Keyless Entry and Security Alarm System

Troubleshooting

Security Alarm System:

NOTE: The numbers in the table show the troubleshooting sequence.

Item to be inspected / Symptom	Blown No. 41 (20 A) fuse in the main fuse box	Blown No. 37 (15 A) fuse in the main fuse box	Blown No. 1 (10 A) fuse in the dash fuse box	Blown No. 2 (10 A) fuse in the dash fuse box	Faulty indicator light (LED)	Horn circuit	Starting system	Door key cylinder switch	Ignition key switch	Trunk or tailgate key cylinder switch	Trunk or tailgate latch switch	Receiver/transmitter	Hood switch	Door switch	Control unit input	Poor ground	Open circuit, loose or disconnected terminals.
Security alarm cannot be set and indicator light does not flash.	1	2	3		4				5						6	LHD: G201 RHD: G201, G401	PUP[1] PUP[2] GRN BLK/RED
Starting system does not operate.				1			2								3	LHD: G201 RHD: G201, G401	WHT/RED[1] BLU/WHT BLK/WHT[2] WHT/GRN WHT/RED[2]
Security alarm can be set, but alarm does not operate when the doors, hood, trunk lid or tailgate is opened without the key.						1									2	LHD: G201 RHD: G201, G401	PUP[1] PUP/BLK[1]
Alarm does not cancelled when the doors, trunk lid or tailgate is opened with the key or transmitter.								1		2	3	4			5	LHD: G201, G301 G401 RHD: G201, G401 4D: G501 5D: G551	BLK/YEL[2] PUP[4]
Alarm does not operate when the hood is opened.													1		2	LHD: G201 RHD: G201, G401	LT GRN
Alarm does not operate when the door is opened.														1	2		PUP/RED PUP/WHT

Keyless Entry System:

NOTE: The numbers in the table show the troubleshooting sequence.

Symptom \ Item to be inspected		Blown No. 41 (20 A) fuse in the main fuse box	Blown No. 12 (15 A) fuse in the dash fuse box	Door lock knob switch	Passenger's door actuator	Disconnected or obstructed door lock rod/linkage	Receiver unit/transmitter	Control unit input	Poor ground	Open circuit, loose or disconnected terminals
Power door lock system does not work at all.		1						2	LHD: G201 RHD: G201, G401	PUP[1]
Doors do not lock or unlock with driver's door lock knob.	All doors.			1				2	LHD: G301, G401 RHD: G201, G401	BLK/ORN BLK/PNK PNK, ORN
	One or more door.				1	2				PNK ORN
The power door lock system work properly but keyless entry system does not work.			1				2		LHD: G201, G301(*1) G401(*2) RHD: G201, G401	PUP[3] PUP/YEL

*1: Without sunroof
*2: With sunroof

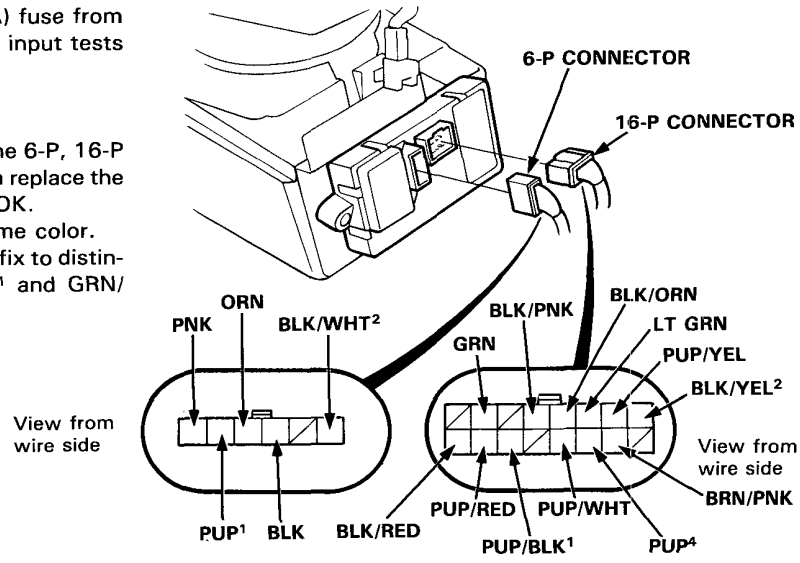
Keyless Entry and Security Alarm System

Control Unit Input Test

Security Alarm System:

1. Remove the rear console, front console, and radio panel assembly (see section 14).
2. Remove the two screws and the control unit from the radio panel assembly.
3. Disconnect the 6-P and 16-P connectors from the control unit. Remove the No. 12 (15 A) fuse from the main fuse box. Make the following input tests at the connector terminals.

