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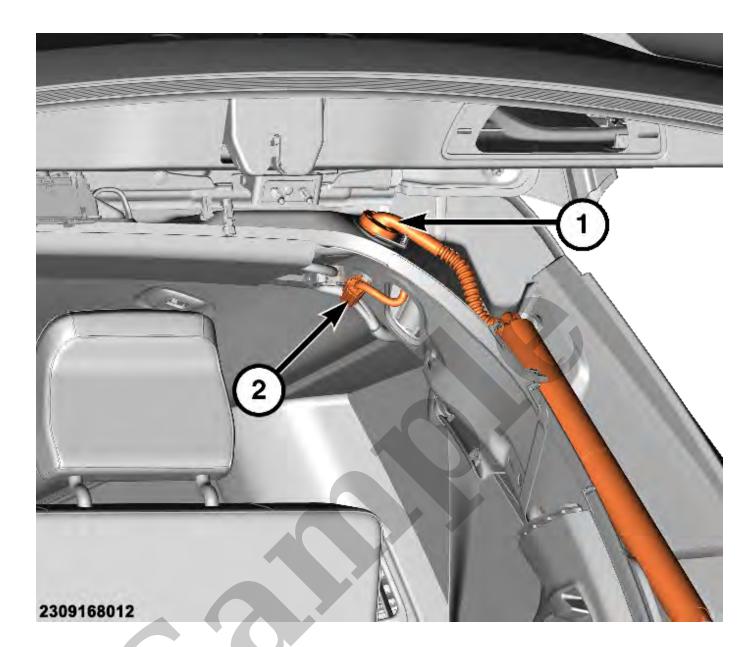
2006 JEEP Wrangler OEM Service and Repair Workshop Manual

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CONDITION	POSSIBLE CAUSES	CORRECTION
	vehicle).	information. Repair if required.
	5. Ineffective Power Liftgate Module (PLGM).	5. Test the PLGM using a diagnostic scan tool. Replace if required.
	6. Ineffective power liftgate latch assembly.	6. Check for foreign matter or damaged components preventing proper latch operation. Use diagnostic scan tool to cycle the latch. Replace if required.
	7. Ineffective liftgate Power Drive Unit (PDU).	7. Use a diagnostic scan tool to cycle the PDU. Replace if required.
FOBIK DOES NOT OPERATE POWER LIFTGATE, BUT OVERHEAD CONSOLE SWITCH DOES	Power Liftgate System     Inhibitors preventing     operation.	1. Check Inhibit Monitors using a diagnostic scan tool. Refer to the POWER LIFTGATE SYSTEM INHIBIT MONITORS section below. Repair if required.
	2. Power Liftgate Input/Output status incorrect.	2. Check power liftgate input - output status using a diagnostic scan tool. Refer to the POWER LIFTGATE INPUT-OUTPUT TABLE section below. Repair if required.
	3. Key in ignition.	3. FOB with Integrated Key (FOBIK) buttons do not function while key is in ignition by design. Remove key from ignition and retry.
	4. Ineffective FOBIK.	4. Reprogram FOBIK and retry. Replace if required.
	5. Ineffective Keyless Ignition Node (KIN).	5. Test the KIN using a diagnostic scan tool. Replace if required.
	6. Wiring problems (system or vehicle).	6. Refer to the appropriate wiring information. Repair if required.
	7 Ineffective Controller Area Network (CAN) data bus.	7. Test the CAN data bus using a diagnostic scan tool. Repair if required.

CONDITION	POSSIBLE CAUSES	CORRECTION
LIFTGATE SAGS AFTER  COMPLETION OF POWER OPEN  CYCLE OR MANUAL OPENING	1. Loose or damaged PDU or strut mounts.	1. Check for loose or broken PDU (left side) or strut (right side) ball stud attachments. Repair or replace if required.
	2. Ineffective liftgate gas- charged strut (prop rod).	2. Check gas-charged strut (prop rod) on right side of liftgate. Replace if required.
HIGH OPENING EFFORT - LIFTGATE OPENS VERY SLOWLY DURING MANUAL OR POWER OPERATION	1. Power Liftgate System Inhibitors preventing operation.	1. Check Inhibit Monitors using a diagnostic scan tool. Refer to the POWER LIFTGATE SYSTEM INHIBIT MONITORS section below. Repair if required.
	2. Loose or damaged PDU or strut mounts.	2. Check for loose or broken PDU (left side) or strut (right side) ball stud attachments. Repair or replace if required.
	3. Ineffective liftgate gascharged strut (prop rod).	3. Check gas-charged strut (prop rod) on right side of liftgate. Replace if required.
	4. Binding or sticking of components.	4. Establish location of binding or sticking components. Repair or replace if required.
	5. Wiring problems (system or vehicle).	5. Refer to the appropriate wiring information. Repair if required.
	6. Vehicle located on too steep of a grade for power liftgate operation.	6. Operate liftgate manually.
	7. Ineffective liftgate PDU.	7. Use a diagnostic scan tool to cycle the PDU. Replace if required.
LIFTGATE CONTINUES TO POWER-CLOSE AFTER REACHING FULL-CLOSED POSITION	Power Liftgate     Input/Output status incorrect.	1. Check power liftgate input - output status using a diagnostic scan tool. Refer

