

1999 Toyota RAV4

1999-2000 ACCESSORIES & EQUIPMENT Power Door Locks - Trucks

1999-2000 ACCESSORIES & EQUIPMENT

Power Door Locks - Trucks

DESCRIPTION & OPERATION

NOTE: This article also applies to Lexus LX470. Refer to Land Cruiser, unless otherwise indicated.

Power door locks are all controlled through a multipurpose Electronic Control Unit (ECU) or integration relay. The Land Cruiser is controlled through the instrument cluster ECU. The 4Runner is controlled through the body ECU, and the Sienna, Tundra, RAV4 and Tacoma are all controlled through the integration relay. Each system also consists of a door lock motor at each door, tailgate, liftgate and sliding door, a master door lock switch at driver's door, which controls all other doors, tailgate, liftgate and sliding doors and a switch at each door, tailgate, liftgate and sliding doors.

To operate door locks from the outside, insert door key into door lock cylinder and turn it to the right (clockwise) once will unlock the driver's door and turning it a second time will unlock all other doors, tailgate, liftgate and sliding doors. Passenger door will unlock all other doors when it is unlocked. When either front door lock is turned to left (counter clockwise) all other doors will lock. The driver's door has a master lock switch which will lock all doors on the vehicle. Each door and sliding doors have a switch inside that controls each door lock.

NOTE: For information on keyless entry systems, see appropriate **KEYLESS ENTRY SYSTEMS** article.

COMPONENT LOCATIONS

COMPONENT LOCATIONS

Component	Location
Body ECU (4Runner)	Lower Left Side Of Dashboard
Instrument ECU (Land Cruiser)	Under Center Of Dashboard
Integration Relay (RAV4)	On Rear Of Instrument Panel Fuse Box, Lower Left Side Of Dashboard
Integration Relay (Sienna)	On Instrument Panel Fuse Box, Lower Left Side Of Dashboard
Integration Relay (Tacoma)	On Instrument Panel Fuse Box, Lower Left Side Of Dashboard
Integration Relay (Tundra)	On Instrument Panel Fuse Box, Lower Left Side Of Dashboard
Unlock Warning Switch (Land Cruiser)	Under Dashboard, Left Side Of Center Console
Unlock Warning Switch (RAV4)	Under Dashboard, Left Side Of Center Console
Unlock Warning Switch (Sienna)	Under Dashboard, Left Side Of Center Console
Unlock Warning Switch (Tacoma)	Under Dashboard, Left Side Of Center Console

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Unlock Warning Switch (Tundra)	Under Dashboard, Left Side Of Center Console
Unlock Warning Switch (4Runner)	Under Dashboard, Left Side Of Center Console

COMPONENT TESTING

DRIVER'S DOOR LOCK MASTER SWITCH

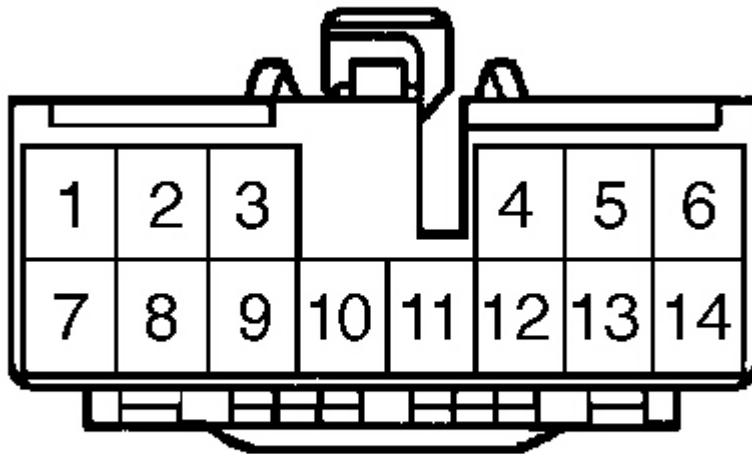
Inspect drivers door lock master switch continuity. See **DRIVER'S DOOR CONTROL SWITCH CONTINUITY TEST** table. If continuity is not as specified, replace driver's door lock master switch. See **Fig. 1 - Fig. 6** .

DRIVER'S DOOR CONTROL SWITCH CONTINUITY TEST

Application & Switch Position	Terminals No.	Continuity
Land Cruiser		
LOCK	4 & 6; 5 & 6	Yes
UNLOCK	4 & 12; 5 & 12	Yes
LX470		
LOCK	9 & 15	Yes
UNLOCK	9 & 16	Yes
RAV4 (2-Door)		
LOCK	2 & 3	Yes
UNLOCK	3 & 9	Yes
RAV4 (4-Door)		
LOCK	4 & 6; 5 & 6	Yes
UNLOCK	4 & 12; 5 & 12	Yes
Sienna		
LOCK	1 & 2	Yes
UNLOCK	1 & 5	Yes
Tacoma		
LOCK	1 & 5; 2 & 6	Yes
UNLOCK	2 & 5; 1 & 6	Yes
Tundra		
LOCK	1 & 2	Yes
OFF	1 & 2; 1 & 5	No
UNLOCK	1 & 5	Yes
4Runner		
LOCK	4 & 6	Yes
UNLOCK	4 & 12	Yes

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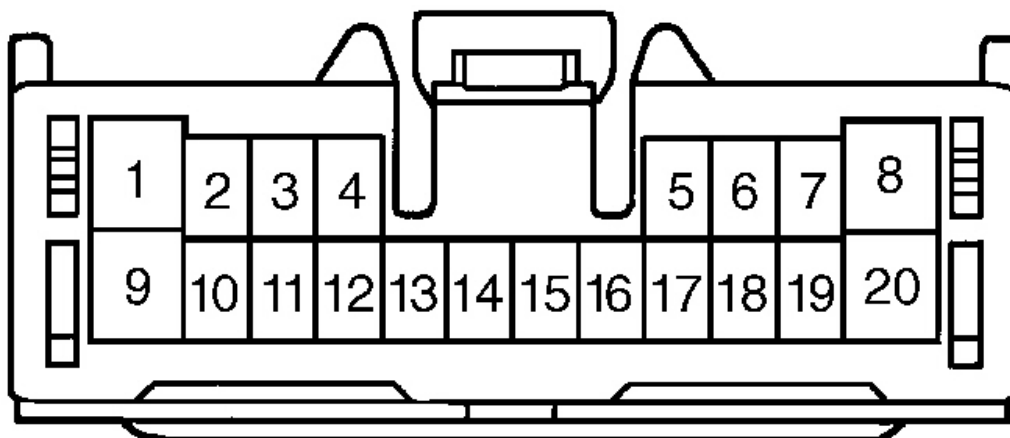
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Fig. 1: Identifying Power Door Lock Master Switch Harness Connector Terminals (Land Cruiser, RAV4 4-Door & 4Runner With Power Windows)

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

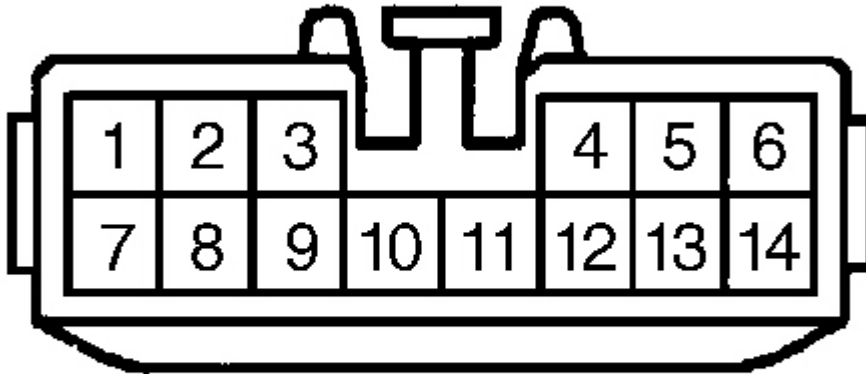


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Fig. 2: Identifying Power Door Lock Master Switch Harness Connector Terminals (Lexus LX470)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

