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Interior Lighting -

Bulb Specifications

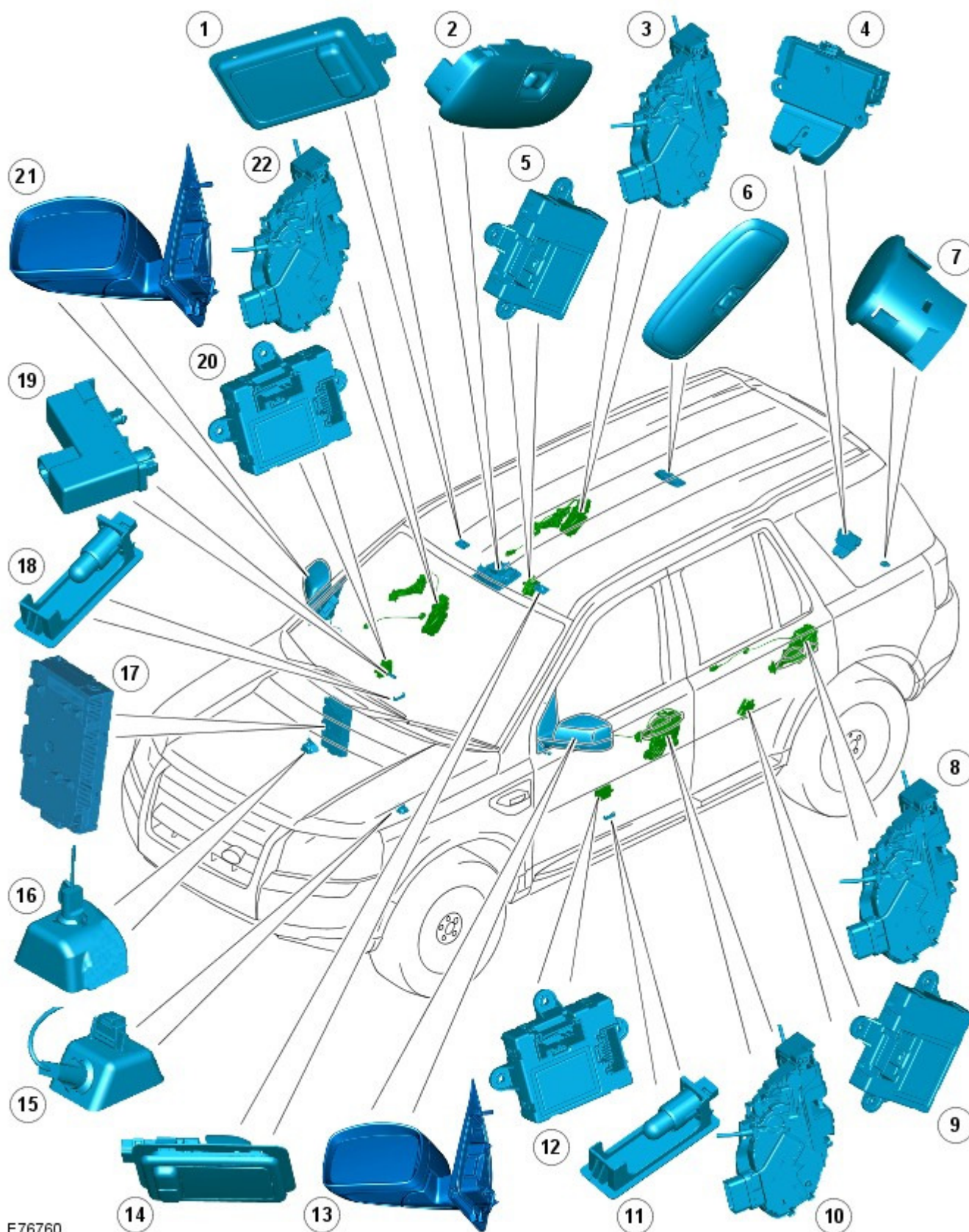
Bulb	Type	Rating
Glovebox lamp	W5W	5W
Interior lamps	W5W	5W
Luggage/liftgate lamps	W5W	5W
Luggage/footwell lamps	W5W	5W
Puddle lamps	W5W	5W
Vanity mirror lamp	W5W	5W

Part Number Interior Lighting - Interior Lighting

Description and Operation

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COMPONENT LOCATION



E76760

Item	Part Number	Description
1	-	Vanity mirror lamp
2	-	Front interior lamp (includes map reading lamps from 2009MY)

