



POWER LOCKS

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GENERAL INFORMATION

All doors can be locked or unlocked electrically by operating the switch on either front door panels.

The rear doors can be locked or unlocked by actuation of the front door switch, or can be locked or unlocked mechanically and independently with their respective locking knobs.

The front doors can be locked or unlocked mechanically with the locking knob regardless of electrical locking and unlocking actuation with the front door knobs.

The right and left front door on all car lines can be locked or unlocked mechanically from the outside with the key or electrically as described above. The left front can also be unlocked by actuation of the inside remote door handle. The right front door can be unlocked by actuation of the inside remote door handle.

The deck lid lock consists of a latch with internal solenoid and push button switch. The solenoid is energized only when the push button is depressed.

DOOR LOCK INHIBIT

With the key in the ignition switch in the ON or OFF position and the driver's door open the Body Controller will ignore the command to lock the power door locks. Once the key is removed, or the driver's door is closed, the Body Controller will allow the power door locks to lock.

CHILD PROTECTION LOCK

The child protection lock is on the rear door only. The lock will disable the inside door handle from opening the door when engaged. The lock is part of the latch/lock assembly. The lock is engaged by moving a lever that is located on the rearward inside edge of the door.

POWER DOOR LOCKS

When vehicle is equipped with power door locks, the system includes an automatic door locking feature. Which is actuated through the vehicle's body controller.

The vehicle is built with the system enabled.

When the system is disabled the door locks will work by use of the door lock switches only. When this system is enabled the automatic door locks will work automatically.

The body controller controls the power locks when the door lock switch is activated. If the door lock switch is pressed for longer than eight consecutive seconds, the body controller will de-energize the door lock relay. Also, the body controller will automatically lock all doors when all of the conditions below are met:

- All doors are closed
- The vehicle speed exceeds 15 ± 1 MPH
- The throttle position sensor tip-in is greater than 10 ± 2 degrees

The DRB II must be used to enable/disable the automatic door lock system. Refer to the 1993 LH Body Diagnostic Procedures Manual for the procedure.

The body controller will automatically re-lock all doors if the above conditions are met and if any of the doors become ajar. The body controller does not control the door unlock function. The switch is wired directly to the lock relay.

The power lock motors are also equipped with a thermal protection system which prevents the motors from burning out. The motors may chatter if they are continuously activated.



DOOR LOCK SYSTEM TEST

For complete testing of the automatic door lock systems, refer to the 1993 LH Body Diagnostic Procedures Manual.

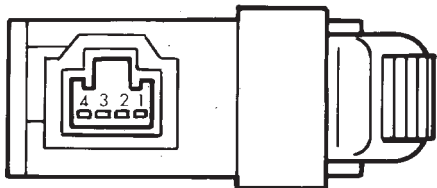
WIRING VOLTAGE TEST

The following wiring test sequence determines whether or not voltage is continuous through the body harness to switch.

- (1) Remove left side switch from door trim panel.
- (2) Carefully separate multiple terminal block on wiring harness from switch body.
- (3) Connect one lead of test light to a ground terminal:
 - Black Wire
 - Touch other test light lead to Red Wire terminal.
 - If test light comes on, the wiring circuit between the battery and switch is functional.
 - If test light does not come on, check 30 amp circuit breaker or for a open circuit.

SWITCH TEST

Remove the switch from its mounting location. Using an ohmmeter, refer to Fig. 1 to determine if continuity is correct in the Lock and Unlock switch positions. If these results are not obtained, replace the switch.



SWITCH POSITION	CONTINUITY BETWEEN	RESISTANCE VALUE
LOCK	1 and 4	$2700 \Omega \pm 10\%$
UNLOCK	1 and 4	$620 \Omega \pm 10\%$

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Fig. 1 Door Lock Switch Continuity Test

ELECTRIC MOTOR TEST

Make certain battery is in normal condition before circuits are tested.

To determine which motor is faulty, check each individual door for electrical lock and unlock or disconnect the motor connectors one at a time, while operating the door lock switch. In the event that none of the motors work, the problem maybe caused by a shorted motor, or a bad switch. Disconnecting the defective motor will allow the others to work.

To test an individual door lock motor, disconnect the electrical connector from the motor. To lock the door, connect a 12 volt power source to the positive

pin of the lock motor and a ground wire to the other pin (Fig. 2). To unlock the door reverse the wire connections at the motor pin terminals. If these results are NOT obtained, replace the motor.