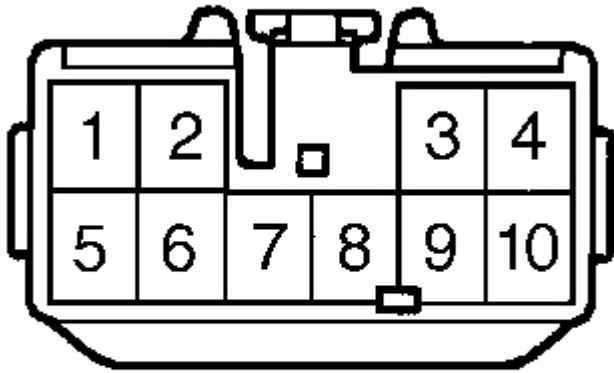


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Fig. 3: Identifying Power Door Lock Master Switch Harness Connector Terminals (RAV4 2-Door)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

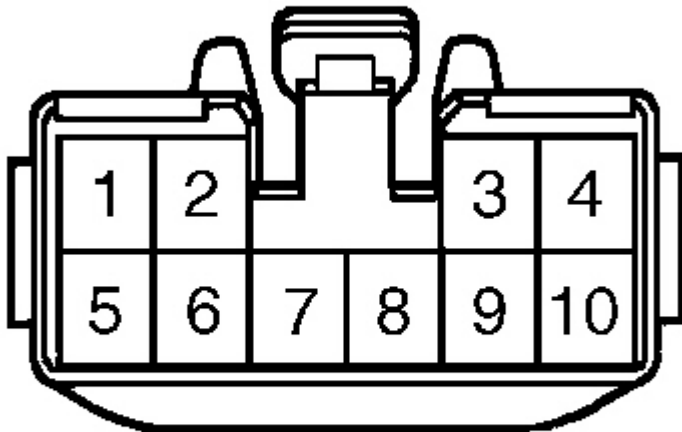
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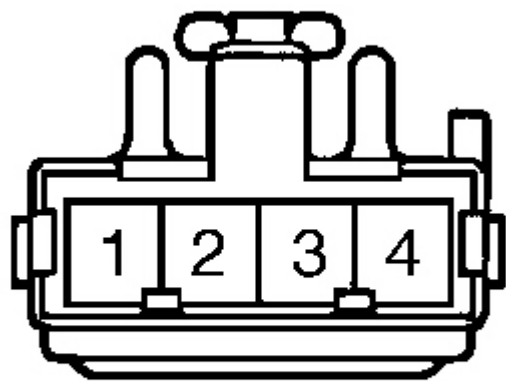
Fig. 4: Identifying Power Door Lock Master Switch Harness Connector Terminals (Sienna & Tundra)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



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Fig. 5: Identifying Power Door Lock Master Switch Harness Connector Terminals (Tacoma)

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



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Fig. 6: Identifying Power Door Lock Master Switch Harness Connector Terminals (4Runner Without Power Windows)

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

PASSENGER'S DOOR LOCK SWITCH

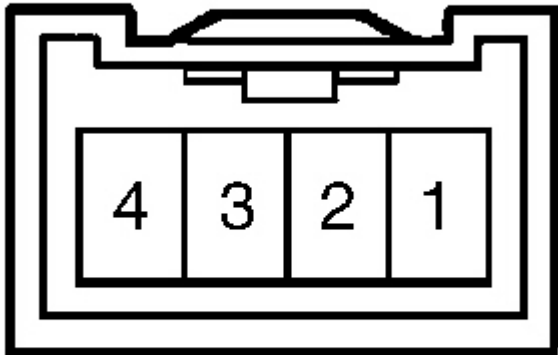
Inspect passenger's door lock switch continuity. See **PASSENGER'S DOOR LOCK CONTROL SWITCH CONTINUITY TEST** table. If continuity is not as specified, replace passenger's door lock switch. See **Fig. 9** - **Fig. 9** .

PASSENGER'S DOOR LOCK CONTROL SWITCH CONTINUITY TEST

Application & Switch Position	Terminals No.	Continuity
Land Cruiser		
LOCK	3 & 4	Yes
UNLOCK	2 & 4	Yes
RAV4		
LOCK	3 & 6	Yes
UNLOCK	3 & 5	Yes
Sienna		
LOCK	3 & 6	Yes
UNLOCK	3 & 5	Yes
Tacoma		

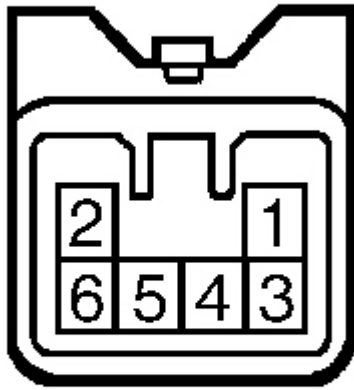
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LOCK	3 & 4	Yes
UNLOCK	2 & 4	Yes
Tundra		
LOCK	3 & 6	Yes
OFF	3 & 5; 3 & 6	No
UNLOCK	3 & 5	Yes
4Runner		
LOCK	3 & 6	Yes
UNLOCK	3 & 5	Yes



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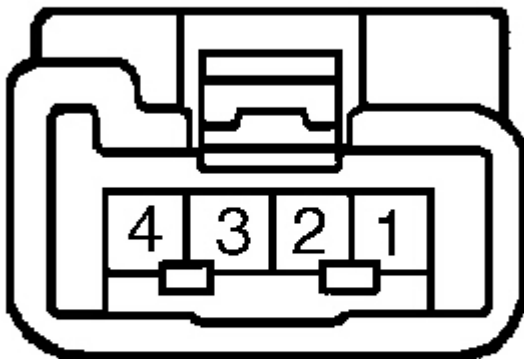
Fig. 7: Identifying Passenger's Power Door Lock Switch Harness Connector Terminals (Land Cruiser)
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



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Fig. 8: Identifying Passenger's Power Door Lock Harness Connector Terminals (RAV4, Sienna, Tundra & 4Runner)

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



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Fig. 9: Identifying Passenger's Door Lock Switch Harness Connector Terminals (Tacoma)

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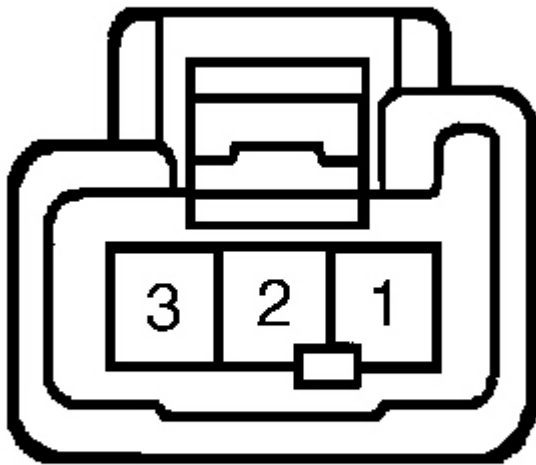
Courtesy of TECH-COR, INC.

DOOR KEY LOCK & UNLOCK SWITCH

Inspect door key lock & unlock switch continuity. See **DOOR KEY LOCK AND UNLOCK SWITCH CONTINUITY** table. If continuity is not as specified, replace door key lock & unlock switch. See **Fig. 10 -Fig. 15**

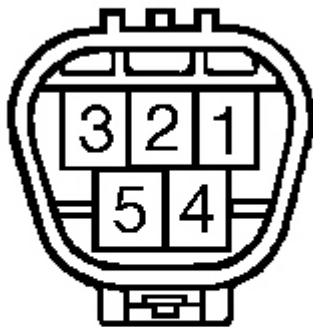
DOOR KEY LOCK AND UNLOCK SWITCH CONTINUITY

Application & Switch Position	Terminals No.	Continuity
Land Cruiser		
LOCK	1 & 2	Yes
UNLOCK	1 & 3	Yes
RAV4		
LOCK	2 & 3	No
ON	1 & 2	Yes
Sienna		
LOCK	2 & 1	Yes
UNLOCK	3 & 1	Yes
Tacoma (Driver's Door)		
LOCK	5 & 6	Yes
UNLOCK	1 & 5	Yes
Tacoma (Passenger's Door)		
LOCK	8 & 7	Yes
UNLOCK	4 & 8	Yes
Tundra		
LOCK	2 & 1	Yes
OFF	2 & 1; 3 & 2	No
UNLOCK	3 & 2	Yes
4Runner		
LOCK	2 & 1	Yes
UNLOCK	3 & 2	Yes



