fuses ■ Battery junction box ■ Body control module ■ Wiring harness ■ Loose or corroded connector(s) ■ Main interior lamp switch ■ Map reading lamp switches ■ Vanity mirror lamp switches

MECHANICAL	ELECTRICAL
	■ Glove compartment lamp switch ■ Ambient lighting LEDs in rear door handles, door pockets, floor consoles (front and rear) ■ Tailgate lamp switch

3. If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step
4. If the cause is not visually evident, verify the symptom and refer to the symptom chart, alternatively check for diagnostic trouble codes (DTCs) and refer to the relevant DTC index
5. Check JLR claims submission system for open campaigns. Refer to the corresponding bulletins and SSMS which may be valid for the specific customer complaint and complete the recommendations as required

SYMPTOM CHART

SYMPTOM	POSSIBLE CAUSES	ACTION
Front/rear interior lamp inoperative	■ Automatic mode switched off ■ Fuse(s) blown ■ Circuit fault ■ Switch fault ■ Lamp internal failure	■ GO to Pinpoint Test A.
Ambient lighting LED inoperative	■ LED failure ■ Fuse(s) blown ■ Circuit fault	■ Check the LED condition ■ Check the LED connector ■ Check the fuse(s) ■ Check the lamp circuits
Map reading lamp(s) inoperative	■ Fuse(s) blown ■ Circuit fault ■ Switch fault ■ Lamp internal failure	■ Check the fuse(s) ■ Check the lamp circuits ■ Check the switch function ■ Check the lamp
Vanity mirror lamp(s) inoperative	■ Fuse(s) blown ■ Circuit fault ■ Switch fault ■ Lamp internal failure	■ Check the fuse(s) ■ Check the lamp circuits ■ Check the switch function ■ Check the lamp

SYMPTOM	POSSIBLE CAUSES	ACTION
Glove compartment lamp inoperative	■ Fuse(s) blown ■ Circuit fault ■ Switch fault ■ Lamp internal failure	■ Check the fuse(s) ■ Check the lamp circuits ■ Check the switch function ■ Check the lamp
Footwell lamp inoperative	■ Fuse(s) blown ■ Circuit fault ■ Lamp internal failure	■ Check the fuse(s) ■ Check the lamp circuits ■ Check the lamp
Door mirror approach lamp(s) inoperative	■ Fuse(s) blown ■ Circuit fault ■ Lamp internal failure	■ Check the fuse(s) ■ Check the lamp circuits ■ Check the lamp
Puddle lamp(s) inoperative	■ Bulb failure ■ Fuse(s) blown ■ Circuit fault	■ Check the bulb condition ■ Check the fuse(s) ■ Check the lamp circuits
Luggage compartment lamp inoperative	■ Fuse(s) blown ■ Circuit fault ■ Switch fault ■ Lamp internal failure	■ Check the fuse(s) ■ Check the lamp circuits ■ Check the switch function ■ Check the lamp

PINPOINT TESTS

PINPOINT TEST A : INTERIOR LAMP FUNCTION TESTS	
A1: INTERIOR LAMP FUNCTION TEST 1	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Lock the vehicle
	2 Unlock the vehicle using the smart key unlock switch
	3 Visually check the front and rear interior lamps
	Are any of the interior lamps illuminated? Yes Test passed. GO to A2. No Test failed. GO to Pinpoint Test B.

A2: INTERIOR LAMP FUNCTION TEST 2	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Visually check the front and rear interior lamps
	Is the front interior lamp illuminated? Yes Test passed. GO to A3. No Test failed. GO to Pinpoint Test E.
A3: INTERIOR LAMP FUNCTION TEST 3	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Visually check the front and rear interior lamps
	Is the rear left interior lamp illuminated? Yes Test passed. GO to A4. No Test failed. GO to Pinpoint Test F.
A4: INTERIOR LAMP FUNCTION TEST 4	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Visually check the front and rear interior lamps
	Is the rear right interior lamp illuminated? Yes Test passed. GO to A5. No Test failed. GO to Pinpoint Test G.
A5: INTERIOR LAMP FUNCTION TEST 5	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 NOTE: The interior lamps should extinguish 20 seconds after the vehicle was unlocked if a door was not opened.	
	1 Wait for the interior lamps to extinguish
	2 Visually check the front and rear interior lamps
	Have the front and rear interior lamps extinguished? Yes Test passed. GO to A6. No Test failed. Check the instrument cluster for a message indicating that a door is open when it is closed
A6: INTERIOR LAMP FUNCTION TEST 6	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 NOTE: The vehicle will lock 30 seconds after it was unlocked if a door was not opened. If this has occurred, unlock the vehicle using the smart key unlock switch and wait until the interior lamps extinguish before continuing.	