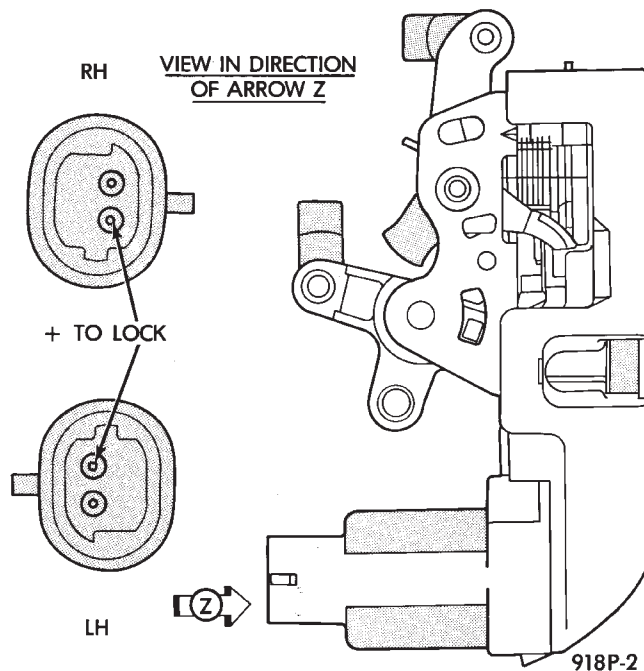


Fig. 2 Door Lock Motor

DOOR LOCK SYSTEM TEST

For complete testing of the body automatic door lock systems, refer to the 1993 LH Body Diagnostics Manual.

DOOR LOCK MOTOR REPLACEMENT

- (1) Remove door trim panel, refer to Group 23, Body for removal procedures.
- (2) Disconnect motor linkage at the latch/lock motor (Fig. 2).
- (3) Disconnect motor wire connector.
- (4) Remove latch/lock assembly attaching screws and remove assembly.

DECK LID OPERATION

For vehicles equipped with electric deck lid release.

TEST

- (1) Confirm solenoid lead wire is connected and 10 volts or more are available at solenoid.
- (2) Provide proper ground through latch mounting screws.
- (3) Remove latch and examine plunger. Plunger should spring back when pressed.
- (4) Insure that solenoid plunger travel is adequate approximately 16 mm (5/8 inch).

ADJUSTMENT

Adjust deck lid latch and striker so that deck lid latches with a moderate slam. With ignition switch



in On or Accessory position, push deck lid unlock switch. Should latch fail to lock or unlock replace latch assembly.

DECK LID SOLENOID REMOVAL

- (1) Raise trunk lid to the full up position.
- (2) Remove latch cover attaching screws then remove cover.
- (3) Remove two mounting solenoid screws and remove key cable retainers then remove solenoid.
- (6) For installation reverse above procedures.

KEYLESS ENTRY SYSTEM

The system allows locking and unlocking of vehicle door(s) and trunk lid by remote control using a hand held radio transmitter. The ignition switch must be OFF before the trunk lid can be unlocked with the transmitter.

The receiver may receive signals from two transmitters. Each transmitter has its own code, and the code has been stored in memory. If the transmitter is replaced or a second transmitter is add, the code on both units have to be placed in memory.

OPERATION

The transmitter has three buttons for operation (Fig. 3). They are LOCK, UNLOCK and TRUNK release.

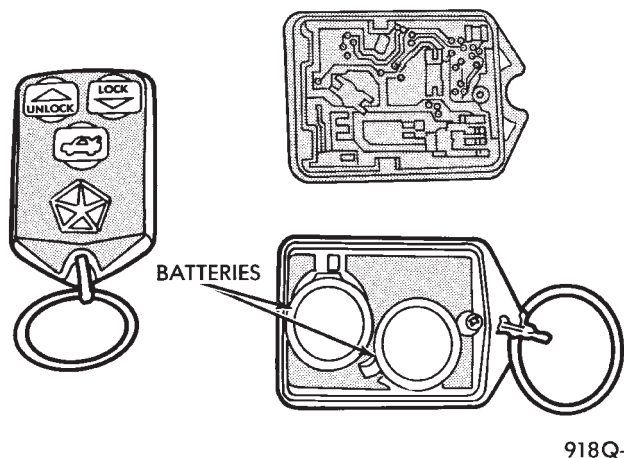


Fig. 3 Transmitter

- The UNLOCK button will unlock the driver's door and enable illuminated entry. Pushing and releasing the button once will unlock the driver's door. Pushing and releasing the button two times, within five seconds interval, will unlock all doors.
- The LOCK button will lock all doors. Upon pressing the LOCK button, the horn will sound a short CHIRP to notify that the all door lock signal was received and set.
- The TRUNK UNLOCK button will slightly ajar the trunk lid.

