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2005 JEEP Wrangler Unlimited OEM Service and Repair Workshop Manual

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- 1 Starter B+ Nut
- 2 Starter Solenoid Wire Harness Connector
- 3 Starter
- 5. Disconnect the starter solenoid wire harness connector from the starter.
- 6. Remove the starter B+ nut from the starter.

heated mirror system will automatically turn OFF after about 5 minutes. The heated mirror system will also turn OFF if the ignition switch is turned to any position other than RUN or by manually pressing the rear window defogger switch a second time.

Circuit protection for the heated mirror system is provided by a fuse located in the PDC.

Body Control Module (BCM)

Component Index

The BCM is the configuration master for the vehicle. As the configuration master, the BCM broadcasts configuration data over the bus whenever the ignition is in the RUN state. The BCM also gates messages between the different bus networks that allow the HVAC system to properly function.

#### Inputs

- HVAC module configurations
- Remote start status
- Gated engine speed
- Vehicle configuration for country code, remote start present and HVAC type
- Averaged ambient temperature
- Outside air temperature
- Battery voltage
- Battery state of charge load shedding requests
- Gated ESS state
- Gated ESS present
- Type of vehicle start request

#### Outputs

EBL status

#### Hardwired

- EBL relay control
- Windshield de-icer relay control

#### Exterior Mirror Glass

Component Index

When the rear window defogger switch is pressed, the rear window defogger EBL system becomes activated and an electric heater grid located behind the glass of each of the outside rear view mirrors is energized.

# Electric Backlight (EBL) And Heated Mirror System

#### ELECTRIC BACKLIGHT (EBL) AND HEATED MIRROR SYSTEM

### NOTE

Illumination of the defogger switch indicator lamp does not necessarily mean that electrical current is reaching the rear window glass and/or the outside rear view mirror heating grids.

#### NOTE

See Wiring Information for circuit descriptions and diagrams of the rear window defogger (EBL) and heated mirror systems.

Operation of the Electric Back Light (EBL) and heated mirror systems can be confirmed by the following:



1 - Grid Lines

- 1. Mask the repair area with masking tape so that the conductive epoxy can be applied neatly. Extend the epoxy application to the grid line or the bus bar on each side of the break.
- 2. Follow the instructions in the repair kit for preparing the damaged area.
- 3. Remove the package separator clamp and mix the two conductive epoxy components thoroughly within the packaging. Fold the package in half and cut the center corner to dispense the epoxy.
- 4. Apply the epoxy through the slit in the masking tape or template. Overlap both ends of the break by at least 19 millimeters (0.75 inch).
- 5. For a terminal or pigtail wire replacement, mask the adjacent areas so the epoxy can be extended onto the adjacent grid line as well as the bus bar. Apply a thin layer of epoxy to the area where the terminal or pigtail wire was fastened and to the adjacent grid line.
- 6. Apply a thin layer of conductive epoxy to the terminal or bare wire end of the pigtail and place it in the proper location on the bus bar. To prevent the terminal or pigtail wire from moving while the epoxy is curing, it must be wedged or clamped.
- 7. Carefully remove the masking tape or template.
- 8. Allow the epoxy to cure 24 hours at room temperature or carefully use a heat gun for 15 minutes. When using a heat gun, hold it approximately 25.4 centimeters (10 inches) from the repair and do not allow the glass surface to exceed 204°C (400°F).
- 9. After the conductive epoxy is properly cured, remove the wedge or clamp from the terminal or pigtail wire.
- 10. Connect the wire harness leads to the grid terminals or pigtail wires and verify EBL operation.

		FRONT			
WL	68411362AC	HEATED SEAT CUSHION FRONT	FRONT HEATED SEAT CUSHION WITH BOLSTER	1.66	2.02
WL	68499382AC	HEATED SEAT CUSHION FRONT	FRONT VENT/HEAT LUX SEAT CUSHION	1.64	2.00
WL	68346541AC	HEATED SEAT CUSHION FRONT	FRONT VENT/HEAT LUX SEAT CUSHION	1.66	2.02

#### WS HEATED SEAT RESISTANCE VALUES

					RESISTANCE OHM	
MODEL	PART #	NOUN DESCRIPTION	PHYSICAL DESCRIPTION	MIN	MAX	
WS	68417895AD	HEATED SEAT BACK FRONT	HEATED SEAT FRONT BACK	1.59	1.59	
WS	68417896AC	HEATED SEAT CUSHION FRONT	HEATED SEAT FRONT CUSHION	1.72	2.10	
WS	68345909AC	HEATED SEAT BACK FRONT	FRONT HEATED SEAT	1.43	1.75	
WS	68346533AF	HEATED SEAT CUSHION FRONT	FRONT HEATED SEAT CUSHION	1.24	1.52	
WS	68346553AC	HEATED SEAT BACK RR	REAR VENT/HEAT BUCKET SEAT BACK	2.41	2.95	
WS	68346554AC	HEATED SEAT CUSHION RR	REAR VENT/HEAT BUCKET SEAT CUSHION	3.84	4.70	
WS	68630674AA	HEATED SEAT CUSHION FRONT	HEATED SEAT FRONT CUSHION	1.72	2.10	
WS	68630675AA	HEATED SEAT BACK FRONT	HEATED SEAT FRONT BACK	2.34	2.86	

## Front Seat Cushion Heater Pad

#### FRONT SEAT CUSHION HEATER PAD

#### REMOVAL

1. Remove the seat cushion cover as necessary (Refer to Body/Seats/COVER, Seat Cushion, Front/Removal and Installation)(Refer To List 1).



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## Second Row Seat Back Heater Pad

SECOND ROW SEAT BACK HEATER PAD

#### REMOVAL

- 1. Remove the seat (Refer to Body/Seats/SEAT/Removal and Installation)(Refer To List 1).
- 2. Remove the rear seat cushion cover as necessary (Refer to 23 Body/Seats/COVER, Seat Cushion, Front/Removal and Installation)(Refer To List 2).

## Heated And Cooled Accessories

#### HEATED AND COOLED ACCESSORIES

#### DESCRIPTION



The Heated and Cooling Accessories system is comprised of several different components. Those components are:

## Component Index

1.	Comfort Steering Wheel Surface Module (CSWSM)
2.	Steering Column Control Module (SCCM)