   NOTE:
   - Recheck the connections between the 6-P, 16-P connectors, and the control unit, then replace the control unit if all input tests prove OK.
   - Several different wires have the same color. They have been given an number suffix to distinguish them (for example GRN/YEL[1] and GRN/YEL[2] are not the same).



No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G201, G401). • An open in the wire.
2	PUP[1]	Under all conditions.	Check for voltage to ground: There should be battery voltage.	• Blown No. 41 (20 A) fuse in the main fuse box. • An open in the wire.
3	BLK/RED	Ignition switch ON.	Connect to ground: Security indicator light should come on.	• Blown No. 37 (15 A) fuse in the main fuse box. • Faulty security indicator light. • An open in the wire.
4	GRN	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 1 (10 A) fuse in the dash fuse box. • An open in the wire.
5	PUP/BLK[1]	Under all conditions.	Connect to ground: All horns should sound.	• Blown No. 37 (15 A) fuse in the main fuse box. • Faulty horn relay. • Either horn faulty. • Poor ground (G201, G401). • An open in the wire.
6	BLK/WHT[2]	Ignition switch at START.	Check for voltage to ground: There should be battery voltage.	• Blown No. 2 (10 A) fuse in the dash fuse box. • Faulty starter cut relay. • An open in the wire.

No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
7	LT GRN	Hood open.	Check for continuity to ground: There should be no continuity.	• Faulty hood switch. • Misadjusted hood switch. • Poor ground (G201, G401). • An open in the wire.
		Hood closed.	Check for continuity to ground: There should be continuity.	
8	PUP[4]	Trunk lid or tailgate open.	Check for continuity to ground: There should be continuity.	• Faulty trunk or tailgate latch switch. • Misadjusted trunk or tailgate latch switch. • Poor ground (4D: G501). • An open in the wire.
		Trunk lid or tailgate closed.	Check for continuity to ground: There should be no continuity.	
9	PUP/RED	Driver's door opened.	Check for continuity to ground: When the door is opened, there should be continuity, and when the door is closed, there should be no continuity.	• Faulty driver's or passenger's door switches. • An open in the wire.
		Driver's door closed.		
10	PUP/WHT	Passenger's door opened.		
		Passenger's door closed.		
11	BLK/YEL[2]	Driver's door key in UNLOCK.	Check for continuity to ground: There should be continuity, as the door key is turned in UNLOCK.	• Faulty driver's, front passenger's, trunk or tailgate key switches. • Poor ground (G201, G301, G401, G501, G551). • An open in the wire.
		Front passenger's door key in UNLOCK.		
		Trunk or tailgate key in UNLOCK.		
		Driver's door key in LOCK.	Check for continuity to ground: There should be no continuity, as the door key is turned in LOCK.	
		Front passenger's door key in LOCK.		
		Trunk or tailgate key in LOCK.		
12	BLK/ORN	Driver's door lock knob in UNLOCK.	Check for continuity to ground: There should be continuity, as the door key is turned in UNLOCK.	• Faulty driver's door lock knob switch (built in the actuator). • Poor ground (G201, G301, G401). • An open in the wire.
13	BLK/PNK	Driver's door lock knob in LOCK.	Check for continuity to ground: There should be continuity, as the door key is turned in LOCK.	
14	BRN/PNK	Front passenger's door lock knob in UNLOCK.	Check for continuity to ground: There should be continuity.	• Faulty front passenger's door lock knob switch (built in the actuator). • Poor ground (G201, G401). • An open in the wire.

