2009 Toyota Highlander Limited
2009 ACCESSORIES & EQUIPMENT Engine Hood/Door - Highlander

2009 ACCESSORIES & EQUIPMENT

Engine Hood/Door - Highlander

BACK DOOR CLOSER SYSTEM

PRECAUTION

NOTE: When disconnecting the cable from the negative (-) battery terminal, initialize the following system after the cable is reconnected.

SYSTEM REFERENCE

System Name	See procedure
Power Back Door System	INITIALIZATION

1. **IGNITION SWITCH EXPRESSIONS**

HINT:

The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this article.

IGNITION SWITCH EXPRESSIONS CHART

Expression	Switch Type	
	Ignition Switch (Position)	Engine Switch (Condition)
Ignition Switch off	LOCK	Off
Ignition Switch on (IG)	ON	On (IG)
Ignition Switch on (ACC)	ACC	On (ACC)
Engine Start	START	Start

PARTS LOCATION

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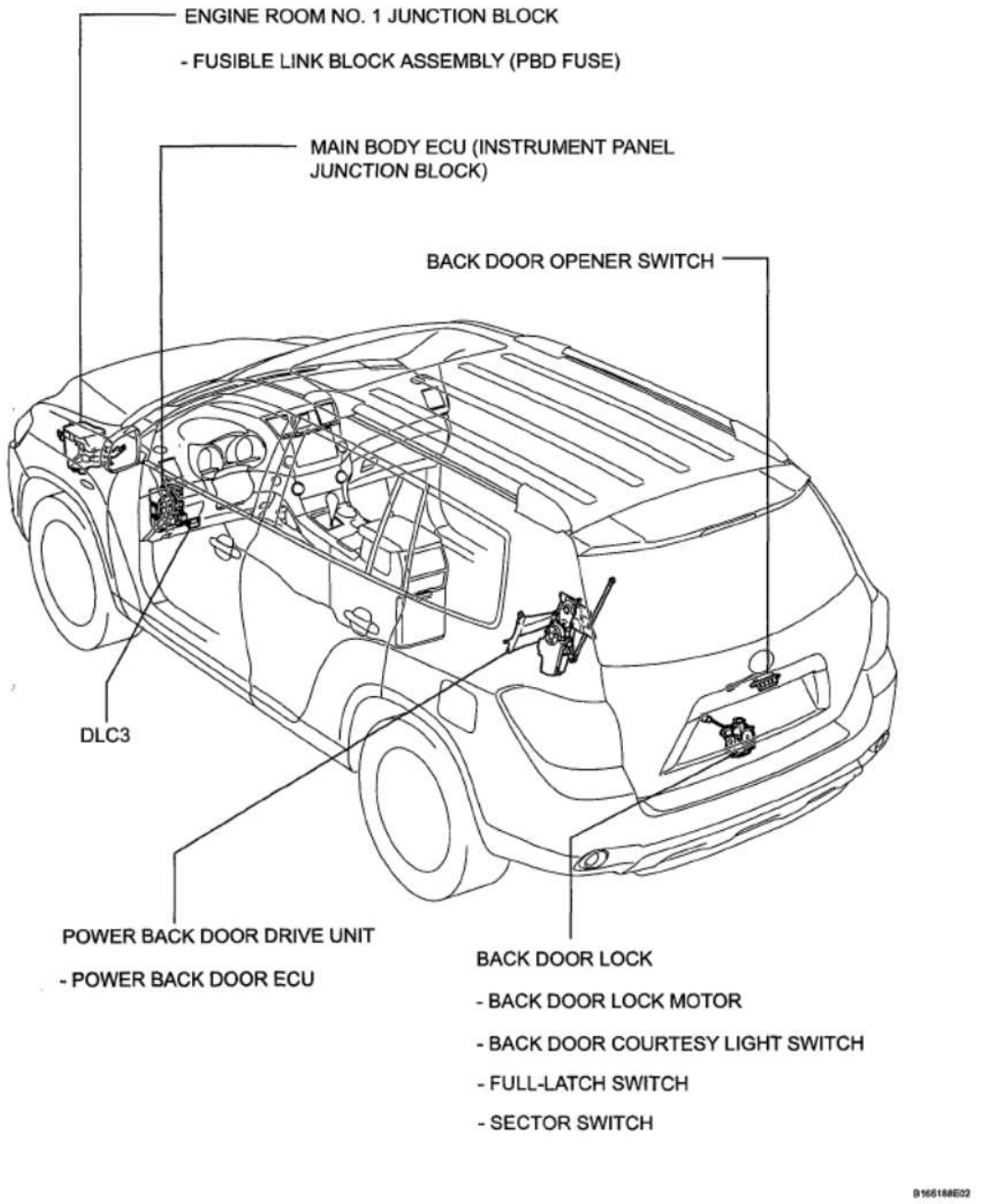


Fig. 1: Identifying Back Door Closer System Parts Location
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SYSTEM DIAGRAM

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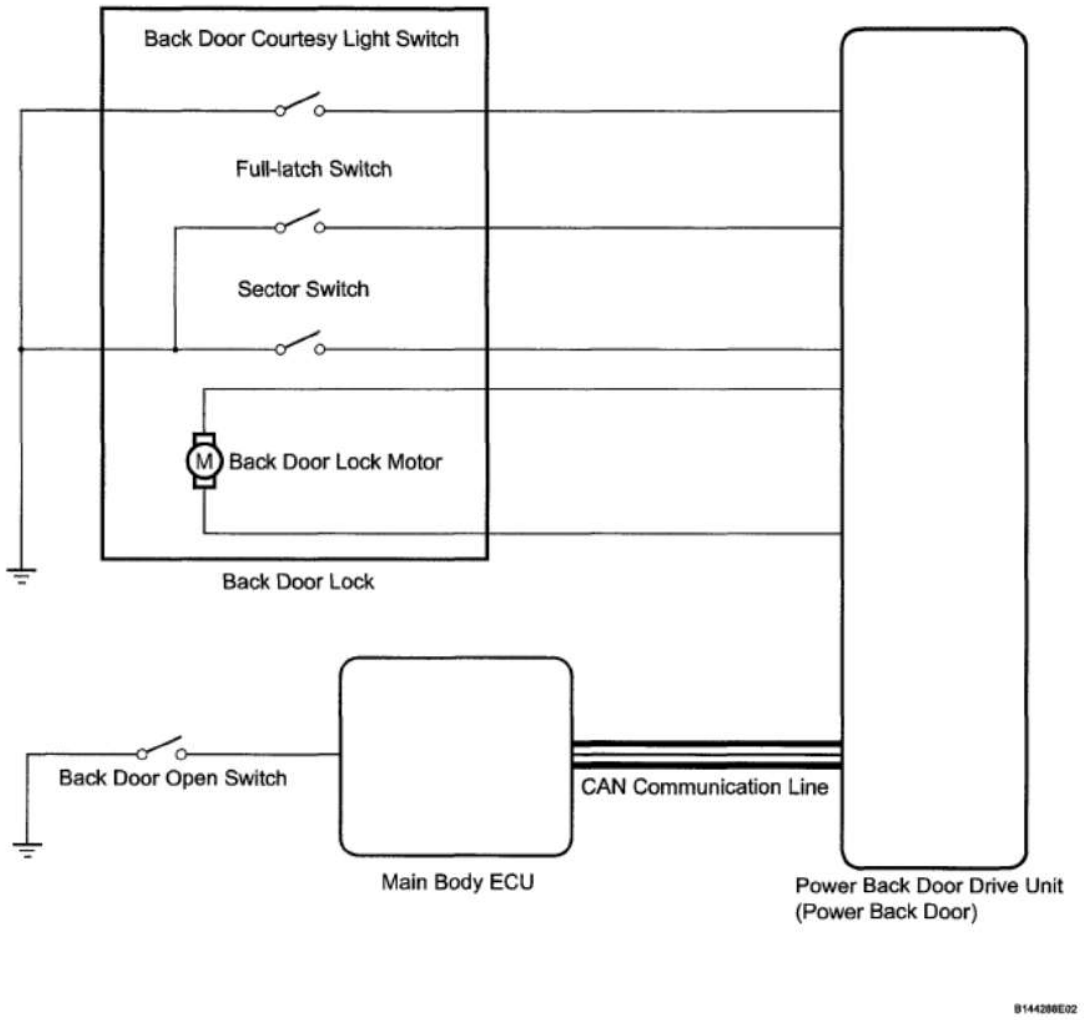


Fig. 2: Back Door Closer System Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Communication method

COMMUNICATION METHOD REFERENCE

Transmitting ECU	Receiver	Signals	Communication Method
Main body ECU	Power back door ECU	Back door opener switch signal	CAN

SYSTEM DESCRIPTION

1. **BACK DOOR CLOSER SYSTEM DESCRIPTION**
   a. Operating any power back door switch when the back door is fully closed inputs a request signal to the power back door ECU. The power back door ECU then outputs a "latch release" command to the back door lock in response to the input.
   b. The latch can be released only when the back door is unlocked.

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c. 3 switches are built into the back door lock, and the power back door ECU monitors each switch status. The power back door ECU controls latch "release/ close" operations in response to the inputs from each switch.

SWITCH OPERATIONS CHART

Switch	Function
Back door courtesy switch	Detects whether back door is open or closed. This switch turns ON when back door is open or ajar and turns OFF when it is fully closed.
Full-latch switch	Detects fully closed position of latch. This switch turns ON when latch is in over-latch position.
Sector switch	Detects ajar position of latch. This switch turns ON when latch is in open-latch position.

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- The back door closer system troubleshooting procedure based on the premise that the power back door system is operating normally. Check the power back door system first before troubleshooting the back door closer system (See **INITIALIZATION**).
- Use the procedure to troubleshoot the back door closer system.
- *: Use Techstream.

1. **VEHICLE BROUGHT TO WORKSHOP**
2. **INSPECT BATTERY VOLTAGE**

   Standard voltage:

   11 to 14 V

   If the voltage is below 11 V, recharge or replace the battery before proceeding.

3. **CHECK COMMUNICATION FUNCTION OF CAN COMMUNICATION SYSTEM***
   a. Use Techstream to check if the CAN communication system is functioning normally.

   Result

RESULT CHART

Result	Proceed to
CAN DTC is not output	A
CAN DTC is output	B

B: Go to CAN COMMUNICATION SYSTEM

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A: Go to next step

4. **CHECK FOR DTC***
   a. Check for DTCs (See **DIAGNOSIS SYSTEM**).
   b. Clear the DTCs (See **DIAGNOSIS SYSTEM**).
   c. Recheck for DTCs (See **DIAGNOSIS SYSTEM**).

Result

RESULT CHART

Result	Proceed to
DTC is not output	A
DTC is output	B

B: Go to DIAGNOSTIC TROUBLE CODE CHART

A: Go to next step

5. **PROBLEM SYMPTOMS TABLE**

Result

RESULT CHART

Result	Proceed to
Fault is not listed on problem symptoms table	A
Fault is listed on problem symptoms table	B

B: Go to step 7

A: Go to next step

6. **OVERALL ANALYSIS AND TROUBLESHOOTING***
   a. Operation check (See **OPERATION CHECK**)
   b. Terminals of ECU (See **OPERATION CHECK**)
   c. Data List/Active Test (See **DATA LIST/ACTIVE TEST**)
7. **REPAIR OR REPLACE**
8. **CONFIRMATION TEST**

NEXT: END

OPERATION CHECK

1. **CHECK BASIC FUNCTIONS**
   a. When the back door is partially closed, check that the motor operates so that the back door is fully

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closed (locked).

b. Check that the back door can be opened.

c. When the back door is partially closed and then the motor starts normal operation, push the back door opener switch and pull up the back door to open it. At this time, check that the motor starts the reverse operation and then stops.

d. Immediately after the back door is partially closed (the motor has not started operation yet), push the back door opener switch to open the back door. Check that the motor does not operate at this time.

PROBLEM SYMPTOMS TABLE

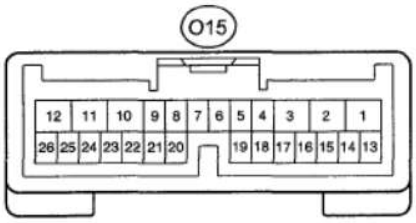
Back door closer system

BACK DOOR CLOSER SYSTEM PROBLEM SYMPTOMS CHART

Symptom	Suspected Area	Refer to
Back door cannot be opened	Back door opener switch	**BACK DOOR CANNOT BE OPENED**
	Back door lock	-
	Power back door drive unit (Power back door ECU)	-
	Main body ECU	-
	Wire harness or connector	-
Back door closer does not operate	Back door lock	**BACK DOOR CLOSER DOES NOT OPERATE**
	Power back door drive unit (Power back door ECU)	-
	Wire harness or connector	-

TERMINALS OF ECU

1. **CHECK POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU)**



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Fig. 3: Identifying O15 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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a. Disconnect the O15 ECU connector.
b. Measure the voltage and resistance according to the value(s) in the table below.

VOLTAGE AND RESISTANCE SPECIFICATION

Tester Connection	Wiring Color	Terminal Description	Condition	Specified Condition
O15-12 (B) - Body ground	B - Body ground	Battery power supply	Always	10 to 14 V
O15-10 (ECUB) - Body ground	BR - Body ground	ECUB power supply	Always	10 to 14 V
O15-8 (IG) - Body ground	GR - Body ground	IG power supply	Ignition switch on (IG)	10 to 14 V
O15-8 (IG) - Body ground	GR - Body ground	IG power supply	Ignition switch off	Below 1 V
O15-11 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 ohms

If the result is not as specified, there may be a malfunction in the wire harness.

c. Reconnect the 015 ECU connector.
d. Measure the voltage according to the value (s) in the table below.

VOLTAGE SPECIFICATION

Tester Connection	Wiring Color	Terminal Description	Condition	Specified Condition
O15-2 (DC+) - O15-1 (DC-)	B-G	Back door lock motor circuit	Back door lock motor is operating	10 to 14 V
O15-2 (DC+) - O15-1 (DC-)	B-G	Back door lock motor circuit	Back door lock motor is not operating	Below 1 V
O15-20 (FUL) - Body ground	LG - Body ground	Back door courtesy switch circuit	Back door is closed	10 to 14 V
O15-20 (FUL) - Body ground	LG - Body ground	Back door courtesy switch circuit	Back door is open	Below 1 V
O15-22 (HAF) - Body ground	R - Body ground	Back door lock half-latch switch signal circuit	Back door is open --> Back door closer motor --> Back door is closed	Below 1 V --> 10 to 14 V --> Below 1 V
O15-24 (POS) - Body ground	LG - Body ground	Back door lock position switch signal circuit	Back door is open --> Back door closer operates --> Back door is closed	Below 1 V --> 10 to 14 V --> Below 1 V

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If the result is not as specified, the ECU may have a malfunction.

2. **CHECK MAIN BODY ECU**

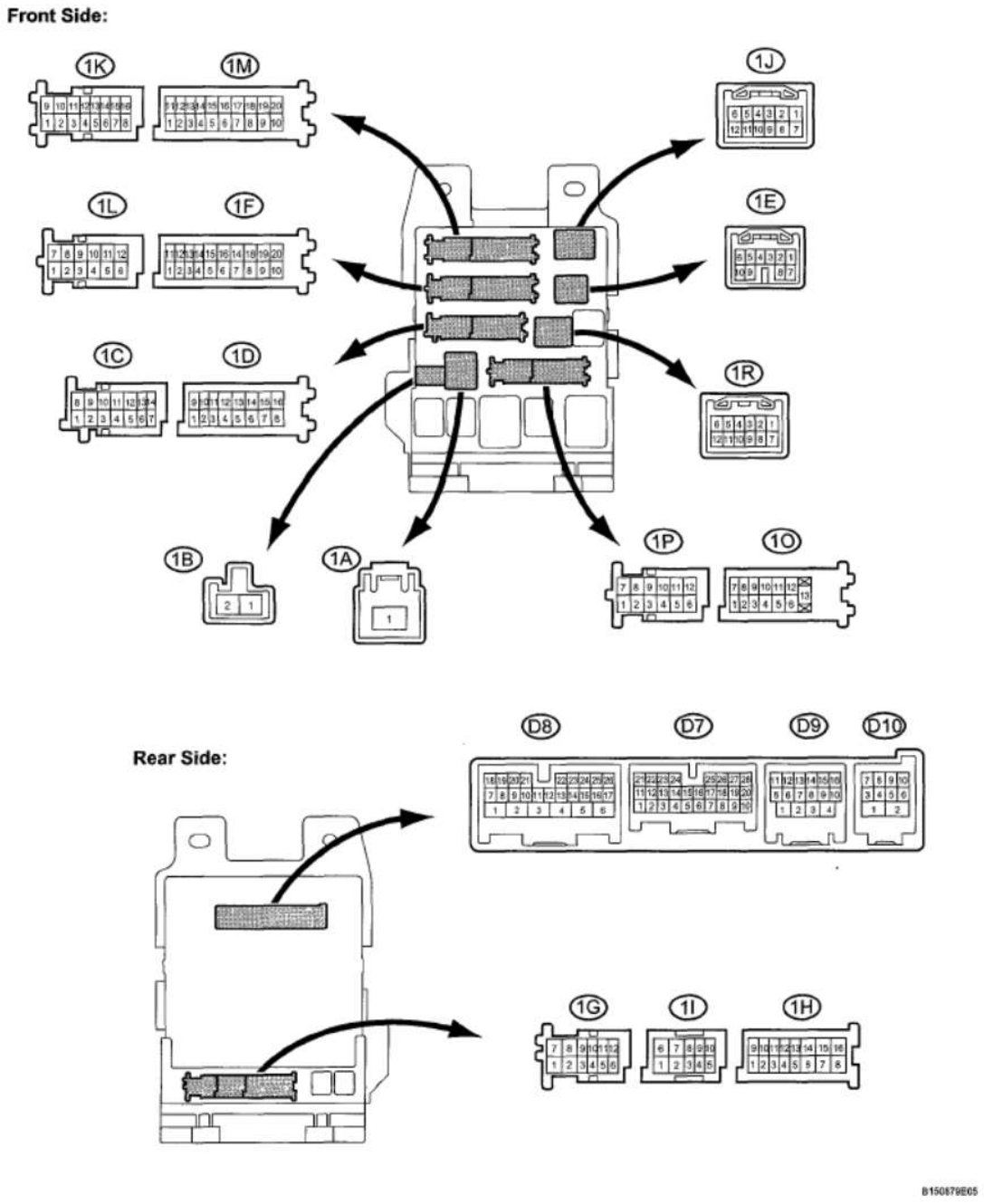


Fig. 4: Identifying D7, D8, 1F And 1M Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the D7, D8, 1F and 1M connectors.
b. Measure the resistance according to the value (s) in the table below.

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RESISTANCE SPECIFICATION

Tester Connection	Wiring Color	Terminal Description	Condition	Specified Condition
D8-26 (BDSU) - Body ground	Y - Body ground	Back door open switch signal circuit	Back door open switch ON	Below 1 ohms
D8-26 (BDSU) - Body ground	Y - Body ground	Back door open switch signal circuit	Back door open switch OFF	10 kohms or higher
D7-2 (PBDS) - Body ground(1)	R - Body ground	Power back door open/close switch signal circuit	Power back door open/close switch ON	Below 1 ohms
D7-2 (PBDS) - Body ground(1)	R - Body ground	Power back door open/close switch signal circuit	Power back door open/close switch OFF	10 kohms or higher
1F-10 (GND1) - Body ground	W-B - Body ground	Ground	Always	Below 1 ohms
1M-9 (GND2) - Body ground	W-B - Body ground	Ground	Always	Below 1 ohms

- (1) w/ Power Back Door

If the result is not as specified, there may be a malfunction on the wire harness side.

DIAGNOSIS SYSTEM

1. **DESCRIPTION**
   a. The power back door ECU (power back door drive unit) controls the vehicle's back door closer system functions. Back door closer system data and Diagnostic Trouble Code (DTC) can be read through the vehicle's Data Link Connector 3 (DLC3). When the system seems to be malfunctioning, use Techstream to check for malfunctions and perform repairs.
2. **CHECK DLC3**
   a. Check the DLC3 (See **HOW TO TROUBLESHOOT ECU CONTROLLED SYSTEMS**).
3. **INSPECT BATTERY VOLTAGE (a) Measure the battery voltage.**

   Standard voltage:

   11 to 14 V

   If the voltage is below 11 V, recharge or replace the battery before proceeding to the next step.

DTC CHECK/CLEAR

1. **CHECK DTC**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).

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c. Read the DTCs by following the directions on the tester screen.

HINT:

Refer to the Techstream operator's manual for further details.

2. **CLEAR DTC**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Erase the DTCs by following the directions on the tester screen.

HINT:

Refer to the Techstream operator's manual for further details.

DATA LIST/ACTIVE TEST

1. **DATA LIST**

HINT:

Using Techstream to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

a. Connect Techstream to the DLC3.
b. Turn the engine switch on (IG).
c. Turn the tester on.
d. Enter the following menus:

Select: Body Electrical/Back Door or Main Body/Data List/

e. According to the display on the tester, read the "Data List".

