SECTION : 417-02 Interior Lighting

VEHICLE APPLICATION : 2008.0 Falcon

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DESCRIPTION AND OPERATION

Interior Lighting

The interior lighting consist of the following:

- Interior lamp
- Console lamp
- Map reading lamp and bulb
- Luggage compartment lamp
- Vanity mirror lamp
- Interior lamp switch
- Illuminated entry module

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DIAGNOSIS AND TESTING

Principles of Operation

The interior lamps are supplied positive power from the Body Electronics Module (BEM) battery saver circuit. This positive supply turns off 15 minutes after the ignition is turned off or door/lamp activity ceases. Operating the audio with the ignition off also activates the battery saver power supply to energise the on glass antenna amplifier. Pressing the remote entry unlock button or courtesy lamp switch, opening the boot or any of the doors will also activate the battery saver power supply.

The negative side of the courtesy lamps are also supplied from the BEM - refer to circuit diagrams for details. These can be switched by the BEM using the IDS tool.

Reading lamps and glove box lamps are switched to regular ground through their respective switches. For sedan, the luggage compartment lamp is switched to ground through the decklid latch ajar switch.

Visual Inspection Chart

Normal Condition	Possible cause of abnormality
Fuse not blown	Extra accessories added drawing more current.
	Wiring short circuit.
	Faulty switch (if applicable)
Globe filament in tact	Bulb life exceeded.
	Vibration damage.
Switch turns circuit on and off	Physical damage or heat damage.
	Ensure air can circulate around the lamp.
Lens, housing etc are not damaged	Physical or heat damage.
	Ensure air can circulate around the lamp.

Symptom Chart

Condition	Source	Action
• Courtesy lamp button on ICC not working	• Blown globe	• Check globe
	• Function disabled	• Press courtesy lamp switch for five seconds to reactivate function - see owners manual.
	• Internal ICC fault	• Diagnose button functionality - refer to ICC diagnostics Section 413-08.

DIAGNOSIS AND TESTING (Continued)

Condition	Source	Action
	• BEM fault	• Check BEM switches lamp on and off - refer to BEM diagnostics Section 419-10.
	• Damaged lamp unit	• Check for damage to terminal or connections.
	• Damaged wiring	• Check continuity of wiring to BEM.
• Courtesy lamps not turned on when doors opened.	• Blown globe	• Check globe.
	• Function disabled	• Press courtesy lamp switch for five seconds to reactivate function - see owners manual.
	• Internal ICC fault	• Diagnose button functionality - refer to ICC diagnostics Section 413-08.
	• BEM fault	• Check BEM door inputs and that it switches lamp on and off - refer BEM diagnostics Section 419-10.
	• Damaged lamp unit	• Check for damage to terminal or connections.
	• Damaged wiring	• Check continuity of wiring to BEM.
• Reading lamps not working	• Blown globe	• Check globe.
	• BEM fault	• Check BEM switches lamp on and off - refer to BEM diagnostics Section 419-10.
	• Damaged lamp unit	• Check for damage to terminal or connections.
	• Damaged wiring	• Check continuity of wiring to BEM.
• Glove box lamp not working	• Blown globe	• Check globe.
	• BEM fault	• Check BEM switches lamp on and off - refer to BEM diagnostics Section 419-10.
	• Damaged lamp unit	• Check for damage to terminal or connections.
	• Damaged wiring	• Check continuity of wiring to BEM.
• Luggage compartment lamp not working	• Blown globe	• Check globe.
	• BEM fault	• Check BEM switches lamp on and off - refer to BEM diagnostics Section 419-10.
	• Damaged lamp unit	• Check for damage to terminal or connections.
	• Damaged wiring	• Check continuity of wiring to BEM.

Pinpoint Tests

PINPOINT TEST A: LUGGAGE COMPARTMENT LAMP

Test Step		Result / Action to Take
A1	**INTIAL CHECK**	
	• Open boot	**Yes**
		Functioning correctly.
	• **Does the luggage compartment lamp illuminate?**	**No**
		Go to A2.