Keyless Entry and Security Alarm System

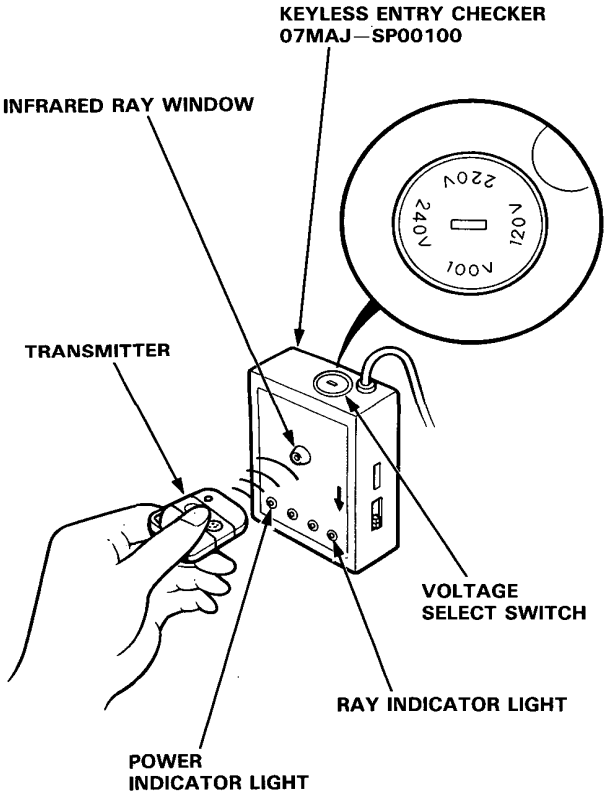
Keyless Entry System Test

NOTE: Before testing, make sure that the power door lock system works properly.

1. Turn the voltage select switch and connect the Keyless Entry Checker to AC power outlet.
   The power indicator light should go on.

2. Push the button on the transmitter within 500 mm (19.7 in) from the front of the infrared ray window.

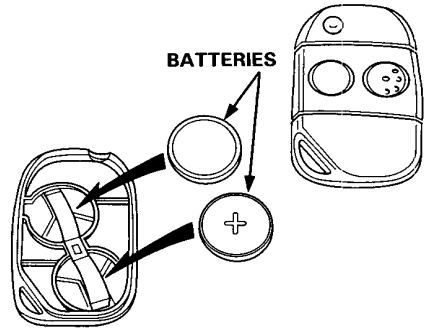
   - If the ray indicator light does not go on,
     — Lack of the battery power.
     — Faulty transmitter.
   - If the ray indicator light go on, go to step 3.



Battery Replacement:

- Pry the two parts of the transmitter apart and remove the used batteries. Install new batteries ensuring the correct polarity is maintained.

  Batteries: CR2032 lithium button battery



NOTE: With the transmitter, you will be provided with a plate on which your transmitter number is stamped. You will need this number if you have to get a lost key replaced. Keep the plate in a safe plate.

3. Pry the lens with the interior light switch OFF.
4. Remove the two nuts from the interior light.
5. Check the receiver output level varies when the transmitter button pushed.

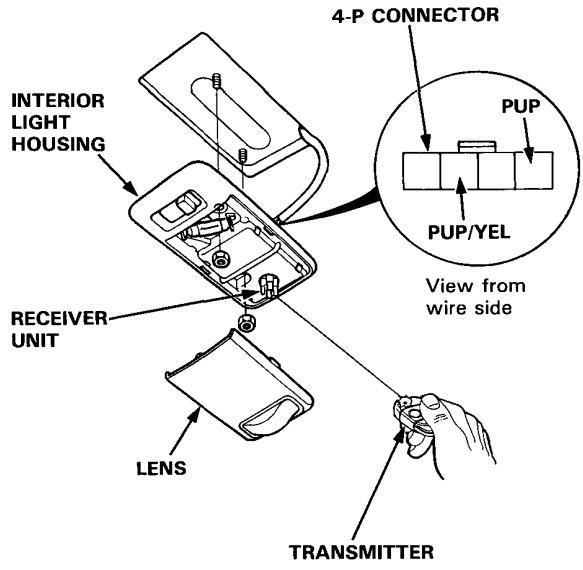
Test Method:

— Use a digital multimeter.

— Connect positive (+) probe to the PUP/YEL terminal and negative (−) probe to the ground.

— Keep on the 4-P connector connecting.

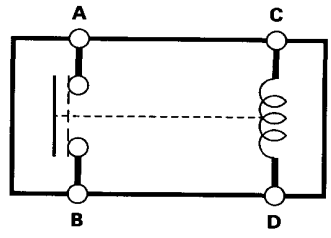
- If the output voltage momentarily varies to the range of approximate. Instantaneous battery voltage, the system is OK.
- If there is no voltage, check for:
  — Open in the PUP and PUP/YEL wires.
  — Faulty receiver unit.