Back Door (Power back door ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
Door Lock Status	Back door lock condition signal/LOCK or UNLOCK	LOCK: Back door is locked UNLOCK: Back door is unlocked	-
		ON: Back door lock	

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Closer Position SW	Closer position switch signal/ON or OFF	center gear is center position OFF: Back door lock center gear is not in center position	-
Courtesy SW	Back door courtesy switch signal/ON or OFF	ON: Back door is open OFF: Back door is closed	-
Half Latch SW	Half-latch switch signal/ON or OFF	ON: Back door lock motor is open-latch or over-latch OFF: Back door lock motor is full-latch or half-latch	-

Main Body (Main body ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
B Dor Handle	Back door open switch signal/ON or OFF	ON: Back door open switch is ON OFF: Back door open switch is OFF	-

2. **ACTIVE TEST**

HINT:

Using Techstream to perform Active Test allows relays, VSVs, actuators and other items to be operated without removing any parts. This non-intrusive inspection can be very useful because intermittent operation may be discovered before parts or wiring is disturbed. Performing Active Tests early in troubleshooting is one way to save diagnostic time. The Data List can be displayed while performing Active Tests.

a. Connect Techstream to the DLC3.
b. Turn the ignition switch on (IG).
c. Turn the tester on.
d. Enter the following menus:

   Select: Body Electrical/Back Door/Active Test/

e. According to the display on the tester, perform the "Active Test".

Back Door (Power back door ECU)

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ACTIVE TEST REFERENCE

Tester Display	Test Part	Control Range	Diagnostic Note
PBD Motor	Power back door motor	ON/OFF	-
Latch Release	Power back door motor	ON/OFF	-

DIAGNOSTIC TROUBLE CODE CHART

Back door closer system

BACK DOOR CLOSER SYSTEM DTC CHART

DTC Code	Detection Item	Trouble Area
B2250	Back Door Closer Operation Malfunction	1. Back door lock 2. Wire harness 3. Power back door drive unit (Power back door ECU)
B2251	Back Door Closer Switch Malfunction	1. Back door lock 2. Wire harness 3. Power back door drive unit (Power back door ECU)

DTC B2250 BACK DOOR CLOSER OPERATION MALFUNCTION

DESCRIPTION

The power back door drive unit (power back door ECU) inputs signals from the full-latch switch, sector switch and back door courtesy light switch, which are built into the back door lock. Based on these switch signals, the latch position of the back door lock is determined.

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
B2250	While back door closer is operating, malfunction is detected in position information from sector switch within specified amount of time	• Back door lock • Wire harness • Power back door drive unit (Power back door ECU)

WIRING DIAGRAM

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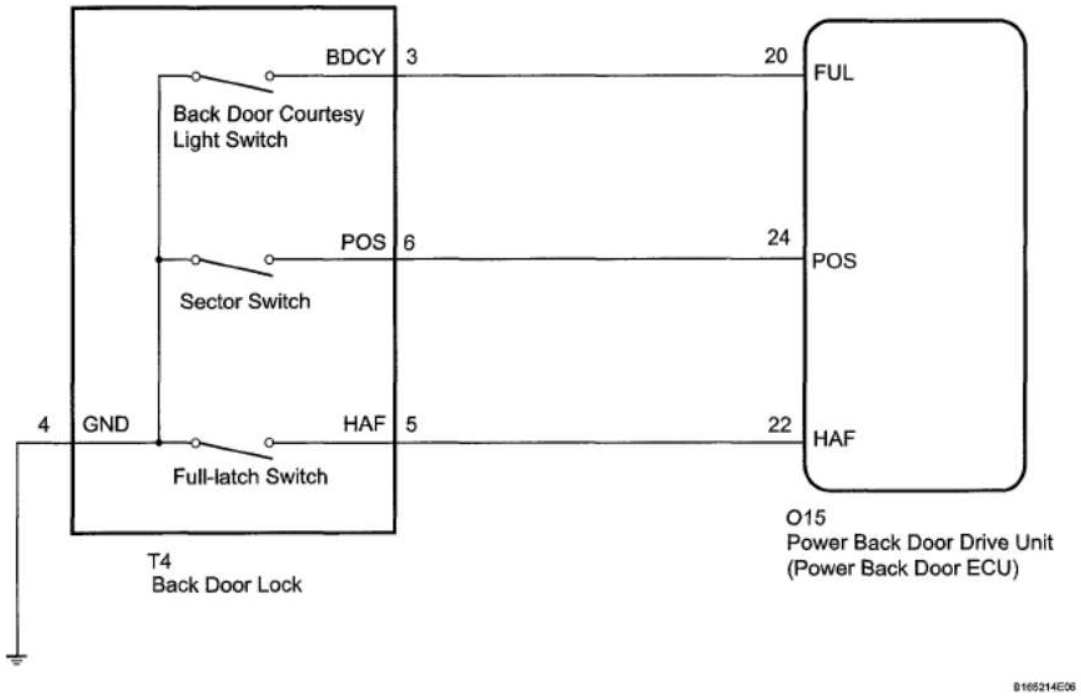


Fig. 5: Back Door Closer Operation Malfunction - Wiring Diagram
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INSPECTION PROCEDURE

1. **INSPECT BACK DOOR LOCK (SECTOR SWITCH)**

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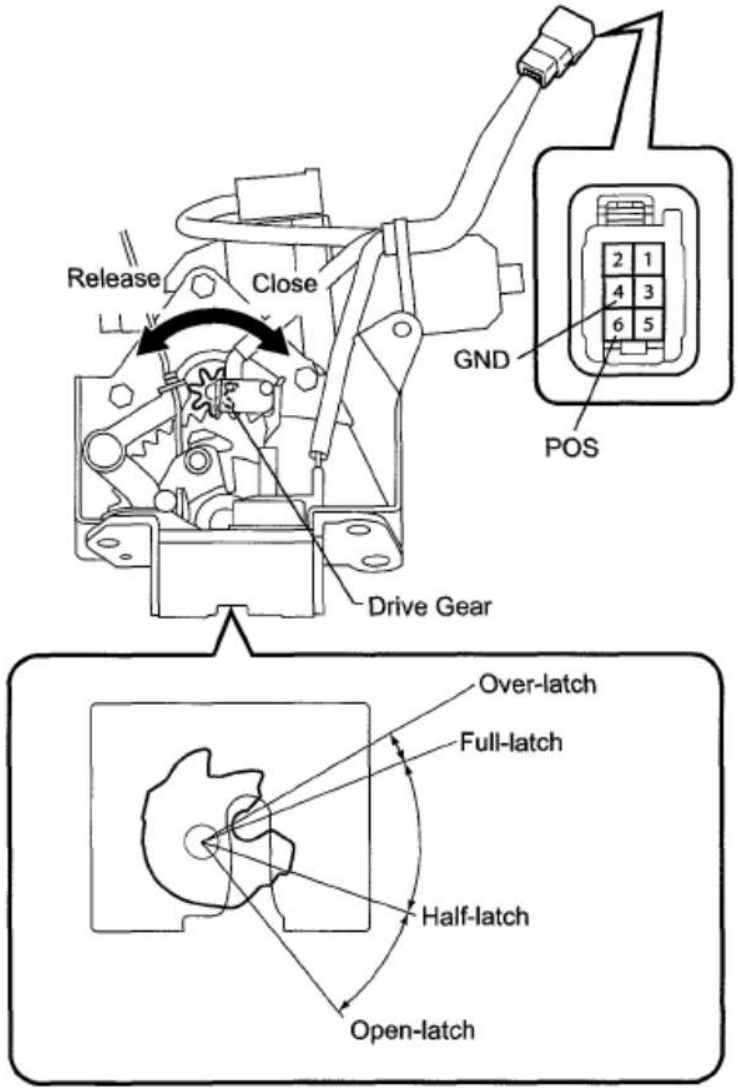


Fig. 6: Inspecting Back Door Lock (Sector Switch)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the back door lock. (See **REMOVAL**)
b. Measure the resistance of the switch.

Standard resistance:

Sector switch

RESISTANCE SPECIFICATION

Tester Connection	Door Lock Latch Position	Specified Condition

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6 (POS) - 4 (GND)	Open-latch	Below 1 ohms
6 (POS) - 4 (GND)	Over-latch	10 kohms or higher
6 (POS) - 4 (GND)	Full-latch	10 kohms or higher
6 (POS) - 4 (GND)	Half-latch	10 kohms or higher

NG: REPLACE BACK DOOR LOCK (See **REMOVAL**)

OK: Go to next step

c. **CHECK HARNESS AND CONNECTOR (BACK DOOR LOCK - POWER BACK DOOR ECU AND BODY GROUND)**

a. Disconnect the T4 door lock connector.

b. Disconnect the 015 ECU connector.

c. Measure the resistance according to the value (s) in the table below.

Standard resistance

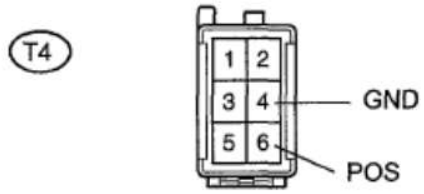
RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
T4-6 (POS) - O15-24 (POS)	Always	Below 1 ohms
T4-4 (GND) - Body ground	Always	Below 1 ohms
T4-6 (POS) - Body ground	Always	10 kohms or higher

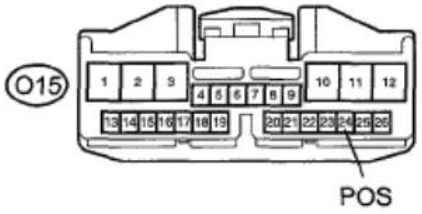
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Back Door Lock)



Front view of wire harness connector:
(to Power Back Door ECU)



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Fig. 7: Identifying T4 Door Lock And 015 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

DTC B2251 BACK DOOR CLOSER SWITCH MALFUNCTION

DESCRIPTION

The power back door drive unit (power back door ECU) inputs signals from the full-latch switch, sector switch and back door courtesy light switch, which are built into the back door lock. Based on these switch signals, the latch position of the back door lock is determined.

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
B2251	While back door closer is operating, malfunction is detected in position information from each switch within specified amount of time	• Back door lock • Wire harness • Power back door drive unit (Power back door ECU)

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WIRING DIAGRAM

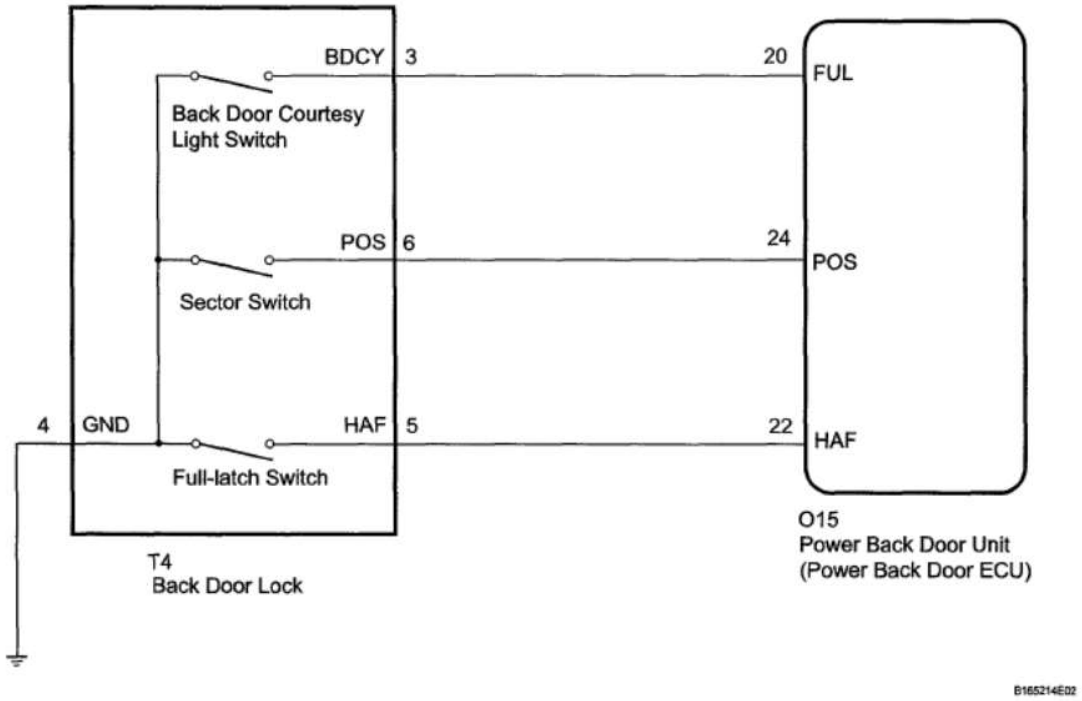


Fig. 8: Back Door Closer Switch Malfunction - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE ON TECHSTREAM (BACK DOOR COURTESY LIGHT SWITCH)**
   a. Check the Data List to determine if the back door courtesy light switch function properly.

Back door (Power back door ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
Courtesy SW	Back door courtesy light switch signal/ON or OFF	ON: Back door is open OFF: Back door is closed	-

OK:

The display is as specified in the normal condition.

NG: Go to step 2

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See REMOVAL)

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2. **INSPECT BACK DOOR LOCK (BACK DOOR COURTESY LIGHT SWITCH)**

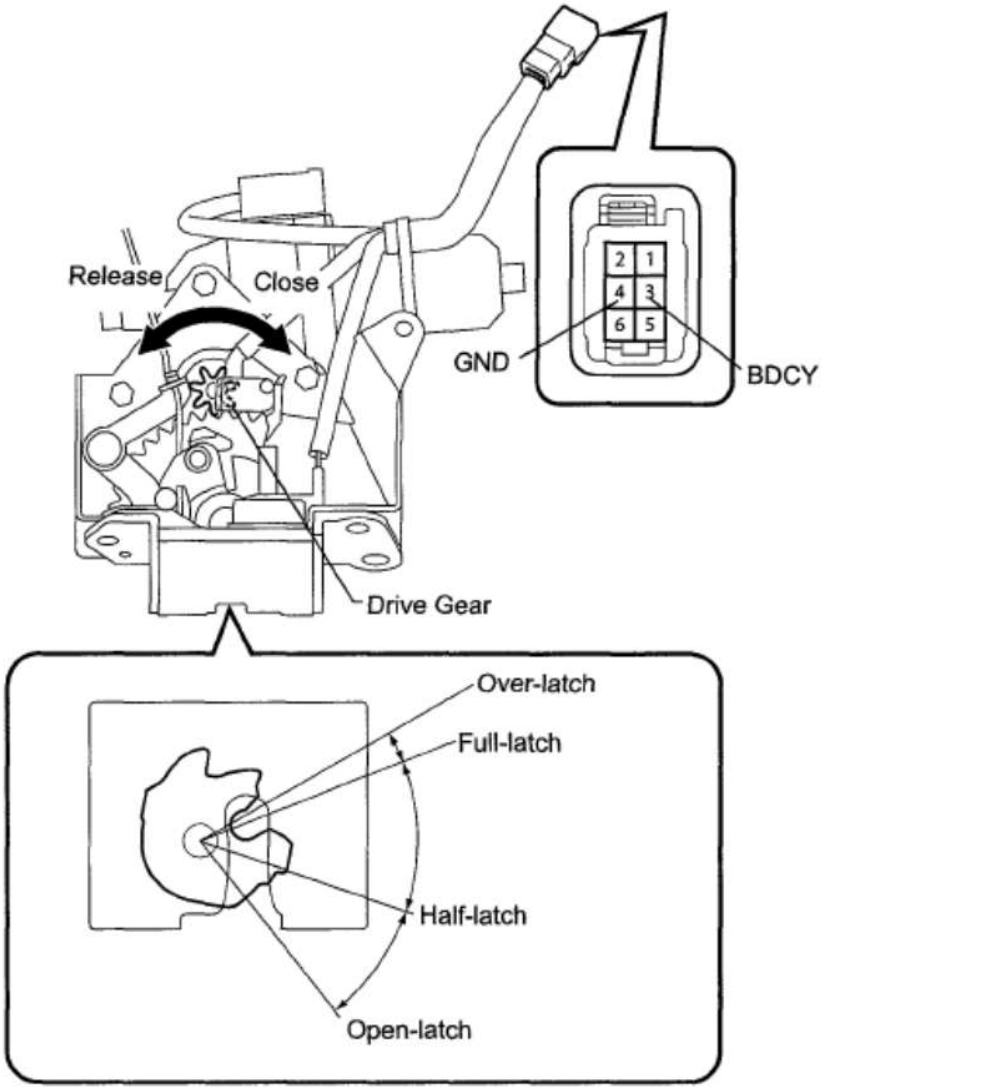


Fig. 9: Inspecting Back Door Lock (Back Door Courtesy Light Switch)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the back door lock. (See **REMOVAL**)
b. Measure the resistance according to the value (s) in the table below.

Standard resistance:

Back door courtesy light switch

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RESISTANCE SPECIFICATION

Tester Connection	Door lock latch Position	Specified Condition
3 (BDCY) - 4 (GND)	Open-latch	Below 1 ohms
3 (BDCY) - 4 (GND)	Half-latch	Below 1 ohms
3 (BDCY) - 4 (GND)	Full-latch	10 kohms or higher
3 (BDCY) - 4 (GND)	Over-latch	10 kohms or higher

NG: REPLACE BACK DOOR LOCK (See **REMOVAL**)

OK: Go to next step

3. **CHECK HARNESS AND CONNECTOR (BACK DOOR LOCK - POWER BACK DOOR ECU AND BODY GROUND)**
   a. Disconnect the T4 door lock connector.
   b. Disconnect the 015 ECU connector.
   c. Measure the resistance according to the value (s) in the table below.

Standard resistance

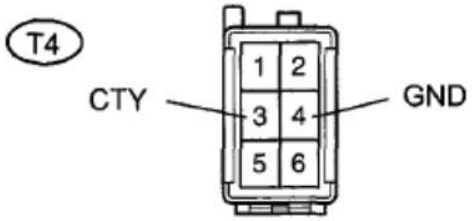
RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
T4-3 (BDCY) - O15-20 (FUL)	Always	Below 1 ohms
T4-4 (GND) - Body ground	Always	Below 1 ohms
T4-3 (BDCY) - Body ground	Always	10 kohms or higher

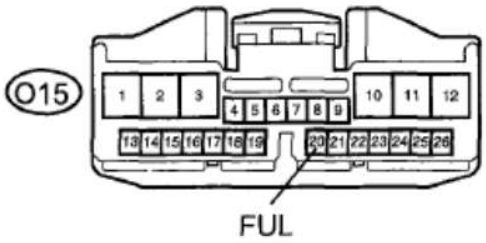
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Back Door Lock)



Front view of wire harness connector:
(to Power Back Door ECU)



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Fig. 10: Identifying T4 Door Lock And 015 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

BACK DOOR CLOSER DOES NOT OPERATE

DESCRIPTION

When the back door closer does not operate, one of the following may be the cause 1) improper fit of back door, or a foreign object is stuck in back door, or 2) initialization of the power back door ECU, or a malfunction in the 3) power back door ECU power source circuit, or 4) back door lock circuit, or 5) power backdoor ECU.

WIRING DIAGRAM

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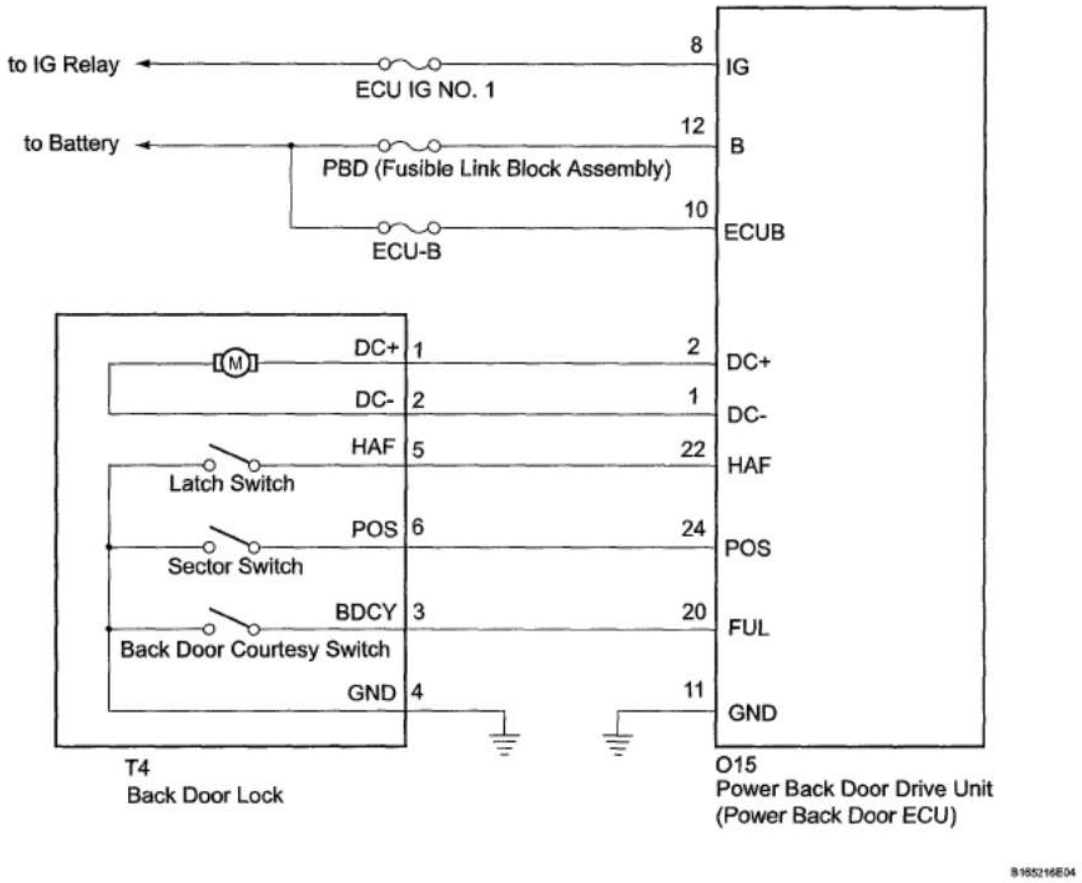


Fig. 11: Back Door Closer Does Not Operate - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK BACK DOOR LOCK FUNCTION**
   a. Check if the back door is fully closed by hand.