DIAGNOSIS AND TESTING (Continued)

Test Step	Result / Action to Take
A2 **FILAMENT CHECK**	
• Remove globe and check filament (use multimeter if necessary) • **Is the filament OK?**	**Yes** Go to A3. **No** Change globe and recheck.
A3 **IDS Check**	
• Use IDS and turn lamps on (See BEM diagnostics for switch input status). • **Does the lamp turn on?**	**Yes** Go to A4. **No** Go to A6.
A4 **IDS Check Continued**	
• Check the latch switch using the IDS (See BEM diagnostics for switch input status). • **Is switch functioning OK?**	**Yes** Functioning correctly. **No** Go to A5.
A5 **Wiring Condition**	
• Disconnect the wiring from the boot latch and check switch function with multimeter by latching and unlatching the unit. • Refer to wiring schematic for connection detail. • **Is the switch OK?**	**Yes** Check wiring to boot latch switch, Refer to wiring circuits and diagnostics. **No** Replace the latch.
A6 **Circuit Integrity**	
• Check the integrity of wiring (including fuse and globe) from BEM to lamp. • **Are fuses, wiring and globe OK?**	**Yes** Refer to BEM diagnostics. **No** Replace fuse, globe or wiring as required and recheck the system.

PINPOINT TEST B: GLOVE BOX/READING LAMP

Test Step	Result / Action to Take
B1 **VISUAL CHECK**	
• Open glove box / switch on reading lamp. • **Does the glove box / reading lamp illuminate?**	**Yes** Functioning correctly. **No** Go to B2.
B2 **FILAMENT CONDITION**	
• Remove globe and check filament (use mulitmeter if necessary). • **Is the filament OK?**	**Yes** Go to A3 **No** Change globe and recheck

DIAGNOSIS AND TESTING (Continued)

Test Step	Result / Action to Take
B3 **Wiring Condition**	
• Disconnect the wiring from the glove box / reading switch and check switch function with multimeter by latching and unlatching the unit. • Refer to wiring schematic for connection detail. • **Is the switch OK?**	**Yes** Check wiring to switch / globe. Refer to wiring circuits and diagnostics. **No** Replace the switch.

PINPOINT TEST C: COURTESY LAMPS

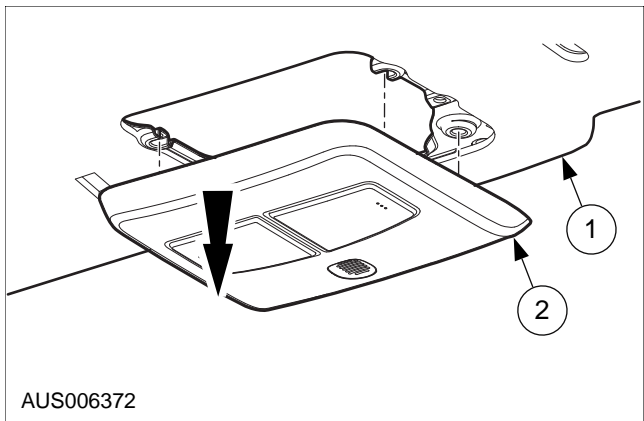| Test Step	Result / Action to Take
C1 **ICC CONTROLLED FUNCTIONALITY**	
• Refer to ICC section of the owners manual (a five second press of the courtesy lamp switch will toggle modes). • **Is the courtesy lamp function controlled by the interior command centre enabled?**	**Yes** Go to C2 **No** Enable the function by pressing the courtesy lamp switch on ICC for longer than five seconds. Recheck operation.
C2 **VISUAL CHECK**	
• Open doors. • **Do the courtesy lamps illuminate?**	**Yes** Functioning correctly **No** Go to C3
C3 **IDS SELF TEST**	
• Use the IDS and turn courtesy lamps on (See BEM diagnostics). • **Do the lamps turn on?**	**Yes** Go to C4 **No** Go to C5
C4 **IDS SELF TEST CONITINUED**	
• Check door switch using IDS (See BEM diagnostics for switch input status). • **Is the switch functioning OK?**	**Yes** System is operating - recheck system **No** Continue with BEM diagnostics to check door inputs ot BEM.
C5 **CIRCUIT INTEGRITY**	
• Check integrity of wiring (including fuse and globe) from the BEM to lamp. • **Are fuse, wiring and globe OK?**	**Yes** Refer to BEM diagnostics **No** Replace fuse, globe or wiring as required and recheck system.