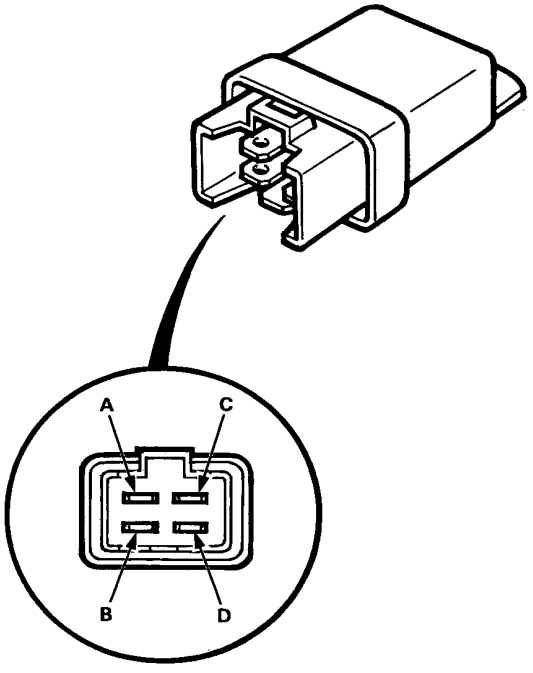


Horn and Starter Cut Relays Test

1. Remove the rear console, front console, and radio panel assembly.
2. Disconnect the connector, and remove the relay.
3. There should be continuity between the A and B terminals when power and ground are connected to the C and D terminals. There should be no continuity when power is disconnected.

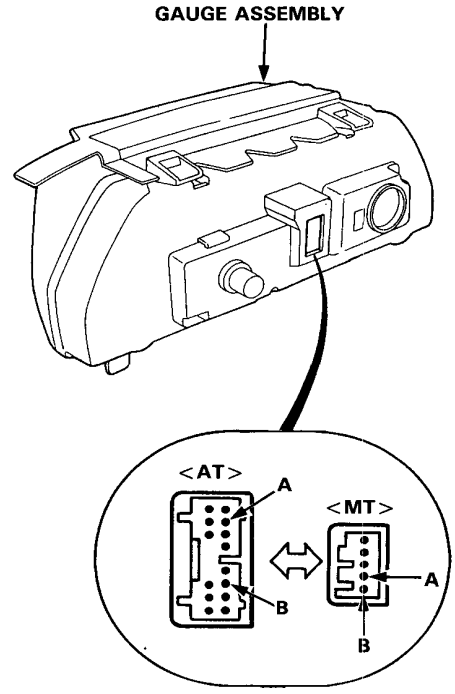
Terminal / Power (C – D)	A	B
Disconnected		
Connected	○	○

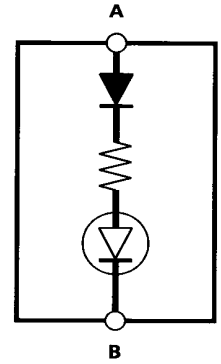




Indicator Light Test

1. Remove the gauge assembly.
2. Test the indicator light by connecting battery power to the A terminal and ground to the B terminal.
3. If the indicator light does not com on, replace it.

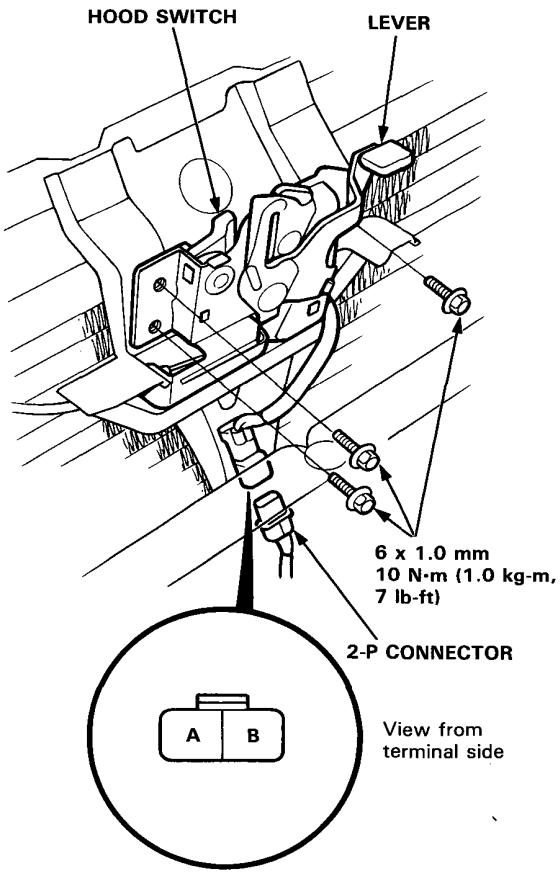




Hood Switch Test/Replacement

1. Open the hood.
2. Disconnect the 2-P connector from the hood switch.
3. Check for continuity between the terminals in each switch position according to the table.