The receiver is capable of retaining Vehicle Access Code (VAC) even when power is removed.

Each remote keyless entry module (RKE) must have at least one and no more than two transmitters.

TRANSMITTER CONTROL RANGE

Operation range is within 9 meters (30 ft.) of the receiver.

TRANSMITTER BATTERY

The transmitter has two three volt batteries, which can be removed and replaced without special tools. The battery is available at local retail stores and recommended battery is Duracell DL 2016 or equivalent. Battery life is about one to two years (Fig. 3).

PROGRAM REMOTE KEYLESS ENTRY TRANSMITTER

- (1) Remove the upper center bezel from the instrument panel and locate the traction control black connector (Fig. 4). The connector will either be connected to the switch or the back of the plastic housing. Disconnect the connector.

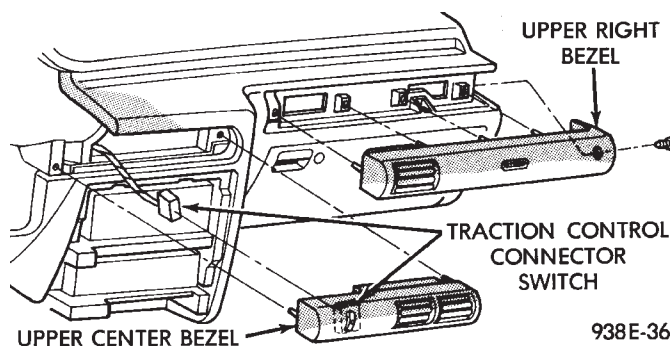
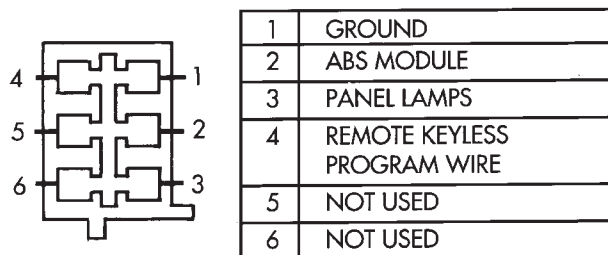


Fig. 4 Upper Center Bezel

- (2) Turn ignition switch to the ON position.
- (3) Ground pin 4 of the traction control connector (Fig. 5). This is the programming line for the Remote Keyless Entry Module. The door locks will lock and unlock, to indicate the receiver is ready to receive transmitter code. The trunk solenoid will not cycle at this time.



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Fig. 5 Traction Control Switch Connector

- (4) Press any button on the transmitter to set code. The locks will cycle to confirm programming. If there



is a second transmitter it has to be set at this time. Press any button on the second transmitter and wait for the locks to cycle.

(5) Disconnect the program line from ground. This returns the system to its normal operation mode.

(6) Replace middle vent bezel, to the instrument panel.

HORN CHIRP CANCELLATION

During the programming operation the horn chirp can be disabled using the following procedures:

(1) Remove the middle vent bezel from the instrument panel and locate the traction control black connector.

(2) Turn ignition switch to the ON position.

(3) Ground pin 4 of the traction control connector (Fig. 5). This is the programming line for the Remote Keyless Entry Module. The door locks will lock and unlock, to indicate the receiver is ready to receive transmitter code. The trunk solenoid will not cycle at this time.

(4) Press any button on the transmitter to set code. The locks will cycle to confirm programming. If there is a second transmitter it has to be set at this time. Press any button on the second transmitter and wait for the locks to cycle.

(5) Press any button on the transmitter to set code. If there is a second transmitter it has to be set at this time. The locks will cycle with each transmitter to confirm programming.

(6) Using one of the transmitter, press the transmitter LOCK then UNLOCK buttons, repeat three times.