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REMOVAL AND INSTALLATION

Overhead Console

Removal

1. Pull the overhead console down at the rear to disengage the retaining clips.

AUS006372

Item	Description
1	Roof trim panel
2	Overhead console

2. Disconnect map lamp electrical connections and remove the overhead console from the vehicle.
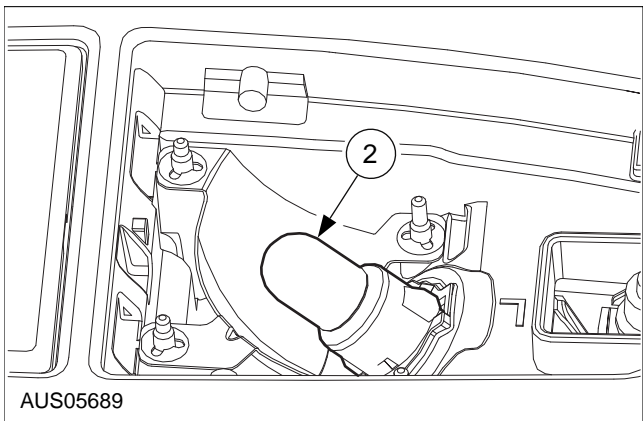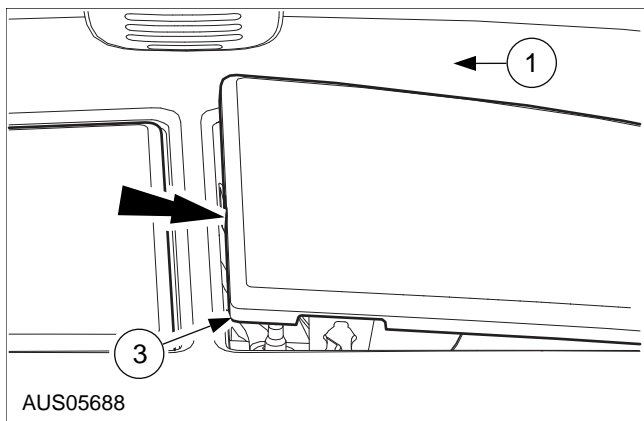
Installation

1. To install, reverse the removal procedure.

Map Lamp (Front and Rear)

Removal

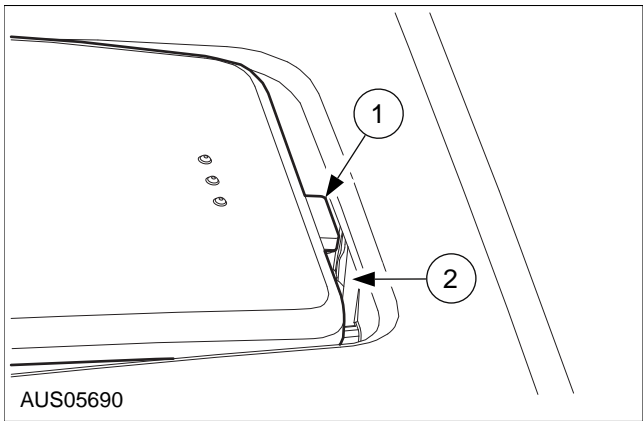1. Unclip the interior lamp lenses using a flat head screwdriver.

NOTE: Lenses are handed

AUS05688

AUS05689

Item	Description
1	Bezel
2	Bulb
3	Lens

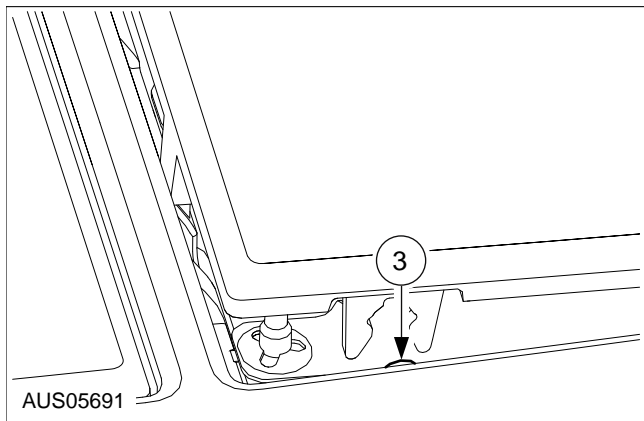2. Remove the bulb from the globe holder.