3	Rear door latch switch
4	Liftgate release motor
5	Rear door module
6	Rear interior lamp
7	Luggage compartment lamp
8	Rear door latch switch
9	Rear door module
10	Driver door latch switch
11	Driver door lamp
12	Driver door module
13	Exterior mirror lamp
14	Vanity mirror lamp
15	Driver footwell lamp
16	Passenger footwell lamp
17	Central Junction Box (CJB)
18	Passenger door lamp
19	Glovebox lamp
20	Passenger door module
21	Exterior mirror lamp
22	Passenger door latch switch

OVERVIEW

Operation of the interior lighting system, with the exception of the door and mirror lamps, is controlled by the CJB. Door and mirror lamp operation is controlled by the relevant door module.

In order to control the interior lighting system, the CJB receives inputs from the 4 door latch switches and the liftgate release motor. The system also interacts with the central locking system, illuminating the interior lamps and the mirror lamps on receipt of an unlock request. This request is transmitted to the CJB from the Radio Frequency (RF) receiver.

The front and rear roof mounted interior lamps contain a 3 position rocker switch. Automatic (Courtesy) operation of the lamps can be overridden by moving the switch to the 'always on' or 'always off' position.

If 'Courtesy' lighting is active and a hinged panel is left open, the CJB will extinguish all interior lamps after a period of 15 minutes. If a manual request for interior lighting has been made, the CJB will extinguish the lamps after a period of 30 minutes.

Pressing the light symbol on the remote handset will activate the 'Approach Lamp' feature. When activated, the CJB illuminates the mirror lamps and a number of exterior lamps.

For additional information, refer to: [Exterior Lighting](#) (417-01 Exterior Lighting, Description and Operation).

On vehicles from 2009MY, the front interior lamp incorporates 2 map reading lamps. The front interior lamp is fitted with 2 additional switches which control each lamp and operate independantly of the interior lighting functionality.