      NG: IMPROPER FIT OF BACK DOOR, OR A FOREIGN OBJECT IS STUCK IN BACK DOOR

      OK: Go to next step

2. **INITIALIZE POWER BACK DOOR ECU**
   a. Check that the power back door drive unit (power back door ECU) can be initialized (See **INITIALIZATION**).
3. **CHECK BACK DOOR CLOSER SYSTEM**
   a. Check that the back door closer system operation.

      OK:

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Back door closer system operates normally.

NG: Go to step 4

OK: END

4. **CHECK DTC OUTPUT**
   a. Check for the DTCs (See **DIAGNOSIS SYSTEM**).

Result

RESULT CHART

Result	Proceed to
DTC is not output	A
B2250 is output	B
B2251 is output	C

B: GO TO DTC CHART (B2250) (See **DTC B2250 BACK DOOR CLOSER OPERATION MALFUNCTION**)

C: GO TO DTC CHART (B2251) (See **DTC B2251 BACK DOOR CLOSER SWITCH MALFUNCTION**)

A: Go to next step

5. **INSPECT FUSE (ECU IG NO. 1, ECU-B)**
   a. Remove the ECU IG No. 1 fuse from the instrument panel junction block and ECU-B fuse from the engine room relay block.
   b. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
ECU IG NO. 1	Always	Below 1 ohms
ECU-B	Always	Below 1 ohms

NG: REPLACE FUSE

OK: Go to next step

6. **CHECK FUSIBLE LINK BLOCK ASSEMBLY (PBD FUSE)**
   a. Remove the fusible link block assembly.
   b. Measure the resistance according to the value (s) in the table below.

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Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
A-B	Always	Below 1 ohms

HINT:

PBD 30A fuse is located in the fusible link block assembly.

NG: REPLACE FUSIBLE LINK BLOCK ASSEMBLY

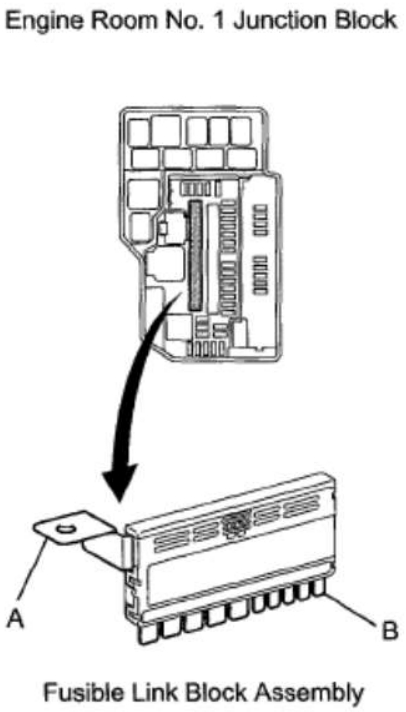


Fig. 12: Removing Fusible Link Block Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

7. **CHECK HARNESS AND CONNECTOR (BODY GROUND)**
   a. Disconnect the 015 power back door ECU connector.
   b. Measure the voltage according to the value (s) in the table below.

Standard voltage

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VOLTAGE SPECIFICATION

Tester Connection	Condition	Specified Condition
O15-8 (IG) - Body ground	Ignition switch on (IG)	11 to 14 V
O15-10 (ECUB) - Body ground	Always	11 to 14 V
O15-12 (B) - Body ground	Always	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Power Back Door ECU)

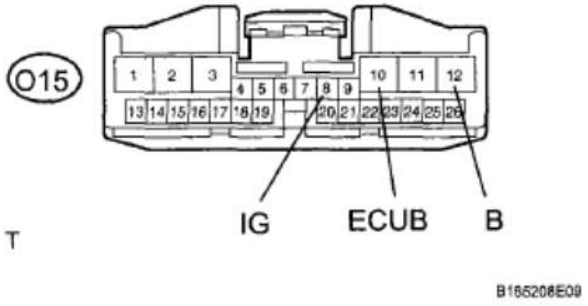


Fig. 13: Identifying 015 Power Back Door ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

8. **CHECK HARNESS AND CONNECTOR (POWER SOURCE)**
   a. Disconnect the 015 power back door ECU connector.
   b. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
O15-11 (GND) - Body ground	Always	Below 1 ohms

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Power Back Door ECU)

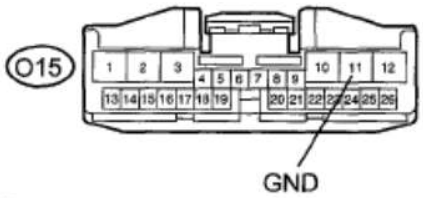


Fig. 14: Identifying 015 Power Back Door ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

9. **INSPECT BACK DOOR LOCK**

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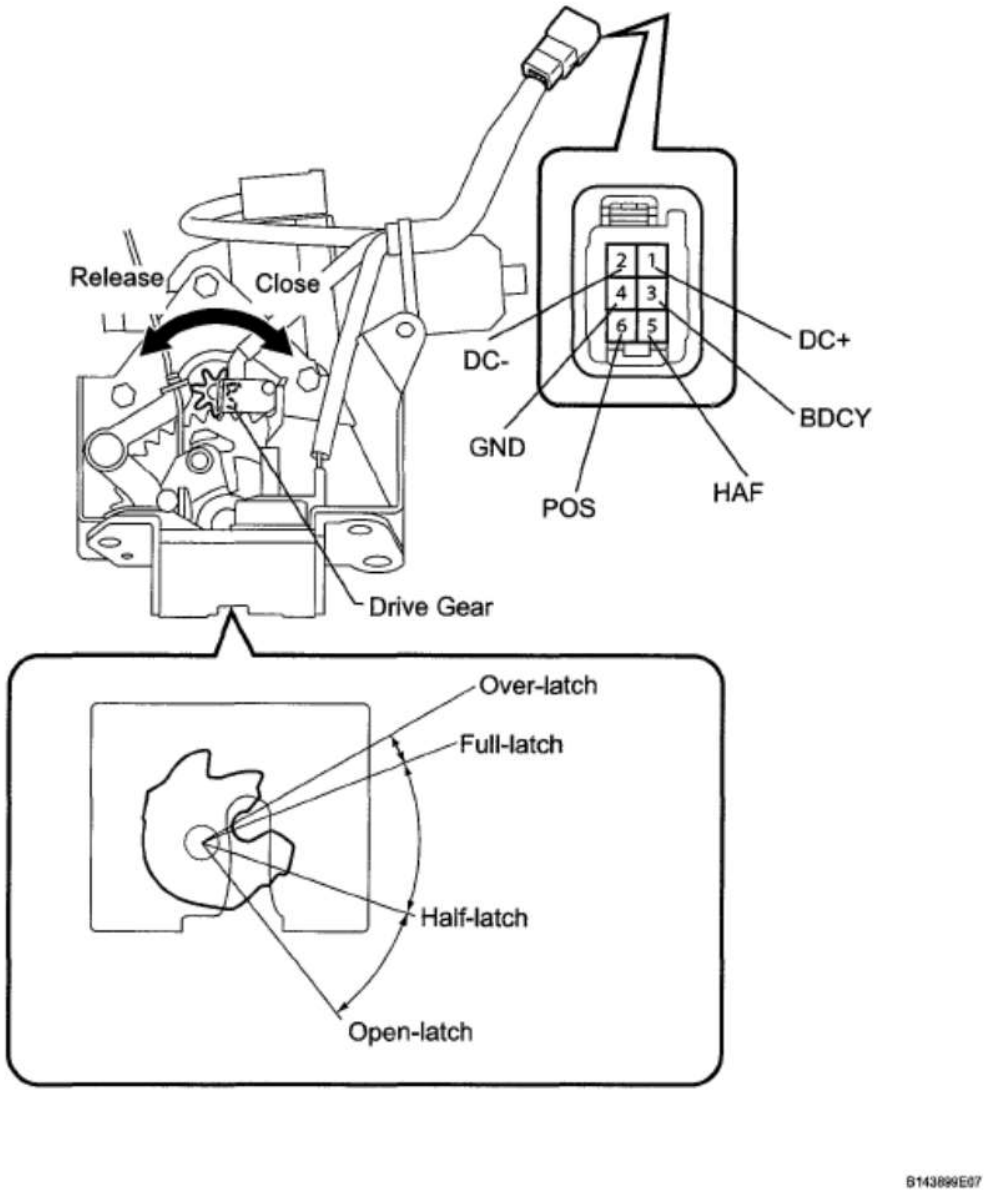


Fig. 15: Inspecting Back Door Lock
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the back door lock.
b. Apply battery voltage and check operation of the door lock motor.

OK

DOOR LOCK MOTOR OPERATION CHART

Measurement Condition	Specified Condition
Battery positive (+) --> Terminal 1 (DC+) Battery negative (-) --> Terminal 2 (DC-)	Latch turns to full-latch position

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Battery positive (+) --> Terminal 2 (DC-) Battery negative (-) --> Terminal 1 (DC+)	Latch turns to open-latch position

c. Measure the resistance of the switch.

Standard resistance:

Full-latch switch

RESISTANCE SPECIFICATION

Tester Connection	Door Lock Latch Position	Specified Condition
5 (HAF) - 4 (GND)	Over-latch	Below 1 ohms
5 (HAF) - 4 (GND)	Open-latch	10 kohms or higher
5 (HAF) - 4 (GND)	Full-latch	10 kohms or higher
5 (HAF) - 4 (GND)	Half-latch	10 kohms or higher

Back door courtesy light switch

RESISTANCE SPECIFICATION

Tester Connection	Door Lock Latch Position	Specified Condition
3 (BDCY) - 4 (GND)	Open-latch	Below 1 ohms
3 (BDCY) - 4 (GND)	Half-latch	Below 1 ohms
3 (BDCY) - 4 (GND)	Full-latch	10 kohms or higher
3 (BDCY) - 4 (GND)	Over-latch	10 kohms or higher

NG: REPLACE BACK DOOR LOCK (See **REMOVAL**)

OK: Go to next step

10. **CHECK HARNESS AND CONNECTOR (BACK DOOR LOCK - POWER BACK DOOR ECU AND BODY GROUND)**
    a. Disconnect the T4 door lock connector.
    b. Disconnect the 015 ECU connector.
    c. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

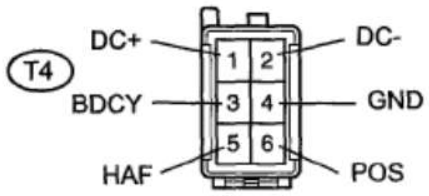
Tester Connection	Condition	Specified Condition
T4-1 (DC+) - O15-2 (DC+)	Always	Below 1 ohms
T4-2 (DC-) - O15-1 (DC-)	Always	Below 1 ohms
T4-5 (HAF) - O15-22 (HAF)	Always	Below 1 ohms
T4-6 (POS) - O15-24 (POS)	Always	Below 1 ohms

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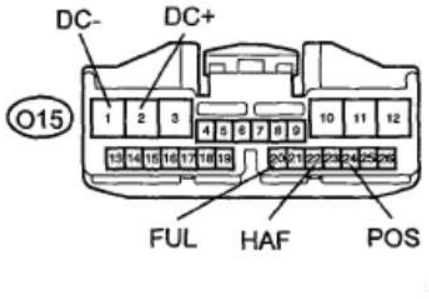
T4-3 (BDCY) - O15-20 (FUL)	Always	Below 1 ohms
T4-4 (GND) - Body ground	Always	Below 1 ohms
T4-1 (DC+) - Body ground	Always	10 kohms or higher
T4-2 (DC-) - Body ground	Always	10 kohms or higher
T4-5 (HAF) - Body ground	Always	10 kohms or higher
T4-6 (POS) - Body ground	Always	10 kohms or higher
T4-3 (BDCY) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Back Door Lock)



Front view of wire harness connector:
(to Power Back Door ECU)



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Fig. 16: Identifying T4 Door Lock And 015 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See REMOVAL)

BACK DOOR CANNOT BE OPENED

DESCRIPTION

When the back door cannot be opened, one of the following may be malfunctioning: 1) power back door drive

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unit (power back door ECU), or 2) back door lock, or 3) back door open switch, or 4) main body ECU (instrument panel junction block).

WIRING DIAGRAM

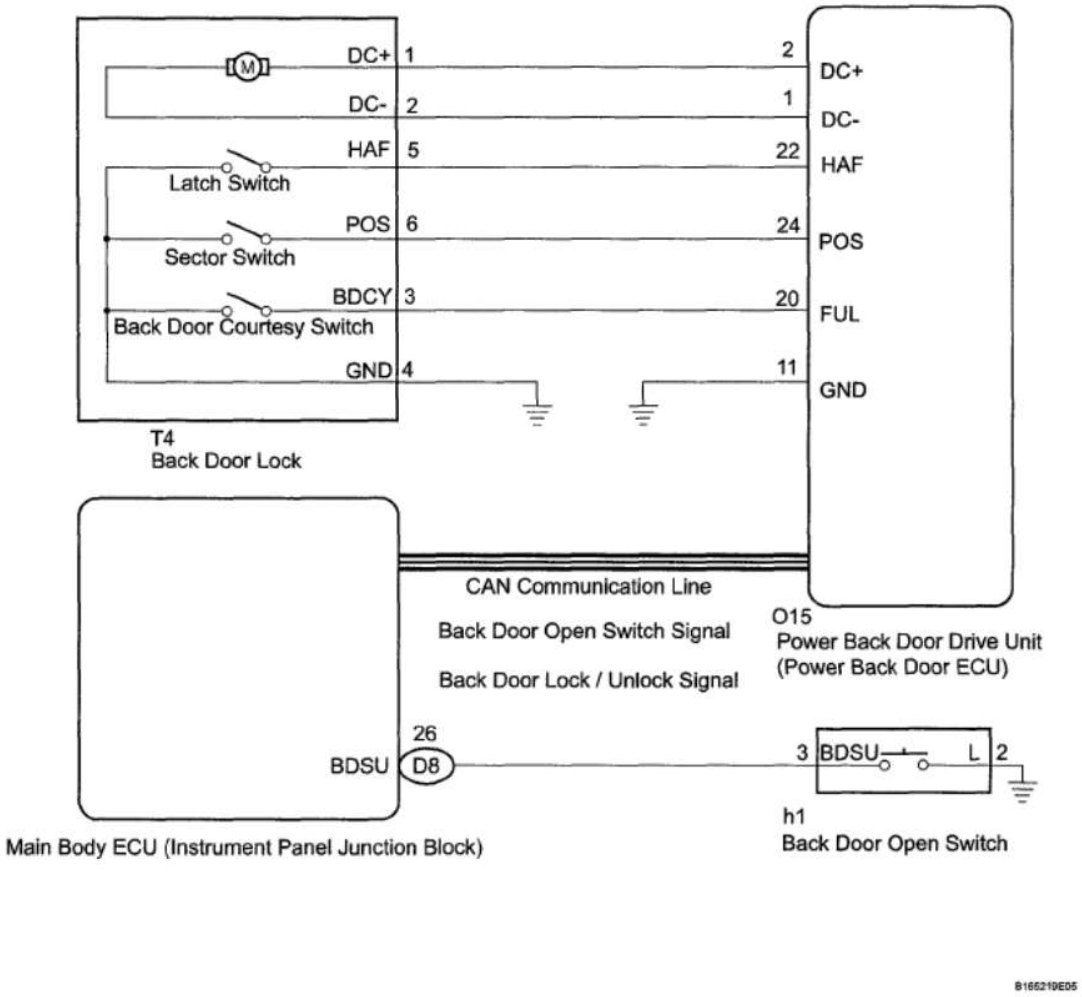


Fig. 17: Back Door Cannot Be Opened - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE ON TECHSTREAM**
   a. Check the Data List to determine if the back door lock function properly.

Back Poor (Power back door ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note

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Door Lock Status	Back door lock condition signal/LOCK or UNLOCK	LOCK: Back door is locked UNLOCK: Back door is unlocked	-

OK:

The back door functions as specified in the normal condition.

NG: Go to step 7

OK: Go to next step

2. **READ VALUE ON TECHSTREAM**
   a. Check the Data List to determine if the back door handle switch function properly.

Main body ECU (Instrument panel junction block)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
Back Door Open Handle SW	Back door opener switch/ON or OFF	ON: Back door opener switch is pushed OFF: Back door opener switch is not pushed	-

OK:

The back door opener switch functions as specified in the normal condition.

NG: Go to step 5

OK: Go to next step

3. **INSPECT BACK DOOR LOCK**

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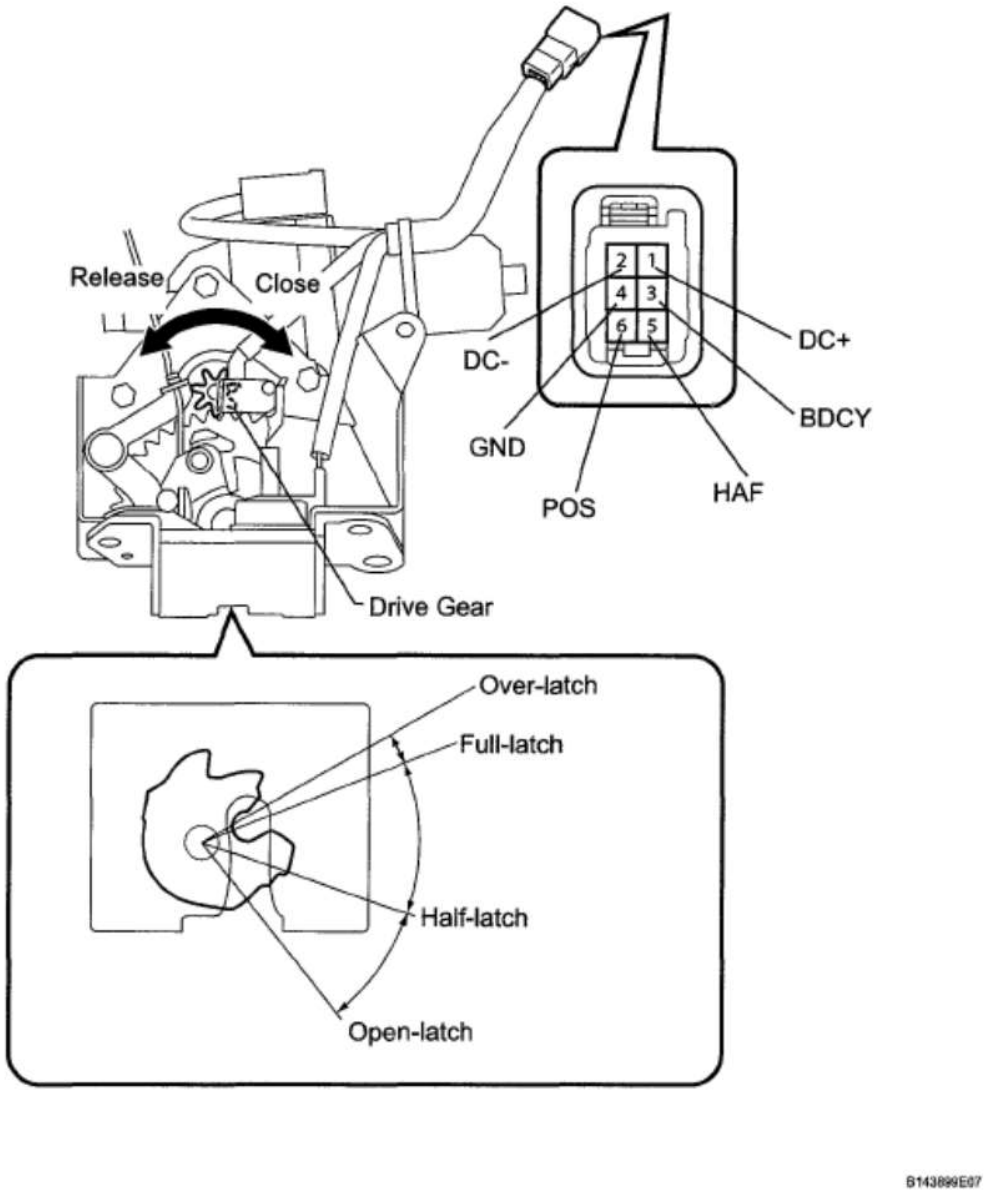


Fig. 18: Inspecting Back Door Lock
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Remove the back door lock (See **REMOVAL**).
b. Apply battery voltage and check operation of the door lock motor.

OK

DOOR LOCK MOTOR OPERATION CHART

Measurement Condition	Specified Condition
Battery positive (+) --> Terminal 1 (DC+) Battery negative (-) --> Terminal 2 (DC-)	Latch turns to full-latch position

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Battery positive (+) --> Terminal 2 (DC-) Battery negative (-) --> Terminal 1 (DC+)	Latch turns to open-latch position

c. Measure the resistance of the switch.

Standard resistance:

Full-latch switch

RESISTANCE SPECIFICATION

Tester Connection	Door Lock Latch Position	Specified Condition
5 (HAF) - 4 (GND)	Over-latch	Below 1 ohms
5 (HAF) - 4 (GND)	Open-latch	10 kohms or higher
5 (HAF) - 4 (GND)	Full-latch	10 kohms or higher
5 (HAF) - 4 (GND)	Half-latch	10 kohms or higher

Sector switch

RESISTANCE SPECIFICATION

Tester Connection	Door Lock Latch Position	Specified Condition
6 (POS) - 4 (GND)	Open-latch	Below 1 ohms
6 (POS) - 4 (GND)	Over-latch	10 kohms or higher
6 (POS) - 4 (GND)	Full-latch	10 kohms or higher
6 (POS) - 4 (GND)	Half-latch	10 kohms or higher

Back door courtesy light switch

RESISTANCE SPECIFICATION

Tester Connection	Door Lock Latch Position	Specified Condition
3 (BDCY) - 4 (GND)	Open-latch	Below 1 ohms
3 (BDCY) - 4 (GND)	Half-latch	Below 1 ohms
3 (BDCY) - 4 (GND)	Full-latch	10 kohms or higher
3 (BDCY) - 4 (GND)	Over-latch	10 kohms or higher

NG: REPLACE BACK DOOR LOCK (See **REMOVAL**)

OK: Go to next step

4. **CHECK HARNESS AND CONNECTOR (BACK DOOR LOCK - POWER BACK DOOR ECU)**
   a. Disconnect the T4 back door lock connector.
   b. Disconnect the 015 ECU connector.
   c. Measure the resistance according to the value (s) in the table below.