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Fig. 10: Identifying Power Door Key Lock Switch Harness Connector Terminals (Land Cruiser)
Courtesy of TOYOTA



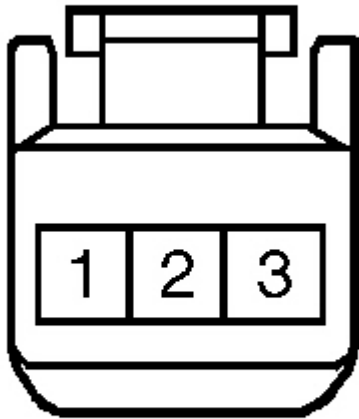
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Fig. 11: Identifying Power Door Key Lock Harness Connector Terminals (RAV4)

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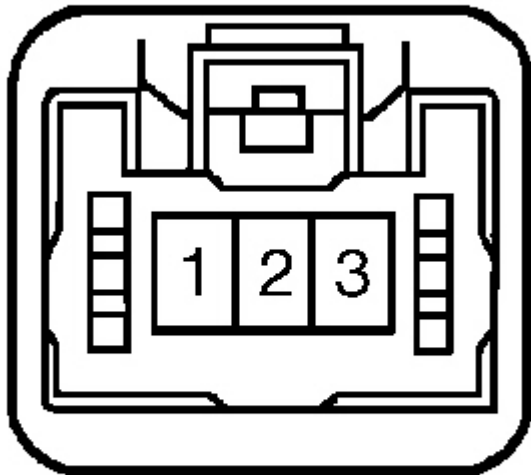
1999-2000 ACCESSORIES & EQUIPMENT Power Door Locks - Trucks

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



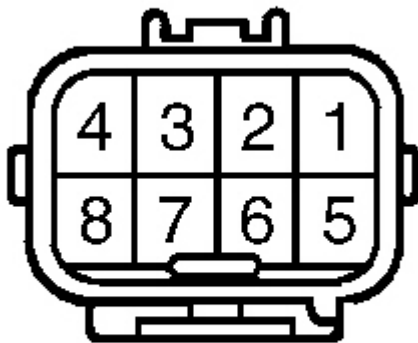
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Fig. 12: Identifying Door Power Key Lock Harness Connector Terminals (Sienna)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



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Fig. 13: Identifying Power Liftgate Key Lock Harness Connector Terminals (Sienna)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



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Fig. 14: Identifying Power Door Key Lock Harness Connector Terminals (Tacoma)

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



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Fig. 15: Identifying Door Key Lock & Unlock Switch Harness Connector Terminals (Tundra & 4Runner)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

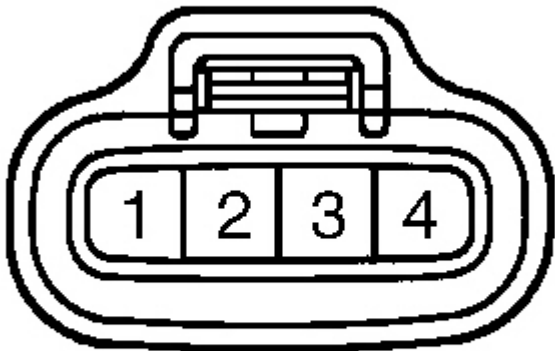
FRONT DOOR UNLOCK DETECTION SWITCH

Inspect front door unlock detection switch continuity by measuring between specified terminals at each front door lock actuator. See **FRONT DOOR UNLOCK DETECTION SWITCH CONTINUITY** table. If continuity is not as specified, replace front door lock actuator. See **Fig. 16** .

FRONT DOOR UNLOCK DETECTION SWITCH CONTINUITY

Application & Switch Position	Terminal No.	Continuity
Land Cruiser		
Door Set To LOCK	No
Door Set To UNLOCK	1 & 4	Yes
Sienna		
Door Set To UNLOCK	1 & 4	Yes
Tacoma (Driver's Door)		
Door Set To UNLOCK	4 & 8	Yes
Tacoma (Passenger's Door)		
Door Set To UNLOCK	1 & 5	Yes
Tundra		
Door Set To UNLOCK	1 & 4	No
OFF	1 & 4	No

4Runner (Driver's Door)		
Door Set To UNLOCK	1 & 4	Yes



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Fig. 16: Identifying Door Lock Actuator Harness Connector (Land Cruiser, Sienna, 4Runner & Tundra)

REAR DOOR UNLOCK DETECTION SWITCH

Inspect rear door unlock detection switch continuity by measuring between specified door lock actuator terminals. See **REAR DOOR UNLOCK DETECTION SWITCH** table. If continuity is not as specified, replace rear door unlock detection switch. See **Fig. 16** .

REAR DOOR UNLOCK DETECTION SWITCH

Application & Switch Position	Terminal No.	Continuity
Land Cruiser		
Door Set To UNLOCK	1 & 4	Yes
4Runner		
Door Set To UNLOCK	1 & 4	Yes

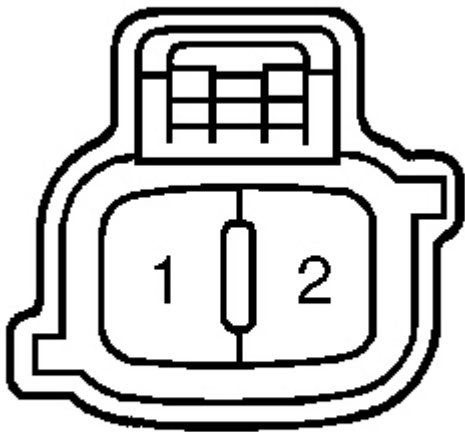
TAILGATE, LIFTGATE UNLOCK DETECTION SWITCH

Inspect rear tailgate, liftgate unlock detection switch continuity by measuring between specified tailgate or liftgate lock actuator terminals. See **TAILGATE, LIFTGATE UNLOCK DETECTION SWITCH CONTINUITY** table. If continuity is not as specified, replace tailgate or liftgate lock actuator. See **Fig. 17** .

TAILGATE, LIFTGATE UNLOCK DETECTION SWITCH CONTINUITY

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Application & Switch Position	Terminal No.	Continuity
Land Cruiser		
Door Lock Set To UNLOCK	1 & 4	Yes
Sienna		
UNLOCK	3 & 4	Yes
4Runner ⁽¹⁾		
LOCK	1 & 6; 3 & 4	YES
UNLOCK	1 & 3; 4 & 6	YES
(1) Continuity should exist between terminals No. 2 and 5 (illumination circuit).		



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Fig. 17: Identifying Liftgate Door Lock Actuator Harness Connector Terminals (Sienna - Without Anti-Theft System)
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

DOOR LOCK RELAY

Land Cruiser & RAV4

Ensure continuity exist between terminals No. 1 and 2. Apply voltage between terminals No. 1 and 2, and ensure continuity exist between terminals No. 3 and 5. Replace relay if continuity is not as specified.

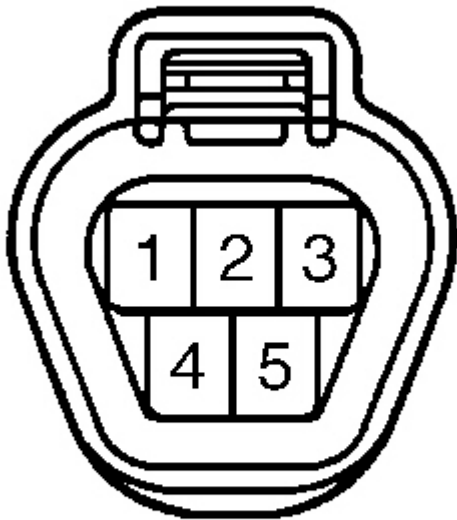
DOOR LOCK ACTUATORS

Land Cruiser, Tundra & 4Runner (Front & Rear Doors)

1. Connect positive lead to terminal No. 3 and negative lead to terminal No. 2. Door lock should move to unlock position. See **Fig. 16**
2. Connect positive lead to terminal No. 2 and negative lead to terminal No. 3. Door lock should move to lock position. If door lock actuator does not operate as specified, replace door lock actuator.