Installation

1. Install the new bulb to the globe holder.

2. Align the lens tab with the bezel slot.

3. Push the lens downward on the journals.

NOTE: An audible click will confirm correct fitment.
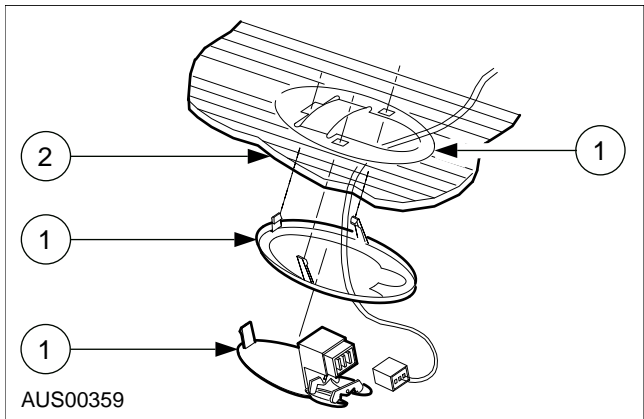

AUS05690

REMOVAL AND INSTALLATION (Continued)

AUS05691

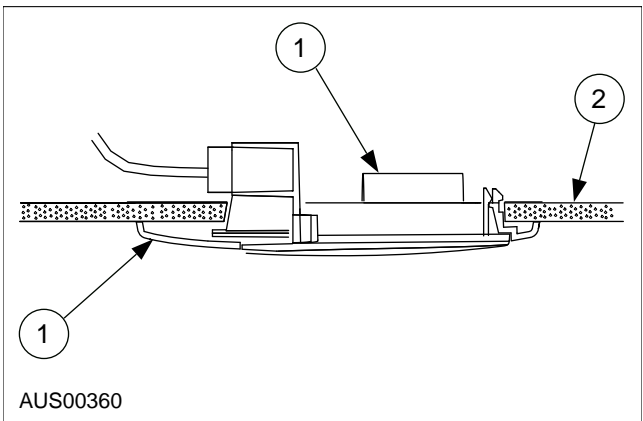| Item	Description
1	Lens tab
2	Housing/Bezel Slot
3	Journal

4. Check the map lamp for correct operation.

Vanity Lamp

Removal

1. Unclip the lens from the bezel using a flat head screwdriver on the end of the lens opposite to the button.

AUS00359

Item	Description
1	Bezel
2	Roof trim panel

AUS00360

Item	Description
1	Bezel
2	Roof trim panel

2. Remove the bulb from the vanity lamp.

3. Disconnect the electrical connector from the vanity lamp and remove the vanity lamp.

Installation

1. To install, reverse the removal procedure.

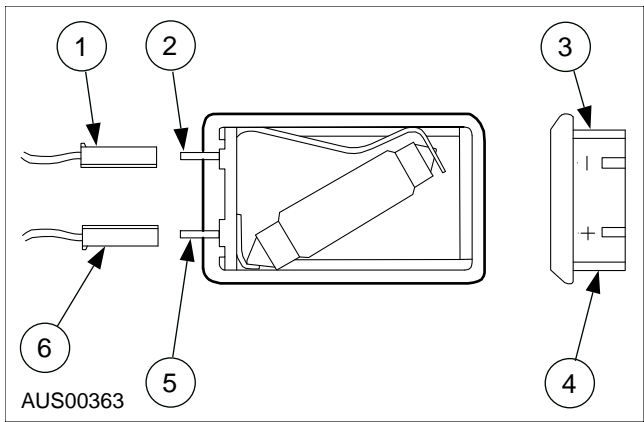## Luggage Compartment Lamp

Removal

1. Unclip the lens from the body using a flat head screwdriver.

REMOVAL AND INSTALLATION (Continued)

2. Disconnect the electrical connector from the luggage compartment lamp and remove the luggage compartment lamp.

AUS00363

Item	Description
1	Black insulator (earth)
2	Negative earth
3	Negative
4	Positive
5	Positive insulator
6	Red insulator (feed)

Installation

1. To install, reverse the removal procedure.