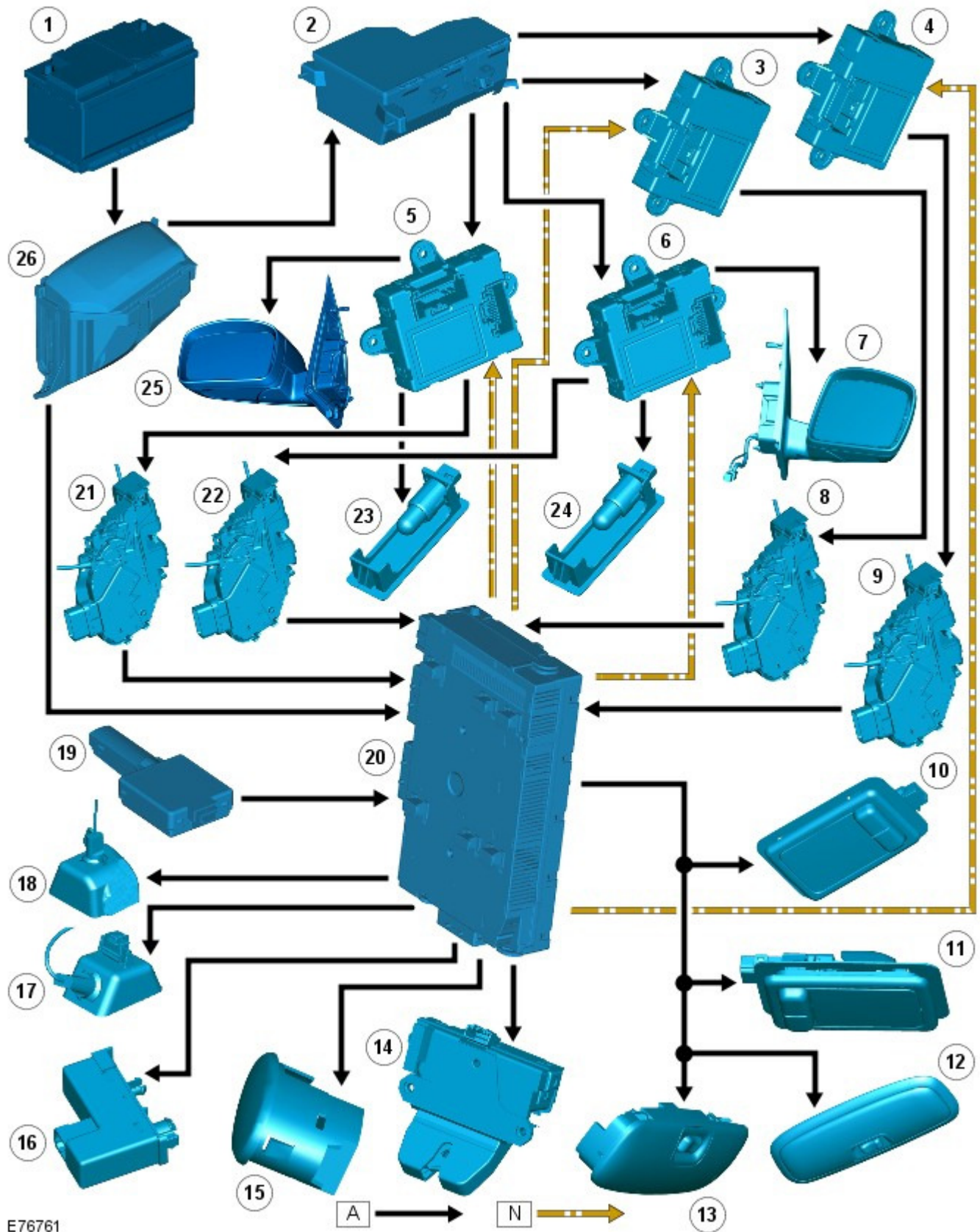
Transport Mode

All new vehicles will be delivered from the factory in transport mode. Transport mode inhibits a number of electrical systems and features, including the interior lamps, to eliminate quiescent drain from the battery during delivery. When the vehicle is in transport mode 'transp' will be displayed in the instrument cluster odometer.

To remove the vehicle from transport mode, the Land Rover approved diagnostic system must be connected during the Pre-Delivery Inspection (PDI). For more information, refer to the PDI manual.

CONTROL DIAGRAM

NOTE: **A** = Hardwired; **N** = Medium speed Controller Area Network (CAN) bus



E76761

Item		Description
1		Battery
2		Auxiliary Junction Box (AJB)
3		Rear door module
4		Rear door module
5		Driver door module
6		Passenger door module
7		Exterior mirror lamp

8		Rear door latch switch
9		Rear door latch switch
10		Vanity mirror lamp
11		Vanity mirror lamp
12		Rear interior lamp
13		Front interior lamp (includes map reading lamps on vehicles from 2009MY)
14		Liftgate release motor
15		Luggage compartment lamp
16		Glovebox lamp
17		Driver footwell lamp
18		Passenger footwell lamp
19		RF receiver
20		CJB
21		Driver door latch switch
22		Passenger door latch switch
23		Driver door lamp
24		Passenger door lamp
25		Exterior mirror lamp
26		Battery Junction Box (BJB)

PRINCIPLES OF OPERATION

Operation and control of the interior lamps can be split into 3 main groups.

Front and Rear Interior Lamps, Footwell Lamps, and Load Space Lamp

The CJB controls operation of these lamps by providing a voltage feed to both sides of each lamp. By increasing or decreasing the voltage supplied to one side of the lamp, the CJB controls the current flow through the lamp and thus the lighting level. This feature is controlled via the interior lamp Field Effect Transistor (FET), which is integral with the CJB and allows the CJB to ramp up and ramp down the illumination levels of the lamps when required. The CJB controls the ramp up time to 1.3 seconds, and the ramp down time to 2.6 seconds.

If the vehicle is involved in an accident violent enough to trigger the Supplemental Restraint System (SRS), the Restraints Control Module (RCM) will provide a 250 Hz 'crash' signal to the CJB. On receipt of this signal the CJB will illuminate the front and rear interior lamps, the footwell lamps and the load space lamp for up to 30 minutes. The CJB will extinguish the interior lamps prior to the 30 minute period elapsing if the crash signal from the RCM is replaced with a 10 Hz 'normal' signal.

Vanity Mirror and Glovebox Lamps

The vanity mirror lamps and the glovebox lamp are provided a voltage feed by the CJB. When vanity mirror lamp operation is selected by pressing the relevant switch, a ground path is created causing the lamp to illuminate. Glovebox lamp illumination is controlled by a microswitch which is integral with the lamp assembly. When the glovebox is opened, the switch contacts close creating a ground path for the lamp.