RAV4 (Front Door)

1. Connect positive lead to terminal No. 4 and negative lead to terminal No. 5. Door lock should move to unlock position. See **Fig. 18**.
2. Connect positive lead to terminal No. 5 and negative lead to terminal No. 4. Door lock should move to lock position. If door lock actuator does not operate as specified, replace door lock actuator.



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Fig. 18: Identifying Front Door Lock Actuator Harness Connector Terminals (RAV4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

RAV4 (Rear Door)

1. Connect positive lead to terminal No. 1 and negative lead to terminal No. 2. Door lock should move to unlock position. See **Fig. 19**.

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2. Connect positive lead to terminal No. 2 and negative lead to terminal No. 1. Door lock should move to lock position. If door lock actuator does not operate as specified, replace door lock actuator.



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Fig. 19: Identifying Rear Door Lock Actuator Harness Connector Terminals (RAV4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

RAV4 (Liftgate)

1. Connect positive lead to terminal No. 1 and negative lead to terminal No. 3. Door lock should move to unlock position. See **Fig. 20**
2. Connect positive lead to terminal No. 3 and negative lead to terminal No. 1. Door lock should move to lock position. If door lock actuator does not operate as specified, replace door lock actuator.



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Fig. 20: Identifying Liftgate Door Lock Actuator Harness Connector Terminals (RAV4)

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Sienna (Front Door)

1. Connect positive lead to terminal No. 3 and negative lead to terminal No. 2. Door lock should move to unlock position. See **Fig. 16**
2. Connect positive lead to terminal No. 2 and negative lead to terminal No. 3. Door lock should move to lock position. If door lock actuator does not operate as specified, replace door lock actuator.

Sienna (Back Door & Sliding Door)

1. Connect positive lead to terminal No. 1 and negative lead to terminal No. 2. Door lock should move to unlock position. See **Fig. 16** and **Fig. 17** .
2. Connect positive lead to terminal No. 2 and negative lead to terminal No. 1. Door lock should move to lock position. If door lock actuator does not operate as specified, replace door lock actuator.

Tacoma (Driver's Front Door)

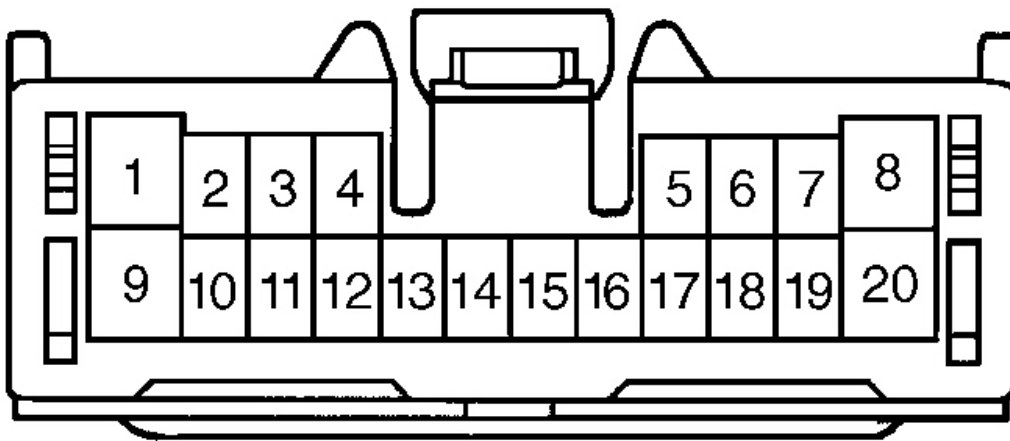
1. Connect positive lead to terminal No. 7 and negative lead to terminal No. 3. Door lock should move to unlock position. See **Fig. 16**
2. Connect positive lead to terminal No. 3 and negative lead to terminal No. 7. Door lock should move to lock position. If door lock actuator does not operate as specified, replace door lock actuator.

Tacoma (Passenger's Front Door)

1. Connect positive lead to terminal No. 6 and negative lead to terminal No. 2. Door lock should move to unlock position. See **Fig. 16**
2. Connect positive lead to terminal No. 2 and negative lead to terminal No. 6. Door lock should move to lock position. If door lock actuator does not operate as specified, replace door lock actuator.

INTEGRATION RELAY**Sienna**

1. Connect voltmeter positive lead to terminal No. 1 and negative lead to terminal No. 9 at Orange 20-pin integration relay harness connector. See **Fig. 21** . Set door lock control switch to UNLOCK position. Voltage should rise from zero volts to battery voltage for approximately 0.2 seconds.
2. Connect voltmeter positive lead to terminal No. 9 and negative lead to terminal No. 1 at Orange 20-pin integration relay harness connector. Set door lock control switch to UNLOCK position. Voltage should rise from zero volts to battery voltage for approximately 0.2 seconds. If integration relay does not operate as specified, replace integration relay.



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Fig. 21: Identifying Integration Relay Harness Connector Terminals (Sienna)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTRUMENT PANEL JUNCTION BLOCK**RAV4**

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1. With all harness connectors attached at instrument panel junction block, connect positive and negative leads from voltmeter to specified connector and terminals. See **Fig. 22** and **Fig. 23** . See **INSTRUMENT PANEL JUNCTION BLOCK TERMINAL IDENTIFICATION (RAV4)** .
2. Set selected door lock switch to UNLOCK position. Measure voltage between specified terminals. See **INSTRUMENT PANEL JUNCTION BLOCK TERMINAL IDENTIFICATION (RAV4)** table. Voltage should rise from zero to battery voltage for approximately 0.2 seconds.
3. Reverse voltmeter leads and set selected door lock switch to LOCK position. Voltage should rise from zero to battery voltage for approximately 0.2 seconds. If operation is not as specified, replace instrument panel junction block.

INSTRUMENT PANEL JUNCTION BLOCK TERMINAL IDENTIFICATION (RAV4)

Harness Connector	Positive Terminal No.	Negative Terminal No.	Switch Position
Integration Relay Socket (1)	23	10	Driver's Door UNLOCK
Integration Relay Socket (1)	10	23	Driver's Door LOCK
Instrument Panel Junction Box 1C (2)	1	2	Passenger's Front Door UNLOCK
Instrument Panel Junction Box 1C (2)	2	1	Passenger's Door LOCK
Instrument Panel Junction Box 1D (2)	1	2	Back Door UNLOCK
Instrument Panel Junction Box 1D (2)	2	1	Back Door LOCK
(1) See <u>Fig. 22</u> .			
(2) See <u>Fig. 23</u> .			

