

Power Locks: Testing and Inspection

Test F: The Doors Do Not Lock/Unlock Using The Remote Keyless Entry (RKE) Transmitter

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NOTE: All RKE transmitters must be present to begin diagnosis of the RKE system.

NOTE: Aftermarket or dealer-installed systems may adversely affect the RKE system operation. These systems should be disconnected before diagnosing any RKE concern.

Test Step		Result / Action to Take
F1	CHECK FOR THE CORRECT RKE TRANSMITTERS	
	<ul style="list-style-type: none"> Check that the correct RKE transmitters are used with the vehicle. Make sure the RKE transmitters are provided with the original equipment manufacturer (OEM) system and not from an aftermarket system, or a dealer-installed system that may have been installed on the vehicle. Are all the correct RKE transmitters present? 	<p>Yes GO to F2.</p> <p>No The system cannot be tested without the correct RKE transmitters. INFORM the customer that all the correct RKE transmitters need to be present to proceed with diagnosis of the system.</p>
F2	CHECK THE OPERATION OF THE RKE TRANSMITTER WITH THE KEY IN THE OFF POSITION	
	<ul style="list-style-type: none"> Key in OFF position. Check the operation of the RKE transmitter. Does the system operate correctly now? 	<p>Yes The system is operating as designed. INFORM the customer of the correct vehicle operation.</p> <p>No GO to F3.</p>
F3	CHECK THE POWER DOOR LOCK SYSTEM FOR CORRECT OPERATION	
	<ul style="list-style-type: none"> Verify the door lock/unlock operation by actuating the driver door lock control switch. Do all the doors lock and unlock correctly? 	<p>Yes GO to F4.</p> <p>No To diagnose the inoperative door locks, GO to Pinpoint Test C.</p>
F4	CHECK FOR THE COMPLETE FUNCTIONALITY OF THE RKE TRANSMITTER(S)	
	<ul style="list-style-type: none"> Check all the RKE transmitter buttons for correct operation. Does any button operate correctly? 	<p>Yes REPLACE the inoperative RKE transmitter. PROGRAM all RKE transmitters. REFER to Remote Keyless Entry Transmitter Programming. INFORM the customer that any RKE transmitters not present need to be programmed. CLEAR the DTCs. TEST the system for normal operation.</p> <p>No GO to F5.</p>
F5	MAKE SURE THE RKE TRANSMITTER SIGNAL IS BEING RECEIVED	
	<ul style="list-style-type: none"> Connect the diagnostic tool. Enter the following diagnostic mode on the diagnostic tool: DDM function tests. Select the transmitter test or program transmitter menu selection. Monitor the RKE transmitter identification code (TIC) through the diagnostic tool menus. NOTE: The vehicle must be electronically unlocked prior to using any diagnostic tools (through the RKE transmitter or door lock control switch). <p>Verify the RKE transmitter signal is being received. Press a button on the RKE transmitter while observing the diagnostic tool.</p> <ul style="list-style-type: none"> Does the TIC show up on the diagnostic tool screen when a button is pressed? 	<p>Yes GO to F6.</p> <p>No GO to F7.</p>

(Continued)

PINPOINT TEST F: THE DOORS DO NOT LOCK/UNLOCK USING THE REMOTE KEYLESS ENTRY (RKE) TRANSMITTER (Continued)

Test Step		Result / Action to Take
F6	CHECK IF THE RKE TRANSMITTERS ARE PROGRAMMED	
	<ul style="list-style-type: none"> Monitor the RKE transmitter TIC/DATA through the diagnostic tool menus. Verify the RKE transmitters are programmed to the vehicle. Does the TIC displayed under current RKE transmitter match any of the TICs stored in memory? 	<p>Yes GO to F8.</p> <p>No PROGRAM all of the RKE transmitters. REFER to Remote Keyless Entry Transmitter Programming. INFORM the customer that any RKE transmitters not present need to be programmed. CLEAR the DTCs. TEST the system for normal operation.</p>
F7	CHECK THE RKE TRANSMITTER BATTERY	
	<ul style="list-style-type: none"> Using a thin coin, open the RKE transmitter. Do not clean off any grease from the battery terminals on the back surface of the circuit board. Verify the correct battery is used (CR2032). Remove the RKE transmitter battery and measure the voltage. Is the voltage greater than 2.5 volts? 	<p>Yes GO to F9.</p> <p>No INSTALL a new battery (be sure the battery is seated correctly). DO NOT program the RKE transmitters (faulty or dead batteries do not erase TICs from memory). CLEAR the DTCs. TEST the system for normal operation.</p>
F8	CHECK IF THE RKE TRANSMITTER IS OUT OF SYNCHRONIZATION WITH THE DDM	
	<ul style="list-style-type: none"> The vehicle must be electronically unlocked prior to using any diagnostic tools (through the RKE transmitter or the door lock control switch). Enter the following diagnostic mode on the diagnostic tool: Retrieve continuous DTCs. Is continuous DTC B2425 stored in the DDM? 	<p>Yes To diagnose the RKE transmitter out of synchronization, GO to Pinpoint Test M.</p> <p>No GO to F9.</p>
F9	CHECK FOR NORMAL OPERATION WITH A KNOWN GOOD RKE TRANSMITTER	
	<ul style="list-style-type: none"> Enter the following diagnostic mode on the diagnostic tool: DDM function tests. Select the transmitter test or program transmitter menu selection. Monitor the RKE transmitter TIC/DATA through the diagnostic tool menus. Using the customer's second RKE transmitter or a known good RKE transmitter that is correct for the vehicle, verify the RKE transmitter signal is being received by the DDM. Does the TIC show up on the diagnostic tool when a button is pressed on the RKE transmitter? 	<p>Yes REPLACE the inoperative RKE transmitter. PROGRAM all RKE transmitter(s). REFER to Remote Keyless Entry Transmitter Programming. INFORM the customer that any RKE transmitters not present need to be programmed. CLEAR the DTCs. TEST the system for normal operation.</p> <p>No GO to Pinpoint Test N.</p>

F6-F9

Normal Operation

Remote locking and unlocking of the doors is accomplished by the driver door module (DDM) receiving a command message from the RKE transmitter. The DDM processes the command and sends a signal directly to the door lock actuators. All RKE transmitters must be present to begin diagnosis of the RKE system.

Aftermarket or dealer-installed systems may adversely affect the RKE system operation. These systems should be disconnected before diagnosing any RKE concerns.

Possible Causes

- RKE transmitter battery
- RKE transmitter programming
- RKE transmitter
- DDM