Door and Mirror Lamps

Operation of the door and mirror lamps is controlled by the door modules in conjunction with the CJB. The CJB provides a feed to each door latch switch. When a door is opened, the switch contacts close providing a feed to the relevant door module. On receipt of this feed, the module illuminates its door lamp by providing a feed and ground path.

The driver and front passenger door modules also control operation of the mirror lamps. When a valid unlock request is received from the RF receiver, the CJB notifies the driver and front passenger door modules via the medium speed CAN bus. On receipt of the CAN bus message the door module illuminates the relevant mirror lamp by providing a feed and ground path.

Interior Lighting - Interior Lighting

Diagnosis and Testing

Principles of Operation

For a detailed description of the interior lighting system, refer to the relevant Description and Operation section in 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.

1. Verify the customer concern.
2. Visually inspect for obvious signs of mechanical or electrical damage.

Visual Inspection

Mechanical	Electrical
<ul style="list-style-type: none"> ● Bulbs 	<ul style="list-style-type: none"> ● Fuses/relays (refer to electrical guide) ● Wiring harness ● Correct engagement of electrical connectors ● Loose or corroded connections

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, check for Diagnostic Trouble Codes (DTCs) and refer to the DTC Index.

DTC Index

NOTE: If the control module or a component is suspect and the vehicle remains under manufacturer warranty, refer to the Warranty Policy and Procedures manual (section B1.2), or determine if any prior approval programme is in operation, prior to the installation of a new module/component.

NOTE: Generic scan tools may not read the codes listed, or may read only five digit codes. Match the five digits from the scan tool to the first five digits of the seven digit code listed to identify the fault (the last two digits give extra information read by the manufacturer-approved diagnostic system).

NOTE: When performing voltage or resistance tests, always use a digital multimeter (DMM) accurate to three decimal places and with a current calibration certificate. When testing resistance, always take the resistance of the DMM leads into account.

NOTE: Check and rectify basic faults before beginning diagnostic routines involving pinpoint tests.

NOTE: If DTCs are recorded and, after performing the pinpoint tests, a fault is not present, an intermittent concern may be the cause. Always check for loose connections and corroded terminals.

DTC	Description	Possible Cause	Action
B113C11	Hazard switch illumination - circuit short to ground	<ul style="list-style-type: none"> ● Hazard switch illumination circuit - short to ground 	Refer to electrical circuit diagrams and check hazard switch illumination circuit for short to ground
B113C15	Hazard switch illumination - circuit short to power or open	<ul style="list-style-type: none"> ● Hazard switch illumination circuit - short to power, open circuit 	Refer to electrical circuit diagrams and check hazard switch illumination circuit for short to power, open circuit
B1D1312	Interior Lights #1 Circuit - circuit short to power	<ul style="list-style-type: none"> ● Instrument panel interior lights circuit - short to power 	Refer to electrical circuit diagrams and check instrument panel interior lights circuit for short to power
B1D1314	Interior Lights #1 Circuit - circuit short to ground or open	<ul style="list-style-type: none"> ● Instrument panel interior lights circuit - short to ground, open circuit 	Refer to electrical circuit diagrams and check instrument panel interior lights circuit for short to ground, open circuit
B1D1A12	Interior Lights Circuit 'C' - circuit short to power	<ul style="list-style-type: none"> ● Roof console interior lights circuit - short to power 	Refer to electrical circuit diagrams and check roof panel interior lights circuit for short to power
B1D1A14	Interior Lights Circuit 'C' - circuit short to ground or open	<ul style="list-style-type: none"> ● Roof console interior lights circuit - short to ground, open circuit 	Refer to electrical circuit diagrams and check roof panel interior lights circuit for short to ground, open circuit

DTC	Description	Possible Cause	Action
U025200	Lost Communication With Lighting Control Module - Rear 'B'	<ul style="list-style-type: none">● Lost communication with trailer module	Carry out the associated network test for this DTC using the manufacturer approved diagnostic system
U201011	Switch Illumination - circuit short to ground	<ul style="list-style-type: none">● Switch illumination circuit - short to ground	Refer to electrical circuit diagrams and check switch illumination circuit for short to ground
U201015	Switch Illumination - circuit short to power or open	<ul style="list-style-type: none">● Switch illumination circuit - short to power, open circuit	Refer to electrical circuit diagrams and check switch illumination circuit for short to power, open circuit