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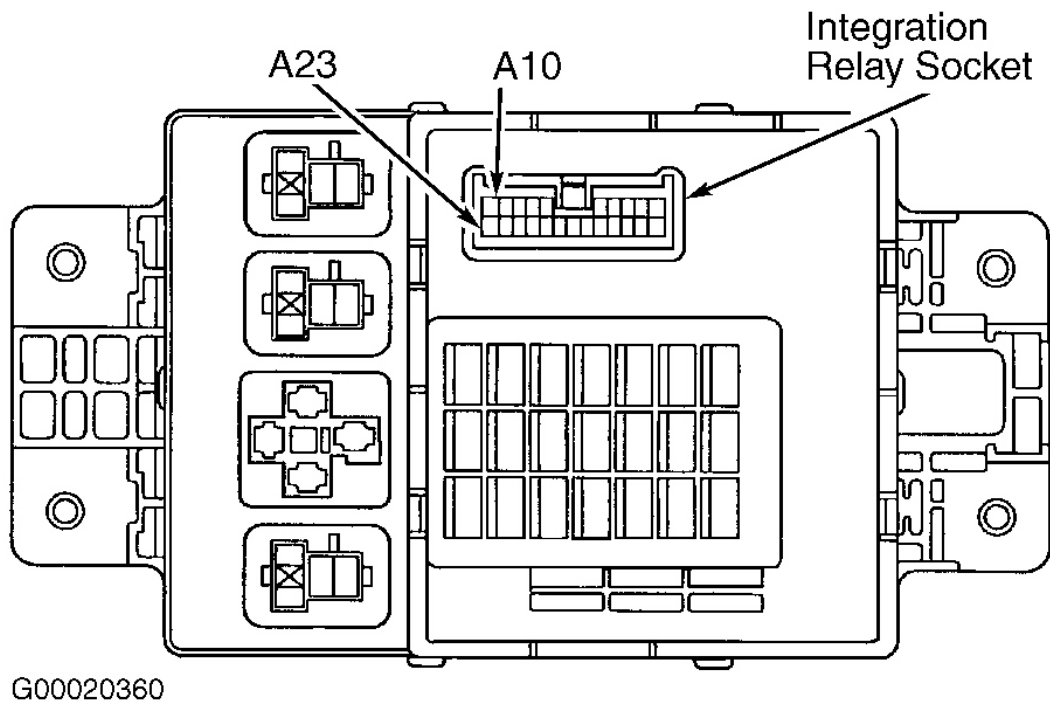
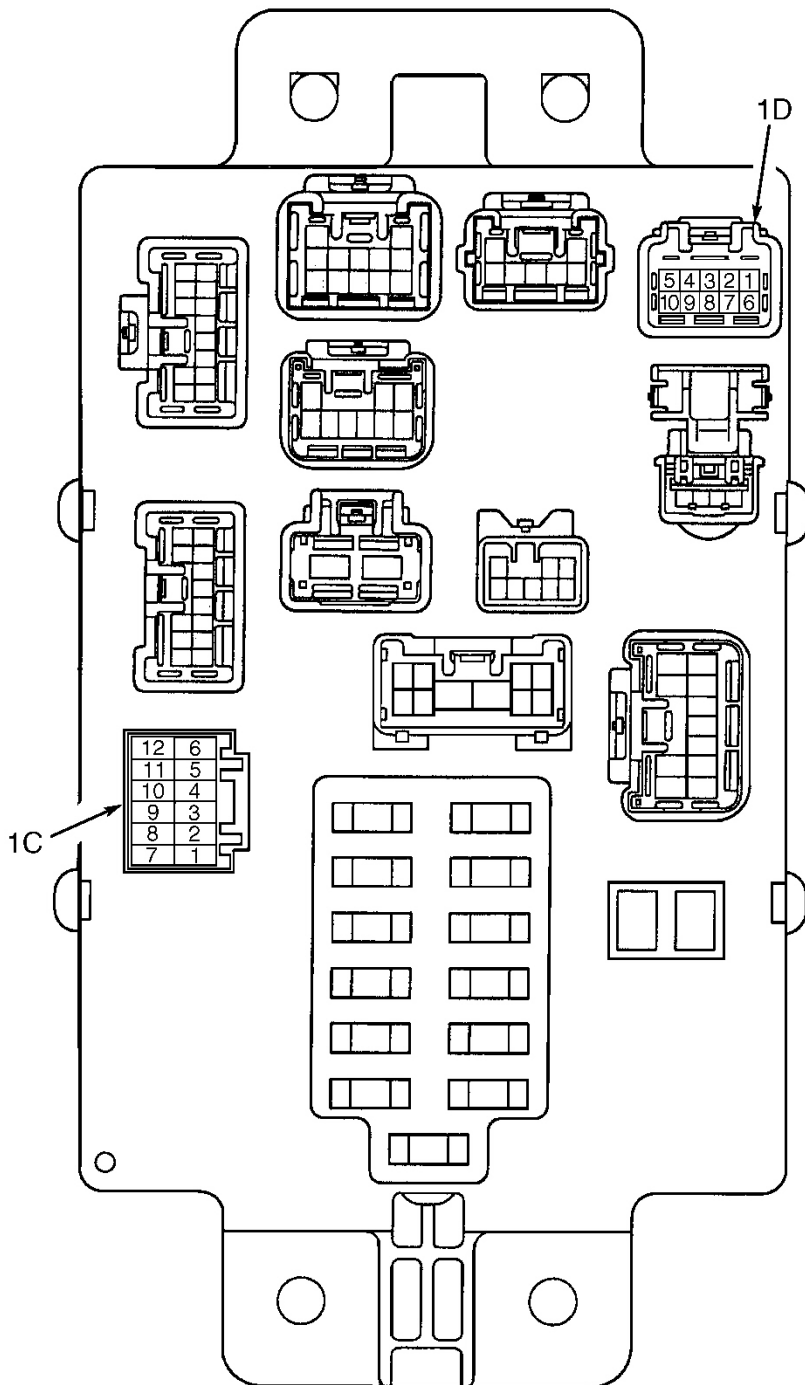


Fig. 22: Identifying Integration Relay Socket Terminals (RAV4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 23: Identifying Instrument Panel Junction Box Harness Connector 1C & 1D Terminals (RAV4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Land Cruiser

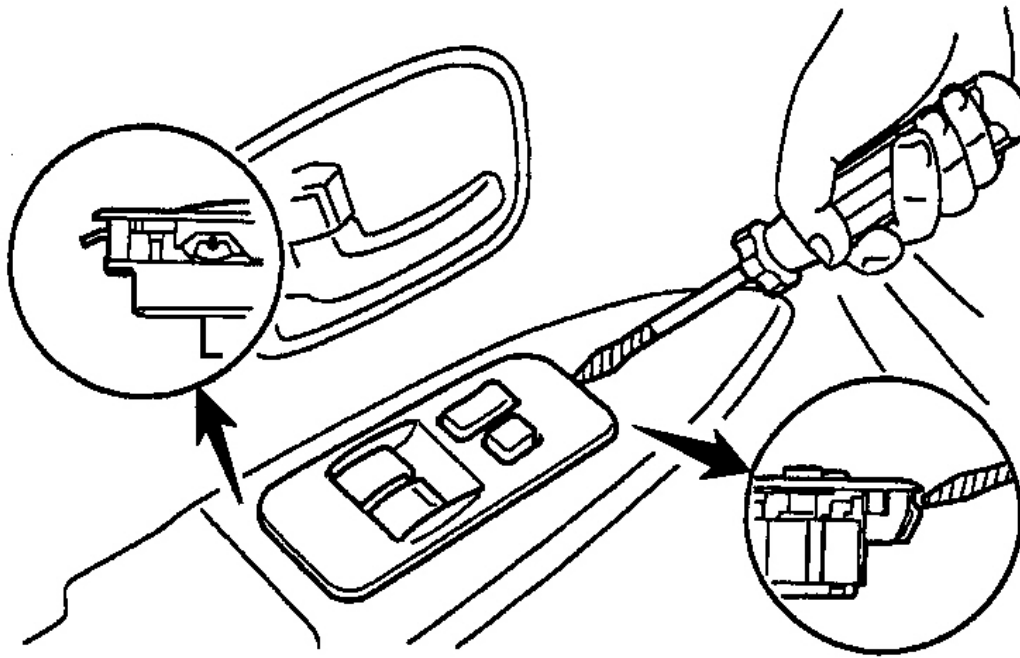
1. Connect negative lead from battery to door lock actuator terminal No. 2. Connect positive lead from ammeter to door lock actuator terminal No. 3 and negative ammeter lead to positive battery terminal. See **Fig. 16** . Current should change from 3.2 amps to less than 0.5 amps within 20-70 seconds.
2. Wait approximately 60 seconds and connect positive lead from battery to terminal No. 2 and negative lead to terminal No. 3. Door lock actuator should move to LOCK position. If operation is not as specified, replace door lock actuator assembly.