A6: INTERIOR LAMP FUNCTION TEST 6	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Open a door
	2 Visually check the front and rear interior lamps
	Are the front and rear interior lamps illuminated? Yes Test passed. GO to A7 . No Test failed. Check the instrument cluster for an absence of door open message when a door is open
A7: INTERIOR LAMP FUNCTION TEST 7	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 NOTE: Steps 2 to 4 should be completed within 20 seconds.	
	1 Enter the vehicle
	2 Close the door
	3 Start the engine
	4 Visually check the front and rear interior lamps
	Have the front and rear interior lamps extinguished? Yes Test passed. GO to A8 . No Test failed. Using the manufacturer approved diagnostic system, check the body control module for related DTCs and refer to the relevant DTC index
A8: INTERIOR LAMP FUNCTION TEST 8	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Briefly touch the front interior lamp lens
	2 Visually check the front and rear interior lamps
	Are the front and rear interior lamps illuminated? Yes Test passed. GO to A9 . No Test failed. GO to Pinpoint Test D .
A9: INTERIOR LAMP FUNCTION TEST 9	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Briefly touch the front interior lamp lens
	2 Visually check the front and rear interior lamps
	Have the front and rear interior lamps extinguished? Yes Test passed. GO to A10 .

A9: INTERIOR LAMP FUNCTION TEST 9	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	No Test failed. GO to Pinpoint Test D.
A10: INTERIOR LAMP FUNCTION TEST 10	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Stop the engine
	2 Visually check the front and rear interior lamps
	Are the front and rear interior lamps illuminated? Yes Test passed. GO to A11. No Test failed. Using the manufacturer approved diagnostic system, check the body control module for related DTCs and refer to the relevant DTC index
A11: INTERIOR LAMP FUNCTION TEST 11	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Exit the vehicle
	2 Close the door
	3 Lock the vehicle
	4 Visually check the front and rear interior lamps
	Have the front and rear interior lamps extinguished? Yes Tests complete No Test failed. Using the manufacturer approved diagnostic system, check the body control module for related DTCs and refer to the relevant DTC index

PINPOINT TEST B : AUTO MODE FUNCTION TESTS	
B1: AUTO MODE FUNCTION TEST 1	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 NOTE: Interior lamps auto mode off is also known as Hunting mode.	
	1 Set the ignition to on
	2 Touch the front interior lamp lens for 5 seconds (or until the interior lamp flashes)
	3 Check the touchscreen for a message
	Was "Auto function on" displayed on the touchscreen? Yes Test passed. GO to B2.

PINPOINT TEST B : AUTO MODE FUNCTION TESTS	
B1: AUTO MODE FUNCTION TEST 1	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	No Test failed. GO to B3.
B2: AUTO MODE FUNCTION TEST 2	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Open a door
	2 Close the door
	3 Visually check the front and rear interior lamps
	Are the front and rear interior lamps illuminated? Yes Tests complete No Test failed. GO to Pinpoint Test C.
B3: AUTO MODE FUNCTION TEST 3	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Touch the front interior lamp lens for 5 seconds (or until the interior lamp flashes)
	2 Check the touchscreen for a message
	Was "Auto function on" displayed on the touchscreen? Yes Auto mode now set to on. GO to Pinpoint Test C. No Test failed. GO to Pinpoint Test D.

PINPOINT TEST C : BATTERY AND CHARGING SYSTEM TESTS	
C1: BATTERY AND CHARGING SYSTEM TEST 1	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 NOTE: Interior lamp operation is inhibited if the battery state of charge is below threshold	
	1 Refer to the relevant section of the workshop manual and test the battery and charging system
	Are the battery and charging system operating within specification? Yes Test passed. GO to Pinpoint Test E. No Refer to the relevant section of the workshop manual and repair the battery and charging system as necessary

PINPOINT TEST D : INTERIOR LAMP SIGNAL TESTS	
D1: INTERIOR LAMP SIGNAL TEST 1	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Using the manufacturer approved diagnostic system, check datalogger signal - Master Interior Light Switch (0xD902)
	2 Briefly touch the front interior lamp lens and check for a change in the signal
	Did the signal change? Yes Tests inconclusive. GO to Pinpoint Test A . No Test failed. GO to D2 .
D2: INTERIOR LAMP SIGNAL TEST 2	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 NOTE: In step 1, do not disconnect the electrical connector(s). The lamp is removed for access only.	
	1 Refer to the relevant section of the workshop manual and remove the front interior lamp
	2 Set a multimeter to measure voltage
	3 Connect the multimeter to terminals 19 (YE-GY) and 10 (BK)
	Does the multimeter display battery voltage? Yes Test passed. GO to D3 . No Test failed. GO to D4 .
D3: INTERIOR LAMP SIGNAL TEST 3	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Connect the multimeter to terminals 19 (YE-GY) and 10 (BK)
	2 Briefly touch the front interior lamp lens and check for a change in the voltage
	Did the multimeter measure 0V? Yes Tests inconclusive. GO to Pinpoint Test A . No Install a new front interior lamp
D4: INTERIOR LAMP SIGNAL TEST 4	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Connect the multimeter to terminal 10 (BK) and earth
	Did the multimeter measure 0V? Yes Refer to the electrical circuit diagrams and check the front interior lamp switch signal circuit for open circuit, high resistance No