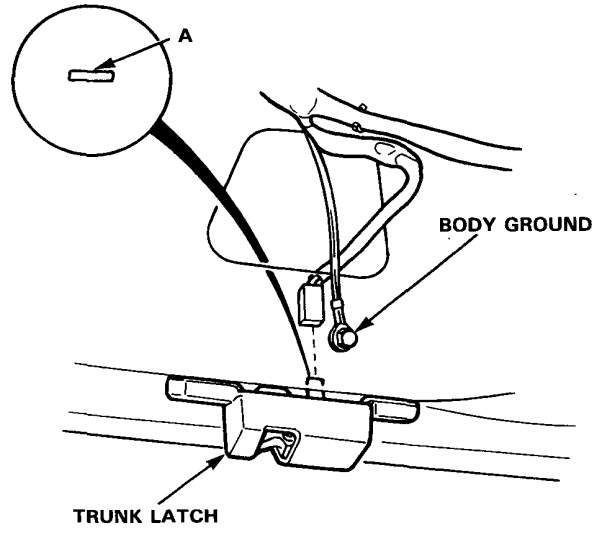
Terminal / Position	A	B
Hood open (Lever released)		
Hood closed (Lever pushed down)	○	○



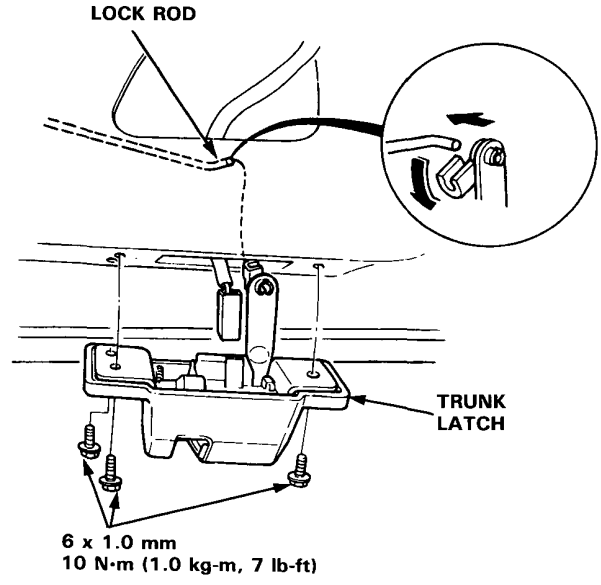
- If the switch fails to operate properly, replace it.

Trunk or Tailgate Latch Switch Test/ Replacement

1. Open the trunk lid or tailgate.
2. Disconnect the connector from the latch switch.
3. There should be continuity between the A terminal and body ground.



4. If necessary, remove the three bolts to pull out the latch from the trunk lid or tailgate, then disconnect the lock rod from the latch.