REMOVAL & INSTALLATION

NOTE: **Tape end of screwdriver when using it as a pry tool.**

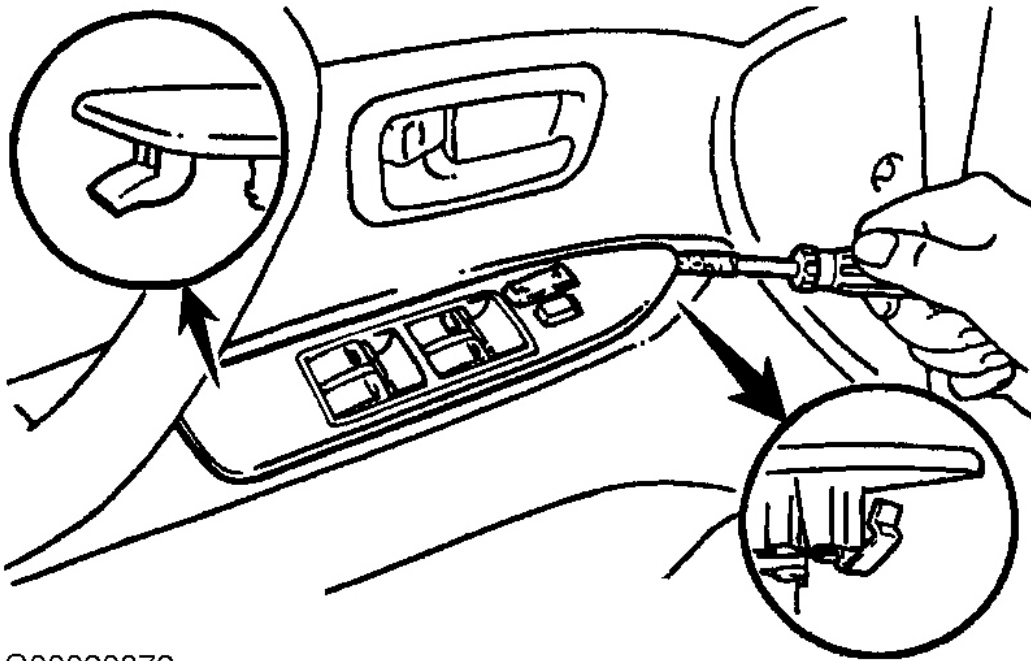
POWER DOOR LOCK ACTUATORS (FRONT DOORS)**Removal & Installation (Land Cruiser)**

1. Remove panel covering 3 screws for outside rear view mirror on inside of door by prying out with a screwdriver. Remove interior window control switch by prying up on front of plastic switch retaining plate. See **Fig. 24** and **Fig. 25** . Remove inside door handle bezel plug, screw and pry out bezel. See **Fig. 26** . Remove side door panel courtesy light and wiring harness connector. Remove 7 interior door panel screws, 3 clips and 2 caps.
2. Remove one screw, 2 cables and interior door handle. Remove speaker. Remove outside rear view mirror assembly by removing 3 bolts. Remove service hole cover. Remove door molding at top of door, where window slides. See **Fig. 27** . Remove 2 bolts and remove door glass. Remove second speaker. Remove lower glass track and frame. Remove window regulator 5 bolts and electrical connector through service hole.
3. Remove door lock wiring harness connector. Disconnect 2 links which connect to outside door handle. Remove 3 Torx (T-30) screws and remove door lock actuator through service hole.
4. To install, reverse removal procedure. See **TORQUE SPECIFICATIONS** .



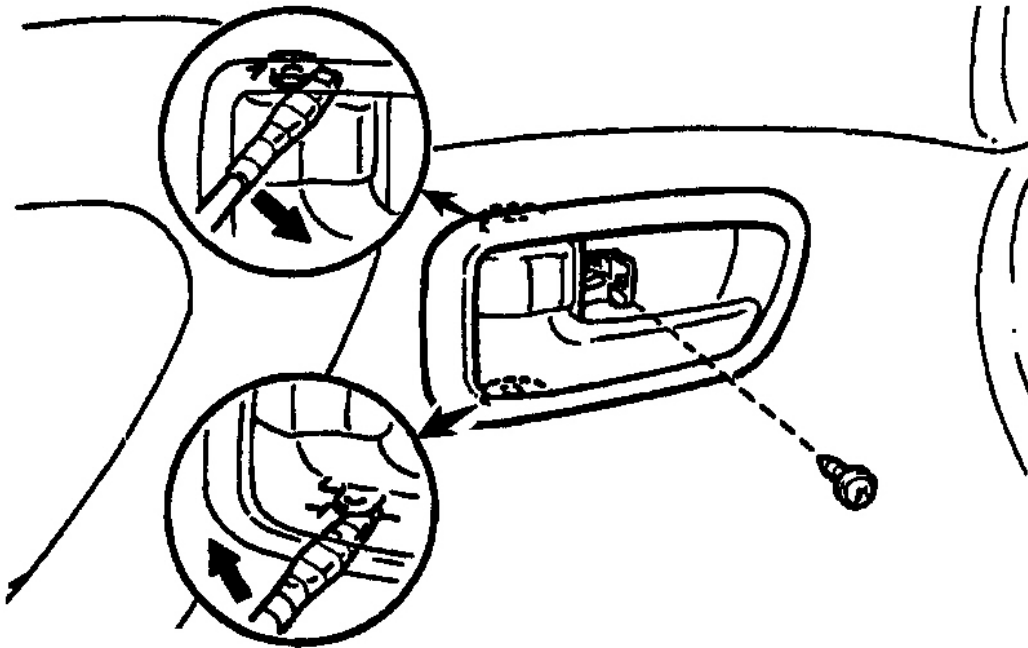
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Fig. 24: Identifying Power Door Lock Switch Plate Removal (Typical)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



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Fig. 25: Identifying Power Door Lock Switch Plate Removal (Typical)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.



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Fig. 26: Identifying Removal Procedure For Removing Interior Door Latch Bezel (Typical)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

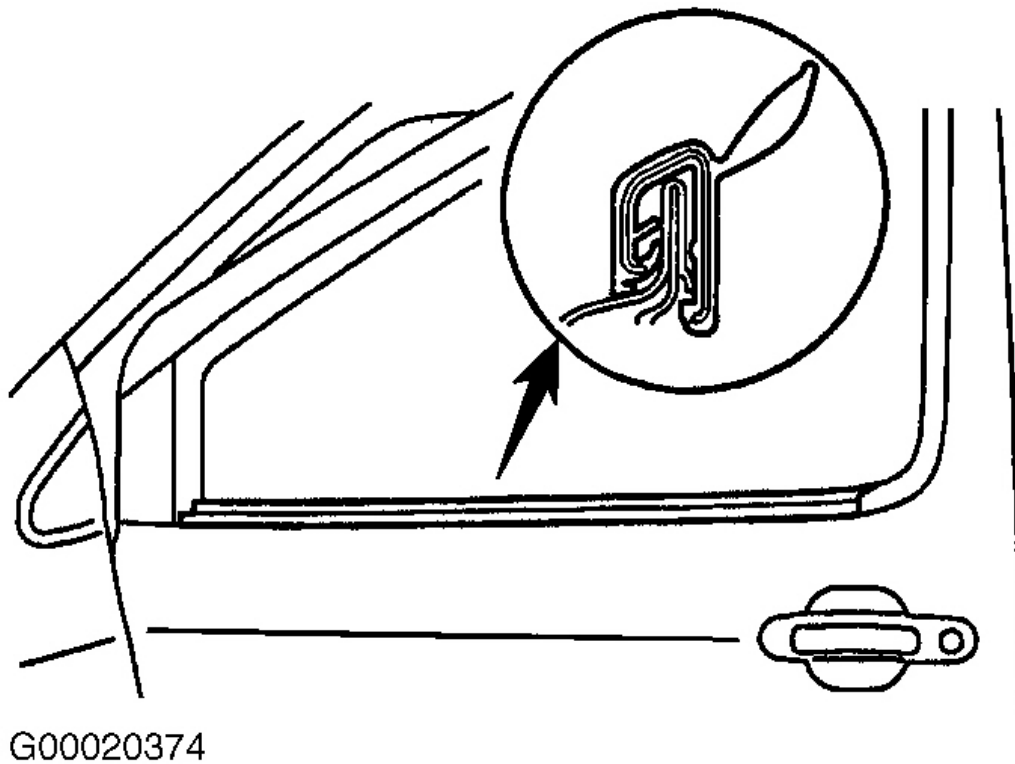


Fig. 27: Identifying Front Door Molding Attachment Points (Land Cruiser & Sienna)
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Removal & Installation (RAV4)

1. Remove window crank handle on non power window equipped vehicles. Remove inside door handle bezel. See **Fig. 26** . Remove outside rear view mirror cover. Remove power window switch (if equipped). See **Fig. 24** and **Fig. 25** . Remove interior door panel screws. Remove 2 screws from inside door pull.
2. Remove 2 screws, linkage rod and inside door handle assembly. Remove service hole cover. Remove outside rear view mirror. Remove glass track and remove door molding at top of door, where window slides. Remove door speaker. Open door glass until bolts appear in service holes. Remove 2 side window mounting bolts and pull window upward and remove window.
3. Remove electrical connector from window regulator (if equipped) and remove window regulator through service hole. Remove door lock actuator linkage, 3 screws and remove door lock actuator through service hole. To install reverse removal procedure. See **TORQUE SPECIFICATIONS** .