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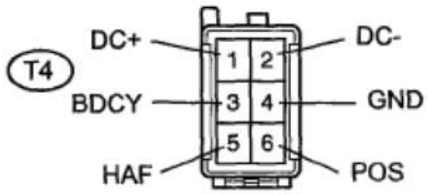
Standard resistance

RESISTANCE SPECIFICATION

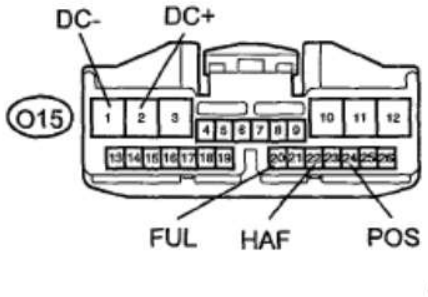
Tester Connection	Condition	Specified Condition
T4-1 (DC+) - O15-2 (DC+)	Always	Below 1 ohms
T4-2 (DC-) - O15-1 (DC-)	Always	Below 1 ohms
T4-5 (HAF) - O15-22 (HAF)	Always	Below 1 ohms
T4-6 (POS) - O15-24 (POS)	Always	Below 1 ohms
T4-3 (BDCY) - O15-20 (FUL)	Always	Below 1 ohms
T4-4 (GND) - Body ground	Always	Below 1 ohms
T4-1 (DC+) - Body ground	Always	10 kohms or higher
T4-2 (DC-) - Body ground	Always	10 kohms or higher
T4-5 (HAF) - Body ground	Always	10 kohms or higher
T4-6 (POS) - Body ground	Always	10 kohms or higher
T4-3 (BDCY) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Back Door Lock)



Front view of wire harness connector:
(to Power Back Door ECU)



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Fig. 19: Identifying T4 Door Lock And 015 ECU Connector Terminals
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OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

5. **INSPECT BACK DOOR OPENER SWITCH**
   a. Remove the back door opener switch (See **INSPECTION**).

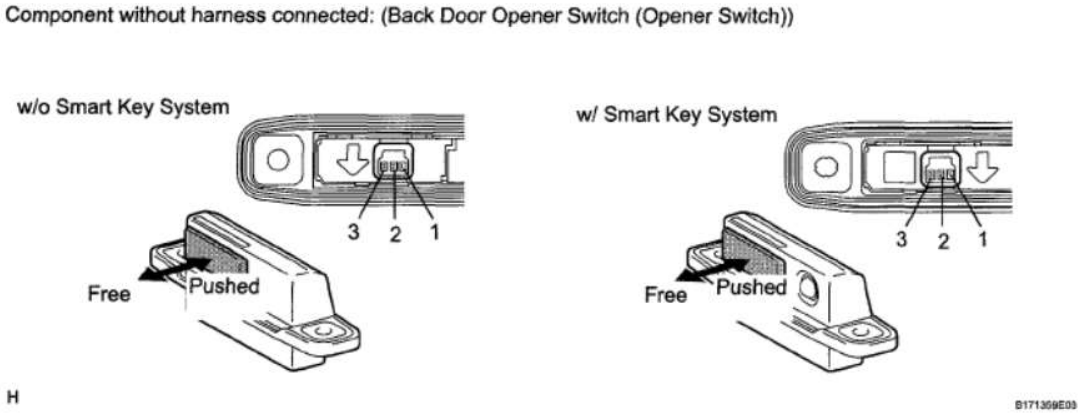


Fig. 20: Inspecting Back Door Opener Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Switch Position	Specified Condition
2-3	Back door opener switch not pushed (OFF)	10 kohms or higher
2-3	Back door opener switch pushed (ON)	Below 1 ohms

NG: REPLACE BACK DOOR OPEN SWITCH

OK: Go to next step

6. **CHECK HARNESS AND CONNECTOR (BACK DOOR OPENER SWITCH - MAIN BODY ECU)**
   a. Disconnect the M switch connector.
   b. Disconnect the D8 ECU connector.
   c. Measure the resistance according to the value (s) in the table below.

Standard resistance

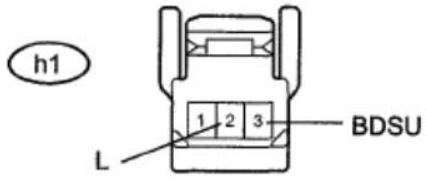
RESISTANCE SPECIFICATION

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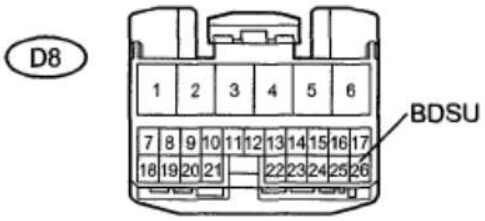
Tester Connection	Condition	Specified Condition
h1-3 (BDSU) - D8-26 (BDSU)	Always	Below 1 ohms
h1-2 (L) - Body ground	Always	Below 1 ohms
h1-3 (BDSU) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Back Door Opener Switch)



Front view of wire harness connector:
(to Main Body ECU)



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Fig. 21: Identifying M Switch And D8 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

7. **REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU)**
   a. Replace the power back door drive unit (power back door ECU) (See **REMOVAL**).
8. **CHECK POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU)**
   a. Check that the back door closer operates normally.

   OK:

   It operates normally.

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NG: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

OK: END (REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) DEFECTIVE)

POWER BACK DOOR SYSTEM

PRECAUTION

NOTE: When disconnecting the cable from the negative (-) battery terminal, initialize the following system after the cable is reconnected.

SYSTEM REFERENCE

System Name	See procedure
Power Back Door System	INITIALIZATION

1. **IGNITION SWITCH EXPRESSIONS**

HINT:

The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this article.

IGNITION SWITCH EXPRESSIONS CHART

Expression	Switch Type	
	Ignition Switch (Position)	Engine Switch (Condition)
Ignition Switch off	LOCK	Off
Ignition Switch on (IG)	ON	On (IG)
Ignition Switch on (ACC)	ACC	On (ACC)
Engine Start	START	Start

PARTS LOCATION

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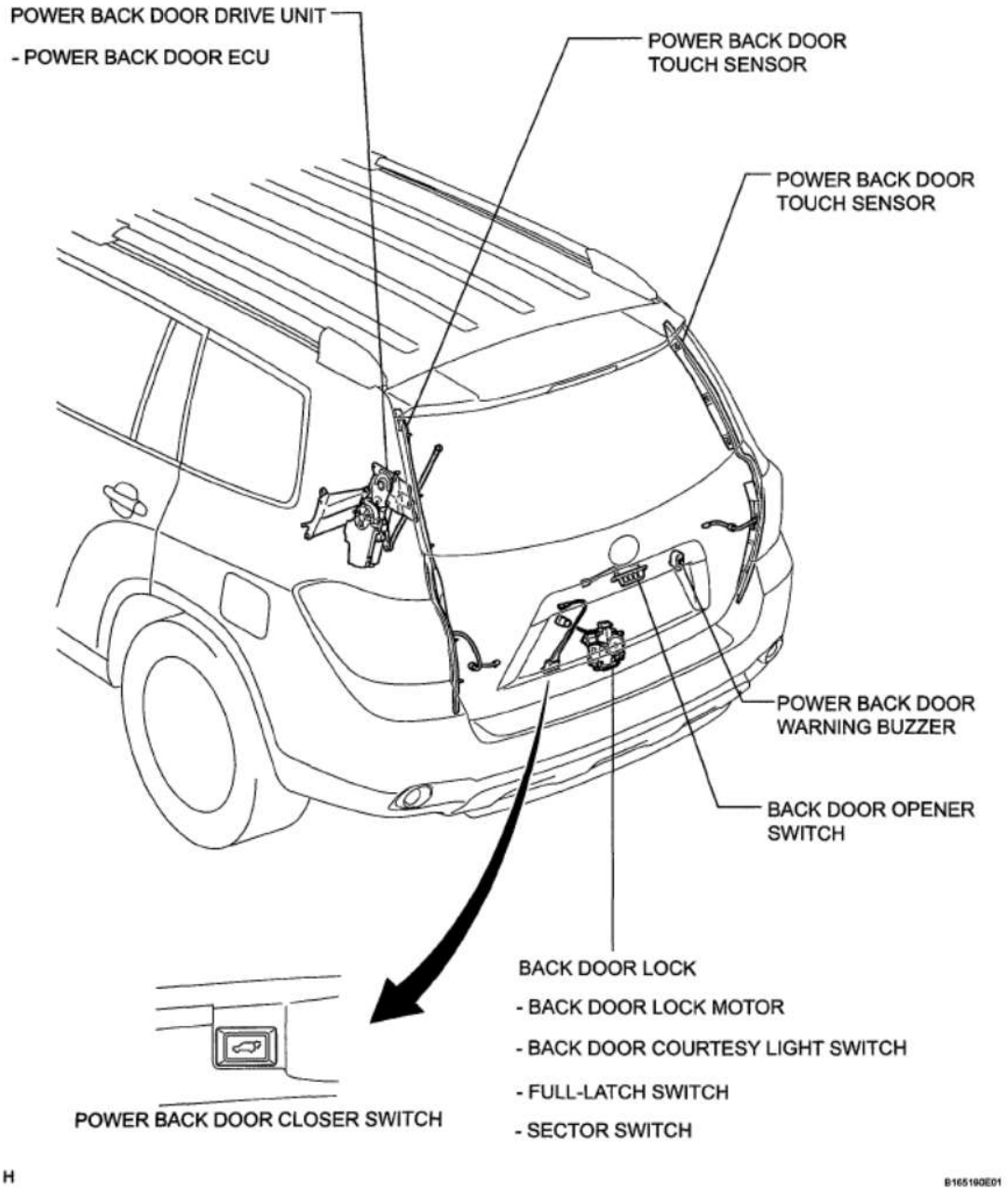


Fig. 22: Identifying Power Back Door System Parts Location (1 Of 2)
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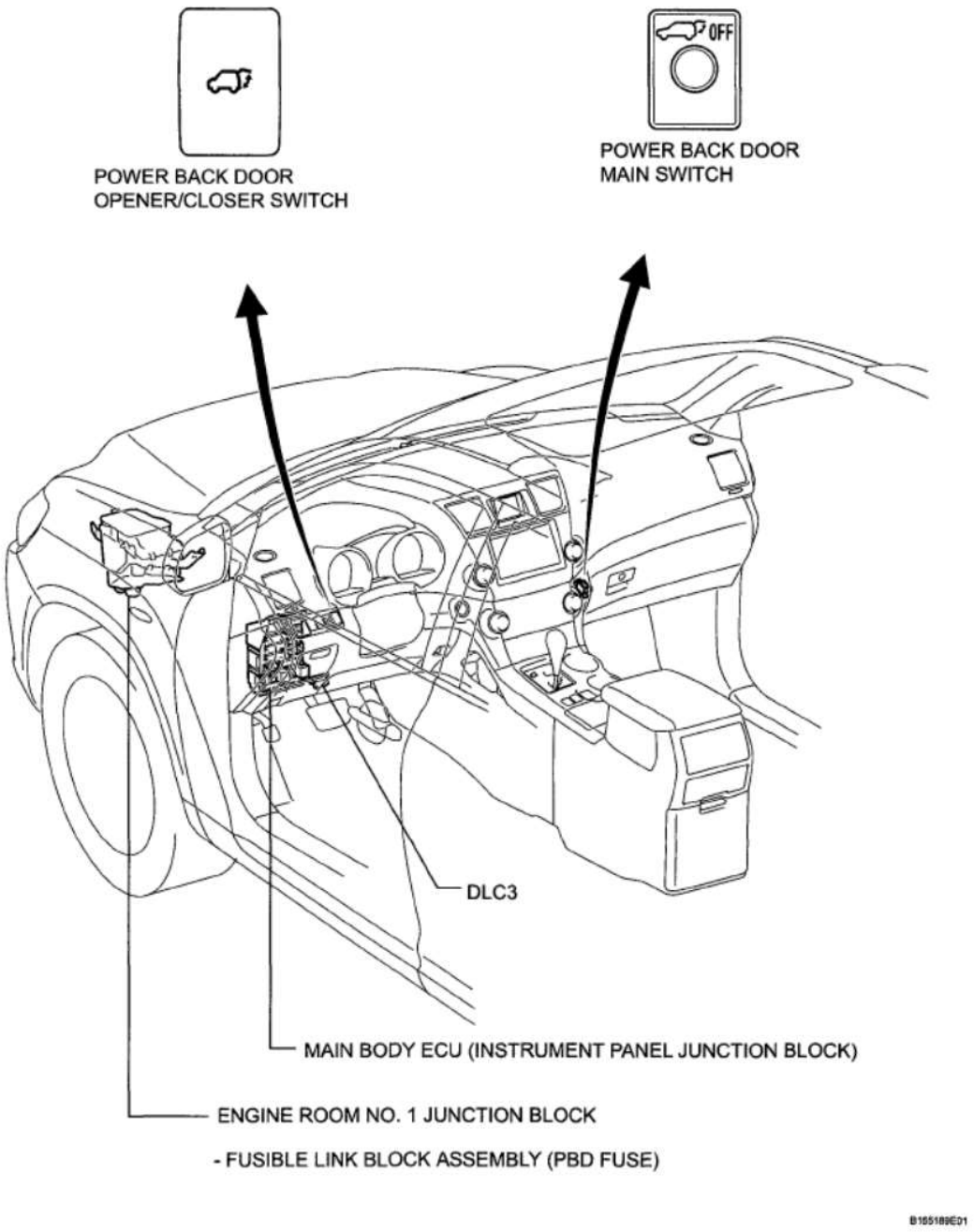


Fig. 23: Identifying Power Back Door System Parts Location (2 Of 2)
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SYSTEM DIAGRAM

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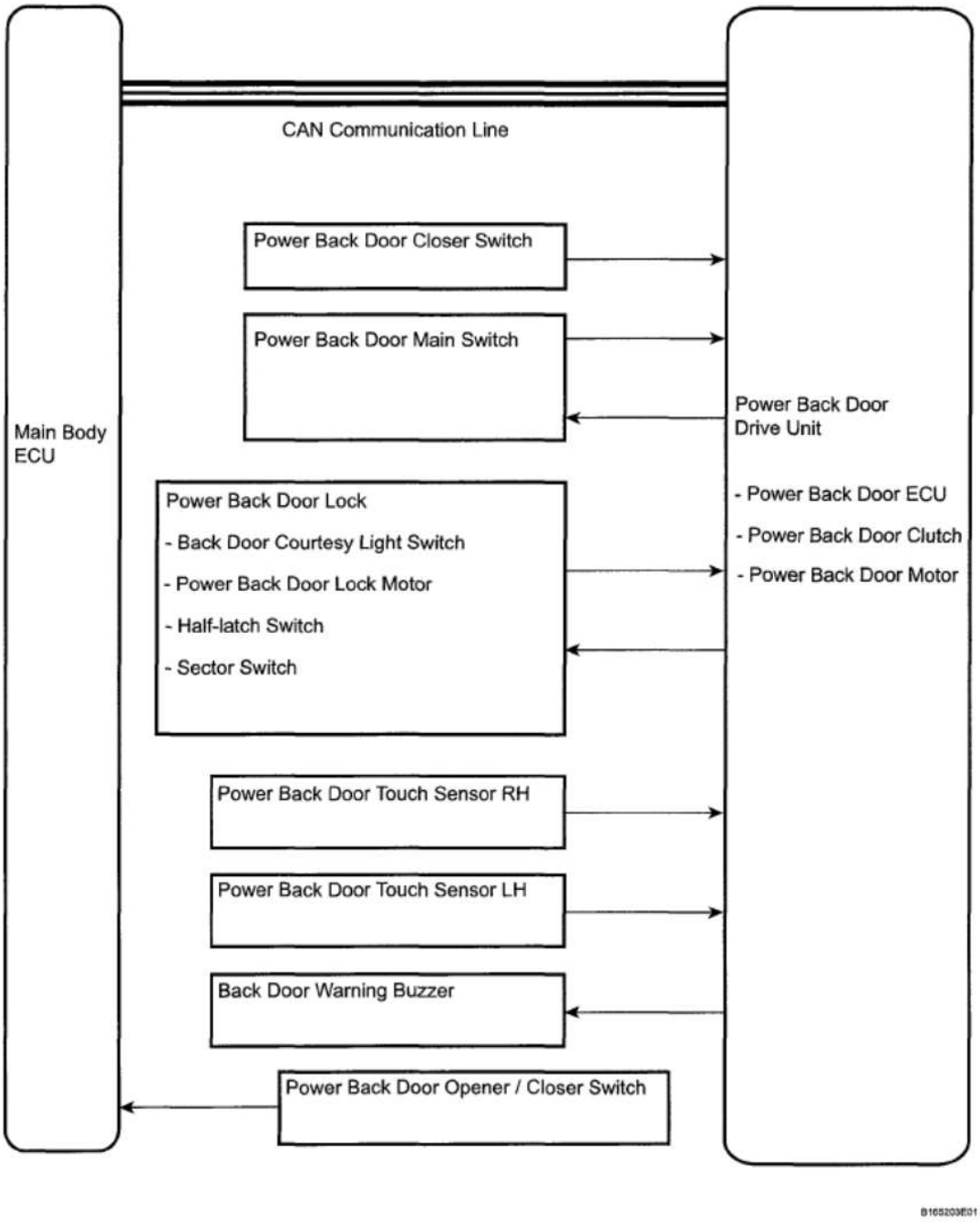


Fig. 24: Power Back Door System Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Communication table

COMMUNICATION REFERENCE

Sender	Receiver	Signal	Line
Main body ECU	Power back door drive	• Power back door	CAN

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	unit (Power back door ECU)	opener/ closer switch signal • Back door unlock detection switch signal • Vehicle speed signal • Electrical transmitter switch signal • Shift position switch signal	
Power back door drive unit (Power back door ECU)	Main body ECU	• Hazard warning light signal • Back door courtesy light switch signal	CAN
Certification ECU	Main body ECU	Electrical transmitter switch signal	CAN

SYSTEM DESCRIPTION

1. **POWER BACK DOOR SYSTEM DESCRIPTION**
   a. The power back door system controls the power back door by automatically opening and closing the power back door with the motor.
      1. The power back door system operates only when the necessary conditions are satisfied.
      2. The power back door ECU records the back door positions in the power back door ECU memory.

         If the battery, power back door fuse, power back door ECU or power back door drive unit are removed and then reinstalled, the power back door ECU loses the memory of the door positions.

         In such cases, initialization of the power back door system is necessary. Please refer to the initialization procedure specified in step [*1].

      3. "OPEN/CLOSE" request signals for the back door are input to the power back door ECU. Then, the power back door ECU controls the back door opening/closing operation by outputting commands to the back door lock and back door drive unit.
      4. The power back door system has various request signals: "OPEN/CLOSE" request signal from the transmitter switch*, "OPEN/CLOSE" request signal from the power back door opener/ closer switch, "CLOSE" request signal from the power back door closer switch, and "OFF" request signal from the back door main switch.

         HINT:

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*: w/ Smart Key system

5. The power back door system sets off an alarm (using a buzzer) and hazard warning lights when the power back door starts operating.
6. The power back door system causes a warning buzzer to sound when the shift lever is moved to any position except P when the power back door starts operating or while the power back door is operating (the buzzer continues sounding).
7. [*1] The power back door system turns OFF when the shift lever is moved to any position except P while the power back door is opening. The power back door continues to close when the shift lever is moved to any position except P while the power back door is closing.
8. The power back door reverses the direction that the power back door is operating if any switch is pressed during operation.
9. A pulse sensor and a touch sensor are used to prevent anything from being caught in the door while the power back door is closing (jam protection function).
10. The power back door system stops motor operation and switches to the manual operation mode when the jam protection function is activated repeatedly more than the specified number of times.
11. The power back door system slows the back door down when the back door approaches the fully opened position or fully closed position in order to reduce the impact against the vehicle body.

b. Function of main components:

MAIN COMPONENTS FUNCTION CHART

Function	Condition
Back door buzzer	• When pressing power back door opener/closer switch and transmitter switch (1), warning buzzer sounds while switch is pressed • When power back door closer switch is pressed, warning buzzer sounds for 1 second • Warning buzzer sounds intermittently while power back door is operating • Sounds once for 0.1 sec. to notify that power back door will reverse moving direction after being triggered by switch operation or activation of jam protection function. • When back door handle switch is pressed while power back door is operating, warning buzzer sounds for 2 seconds
Hazard lights	Flashes twice to notify that power back door will start operating when a request is input from the switch while back door is fully closed/ opened

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Power back door main switch	• Power back door system does not operate when switch is in ON position • Power back door system operates when switch OFF
Transmitter switch(1)	• Pressing the switch causes power back door to open/close. • Pressing it again during operation reverses the direction of movement.
Power back door opener/closer switch	Transmitter a power back door OPEN/CLOSE signal to power back door ECU via main body ECU
Power back door closer switch	Transmits a power back door CLOSE signal to power back door ECU
HINT: (1) w/ Smart Key system	

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- Use the following procedures to troubleshoot the power back door system.
- *: Use Techstream.

1. **VEHICLE BROUGHT TO WORKSHOP**
2. **INSPECT BATTERY VOLTAGE**

   Standard voltage:

   11 to 14 V

   If the voltage is below 11 V, recharge or replace the battery before proceeding.

