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EXTERIOR LIGHTING

TRAILER LAMPS (G2401021)

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PRINCIPLE OF OPERATION

For a detailed description of the exterior lighting system and operation, refer to the relevant description and operation section of the workshop manual. REFER to: [Exterior Lighting](#) (417-01 Exterior 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 checked 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.
- Check and rectify basic faults before beginning diagnostic routines involving pinpoint tests.
- Prior to carrying out fault diagnosis of the trailer lamp system, verify the operation of the towing vehicle lighting system with the trailer lighting plug(s) disconnected from the vehicle socket(s)

1. Verify the customer concern

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

Visual Inspection

MECHANICAL	ELECTRICAL
■ Trailer lamp(s) condition and installation ■ Trailer bulbs and installation ■ Trailer bulb holders and installation ■ Trailer socket(s), plug(s) and installation	■ Fuses ■ Relays ■ Stop lamp switch ■ Wiring harness ■ Loose or corroded connector(s) ■ Trailer socket(s) ground circuit(s)

MECHANICAL	ELECTRICAL
	■ Battery junction box ■ Body control module ■ Headlamp control module ■ Trailer junction box ■ Trailer relay box ■ Instrument cluster ■ CAN circuits

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
Trailer stop lamp(s) inoperative	■ Body system fault ■ Trailer stop lamp circuit short circuit to ground, short circuit to power, open circuit, high resistance	■ Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index ■ Refer to the electrical circuit diagrams and check the trailer stop lamp circuit for short circuit to ground, short circuit to power, open circuit, high resistance. Repair the wiring harness as necessary
Trailer stop lamp(s) dim	■ Body system fault ■ Trailer stop lamp circuit high resistance	■ Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index ■ Refer to the electrical circuit diagrams and check the trailer stop lamp circuit for high resistance. Repair the wiring harness as necessary
Trailer stop lamp(s) stuck on	■ Body system fault ■ Trailer stop lamp circuit short circuit to power	■ Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index ■ Refer to the electrical circuit diagrams and check the trailer stop lamp circuit for short circuit to power. Repair the wiring harness as necessary
Trailer fog lamp(s) inoperative	■ Body system fault	

SYMPTOM	POSSIBLE CAUSES	ACTION
	Trailer fog lamp circuit short circuit to ground, short circuit to power, open circuit, high resistance	- Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index - Refer to the electrical circuit diagrams and check the trailer fog lamp circuit for short circuit to ground, short circuit to power, open circuit, high resistance. Repair the wiring harness as necessary
Trailer fog lamp (s) dim	- Body system fault - Trailer fog lamp circuit high resistance	- Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index - Refer to the electrical circuit diagrams and check the trailer fog lamp circuit for high resistance. Repair the wiring harness as necessary
Trailer fog lamp (s) stuck on	- Body system fault - Trailer fog lamp circuit short circuit to power	- Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index - Refer to the electrical circuit diagrams and check the trailer fog lamp circuit for short circuit to power. Repair the wiring harness as necessary
Trailer tail / license plate lamp(s) inoperative	- Body system fault - Trailer tail / license plate lamp circuit short circuit to ground, short circuit to power, open circuit, high resistance	- Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index - Refer to the electrical circuit diagrams and check the trailer tail / license plate lamp circuit for short circuit to ground, short circuit to power, open circuit, high resistance. Repair the wiring harness as necessary
Trailer tail / license plate lamp(s) dim	- Body system fault - Trailer tail / license plate lamp circuit high resistance	- Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index - Refer to the electrical circuit diagrams and check the trailer tail / license plate lamp circuit for high resistance. Repair the wiring harness as necessary
Trailer tail / license plate lamp(s) stuck on	- Body system fault - Trailer tail / license plate lamp circuit short circuit to power	- Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index - Refer to the electrical circuit diagrams and check the trailer tail / license plate lamp circuit for short circuit to power. Repair the wiring harness as necessary
Trailer turn signal indicator lamp(s) inoperative	- Body system fault - Trailer turn signal indicator lamp circuit short circuit to ground, short circuit to power, open circuit, high resistance	- Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index - Refer to the electrical circuit diagrams and check the trailer turn signal indicator lamp circuit for short circuit to ground, short circuit to power, open circuit, high resistance. Repair the wiring harness as necessary

SYMPTOM	POSSIBLE CAUSES	ACTION
Trailer turn signal indicator lamp(s) dim	■ Body system fault ■ Trailer turn signal indicator lamp circuit high resistance	■ Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index ■ Refer to the electrical circuit diagrams and check the trailer turn signal indicator lamp circuit for high resistance. Repair the wiring harness as necessary
Trailer turn signal indicator lamps stuck on	■ Body system fault ■ Trailer turn signal indicator lamp circuit short circuit to power	■ Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index ■ Refer to the electrical circuit diagrams and check the trailer turn signal indicator lamp circuit for short circuit to power. Repair the wiring harness as necessary
Trailer reverse lamp(s) inoperative	■ Body system fault ■ Trailer reverse lamp circuit short circuit to ground, short circuit to power, open circuit, high resistance	■ Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index ■ Refer to the electrical circuit diagrams and check the trailer reverse lamp circuit for short circuit to ground, short circuit to power, open circuit, high resistance. Repair the wiring harness as necessary
Trailer reverse lamp(s) dim	■ Body system fault ■ Trailer reverse lamp circuit high resistance	■ Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index ■ Refer to the electrical circuit diagrams and check the trailer reverse lamp circuit for high resistance. Repair the wiring harness as necessary
Trailer reverse lamp(s) stuck on	■ Body system fault ■ Trailer reverse lamp circuit short circuit to power	■ Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index ■ Refer to the electrical circuit diagrams and check the trailer reverse lamp circuit for short circuit to power. Repair the wiring harness as necessary
Warning indicator(s) inoperative	■ Body system fault ■ Instrument cluster fault	■ Using the Jaguar Land Rover approved diagnostic equipment, check the central junction box for related DTCs and refer to the relevant DTC index ■ Using the Jaguar Land Rover approved diagnostic equipment, check the instrument cluster for related DTCs and refer to the relevant DTC index
Trailer connector power (battery) circuit inoperative	■ Trailer connector power (battery) circuit short circuit to ground, open circuit, high resistance	■ Refer to the electrical circuit diagrams and check the trailer connector power (battery) circuit for short circuit to ground, open circuit, high resistance. Repair the wiring harness as necessary
Trailer connector power	■ Trailer connector power (ignition) circuit short circuit to ground, open circuit, high resistance	■ Refer to the electrical circuit diagrams and check the trailer connector power (ignition) circuit for short circuit to ground, open circuit, high resistance. Repair the wiring harness as necessary

SYMPTOM	POSSIBLE CAUSES	ACTION
(ignition) circuit inoperative		

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: [Diagnostic Trouble Code Index - DTC: Body Control Module \(BCM\)](#) (100-00 General Information, Description and Operation).

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