Removal & Installation (Sienna)

1. Remove window crank handle on non-power window equipped vehicles. Remove inside door handle

bezel. Remove interior window control switch by prying up on front of plastic switch retaining plate. See **Fig. 24** and **Fig. 25** . Remove armrest. Remove side door panel courtesy light and wiring harness connector. Remove upper armrest base panel. Remove 3 screws. Pry door trim away from door.

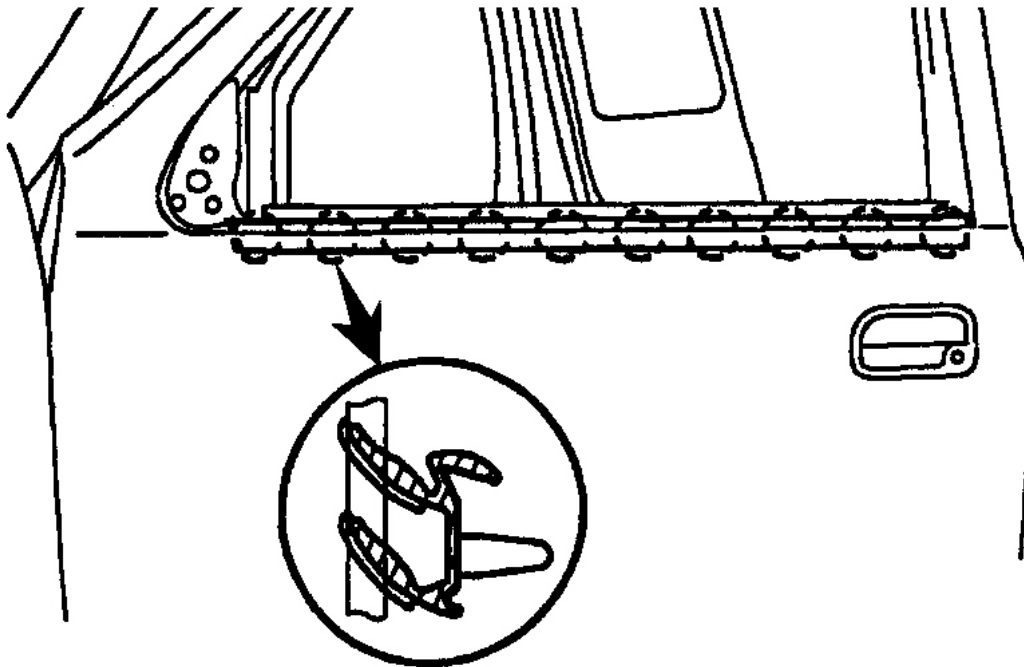
2. Remove 2 screws, linkage rod and inside door handle assembly. Remove service hole cover. Disconnect harness connector from power mirror, if equipped. Remove 3 bolts and remove outside rear view mirror assembly. Remove 3 screws and remove speaker. Remove 2 bolts and remove window glass. Remove door molding at top of door, where window slides. See **Fig. 27** .
3. Remove window track. Remove electrical connector from window regulator (if equipped) and remove window regulator through service hole. Remove door lock actuator linkage, 3 screws and remove door lock actuator through service hole. To install reverse removal procedure. See **TORQUE SPECIFICATIONS** .

Removal & Installation (Tacoma)

1. Remove window crank handle on non-power window equipped vehicles. Remove screw and slide interior door handle forward and remove handle from control link. Remove door lock bezel. Remove clip from armrest panel and disconnect electrical connectors. Remove 2 screws. Pry interior door panel loose from door. Lift upward and remove door panel.
2. Remove 5 screws and remove speaker. Remove service hole cover. With power remote mirrors, remove electrical connectors and 3 bolts. Remove weather stripping and glass channel. Remove front lower glass frame. Open door glass until nut appears in service hole. Remove 2 bolts and remove door glass by lifting upward. Remove rear lower glass frame.
3. Disconnect harness connector and remove 6 bolts and remove window regulator. Disconnect 3 screws and linkage from door lock assembly. Remove door lock assembly. To install, reverse removal procedure. See **TORQUE SPECIFICATIONS** .

Removal & Installation (Tundra)

1. Remove window crank handle on non-power window equipped vehicles. Remove inside door handle bezel. See **Fig. 26** . Remove interior window control switch by prying up on front of plastic switch retaining plate. See **Fig. 24** and **Fig. 25** . Remove side door panel courtesy light and wiring harness connector. Remove tweeter speaker. Remove 2 screws and pry door trim away from door.
2. Remove inner and lower weather strip from door. Remove screw and slide inside door handle backward and remove it. Disconnect 2 cables from inside door handle. Remove service hole cover. Remove 3 speaker screws and remove speaker. Disconnect remote mirror wiring harness. Remove 3 screws from mirror and remove mirror assembly. Remove glass track and remove door molding at top of door, where window slides. See **Fig. 28** . Remove door glass channel. Remove front and lower frames. Open door glass until bolts appear in service hole. Remove 2 bolts and remove door glass.
3. Remove harness connector, nut and bolts for window regulator and remove regulator through service hole. Disconnect linkage from door lock actuator, remove bolt and remove 3 Torx (T-30) screws and remove door lock actuator. To install, reverse removal procedure. See **TORQUE SPECIFICATIONS** .



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Fig. 28: Identifying Door Molding Attachment Points (Tundra)

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Removal & Installation (4Runner)

1. Remove window crank handle on non-power window equipped vehicles. Remove interior door handle screw and slide door handle forward. Disconnect door handle from link and remove door handle. Remove door arm rest. Remove interior window control switch by prying up on front of plastic switch retaining plate. See **Fig. 24** and **Fig. 25** . Remove 2 clips and 2 screws and pry door trim away from door.
2. Remove inner rear view mirror cover. Disconnect remote mirror wiring harness. Remove 3 screws from mirror and remove mirror assembly. Remove service hole cover. Remove inner and outer weather strip from door. Remove front and lower frames. Open door glass until bolts appear in service hole. Remove door glass channel. Remove 2 bolts and remove door glass.
3. Remove harness connector, nut and bolts for window regulator and remove regulator through service hole. Disconnect linkage from door lock actuator, remove bolt and remove 6 mounting screws. Remove door lock actuator. To install, reverse removal procedure. See **TORQUE SPECIFICATIONS** .

POWER DOOR LOCK ACTUATORS (REAR DOORS)

Removal & Installation (Land Cruiser)

1. Remove inside door handle bezel screw plug, screw and bezel. Remove interior window control switch

by prying up on front of plastic switch retaining plate and disconnect electrical harness connector. See **Fig. 24** and **Fig. 25** . Remove door courtesy light and harness connector. Remove 3 screws and 4 clips. Pry out to remove door panel.

2. Remove interior door handle screw and 2 cables. Remove door handle assembly. Remove service hole cover and move door handle control cables and wiring harness through hole. Remove door molding at top of door, where window slides. See **Fig. 29** . Remove 2 bolts and a screw and remove window division bar. Disconnect wiring harness connector from window regulator. Remove 4 bolts and remove window regulator through service hole.
3. Disconnect door lock actuator wiring harness. Remove 3 Torx (T-30) screws from jamb area of door and remove unit through service hole. To install, reverse removal procedure. See **TORQUE SPECIFICATIONS** .