3. **CHECK COMMUNICATION FUNCTION OF CAN COMMUNICATION SYSTEM***
   a. Use Techstream to check if the CAN communication system is functioning normally.

   Result

   RESULT CHART

Result	Proceed to
CAN DTC is not output	A
CAN DTC is output	B

B: Go to CAN COMMUNICATION SYSTEM

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A: Go to next step

4. **CHECK FOR DTC***
   a. Check for DTCs (See **DIAGNOSIS SYSTEM**).
   b. Clear the DTCs (See **DIAGNOSIS SYSTEM**).
   c. Recheck for DTCs (See **DIAGNOSIS SYSTEM**).

Result

RESULT CHART

Result	Proceed to
DTC is not output	A
DTC is output	B

B: Go to DIAGNOSTIC TROUBLE CODE CHART

A: Go to next step

5. **PROBLEM SYMPTOMS TABLE**

Result

RESULT CHART

Result	Proceed to
Fault is not listed on problem symptoms table	A
Fault is listed on problem symptoms table	B

B: Go to step 7

A: Go to next step

6. **OVERALL ANALYSIS AND TROUBLESHOOTING***
   a. Operation check (See **OPERATION CHECK**)
   b. Terminals of ECU (See **TERMINALS OF ECU**)
   c. Data List/Active Test (See **DATA LIST/ACTIVE TEST**)
7. **REPAIR OR REPLACE**
8. **CONFIRMATION TEST**

NEXT: END

OPERATION CHECK

1. **CHECK BACK DOOR OPENING OPERATION**
   a. Check power back door opener/closer switch:

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1. Check that the power back door unlatches and then opens when the switch has been pressed for more than 1 second.
2. Check that the power back door reverses the operation and moves to the fully closed position when the switch is pressed again during opening.

b. Check transmitter switch:

1. Check that the power back door unlatches and then opens when the switch has been pressed for more than 1 second.
2. Check that the power back door reverses the operation and moves to the fully closed position when the switch is pressed again during opening.

2. **CHECK BACK DOOR CLOSER OPERATION**

a. Check power back door opener/closer switch:

1. Check that the power back door closes when the switch has been pressed for more than 1 second.
2. Check that the power back door reverses the operation and moves to the fully opened position when the switch is pressed again during closing.

b. Check power back door closer switch:

1. Check that the power back door closes when the switch has been pressed.
2. Check that the power back door reverses operation and moves to the fully open position when the switch is pressed again during closing.

c. Check transmitter switch:

1. Check that the power back door closes when the switch has been pressed for more than 1 second.
2. Check that the power back door reverses operation and moves to the fully open position when the switch is pressed again during closing.

3. **CHECK JAM PROTECTION FUNCTION**

HINT:

- The power back door drive unit detects changes in the operating speed of the back door while the power back door is moving. If a change in the operating speed is out of the normal range, it will be judged that foreign objects are in the path of the power back door and movement will be reversed.
- When the power back door touch sensors built into both sides of the back door are compressed, it is judged that foreign objects are in the path of the power back door and movement will be reversed.
- The power back door touch sensor operates only while the back door is closing. It does not operate while the back door is opening.

a. Check the jam protection function while the power back door is closing. [*1]

NOTE: Do not check this function using a part of your body such as your hand. Also, pay thorough attention that nothing gets caught by accident in this process.

1. Fully open the back door.

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2. Press the switch to close the power back door, and perform steps [*3] and [*5], and steps [*4] and [*5] respectively. [*2]
3. While the back door is closing, press the touch sensor using the handle of a hammer or equivalent. [*3]

   HINT:

   After this step, skip step [*4] and go to step [*5].

4. While the back door is closing, insert a tire or equivalent between the door panel and vehicle body, in order to interrupt the closing operation. [*4]

   HINT:

   After step [*2], skip step [*3] and perform this step. Then, go to step [*5].

5. Check that the jam protection function is immediately activated and the power back door reverses the operation and moves to the fully open position.

b. Check the jam protection function while the power back door is opening. [*6]

NOTE: Pay thorough attention that your body or your clothes, etc. do not get caught in the door by accident in this process.

1. Fully close the back door.
2. Press the switch activating the power back door to open.
3. While the back door is opening, use your hands to press the outside surface of the back door panel that is moving so that the operating speed decreases.

NOTE: Pay thorough attention that your body or your cloth, etc. does not get involved with by accident in this process.

4. Check that the jam protection function is immediately activated and the power back door reverses the operation and moves to the fully closed position.

c. Check operation of the power back door when the jam protection function is consecutively activated.

1. Check that power back door operation is canceled and switched to manual operation mode (not electrically controlled) when the jam protection function has been activated 2 or more consecutive times and if the 2nd or most recent activation has occurred during closing.

   HINT:

   Refer to steps [*1] and [*6] for the method that activates the jam protection function.

NOTE: In order to restore the power back door system to normal operation mode, perform either of the following: manually close

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the back door fully or press the power back door opener/closer switch for the power back door.

4. **CHECK WARNING BUZZER**
   a. Check the warning buzzer sounding function:
      1. Check that the warning buzzer sounds while the power back door opener/closer switch or transmitter switch is being pressed.
      2. Check that the warning buzzer sounds for 1 second when the power back door closer switch is pressed.
      3. Check that the warning buzzer sounds intermittently after the power back door starts operating.
      4. Check that the buzzer sounds once for 0.1 seconds to indicate that the power back door has reversed direction caused by the switch operation or activation of the jam protection function during power back door operation.
      5. When the back door handle switch is pressed while the power back door is operating, check that the warning buzzer sounds for 2 seconds.
5. **CHECK HAZARD WARNING LIGHT**
   a. Check the hazard warning light function:
      1. Check that the hazard warning lights flash twice when the power back door is activated to open/ close.

CUSTOMIZE PARAMETERS

HINT:

The following items can be customized.

NOTE:

- **After confirming whether the items requested by the customer are applicable or not for customization, perform customizing operations.**
- **Be sure to record the current settings before customization.**
- **When troubleshooting, make sure that the item in question is not set to "OFF" as a result of customization (Example: For the system, "the wireless function does not operate", first check that the wireless function is not set to "OFF", then perform troubleshooting).**

1. **CUSTOMIZE**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn the tester on.
   d. Enter the following menus: Select: Customize Setting/
   e. Select the setting by referring to the table below.

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Power back door system

POWER BACK DOOR SYSTEM REFERENCE

Display (Item)	Default	Function	Setting
PBD SW Operation	0.8 s	Function that turns power back door closer switch ON when switch is pushed once or held down for 0.8 sec.	0.8s/ON
PBD Buzzer	ON	This function makes the power back door buzzer sound when power back door is operating	ON/OFF
Wirels PBD SW Operation	0.8 s	Function that operates power back door when transmitter switch is pressed in specified way	ON/2 times/0.8 s/OFF

INITIALIZATION

1. **RESET BACK DOOR CLOSE POSITION**
   a. When disconnecting the cable from the battery terminal, fully close the back door to turn off the courtesy switch.

      HINT:

      If the back door is closed when disconnecting the cable from the battery terminal, it is not necessary to reset it.

PROBLEM SYMPTOMS TABLE

Power back door system

POWER BACK DOOR SYSTEM PROBLEM SYMPTOMS CHART

Symptom	Suspected Area	Refer to
Power Back Door cannot be Operated Using Any Switch	Back door closer system	**POWER BACK DOOR CANNOT BE OPERATED USING ANY SWITCH**
	Initialize power back door drive unit (power back door ECU)	-
	Meter/gauge system	-
	Main body ECU (instrument panel junction block)	-
	Touch sensor	-
	Power back door main switch	-

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	circuit	
	Power back door drive unit (power back door ECU)	-
	Wire harness	-
Power Back Door cannot be Opened or Closed Using the Power Back Door Switch	Power back door opener/closer switch	**POWER BACK DOOR CANNOT BE OPENED OR CLOSED USING THE POWER BACK DOOR SWITCH**
	Power back door drive unit (power back door ECU)	-
	Main body ECU (instrument panel junction block)	-
	Wire harness	-
Power Back Door cannot be Closed Using the Power Back Door Closer Switch	Power back door closer switch	**POWER BACK DOOR CANNOT BE CLOSED USING THE POWER BACK DOOR CLOSER SWITCH**
	Power back door drive unit (power back door ECU)	-
	Wire harness	-
Jam protection function is activated while power back door is operating	Fitting condition of back door	**JAM PROTECTION FUNCTION ACTIVATES DURING POWER BACK DOOR OPERATION**
	Touch sensor circuit	-
	Power back door drive unit (power back door ECU)	-
	Wire harness	-
Power Back Door Warning System does not Operate	Power back door warning buzzer	**POWER BACK DOOR WARNING SYSTEM DOES NOT OPERATE**
	Hazard warning light circuit	-
	Power back door drive unit (power back door ECU)	-
	Wire harness	-
Only Wireless Control Function is Inoperative (w/ Smart Key System)	-	**ALL DOOR ENTRY LOCK/UNLOCK FUNCTIONS AND WIRELESS FUNCTIONS DO NOT OPERATE**
Only Wireless Control Function is Inoperative (w/o Smart Key System)	-	**ONLY WIRELESS CONTROL FUNCTION IS INOPERATIVE**

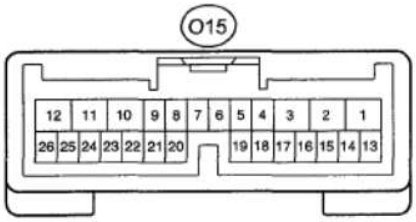
TERMINALS OF ECU

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1. **CHECK POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU)**



T H130902E05

Fig. 25: Identifying O15 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Disconnect the 015 ECU connector.
b. Measure the voltage and resistance according to the value (s) in the table below:

VOLTAGE AND RESISTANCE SPECIFICATION

Tester Connection	Wiring Color	Terminal Description	Condition	Specified Condition
O15-10 (ECUB) - Body ground	BR - Body ground	ECUB power supply	Always	10 to 14 V
O15-12 (B) - Body ground	B - Body ground	B power supply	Always	10 to 14 V
O15-8 (IG) - Body ground	GR - Body ground	IG power supply	Ignition switch on (IG)	10 to 14V
O15-8 (IG) - Body ground	GR - Body ground	IG power supply	Ignition switch off	Below 1 V
O15-17 (MSW) - Body ground	V - Body ground	Power back door main switch signal circuit	Power back door main switch not pushed	Below 1 ohms
O15-17 (MSW) - Body ground	V - Body ground	Power back door main switch signal circuit	Power back door main switch pushed	10 kohms or higher
O15-20 (FUL) - Body ground	LG - Body ground	Back door courtesy light switch signal circuit	Back door is opened	Below 1 ohms
O15-20 (FUL) - Body ground	LG - Body ground	Back door courtesy light switch signal circuit	Back door is closed	10 kohms or higher
O15-4 (DS1) - Body ground	P - Body ground	Back door closer switch signal circuit	Back door closer switch ON	Below 1 ohms
O15-4 (DS1) -	P - Body ground	Back door closer	Back door closer	10 kohms or higher

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Body ground		switch signal circuit	switch OFF	
O15-15 (OSL) - O15-14 (OSE)	GR-Y	Power back door touch sensor LH circuit	Back door touch sensor LH not pressed	Approx. 1 kohms
O15-15 (OSL) - O15-14 (OSE)	GR-Y	Power back door touch sensor LH circuit	Back door touch sensor LH pressed	Below 100 ohms
O15-13 (OSR) - O15-14 (OSE)	G-Y	Power back door touch sensor RH circuit	Back door touch sensor RH not pressed	Approx. 1 kohms
O15-13 (OSR) - O15-14 (OSE)	G-Y	Power back door touch sensor RH circuit	Back door touch sensor RH pressed	Below 100 ohms
O15-11 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 ohms

If the result is not as specified, there may be a malfunction on the wire harness side.

c. Reconnect the 015 ECU connector.

d. Measure the voltage according to the value (s) in the table below:

VOLTAGE SPECIFICATION

Tester Connection	Wiring Color	Terminal Description	Condition	Specified Condition
O15-26 (BZR+) - Body ground	B - Body ground	Power back door warning buzzer signal input	Back door warning buzzer is sounding	10 to 14 V
O15-26 (BZR+) - Body ground	B - Body ground	Power back door warning buzzer signal input	Back door warning buzzer is stopped	Below 1 V
O15-2 (DC+) - O15-1 (DC-)	B-G	Power back door lock motor circuit	Back door lock motor is operating	10 to 14 V
O15-2 (DC+) - O15-1 (DC-)	B-G	Power back door lock motor circuit	Back door lock motor is stopped	Below 1 V
O15-22 (HAF) - Body ground	R - Body ground	Back door lock half-latch switch signal circuit	Back door is opened --> Back door closer motor is operating --> Back door is closed	Below 1 V --> 10 to 14 V --> Below 1 V
O15-24 (POS) - Body ground	LG - Body ground	Back door lock position switch signal circuit	Back door is opened --> Back door closer motor is operating --> Back door is closed	Below 1 V --> 10 to 14 V --> Below 1 V

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HINT:

If the result is not as specified, the ECU may have a malfunction.

2. **CHECK MAIN BODY ECU**

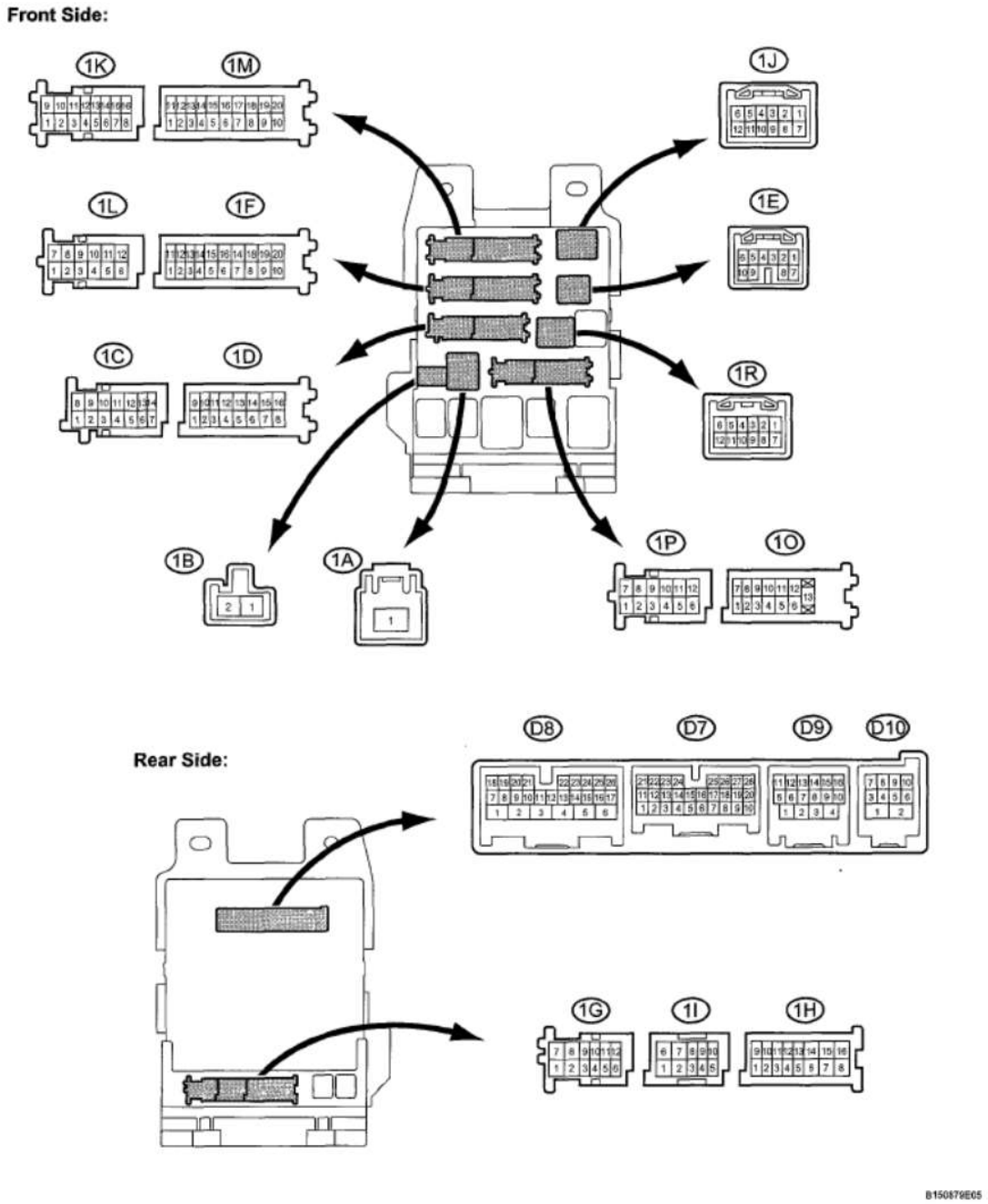


Fig. 26: Identifying D7, D8, 1F And 1M Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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a. Disconnect the D7, 1F and 1M connectors.
b. Measure the resistance according to the value (s) in the table below.

RESISTANCE SPECIFICATION

Tester Connection	Wiring Color	Terminal Description	Condition	Specified Condition
D7-2 (PBDS) - Body ground	R - Body ground	Power back door open/close switch signal circuit	Power back door open/close switch ON	Below 1 ohms
D7-2 (PBDS) - Body ground	R - Body ground	Power back door open/close switch signal circuit	Power back door open/close switch OFF	10 kohms or higher
1F-10 (GND1) - Body ground	W-B - Body ground	Ground	Always	Below 1 ohms
1M-9 (GND2) - Body ground	W-B - Body ground	Ground	Always	Below 1 ohms

If the result is not as specified, there may be a malfunction on the wire harness side.

DIAGNOSIS SYSTEM

1. **DESCRIPTION**
   a. The power back door ECU (power back door drive unit) controls the vehicle's power back door system functions. Power back door system data and Diagnostic Trouble Code (DTC) can be read through the vehicle's Data Link Connector 3 (DLC3). When the system seems to be malfunctioning, use Techstream to check for malfunctions and perform repairs.
2. **CHECK DLC3**
   a. Check the DLC3 (See **HOW TO TROUBLESHOOT ECU CONTROLLED SYSTEMS**).
3. **INSPECT BATTERY VOLTAGE**
   a. Measure the battery voltage.

   Standard voltage:

   11 to 14 V

   If the voltage is below 11 V, recharge or replace the battery before proceeding to the next step.

DTC CHECK/CLEAR

1. **CHECK DTC**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Read the DTCs by following the directions on the tester screen.

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HINT:

Refer to the Techstream operator's manual for further details.

2. **CLEAR DTC**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Erase the DTCs by following the directions on the tester screen.

   HINT:

   Refer to the Techstream operator's manual for further details.

DATA LIST/ACTIVE TEST

1. **DATA LIST**

   HINT:

   Using Techstream to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn the tester on.
   d. Enter the following menus:

      Select: Body Electrical/Back Door or Main Body/Data List/

   e. According to the display on the tester, read the "Data List".

Back Door (Power back door ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
PBD Close SW	Power back door closer switch signal/ON or OFF	ON: Power back door closer switch is ON OFF: Power back door closer switch is OFF	-
PBD Main SW	Power back door main switch signal/ON or OFF	OK: Power back door main switch is ON OFF: Power back door	-

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		main switch is OFF	
PBD Touch Sensor (Left)	Power back door touch sensor LH signal/ON or OFF	OK: Power back door touch sensor LH pressed OFF: Power back door touch sensor LH not pressed	-
PBD Touch Sensor (Right)	Power back door touch sensor RH signal/ON or OFF	OK: Power back door touch sensor RH pressed OFF: Power back door touch sensor RH not pressed	-
Door Lock Status	Back door lock condition signal/LOCK or UNLOCK	LOCK: Back door is locked UNLOCK: Back door is unlocked	-
Closer Position SW	Closer position switch signal/ON or OFF	ON: Back door lock center gear is in center position OFF: Back door lock center gear is out of center position	-
Courtesy SW	Back door courtesy switch signal/ON or OFF	ON: Back door is open OFF: Back door is closed	-
Half Latch SW	Half-latch switch signal/ON or OFF	ON: Back door lock motor is open-latch or over-latch OFF: Back door lock motor is full-latch or half-latch	-
Door Position (close - 1/4) -1/4	Back door position (Full close -1/4 open)/CAUTION or OK	**CAUTION:** **Back door position is not fully closed -1/4 opened** OK: Back door position is fully closed -1/4 opened	-
Door Position (1/4-2/4) - 2/4	Back door position (1/4 open - 2/4 open)/CAUTION or OK	**CAUTION:** **Back door position is not 1/4 opened - 2/4 opened** OK: Back door position is 1/4 opened - 2/4 opened	-
Door Position (2/4 - 3/4)	Back door position (2/4	**CAUTION:**	-

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- 3/4	open - 3/4 open)/CAUTION or OK	**Back door position is not 2/4 opened - 3/4 opened** OK: Back door position is 2/4 opened - 3/4 opened	
Door Position (3/4 - Open) - Open	Back door position (3/4 open - Full open)/CAUTION or OK	**CAUTION:** **Back door position is not 3/4 opened - fully opened OK: Back door position is 3/4 opened - fully opened** OK: Back door position is 3/4 opened - fully opened	-

Main Body (Main body ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
B Dor Handle	Back door open switch signal/ON or OFF	ON: Back door open switch is ON OFF: Back door open switch is OFF	-
Back Door Open SW	Back door opener/closer switch/ON or OFF	ON: Back door opener/closer switch Is pushed OFF: Back door opener/closer switch is not pushed	-

2. **ACTIVE TEST**

HINT:

Using Techstream to perform Active Test allows relays, VSVs, actuators and other items to be operated without removing any parts. This non-intrusive inspection can be very useful because intermittent operation may be discovered before parts or wiring is disturbed. Performing Active Tests early in troubleshooting is one way to save diagnostic time. The Data List can be displayed while performing Active Tests.

a. Connect Techstream to the DLC3.
b. Turn the ignition switch on (IG).