FALSE	TRUE	TRUE	Internal to the liftgate latch. Indicates when the latch is in secondary position. <b>Open</b> when in secondary position. <b>Closed</b> when out of secondary position.
FALSE	FALSE	FALSE	Internal to the liftgate latch. Essentially a park switch for the latch. When latch is running a cinch or release, this switch is <b>Closed</b> . After cinch or release is complete, the PLGM will reverse direction of the latch until the switch is <b>Open</b> .
FALSE	TRUE	FALSE	Internal to the PDU. Indicates when the liftgate is a few degrees from full open.  Closed when full open.  Open when not full open.
FALSE OR TRUE	FALSE OR TRUE	FALSE OR TRUE	When in motion, these signals will toggle between <b>Open</b> and <b>Closed</b> . The two signals together tell the PLGM the speed and distance of liftgate travel. These inputs are also used by the PLGM to sense obstacles encountered by the liftgate.
100	1600 TO 1800	100 TO 1600	This is a counter derived from the pulses coming from Position Sensors number 1 and 2. This count represents total travel of the liftgate (to mechanical end of travel).
ABOUT 1600	ABOUT 1600	ABOUT 1600	This is a counter derived from the pulses coming from Position Sensors number 1 and 2. This count represents the position of the full open switch in the PDU.
	FALSE FALSE OR TRUE	FALSE FALSE  FALSE OR TRUE  FALSE OR TRUE  100  1600 TO 1800  ABOUT 1600  ABOUT	FALSE FALSE FALSE  FALSE TRUE FALSE  FALSE OR TRUE TRUE  1600 TO 1800  ABOUT 1600  ABOUT 1600  ABOUT 1600



- 1 Grommet
- 2 Wire Harness Connector
- 3. Disconnect the wire harness connector.
- 4. Release the grommet and pull the wire harness out of the body opening.

# Hands Free Entry (HFE) Sensor And Module

### HANDS FREE ENTRY (HFE) SENSOR AND MODULE

#### **REMOVAL**

- 1. Remove the spare tire.
- 2. Remove the trailer hitch support bracket to fascia bolts.
- 3. Remove the rear fascia trailer hitch cover.



- 1 Wire Harness Connector
- 2. Disconnect the wire harness connector.



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- 1 Push-Pin Fasteners
- 3. Remove the push-pin fasteners.

#### YOUR CURRENT VEHICLE

## Warning

#### **WARNING**

#### **WARNING**

There is a small area located on each side of the liftgate from about the belt line down to the sill which is not protected by the power liftgate system pinch sensors. Extreme caution must be taken to prevent body extremities or other objects from entering this area once the liftgate reaches the secondary latch contact position, which is about 13 millimeters (1/2 inch) before the liftgate is fully closed. Failure to observe this warning may result in serious or fatal injury.

#### **WARNING**

Never attempt to enter, exit or reach through the liftgate opening with the power liftgate in motion. You could cause damage to the power liftgate system or components, and serious or fatal injuries may result.

#### CALITION

Never attempt to operate the power liftgate system while the Power Drive Unit (PDU) or a gas-charged hydraulic strut or prop is removed or disconnected. Damage to the power liftgate system or components may result.

- 1 Rear Bumper Antenna
- 2. Disconnect the rear bumper antenna wire harness connector.
- 3. Remove the fasteners securing the rear bumper antenna to the rear bumper bracket.
- 4. Remove the antenna from the rear bumper bracket.

#### **INSTALLATION**

Follow the removal procedure in reverse for general reassembly of the components on the vehicle.



- 1 Rear Floor Antenna
- 2 Fasteners

#### 2. NOTE

Antenna orientation can change based on vehicle configuration.

- 3. Disconnect the rear floor antenna wire harness connector.
- 4. Remove the fasteners securing the rear floor antenna to the rear floor.
- 5. Remove the antenna from the rear floor.

#### **INSTALLATION**

Follow the removal procedure in reverse for general reassembly of the components on the vehicle. The steps listed below are calling out specific procedures that should be followed during installation.

• Tighten the fasteners securely.