(7) Door locks and trunk release will cycle three times as feedback of Horn Chirp Lockout.

(8) Disconnect the program line from ground. This returns the system to its normal operation mode.

(9) Attach the connector back to its original position. Install the upper center bezel to the instrument panel.

(10) To reinstate the Horn Chirp feature, simple reprogram the module. Refer to Programing Remote Keyless Entry Transmitter

REMOTE KEYLESS ENTRY SYSTEM TEST

CIRCUIT BREAKER

Find Remote Keyless Entry circuit breaker on fuse block. Pull out slightly, but maintain contact between the circuit breaker terminals and the terminals in fuse block. Connect the ground probe of the voltmeter to a good ground. Using the positive probe of the voltmeter, check both terminals of circuit breaker for battery voltage. If only one terminal measures battery voltage, the circuit breaker is defective and must be replaced. If neither terminal shows battery voltage, check for open or shorted circuit to circuit breaker.

CONDITION: WHEN TRYING TO PROGRAM THE RECEIVER MODULE IN THE VEHICLE WITH A NEW TRANSMITTER AND THERE IS NO RESPONSE FROM THE MODULE, EXAMPLE: THE DOOR LOCKS DO NOT CYCLE THROUGH A LOCK/UNLOCK ROUTINE. REFER TO FIG. 6 FOR A BLOCK WIRING DIAGRAM OR TO GROUP 8W, WIRING DIAGRAMS.

(1) Activate the power door lock switches to ensure that the lock and unlock relays and the door motors are functioning. Check the batteries in the transmitter.

(2) Check that the module has a battery voltage at cavity 8 of the black connector from fuse #13. Other modules that would be affected are; the interior lamps and the radio/clock memory.

(3) Be sure that the module has an ignition feed at cavity 2 of the blue connector from fuse #14. Also affected would be the body computer, instrument cluster and message center.

(4) Check that cavity 4 on black connector is grounded to the front center floor panel, driver side, by the passive restraint bracket, refer to Group 8W, wire diagrams.

(5) Check that the programming wire is properly grounded. Check cavity 5 (program line) of the black connector and cavity 4 of the black traction control connector.

(6) If the above circuits are good, replace the remote keyless entry module.

CONDITION: ALL DOORS EXCEPT DRIVER'S DOOR WILL LOCK WITH THE TRANSMITTER.

(1) Test cavity 3 of the black connector for ground.

(2) If there is no ground at the pin, replace the remote keyless entry module.

(3) If there is a ground at the output, replace the door lock motor.

CONDITION: ONLY DRIVER'S DOOR WILL LOCK WITH THE TRANSMITTER.

(1) Check for ground circuit to unlock relay. If no ground repair as necessary.

(2) Replace unlock relay

CONDITION: DOORS DO NOT LOCK WITH THE TRANSMITTER, BUT STILL GET HORN CHIRP THAT INDICATES THAT THEY DID LOCK.

(1) Using a voltmeter, ground the negative probe and insert the positive probe into cavity 6 of the black connector. Press the lock button on the transmitter. Wait for quick voltage pulse. It may be necessary to press the transmitter several times since the pulse will only appear for a couple of milliseconds. If no voltage pulse is measured, replace remote keyless entry module.