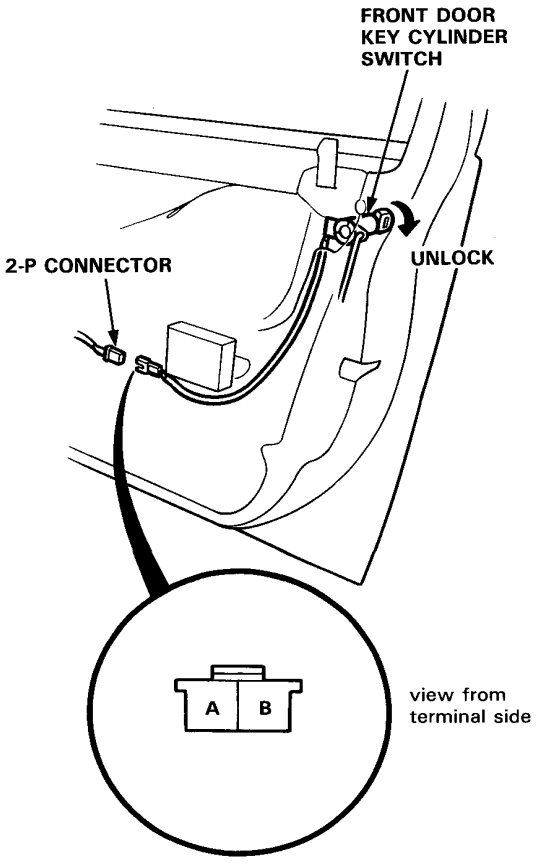


Keyless Entry and Security Alarm System

Front Door Key Cylinder Switch Test

1. Remove the door trim panel.
2. Disconnect the 2-P connector from the front door key cylinder switch.
3. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	A	B
LOCK (Close)		
UNLOCK (Open)	○	○

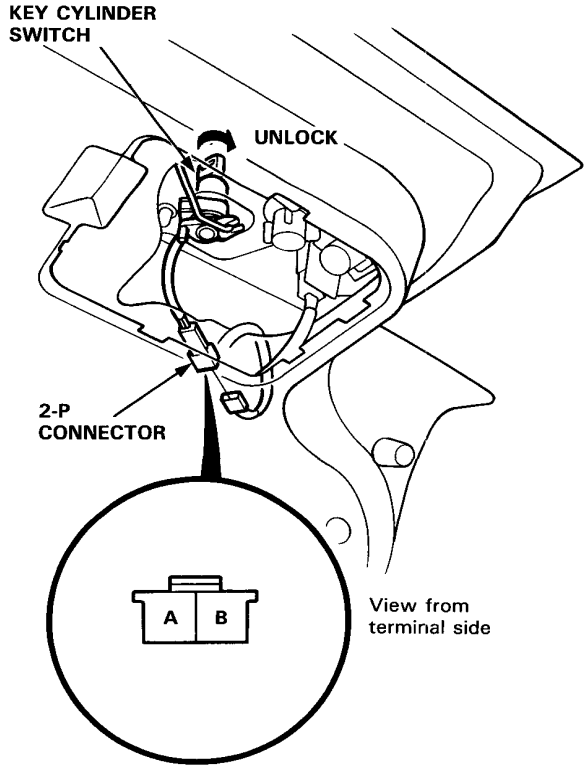


- If the switch fails to operate properly, replace it.

Trunk or Tailgate Key Cylinder Switch Test

1. Remove the tailgate trim panel.
2. Disconnect the 2-P connector from the front door key cylinder switch.
3. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	A	B
LOCK (Close)		
UNLOCK (Open)	○	○



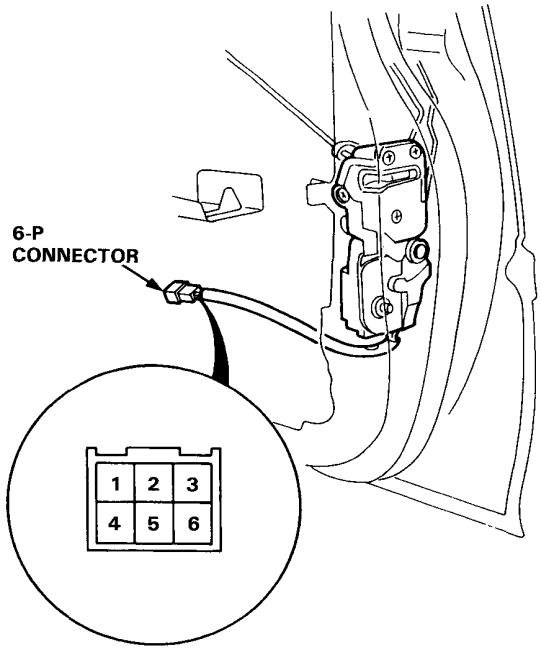
- If the switch fails to operate properly, replace it.

Driver's Door Lock Actuator Test

1. Remove the door trim panel.
2. Disconnect the 6-P connector from the actuator.
3. Test actuator operation:

LOCK	Connect battery power to No. 2 (+) terminal and ground to No. 3 (−) terminal.
UNLOCK	Connect battery power to No. 3 (+) terminal and ground to No. 2 (−) terminal.