D4: INTERIOR LAMP SIGNAL TEST 4	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	Refer to the electrical circuit diagrams and check the front interior lamp earth circuit for open circuit, high resistance

PINPOINT TEST E : FRONT INTERIOR LAMP TESTS	
E1: FRONT INTERIOR LAMP TEST 1	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 NOTE: In step 1, do not disconnect the electrical connector(s). The lamp is removed for access only.	
	1 Refer to the relevant section of the workshop manual and remove the front interior lamp
	2 Open a door
	3 Set a multimeter to measure voltage
	4 Connect the multimeter to front interior lamp terminals 18 (GY-VT) and 10 (BK)
	Does the multimeter display battery voltage? Yes Install a new front interior lamp. To continue with interior lamp function test GO to Pinpoint Test A . No Test failed. GO to E2 .
E2: FRONT INTERIOR LAMP TEST 2	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Open a door
	2 Connect the multimeter to front interior lamp terminal 10 (BK) and earth
	Did the multimeter measure 0V? Yes Refer to the electrical circuit diagrams and check the front interior lamp supply circuit for open circuit, high resistance No Refer to the electrical circuit diagrams and check the front interior lamp earth circuit for open circuit, high resistance

PINPOINT TEST F : REAR LEFT INTERIOR LAMP TESTS	
F1: REAR LEFT INTERIOR LAMP TEST 1	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 NOTE: In step 1, do not disconnect the electrical connector(s). The lamp is removed for access only.	
	1 Refer to the relevant section of the workshop manual and remove the rear left interior lamp

PINPOINT TEST F : REAR LEFT INTERIOR LAMP TESTS	
F1: REAR LEFT INTERIOR LAMP TEST 1	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	2 Open a door
	3 Set a multimeter to measure voltage
	4 Connect the multimeter to rear left interior lamp terminals 2 (GY-VT) and 3 (BK)
	Does the multimeter display battery voltage? Yes Install a new rear left interior lamp. To continue with interior lamp function test GO to Pinpoint Test A. No Test failed. GO to F2.
F2: REAR LEFT INTERIOR LAMP TEST 2	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Open a door
	2 Connect the multimeter to rear left interior lamp terminal 3 (BK) and earth
	Did the multimeter measure 0V? Yes Refer to the electrical circuit diagrams and check the rear left interior lamp supply circuit for open circuit, high resistance No Refer to the electrical circuit diagrams and check the rear left interior lamp earth circuit for open circuit, high resistance

PINPOINT TEST G : REAR RIGHT INTERIOR LAMP TESTS	
G1: REAR RIGHT INTERIOR LAMP TEST 1	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 NOTE: In step 1, do not disconnect the electrical connector(s). The lamp is removed for access only.	
	1 Refer to the relevant section of the workshop manual and remove the rear right interior lamp
	2 Open a door
	3 Set a multimeter to measure voltage
	4 Connect the multimeter to rear right interior lamp terminals 2 (GY-VT) and 3 (BK)
	Does the multimeter display battery voltage? Yes Install a new rear right interior lamp. To continue with interior lamp function test GO to Pinpoint Test A. No Test failed. GO to G2.

G2: REAR RIGHT INTERIOR LAMP TEST 2	
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	1 Open a door
	2 Connect the multimeter to rear right interior lamp terminal 3 (BK) and earth
	Did the multimeter measure 0V? Yes Refer to the electrical circuit diagrams and check the rear right interior lamp supply circuit for open circuit, high resistance No Refer to the electrical circuit diagrams and check the rear right interior lamp earth circuit for open circuit, high resistance

DTC INDEX

For a list of diagnostic trouble codes (DTCs) that could be set on this vehicle, please refer to Section 100-00. REFER to:(100-00 General Information)

[Diagnostic Trouble Code Index - DTC: Body Control Module \(BCM\)](#) (Description and Operation),

[Diagnostic Trouble Code Index - DTC: Driver/ Passenger/ Rear Door Module \(DDM/PDM/RDM\)](#) (Description and Operation).

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