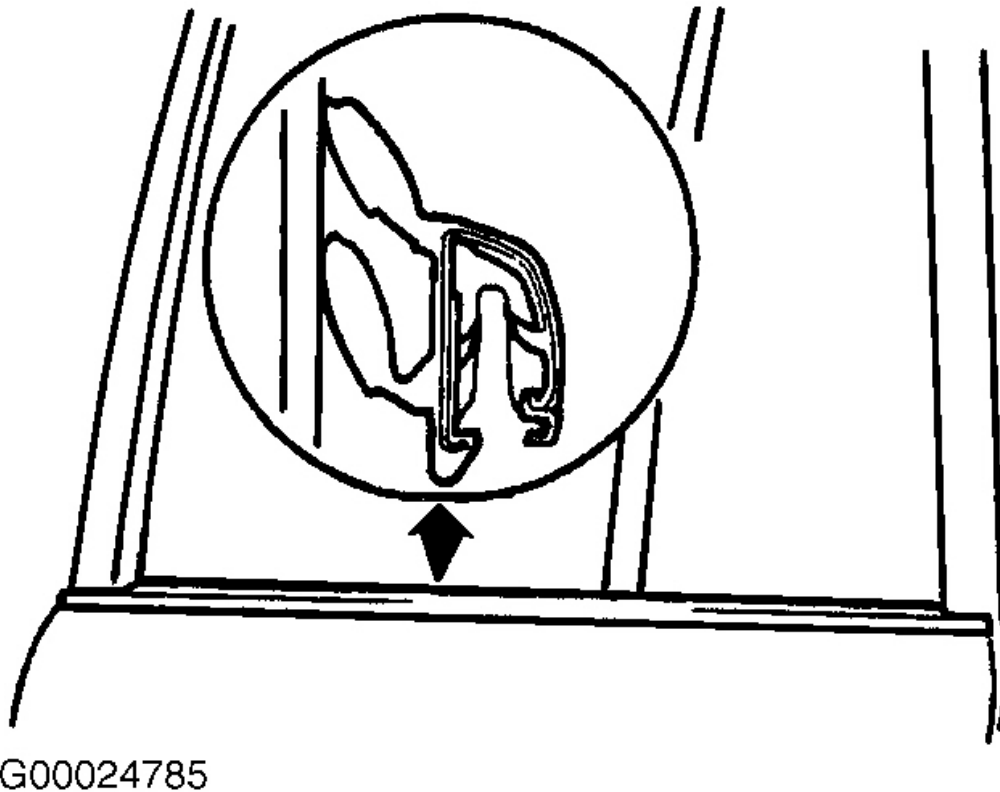


Fig. 29: Identifying Rear Door Molding Attachment Points (Land Cruiser)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Removal & Installation (RAV4)

1. Remove window crank handle on non-power window equipped vehicles. Remove inside door handle

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bezel. Remove 2 screws from inside door pull. Pry interior door panel loose from door. Remove power window switch if equipped.

2. Remove 2 screws, linkage rod and inside door handle assembly. Remove service hole cover. Remove door molding at top of door, where window slides. Remove window track. Remove division bar. Remove rear door quarter window and glass.
3. Remove electrical connector from window regulator (if equipped) and remove window regulator through service hole. Remove door lock actuator linkage, 3 screws and remove door lock actuator through service hole. To install reverse removal procedure. See **TORQUE SPECIFICATIONS** .

Removal & Installation (Tundra)

1. Remove one screw and inside door handle bezel. Remove one screw and remove armrest. Pry door trim away from door. Remove 4 screws and remove speaker. Remove inside door handle screw and slide door handle forward and disconnect cable.
2. Remove service hole cover. Remove access door controller cables, links and clamps. Remove 3 access door controller bolts and access door controller. Disconnect lower door lock harness connector. Remove 3 Torx screws (T-30) and remove lower door lock assembly.
3. To install reverse removal procedure. See **TORQUE SPECIFICATIONS** .

Removal & Installation (4Runner)

1. Remove window crank handle on non-power window equipped vehicles. Remove interior door handle screw and slide door handle forward. Disconnect door handle from link and remove door handle. Remove door arm rest. Remove interior window control switch by prying up on front of plastic switch retaining plate. Remove 2 clips and 2 screws and pry door trim away from door.
2. Remove service hole cover. Remove inner and outer weather strip from door. Remove division bar. Remove quarter window glass with weatherstrip and glass channel. Disconnect harness connector. Remove clip and pull down on locking knob. Disconnect linkage from door handle. Remove 3 door lock mounting screws and remove door lock actuator assembly.
3. To install reverse removal procedure. See **TORQUE SPECIFICATIONS** .

POWER DOOR LOCK ACTUATORS (LIFTGATE & BACK DOOR)

Removal & Installation (Land Cruiser)

1. Remove assist grip. Remove inside handle bezel. Remove back door garnish around rear window. Remove rear wiper arm and grommet. Remove 2 bolts from rear wiper linkage assembly and remove 3 bolts from rear wiper motor assembly. Remove lower back door weather stripping. Remove 2 inside back door handle mounting bolts and remove inside back door handle linkage rod and remove back door inside handle.
2. Remove linkage and 3 mounting bolts from back door controller and lock actuator assembly. Remove back door linkage and lock actuator assembly. To install, reverse removal procedure. See **TORQUE SPECIFICATIONS** .

Removal & Installation (RAV4)

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Remove liftgate upper garnish. Remove liftgate inner door panel. Remove service hole cover. Remove 4 bolts and spare tire bracket. Remove rear wiper arm. Remove rear wiper motor assembly. Remove 3 screws for rear door lock, disconnect electrical connector and 2 linkage rods and remove rear door lock assembly. To install, reverse removal procedure.

Removal & Installation (Sienna)

1. Remove liftgate assist grip. Remove liftgate pull strap. Remove liftgate center garnish around rear window. Remove side garnish from liftgate. Remove liftgate inner door panel. Remove 2 screws and remove high mounted stoplight. Remove rear wiper arm.
2. Remove 3 bolts from wiper motor and 2 bolts from wiper motor and linkage assembly. Remove rear license plate light assembly. Remove liftgate key lock cylinder assembly. Remove linkage connectors, harness connectors and 3 bolts and remove liftgate door lock actuator. To install, reverse removal procedure.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS

Application & Component	INCH Lbs. (N.m)
Land Cruiser	
Door Lock Actuator	44 (5.0)
Front Door Lock Cylinder	44 (5.0)
Front Door Glass	44 (5.0)
Window Regulators	44 (5.0)
RAV4	
Front Door Glass	44 (5.0)
Door Lock Actuators	48 (5.4)
Window Regulators	44 (5.0)
Sienna	
Front Door Glass	48 (5.4)
Front Door Lock Actuator	43 (4.9)
Window Regulators	48 (5.4)
Rear Door Lock Actuator	69 (7.8)
Rear Wiper Arm	48 (5.4)
Tacoma	
Window Regulator	43 (4.9)
Door Lock Cylinder	43 (4.9)
Tundra	
Front Door Glass	44 (5.0)
Outside Rear View Mirror	71 (8.0)
Power Door Lock Actuator	44 (5.0)
Power Window Regulator	44 (5.0)
Lower Access Door Lock	44 (5.0)

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Upper Access Door Lock	120 (13)
Access Door Controller	120 (13)
4Runner	
Front Door Glass	43 (5.0)
Door Lock Actuators	43 (5.0)
Window Regulators	43 (5.0)

WIRING DIAGRAMS

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Fig. 30: Power Door Lock System Wiring Diagram (1999-2000 RAV4)

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Fig. 31: Power Door Lock System Wiring Diagram (1999-2000 Sienna)

1999 Toyota RAV4

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1999 Toyota RAV4
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Fig. 32: Power Door Lock System Wiring Diagram (1999-2000 Tacoma)

1999 Toyota RAV4

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Fig. 33: Power Door Lock System Wiring Diagram (1999-2000 Tundra)

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Fig. 34: Power Door Lock System Wiring Diagram (1999-2000 4Runner)