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c. Turn the tester on.
d. Enter the following menus:

Select: Body Electrical/Back Door/Active Test/

e. According to the display on the tester, perform the "Active Test".

Back Door (Power back door ECU)

ACTIVE TEST REFERENCE

Tester Display	Test Part	Control Range	Diagnostic Note
PBD Buzzer	Power back door buzzer sound	ON/OFF	-
PBD Motor	Power back door motor	ON/OFF	-
PBD Clutch	Power back door motor clutch	ON/OFF	-
Latch Release	Latch release operation	ON/OFF	-

DIAGNOSTIC TROUBLE CODE CHART

Power back door system

POWER BACK DOOR SYSTEM DTC CHART

DTC Code	Detection Item	Trouble Area
B2222	PBD Pulse Sensor Malfunction	○ Power back door drive unit (Power back door ECU)
B2225	Back Door Motor Clutch Malfunction	○ Power back door drive unit (Power back door ECU)

DTC B2222 PBD PULSE SENSOR MALFUNCTION

DESCRIPTION

- A pulse sensor is built into the power back door drive unit to detect foreign objects and the back door position. The pulse sensor monitors the operating speed of the back door to detect foreign objects. The pulse sensor also monitors where the back door is to detect the back door position. If a pulse signal that is out of the normal range is output, the power back door drive unit (power back door ECU) will set DTC B2222.
- If DTC B2222 is set, the power back door system will be turned off and the back door will be switched to manual operation mode (not electrically controlled).
- In order to restore the power back door system to normal operation mode, first solve the problem indicated by DTC B2222 and then fully close the back door manually (reset operation).

DTC DETECTION CONDITION CHART

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DTC No.	DTC Detection Condition	Trouble Area
B2222	Power back door drive unit does not operate	Power back door drive unit (Power back door ECU)

INSPECTION PROCEDURE

1. **CHECK FOR DTC**
   a. Check for DTCs (See **DIAGNOSIS SYSTEM**).
   b. Clear the DTCs (See **DIAGNOSIS SYSTEM**).
   c. Recheck for DTCs (See **DIAGNOSIS SYSTEM**).

   OK:

   DTC B2222 is not output.

   NG: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

   OK: USE SIMULATION METHOD TO CHECK (See **HOW TO PROCEED WITH TROUBLESHOOTING**)

DTC B2225 BACK DOOR MOTOR CLUTCH MALFUNCTION

DESCRIPTION

When a voltage and current malfunction (open or short) is detected in the clutch circuit of the power back door drive unit while the power back door is operating, the power back door ECU outputs DTC B2225.

DTC DETECTION CONDITION CHART

DTC No.	DTC Detection Condition	Trouble Area
B2225	Voltage and current malfunction in clutch circuit of power back door drive unit	Power back door drive unit (Power back door ECU)

INSPECTION PROCEDURE

1. **CHECK FOR DTC**
   a. Check for DTCs (See **DIAGNOSIS SYSTEM**).
   b. Clear the DTCs (See **DIAGNOSIS SYSTEM**).
   c. Recheck for DTCs (See **DIAGNOSIS SYSTEM**).

   OK:

   DTC B2225 is not output.

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NG: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

OK: USE SIMULATION METHOD TO CHECK (See **HOW TO PROCEED WITH TROUBLESHOOTING**)

POWER BACK DOOR CANNOT BE OPERATED USING ANY SWITCH

DESCRIPTION

When the power back door cannot be operated using any switch, one of the following may be the cause: 1) initialization of the power back door ECU, or a malfunction in the 2) power back door touch sensor circuit, 3) power back door main switch circuit, 4) back door closer system, 5) meter/gauge system, or 6) main body ECU (instrument panel junction block), or 7) power back door drive unit (power back door ECU).

WIRING DIAGRAM

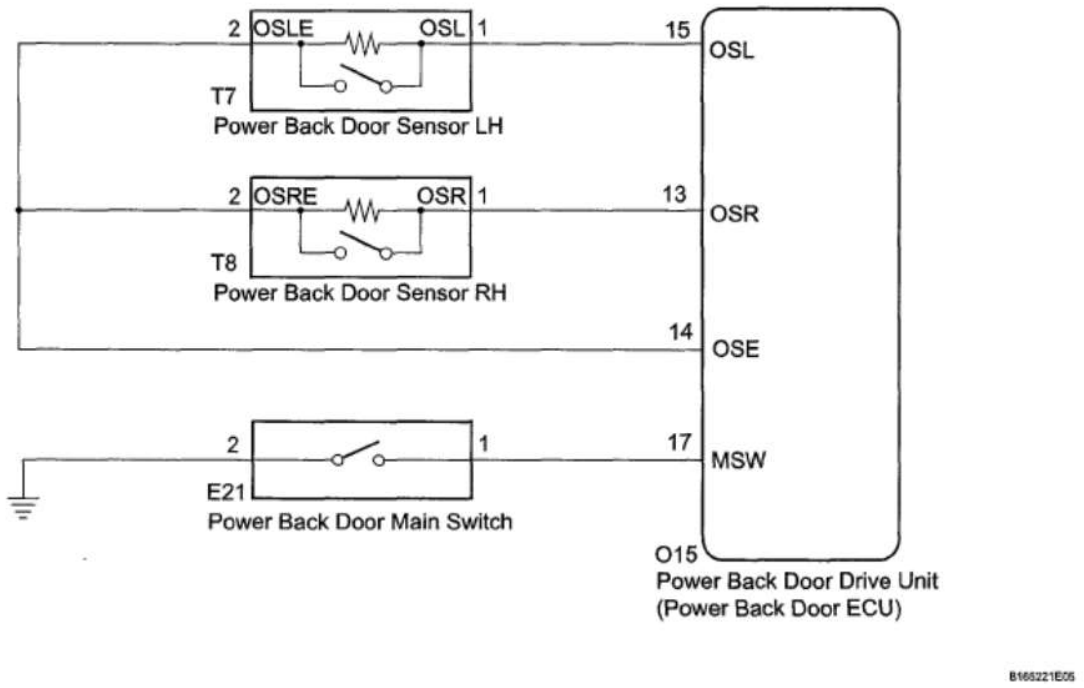


Fig. 27: Power Back Door Main Switch - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **INITIALIZE POWER BACK DOOR ECU**
   a. Check that the power back door drive unit (power back door ECU) can be initialized (See **INITIALIZATION**).
2. **CHECK POWER BACK DOOR SYSTEM**
   a. Check the power back door system operation.

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OK:

Power back door system operates normally.

NG: Go to step 3

OK: END

3. **CHECK BACK DOOR CLOSER SYSTEM**
   a. Check the back door closer system operation. (See **OPERATION CHECK**)

   NG: BACK DOOR CLOSER SYSTEM (See **HOW TO PROCEED WITH TROUBLESHOOTING**)

   OK: Go to next step

4. **CHECK COMBINATION METER**
   a. Check the A/T shift position indicator operation.
   b. Check that the speedometer indicates 0 mph when the vehicle is stopped and the engine idling.

   NG: METER/GAUGE SYSTEM (See **HOW TO PROCEED WITH TROUBLESHOOTING**)

   OK: Go to next step

5. **CHECK DTC OUTPUT**
   a. Check for the DTCs (See **DIAGNOSIS SYSTEM**).

   Result

   RESULT CHART

Result	Proceed to
DTC is not output	A
B2250 is output	B
B2251 is output	C

   B: GO TO DTC CHART (B2250) (See **DTC B2250 BACK DOOR CLOSER OPERATION MALFUNCTION**)

   C: GO TO DTC CHART (B2251) (See **DTC B2251 BACK DOOR CLOSER SWITCH MALFUNCTION**)

   A: Go to next step

6. **READ VALUE ON TECHSTREAM**
   a. Check the Data List to determine if the back door lock function properly.

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Main body ECU (Instrument panel junction block)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
Back Dor Open	Back door lock/Permit or prohibit	Permit: Back door is unlocked Prohibt: Back door is locked	-

OK:

The back door functions as specified in the normal condition.

NG: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

OK: Go to next step

7. **READ VALUE ON TECHSTREAM**
   a. Check the Data List to determine if the power back door touch sensor function properly.

Back door (Power back door ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
PBD Touch Sen L	Power back door touch sensor LH signal/ON or OFF	ON: Power back door touch sensor LH pressed OFF: Power back door touch sensor LH not pressed	-
PBD Touch Sen R	Power back door touch sensor RH signal/ON or OFF	ON: Power back door touch sensor RH pressed OFF: Power back door touch sensor RH not pressed	-

OK:

The power back door touch sensor functions as specified in the normal condition.

NG: GO TO OTHER FLOW CHART (See **TOUCH SENSOR CIRCUIT**)

OK: Go to next step

8. **READ VALUE ON TECHSTREAM**

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a. Check the Data List to determine if the power back door main switch function properly.

Back door (Power back door ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
PBD Main SW	Power back door main switch/ON or OFF	ON: Power back door main switch is not pushed OFF: Power back door main switch is pushed	-

OK:

The power back door main switch functions as specified in the normal condition.

NG: Go to step 9

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

9. **INSPECT POWER BACK DOOR MAIN SWITCH**
   a. Remove the power back door main switch (See **REMOVAL**).
   b. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Switch Position	Specified Condition
1-2	Free (OFF)	10 kohms or higher
1-2	Pushed (ON)	Below 1 ohms

NG: REPLACE POWER BACK DOOR MAIN SWITCH (See **REMOVAL**)

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Component without harness connected:
(Power Back Door Main Switch)

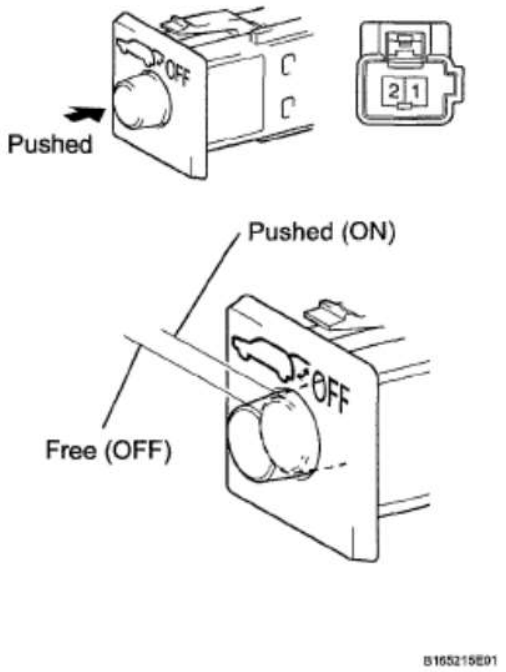


Fig. 28: Inspecting Power Back Door Main Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

10. **CHECK HARNESS AND CONNECTOR (POWER BACK DOOR MAIN SWITCH - POWER BACK DOOR ECU)**
    a. Disconnect the E21 switch connector.
    b. Disconnect the 015 ECU connector.
    c. Measure the resistance according to the value (s) in the table below.

Standard resistance

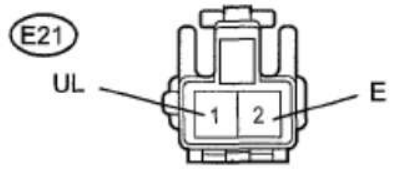
RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
E21-1 (UL) - O15-17 (MSW)	Always	Below 1 ohms
E21-2 (E) - Body ground	Always	Below 1 ohms
E21-1 (UL) - Body ground	Always	10 kohms or higher

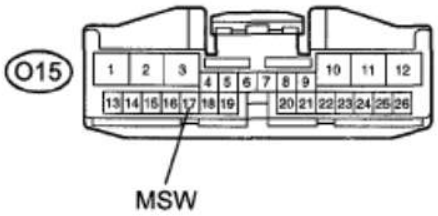
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Power Back Door Main Switch)



Front view of wire harness connector:
(to Power Back Door ECU)



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Fig. 29: Identifying E21 Switch And 015 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **POWER BACK DOOR DRIVE UNIT**)

POWER BACK DOOR CANNOT BE OPENED OR CLOSED USING THE POWER BACK DOOR SWITCH

DESCRIPTION

When the power back door cannot be opened or closed using the power back door switch, one of the following may be malfunctioning: 1) power back door opener/closer switch circuit, 2) power back door drive unit (power back door ECU), or 3) main body ECU (instrument panel junction block).

WIRING DIAGRAM

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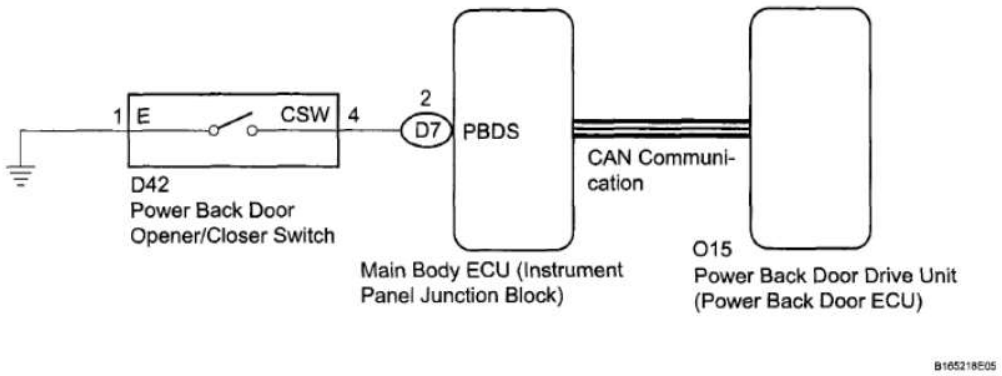


Fig. 30: Power Back Door Opener/Closer Switch - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE ON TECHSTREAM**
   a. Check the Data List to determine if the power back door opener/closer switch function properly.

   Main body ECU (Instrument panel junction block)

   DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
Back Door Open SW	Back door opener/closer switch/ON or OFF	ON: Back door opener/closer switch is pushed OFF: Back door opener/closer switch is not pushed	-

   OK:

   The power back door opener/closer switch functions as specified in the normal condition.

   NG: Go to step 4

   OK: Go to next step

2. **REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU)**
   a. Replace the power back door drive unit (power back door ECU) (See **REMOVAL**).
3. **CHECK POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU)**
   a. Check that the power back door operates normally.

      OK:

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It operates normally.

NG: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

OK: END (REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) DEFECTIVE)

4. **INSPECT POWER BACK DOOR OPENER/CLOSER SWITCH**
   a. Remove the power back door opener/closer switch (See **POWER BACK DOOR OPENER/CLOSER SWITCH**).
   b. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Switch Position	Specified Condition
4-1	Power back door opener/closer switch not pushed (OFF)	10 kohms or higher
4-1	Power back door opener/closer switch pushed (ON)	Below 1 ohms

NG: REPLACE POWER BACK DOOR OPENER/CLOSER SWITCH (See **POWER BACK DOOR OPENER/CLOSER SWITCH**)

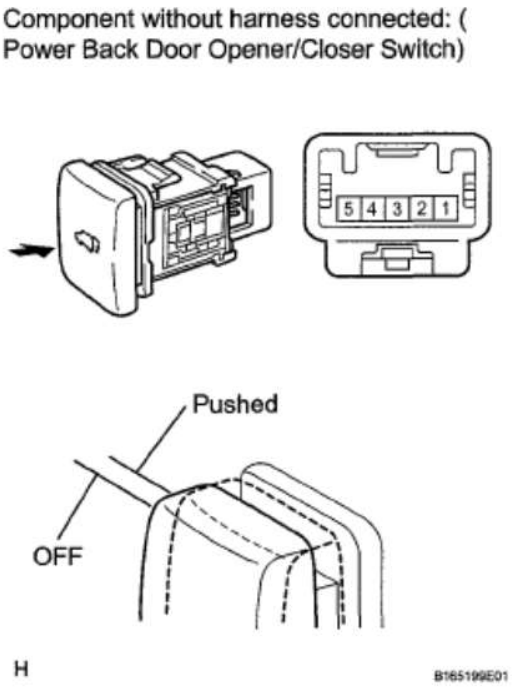


Fig. 31: Inspecting Power Back Door Opener/Closer Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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OK: Go to next step

5. **CHECK HARNESS AND CONNECTOR (POWER BACK DOOR OPENER/CLOSER SWITCH - MAIN BODY ECU)**
   a. Disconnect the D42 switch connector.
   b. Disconnect the D7 ECU connector.
   c. Measure the resistance according to the value (s) in the table below.

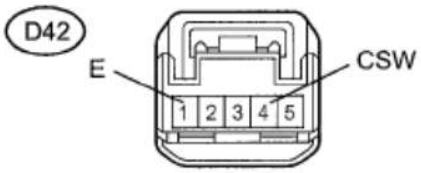
Standard resistance

RESISTANCE SPECIFICATION

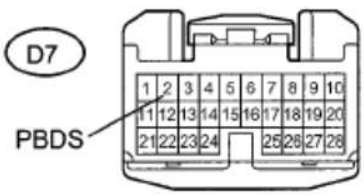
Tester Connection	Condition	Specified Condition
D42-4 (CSW) - D7-2 (PBDS)	Always	Below 1 ohms
D42-1 (E) - Body ground	Always	Below 1 ohms
D42-4 (CSW) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Power Back Opener/Closer Switch)



Front view of wire harness connector:
(to Main Body ECU)



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Fig. 32: Identifying D42 Switch And D7 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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OK: Go to next step

6. **REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU)**
   a. Replace the power back door drive unit (power back door ECU) (See **REMOVAL**).
7. **CHECK POWER BACK DOOR ECU**
   a. Check that the power back door operates normally.

OK:

It operates normally.

NG: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

OK: END (REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) DEFECTIVE)

POWER BACK DOOR CANNOT BE CLOSED USING THE POWER BACK DOOR CLOSER SWITCH

DESCRIPTION

When the power back door cannot be closed using the power back door closer switch, one of the following may be malfunctioning: 1) power back door closer switch circuit, or 2) power back door drive unit (power back door ECU).

WIRING DIAGRAM

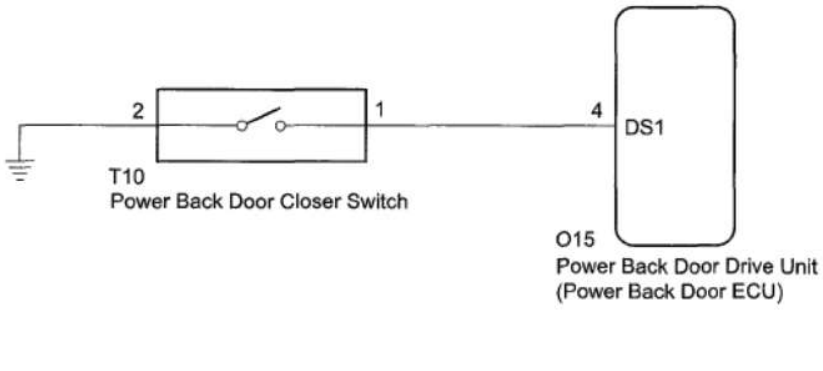


Fig. 33: Power Back Door Closer Switch - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE ON TECHSTREAM**
   a. Check the Data List to determine if the power back door closer switch functions properly.

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Back door (Power back door ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
PBD Close SW	Power back door closer switch signal/ON or OFF	ON: Power back door closer switch ON OFF: Power back door closer switch OFF	-

OK:

The power back door closer switch functions as specified in the normal condition.

NG: Go to step 2

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

2. **INSPECT POWER BACK DOOR CLOSER SWITCH**
   a. Remove the power back door closer switch (See **REMOVAL**).
   b. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Switch Position	Specified Condition
1-2	Pushed (ON)	Below 1 ohms
1-2	Free (OFF)	10 kohms or higher

NG: REPLACE POWER BACK DOOR CLOSER SWITCH (See **REMOVAL**)

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Component without harness connected:
(Power Back Door Closer Switch)

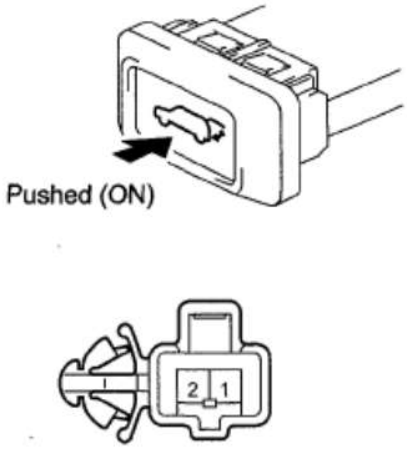


Fig. 34: Inspecting Power Back Door Closer Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

3. **CHECK HARNESS AND CONNECTOR (POWER BACK DOOR CLOSER SWITCH - POWER BACK DOOR DRIVE UNIT)**
   a. Disconnect the T10 switch connector.
   b. Disconnect the 015 ECU connector.
   c. Measure the resistance according to the value (s) in the table below.

Standard resistance

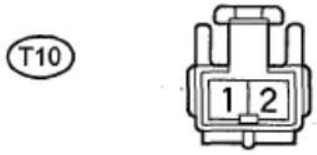
RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
T10-1- O15-4 (DS1)	Always	Below 1 ohms
T10-2 - Body ground	Always	Below 1 ohms
T10-1 - Body ground	Always	10 kohms or higher

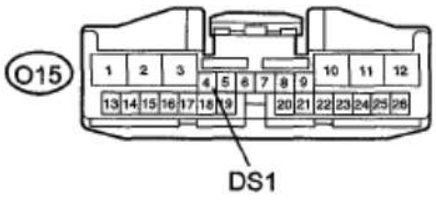
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Power Back Door Closer Switch)



Front view of wire harness connector:
(to Power Back Door ECU)



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Fig. 35: Identifying T10 Switch And 015 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

POWER BACK DOOR WARNING SYSTEM DOES NOT OPERATE

DESCRIPTION

When the power back door warning system does not operate, one of the following may be malfunctioning: 1) power back door warning buzzer circuit, 2) wireless door lock control system, or 3) power back door drive unit (power back door ECU).