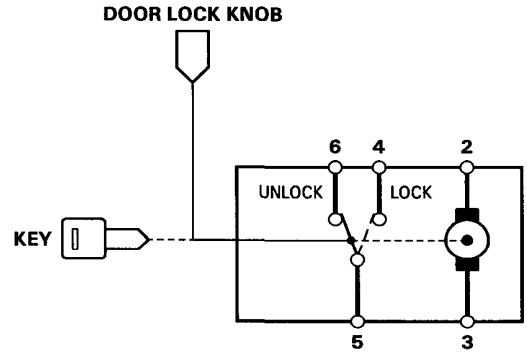
CAUTION: To prevent damage to the actuator, connect power only momentarily.



View from wire side

4. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	6	5	4
LOCK		○	○
UNLOCK	○	○	



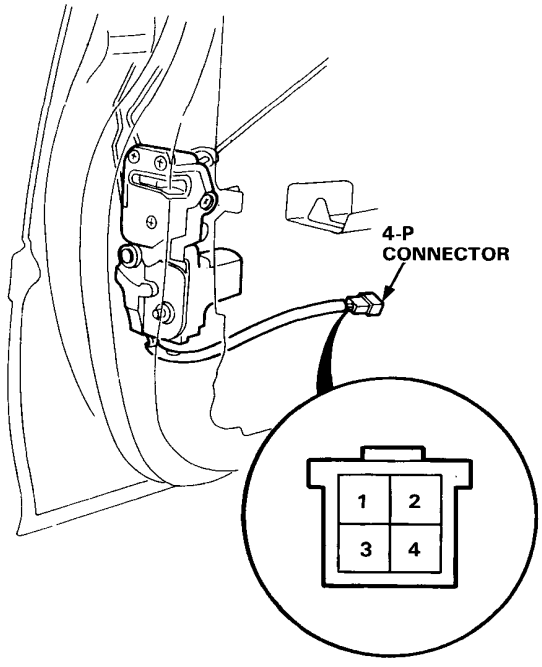
5. If the actuator fails to operate properly, replace it.

Front Passenger's Door Lock Actuator Test

1. Remove the door trim.
2. Disconnect the 4-P connector from the actuator.
3. Test actuator operation:

LOCK	Connect battery power to No. 1 (+) terminal and ground to No. 2 (−) terminal.
UNLOCK	Connect battery power to No. 2 (+) terminal and ground to No. 1 (−) terminal.

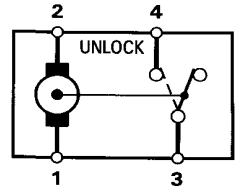
CAUTION: To prevent damage to the actuator, connect power only momentarily.



View from wire side

4. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal	3	4
LOCK		
UNLOCK	○	○



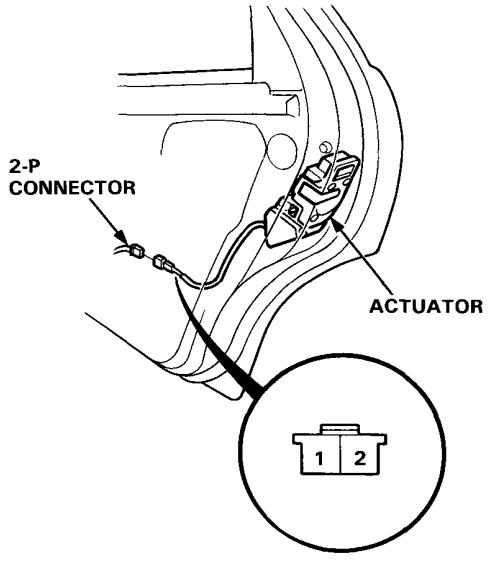
5. If the actuator fails to operate properly, replace it.

Rear Door Lock Actuator Test

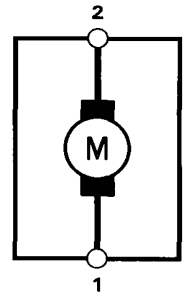
1. Remove the door trim.
2. Disconnect the 2-P connector from the actuator.
3. Test actuator operation:

LOCK	Connect battery power to No. 1 (+) terminal and ground to No. 2 (−) terminal.
UNLOCK	Connect battery power to No. 2 (+) terminal and ground to No. 1 (−) terminal.

CAUTION: To prevent damage to the actuator, connect power only momentarily.



View from wire side



4. If the actuator fails to operate properly, replace it.