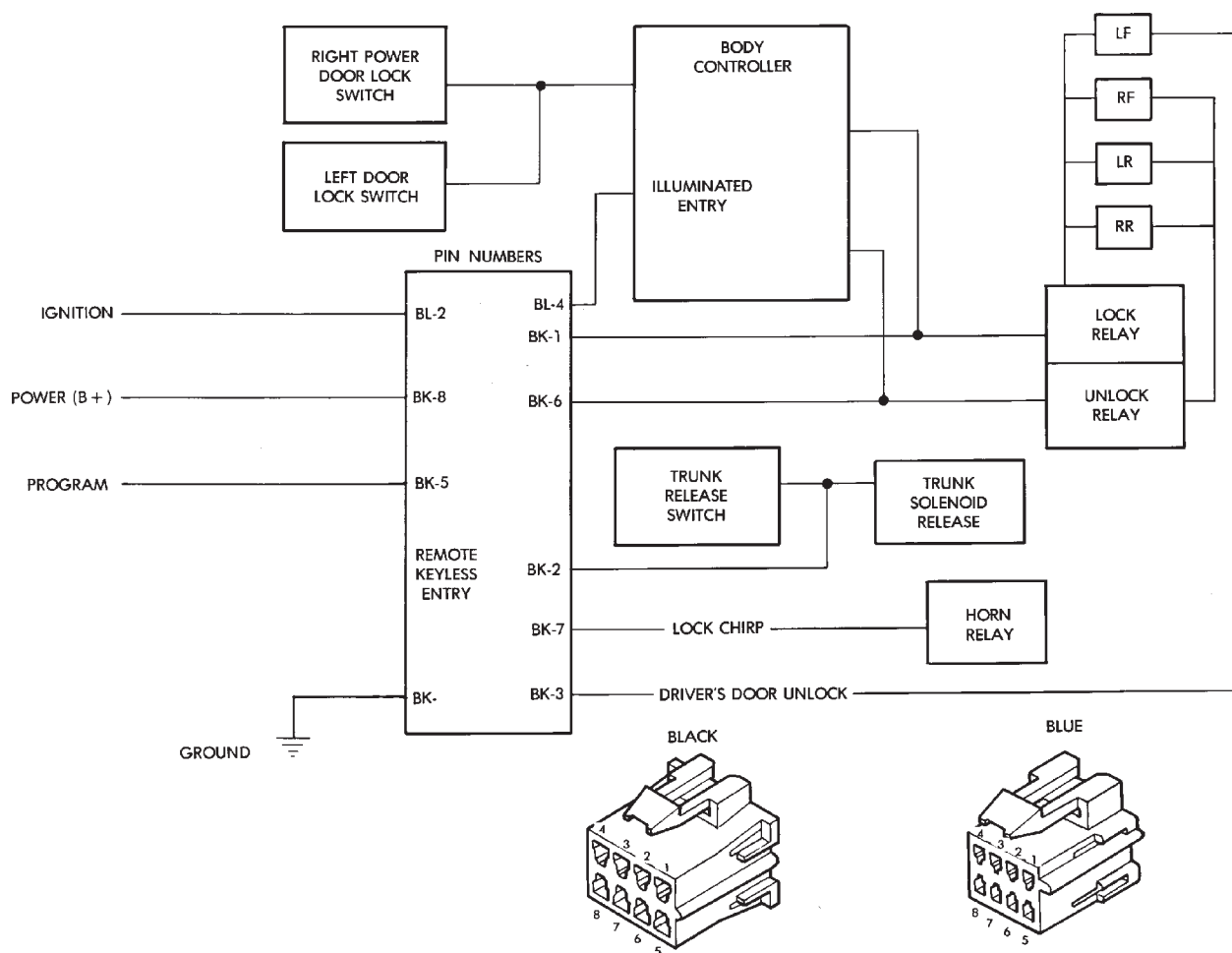


Fig. 6 Block Wiring Diagram

(2) If a pulse is measured, press the lock button again, and check continuity at terminal 6 of the lock relay in the junction block. If no pulse is measured, repair the harness.

(3) If a pulse is measured, press the lock button again, check continuity at terminal 8 of the lock relay in the junction block. If no voltage pulse is measured replace lock relay.

(4) Check that the unlock relay is grounded. Repair if necessary or replace.

CONDITION: DOORS WILL LOCK WITH THE TRANSMITTER BUT THERE IS NO HORN CHIRP.

- (1) Press horn button, listen horn sound.
- (2) If the horn does not CHIRP, check the horn relay and the horn(s). Replace if necessary.
- (3) If the horn CHIRPS, check for continuity between cavity 7 of the black connector and terminal 12 of the horn relay. Repair if necessary.

(4) Still no horn CHIRP, replace the remote keyless entry module.

CONDITION: TRANSMITTER WILL NOT LOCK OR UNLOCK DOORS OR ACTIVATE THE TRUNK RELEASE LATCH.

Remove the two, 3 Volts batteries from the transmitter. Check the voltage across the two batteries. If the voltage across the batteries does not measure 6 Volts, replace the batteries in the transmitter.

REMOTE KEYLESS ENTRY MODULE REPLACEMENT

- (1) Remove instrument panel top cover, the remote keyless entry module will be mounted to the structural duct on the passenger side.
- (2) Remove the two screws attaching the receiver to the instrument panel structural duct.
- (3) Disconnect the two wiring connectors.
- (4) Replace module.
- (5) For installation reverse the above procedures.