WIRING DIAGRAM

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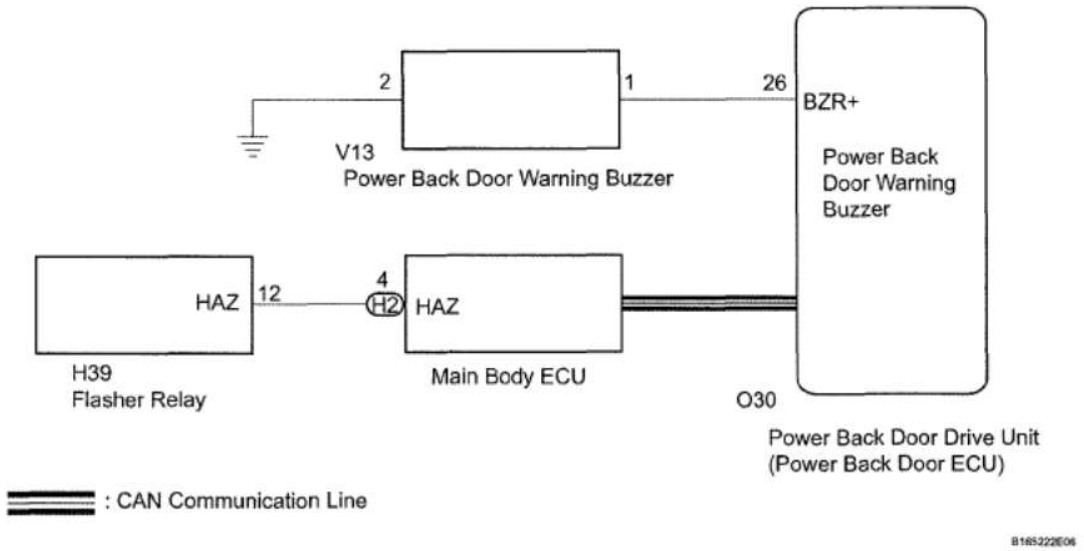


Fig. 36: Power Back Door Warning Buzzer - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK OPERATION**
   a. Check the power back door system operation.

   Result

   RESULT CHART

Result	Proceed to
Power back door warning buzzer does not operate.	A
Hazard warning light does not come on.	B
Power back door warning buzzer in the power back door ECU does not operate.	C

   B: Go to step 5

   C: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

   A: Go to next step

2. **PERFORM ACTIVE TEST ON TECHSTREAM**
   a. Select the Active Test, use Techstream to generate a control command, and check that the power back door buzzer sounds.

   Back door (Power back door ECU)

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ACTIVE TEST REFERENCE

Tester Display	Test Part	Control Range	Diagnostic Note
PBD Buzzer	Power back door buzzer sound	ON/OFF	-

OK:

Buzzer sounds normally.

NG: Go to step 3

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

3. **INSPECT POWER BACK DOOR WARNING BUZZER**
   a. Remove the power back door warning buzzer. (See **REMOVAL**)
   b. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
1-2	Always	950 to 1050 ohms

NG: REPLACE POWER BACK DOOR WARNING BUZZER (See **REMOVAL**)

Component without harness connected:
(Power Back Door Warning Buzzer)



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Fig. 37: Identifying Power Back Door Warning Buzzer Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

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4. **CHECK HARNESS AND CONNECTOR (POWER BACK DOOR WARNING BUZZER POWER BACK DOOR ECU)**
   a. Disconnect the T9 buzzer connector.
   b. Disconnect the 015 ECU connector.
   c. Disconnect the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

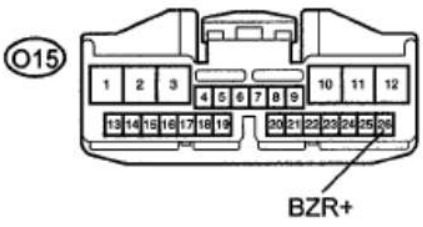
Tester Connection	Condition	Specified Condition
T9-1 - O15-26 (BZR+)	Always	Below 1 ohms
T9-2 - Body ground	Always	Below 1 ohms
T9-1 - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Power Back Door Warning Buzzer)



Front view of wire harness connector:
(to Power Back Door ECU)



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Fig. 38: Identifying T9 Buzzer And 015 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See

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REMOVAL)

5. **CHECK WIRELESS DOOR LOCK CONTROL SYSTEM (HAZARD ANSWER-BACK FUNCTION)**
   a. Check the wireless door lock operation.

      OK:

      Hazard answer-back function operates normally.

      NG: GO TO OTHER FLOW CHART (See **NO ANSWER-BACK**)

      OK: Go to next step

6. **REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU)**
   a. Replace the power back door drive unit (power back door ECU) (See **REMOVAL**).
7. **CHECK POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU)**
   a. Check that the power back door warning buzzer operates normally.

      OK:

      It operates normally.

      NG: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

      OK: END (REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) DEFECTIVE)

JAM PROTECTION FUNCTION ACTIVATES DURING POWER BACK DOOR OPERATION

DESCRIPTION

When the jam protection function activates during power back door operation, one of the following may be the cause: 1) improper fit of back door, or a foreign object is stuck in the back door, 2) malfunctioning power back door touch sensor circuit, or 3) malfunctioning power back door ECU.

WIRING DIAGRAM

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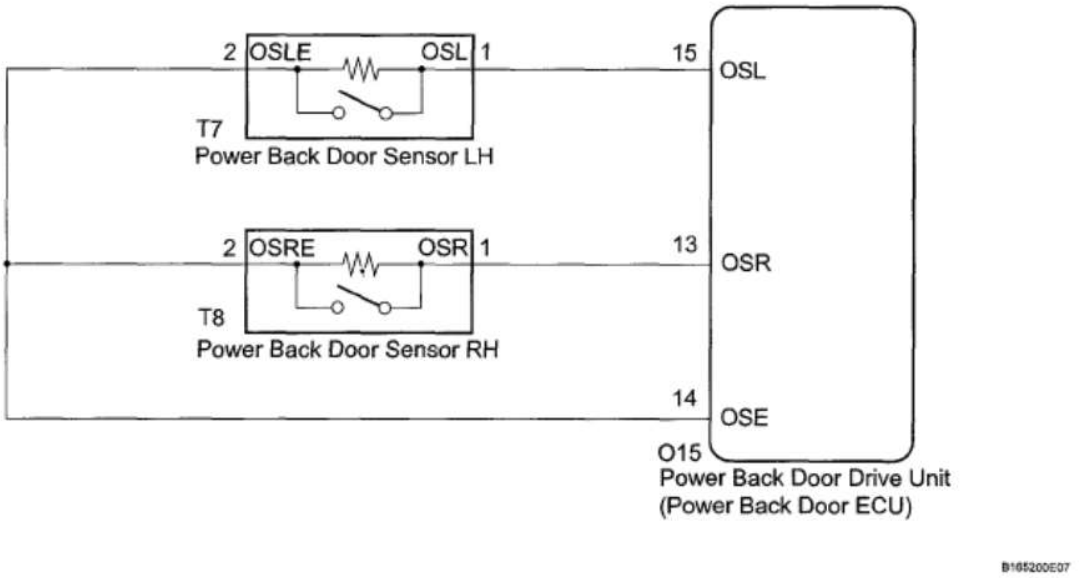


Fig. 39: Power Back Door Drive Unit - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK BACK DOOR LOCK FUNCTION**
   a. Check if there are any foreign objects interfering with the back door operation.

      OK:

      There are no foreign objects.

      NG: REMOVE FOREIGN OBJECT

      OK: Go to next step

2. **CHECK BACK DOOR**
   a. Check the back door operation.
      1. Turn the door control main switch off.
      2. Open/close the back door by hand.

         OK:

         The back door fully opens and closes smoothly.

         NG: ADJUST BACK DOOR

         OK: Go to next step

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3. **READ VALUE ON TECHSTREAM (POWER BACK DOOR TOUCH SENSOR)**
   a. Check the Data List to determine if the power back door touch sensor functions properly.

Back door (Power back door ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
PBD Touch Sen L	Power back door touch sensor LH signal/ON or OFF	ON: Power back door touch sensor LH pressed OFF: Power back door touch sensor LH not pressed	-
PBD Touch Sen R	Power back door touch sensor RH signal/ON or OFF	ON: Power back door touch sensor RH pressed OFF: Power back door touch sensor RH not pressed	-

OK:

The power back door sensors function as specified in the normal condition.

NG: GO TO OTHER FLOW CHART (See **TOUCH SENSOR CIRCUIT**)

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **REMOVAL**)

TOUCH SENSOR CIRCUIT

DESCRIPTION

When the power back door ECU receives a jam signal from the touch sensor while the power back door closer is operating, the ECU reverses the back door operation and opens the door.

WIRING DIAGRAM

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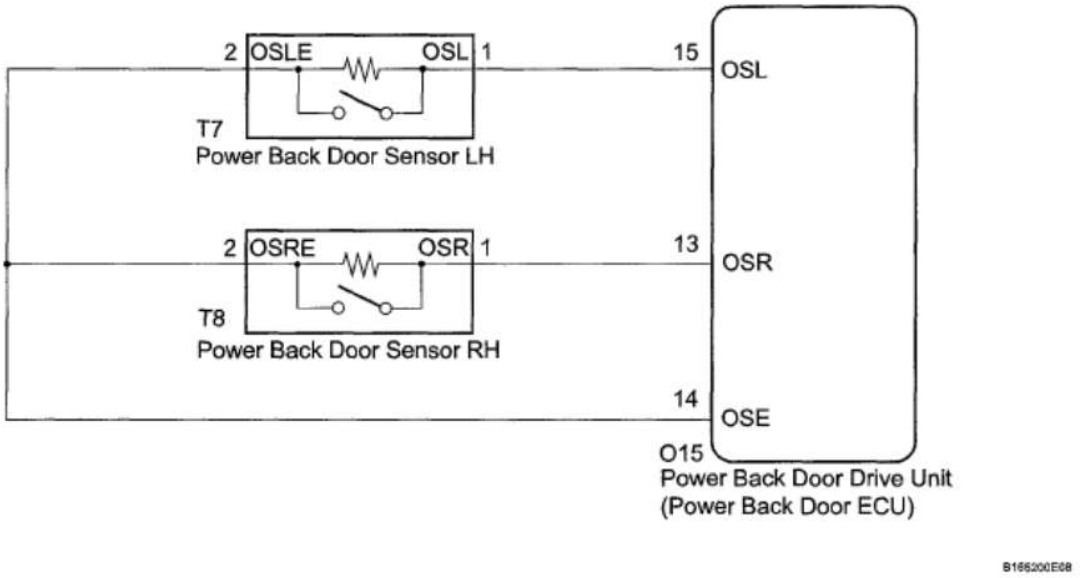


Fig. 40: Touch Sensor - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE USING TECHSTREAM (POWER BACK DOOR TOUCH SENSOR)**
   a. Check the Data List for proper functioning of the power back door touch sensor.

Back door (Power back door ECU)

DATA LIST REFERENCE

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
PBD Touch Sen L	Power back door touch sensor LH signal/ON or OFF	ON: Power back door touch sensor LH is pressed OFF: Power back door touch sensor LH is not pressed	-
PBD Touch Sen R	Power back door touch sensor RH signal/ON or OFF	ON: Power back door touch sensor RH is pressed< BR > OFF: Power back door touch sensor RH is not pressed	-

OK:

The display is as specified in the normal condition.

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NG: Go to step 2

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **INITIALIZATION**)

2. **INSPECT POWER BACK DOOR TOUCH SENSOR**
   a. Remove the power back door touch sensor. (See **REMOVAL**)
   b. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
1-2	Not pressed	Approx. 1 kohms
1-2	Pressed	Below 100 ohms

NG: REPLACE POWER BACK DOOR TOUCH SENSOR (See **REMOVAL**)

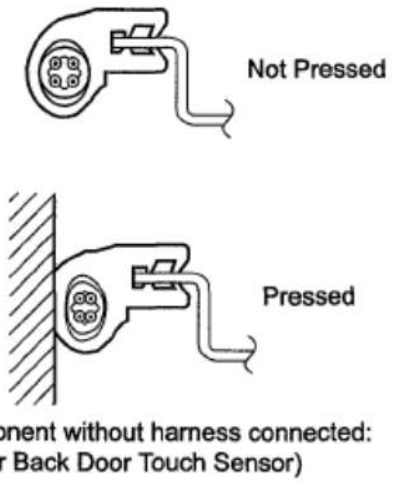


Fig. 41: Identifying Power Back Door Touch Sensor Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step

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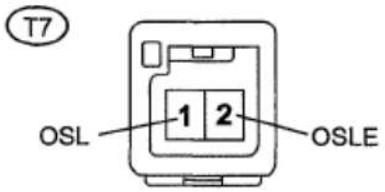
3. **CHECK HARNESS AND CONNECTOR (POWER BACK DOOR TOUCH SENSOR - POWER BACK DOOR DRIVE UNIT AND BODY GROUND)**
   a. LH Side
      1. Disconnect the T7 sensor connectors.
      2. Disconnect the 015 ECU connector.
      3. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
T7-1 (OSL) - O15-15 (OSL)	Always	Below 1 ohms
T7-2 (OSLE) - O15-14 (OSE)	Always	Below 1 ohms
T7-1 (OSL) - Body ground	Always	10 kohms or higher
T7-2 (OSLE) - Body ground	Always	Below 1 ohms

Front view of wire harness connector:
(to Power Back Door Touch Sensor LH)



Front view of wire harness connector:
(to Power Back Door ECU)

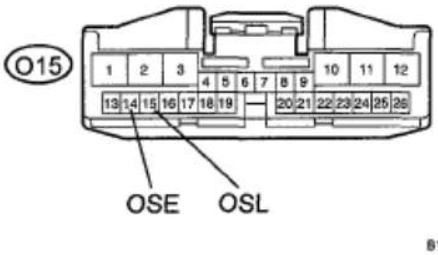


Fig. 42: Identifying T7 Sensor And 015 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. RH Side

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1. Disconnect the T8 sensor connectors.
2. Disconnect the 015 ECU connector.
3. Measure the resistance according to the value (s) in the table below.

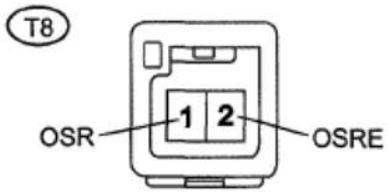
Standard resistance

RESISTANCE SPECIFICATION

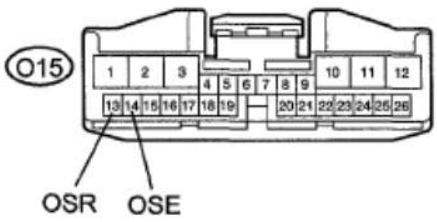
Tester Connection	Condition	Specified Condition
T8-1 (OSR) - O15-13 (OSR)	Always	Below 1 ohms
T8-2 (OSRE) - O15-14 (OSE)	Always	Below 1 ohms
T8-1 (OSR) - Body ground	Always	10 kohms or higher
T8-2 (OSRE) - Body ground	Always	Below 1 ohms

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Power Back Door Touch Sensor RH)



Front view of wire harness connector:
(to Power Back Door ECU)



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Fig. 43: Identifying T8 Sensor And 015 ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE POWER BACK DOOR DRIVE UNIT (POWER BACK DOOR ECU) (See **INITIALIZATION**)

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HOOD

COMPONENTS

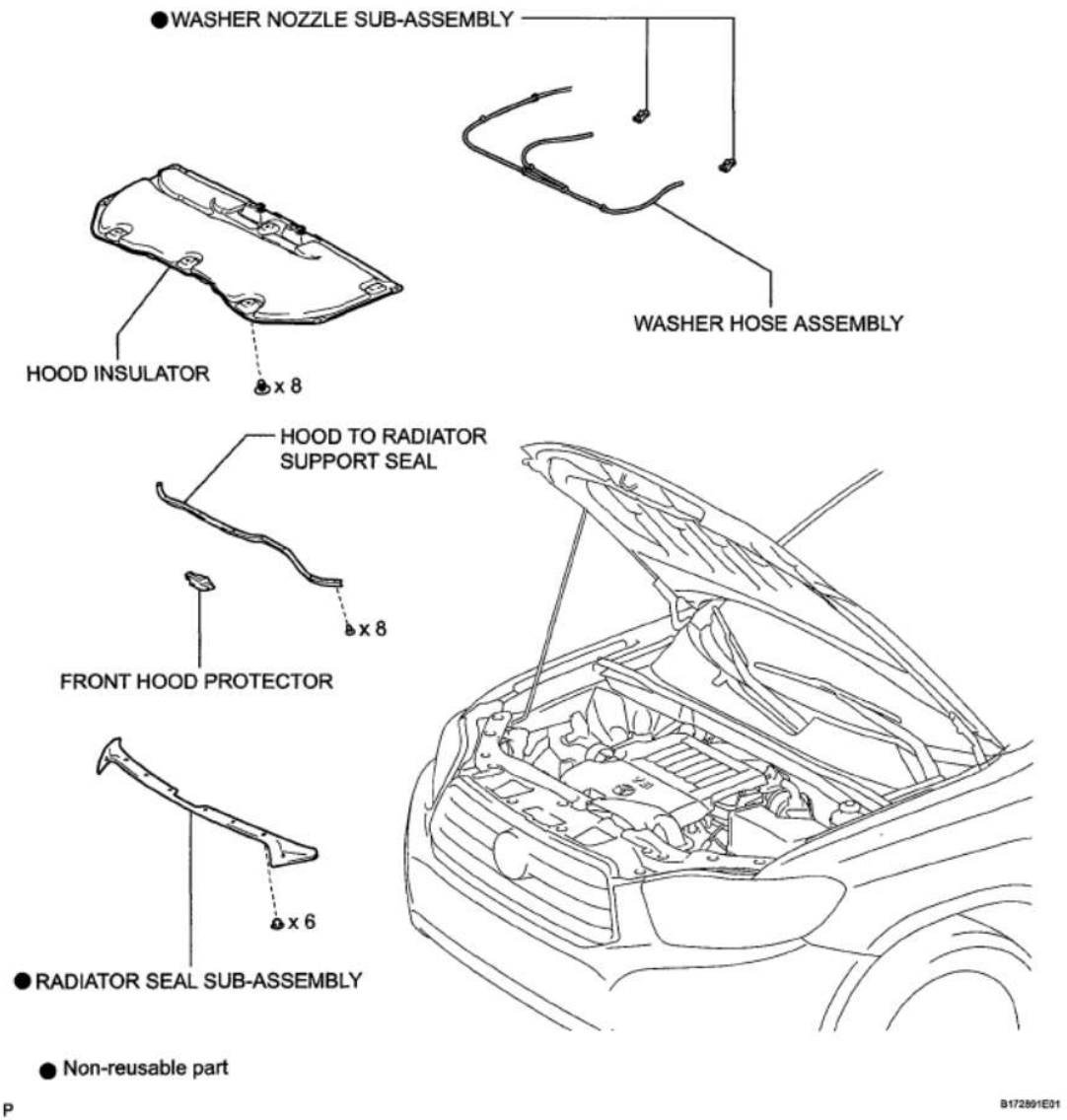


Fig. 44: Identifying Hood Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ON-VEHICLE INSPECTION

1. **INSPECT HOOD SUB-ASSEMBLY**
   a. Check that the clearance measurements of areas A through D are within each standard range.

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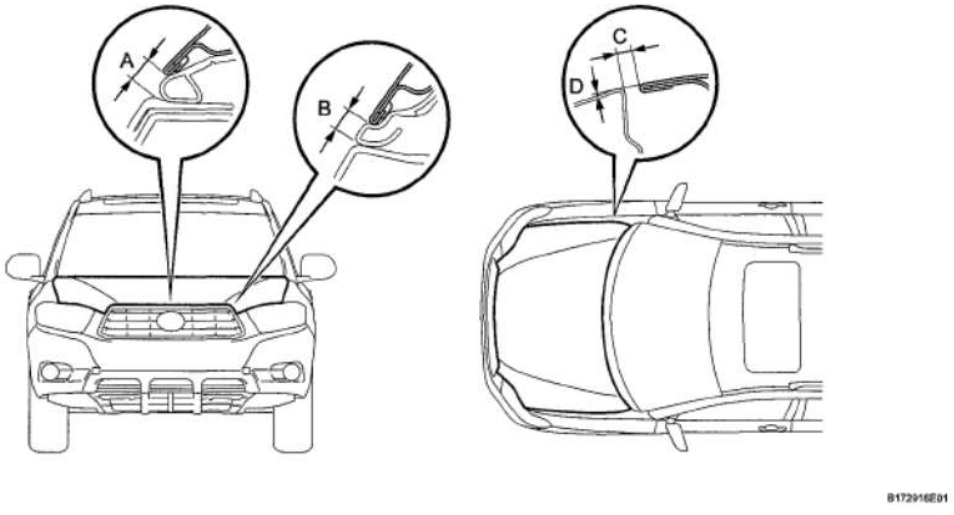


Fig. 45: Identifying Hood Clearance
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard clearance

STANDARD CLEARANCE REFERENCE

Area	Measurement	Area	Measurement
A	6.2 to 10.2 mm (0.244 to 0.402 in.)	C	2.5 to 5.5 mm (0.098 to 0.217 in.)
B	5.9 to 9.9 mm (0.232 to 0.390 in.)	D	-1.5 to 1.5 mm (-0.059 to 0.059 in.)

DISASSEMBLY

1. **REMOVE FRONT HOOD PROTECTOR**
   a. Disengage the 4 claws and remove the front hood protector.

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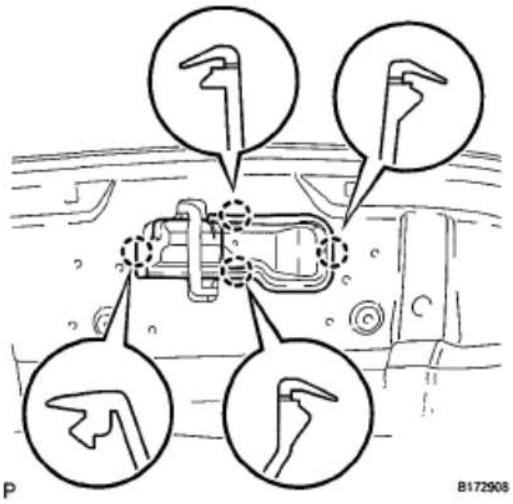


Fig. 46: Identifying Front Hood Protector Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **REMOVE RADIATOR SEAL SUB-ASSEMBLY**
   a. Remove the 6 clips.
   b. Disengage the 2 clips and remove the radiator seal sub-assembly.

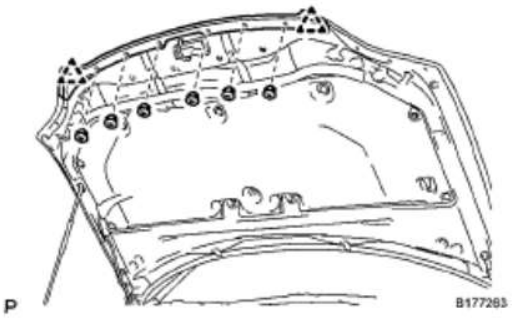


Fig. 47: Identifying Radiator Seal Sub-Assembly Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **REMOVE HOOD TO RADIATOR SUPPORT SEAL**
   a. Remove the 8 clips and hood to radiator support seal.

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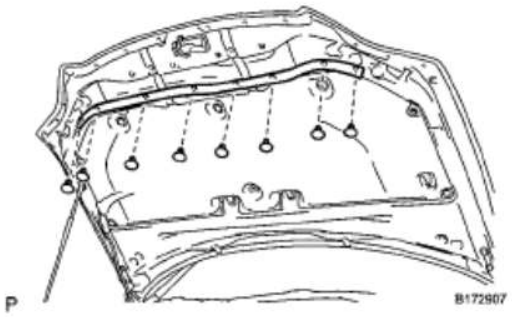


Fig. 48: Identifying Hood To Radiator Support Seal Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **REMOVE HOOD INSULATOR**
   a. Using a clip remover, remove the 8 clips and the hood insulator.
5. **REMOVE WASHER NOZZLE SUB-ASSEMBLY** (See **REMOVAL**)

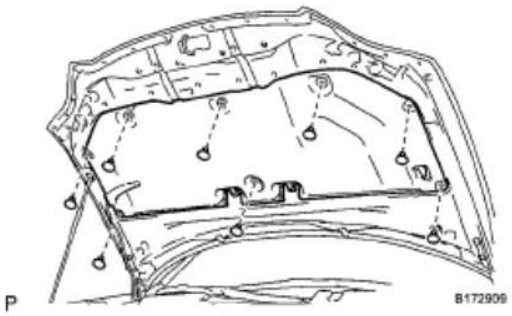


Fig. 49: Identifying Hood Insulator Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **DISCONNECT WASHER HOSE ASSEMBLY**
   a. Disconnect the washer hose assembly.

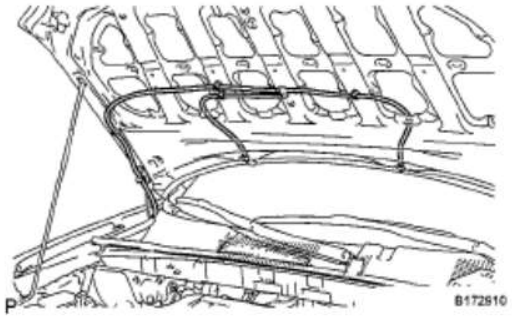


Fig. 50: Identifying Washer Hose Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ADJUSTMENT

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HINT:

- Centering bolts are used to mount the hood hinge and hood lock. The hood and hood lock cannot be adjusted with the centering bolts installed. Substitute the centering bolts with standard bolts (with washers) when making adjustments.
- A bolt without a torque specification is shown in the standard bolt chart (See **SERVICE SPECIFICATIONS - STANDARD BOLT**).

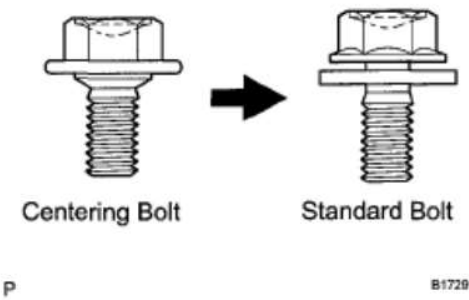


Fig. 51: Identifying Centering Bolt And Standard Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. **REMOVE COOL AIR INTAKE DUCT SEAL** (See **REMOVAL**)
2. **REMOVE RADIATOR GRILLE** (See **REMOVAL**)
3. **ADJUST HOOD SUB-ASSEMBLY**
   a. Horizontally and vertically adjust the hood.
      1. Loosen the 4 hinge bolts of the hood.
      2. Adjust the clearance between the hood and front fender by moving the hood.
      3. Tighten the 4 hinge bolts after the adjustment.

      Torque: 13 N*m (133 kgf*cm, 10 ft.*lbf)

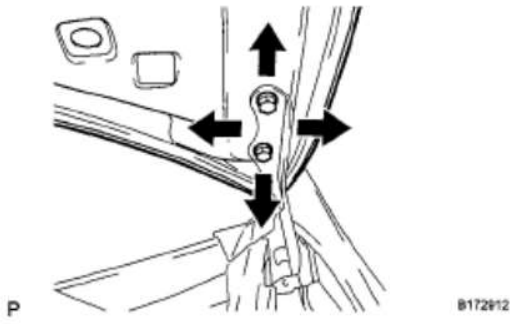


Fig. 52: Adjusting Hood Horizontally And Vertically
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Adjust the height of the front end of the hood using the cushion rubber.
      1. Adjust the cushion rubbers so that the heights of the hood and fender are aligned.

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HINT:

Raise or lower the front end of the hood by turning the cushion rubber.



Fig. 53: Adjusting Height Of Front End Of Hood
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Adjust the hood lock.
   1. Remove the hood lock nut cap.

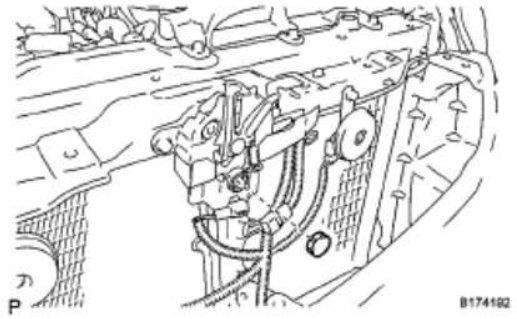


Fig. 54: Identifying Hood Lock Nut Cap
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   2. Loosen the 3 bolts.
   3. Tighten the bolts after the adjustment.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

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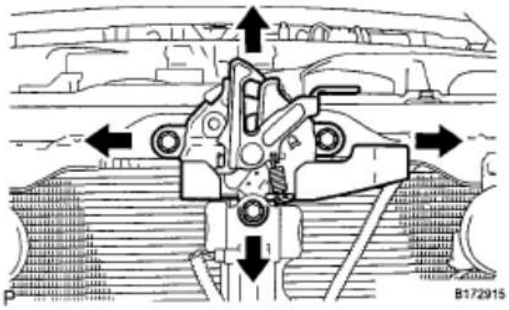


Fig. 55: Loosening Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Install the hood lock nut cap.
e. Check that the striker can engage with the hood lock smoothly.

4. **INSTALL RADIATOR GRILLE** (See **INSTALLATION**)
5. **INSTALL COOL AIR INTAKE DUCT SEAL** (See **INSTALLATION**)

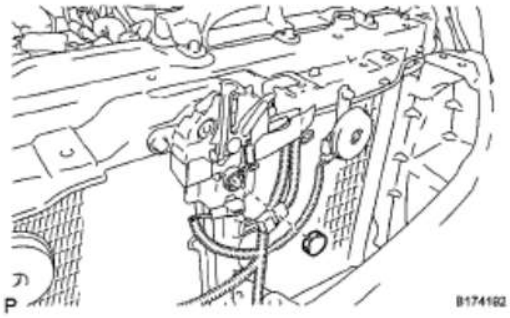


Fig. 56: Identifying Hood Lock Nut Cap
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REASSEMBLY

1. **CONNECT WASHER HOSE ASSEMBLY**
   a. Connect the washer hose assembly.
2. **ADJUST WASHER NOZZLE SUB-ASSEMBLY** (See **INSTALLATION**)
3. **INSTALL WASHER NOZZLE SUB-ASSEMBLY** (See **INSTALLATION**)

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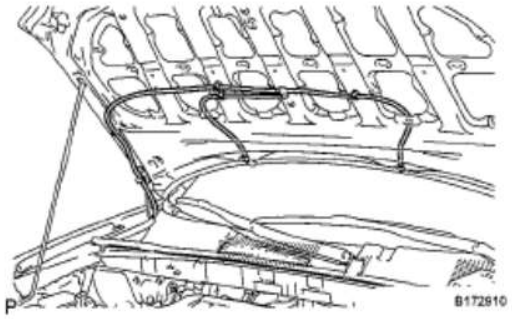


Fig. 57: Identifying Washer Hose Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **INSTALL HOOD INSULATOR**
   a. Install the hood insulator with the 8 clips.

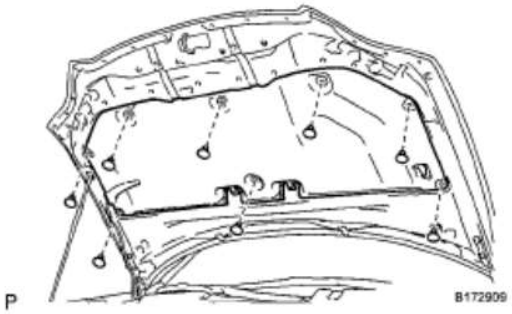


Fig. 58: Identifying Hood Insulator Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **INSTALL HOOD TO RADIATOR SUPPORT SEAL**
   a. Install the hood to radiator support seal with the 8 clips.
6. **INSTALL RADIATOR SEAL SUB-ASSEMBLY**
   a. Clean the vehicle body surface.
      1. Wipe off any tape adhesive residue with cleaner.

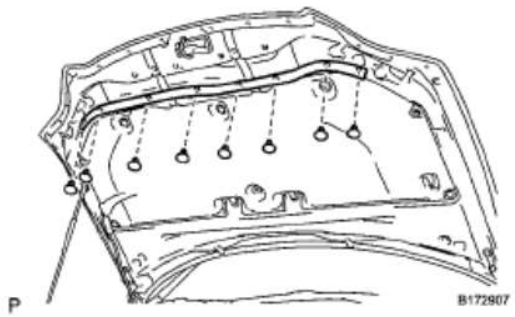


Fig. 59: Identifying Hood To Radiator Support Seal Clips

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b. Remove the release paper from the radiator seal sub-assembly.

HINT:

After removing the release paper, keep the exposed adhesive free from foreign matter.

c. Install a new radiator seal sub-assembly with the 2 clips.
d. Install the 6 clips.

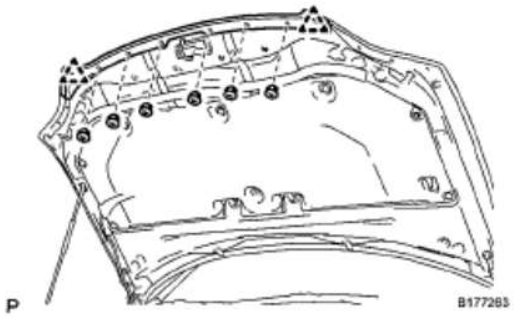


Fig. 60: Identifying Radiator Seal Sub-Assembly Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. **INSTALL FRONT HOOD PROTECTOR**
   a. Engage the 4 claws and install the front hood protector.
8. **INSPECT FRONT WASHER NOZZLE SUB-ASSEMBLY** (See **ON-VEHICLE INSPECTION**)

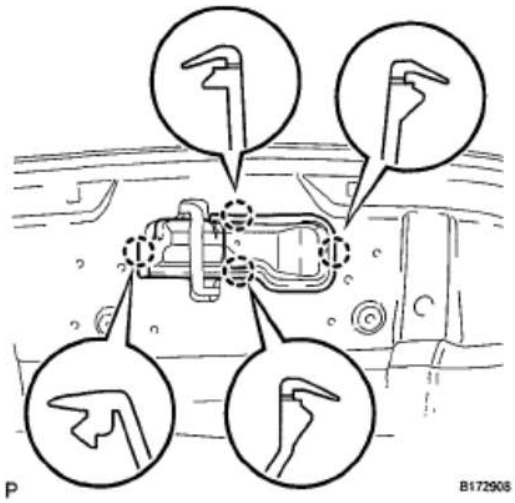


Fig. 61: Identifying Front Hood Protector Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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HOOD LOCK CONTROL CABLE ASSEMBLY

COMPONENTS

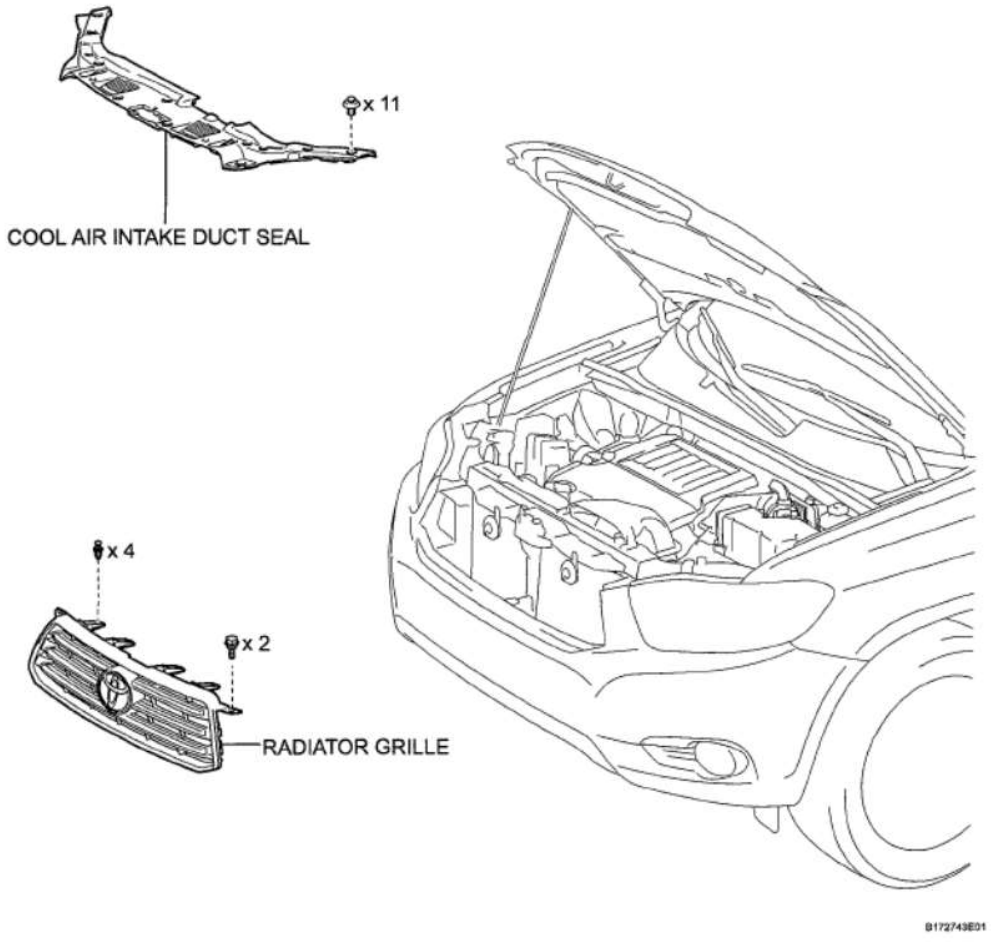


Fig. 62: Identifying Hood Lock Control Cable Assembly Components (1 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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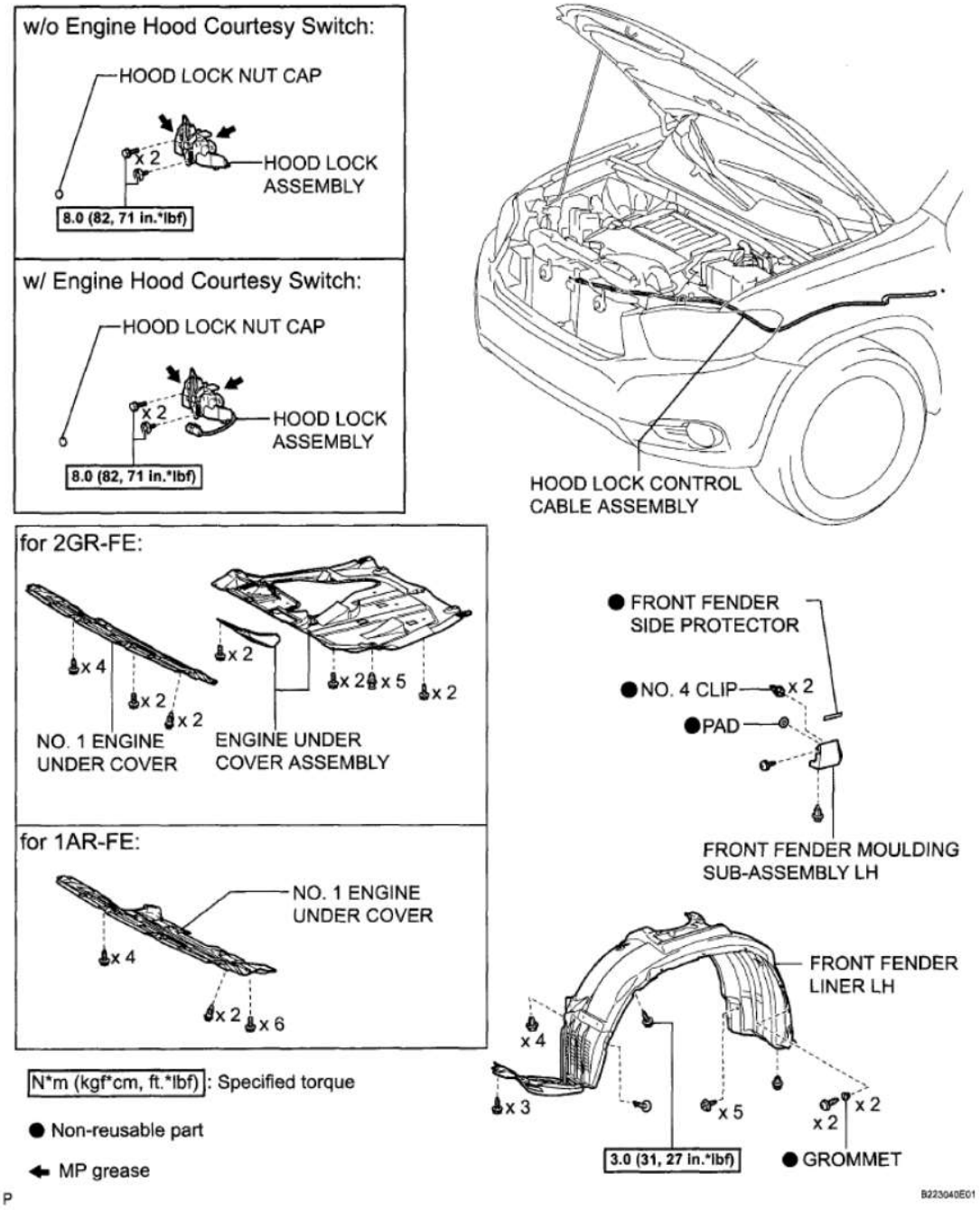


Fig. 63: Identifying Hood Lock Control Cable Assembly Components (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE ENGINE UNDER COVER ASSEMBLY (for 2GR-FE)** (See **REMOVAL**)
2. **REMOVE NO. 1 ENGINE UNDER COVER**
3. **REMOVE FRONT FENDER MOULDING SUB-ASSEMBLY LH** (See **REMOVAL**)

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4. **REMOVE FRONT FENDER LINER LH** (See **REMOVAL**)
5. **REMOVE COOL AIR INTAKE DUCT SEAL** (See **REMOVAL**)
6. **REMOVE RADIATOR GRILLE** (See **REMOVAL**)
7. **REMOVE HOOD LOCK ASSEMBLY (w/o Engine Hood Courtesy Switch)**
   a. Remove the hood lock nut cap.

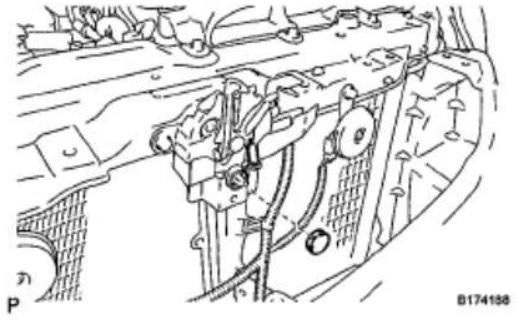


Fig. 64: Identifying Hood Lock Nut Cap
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Remove the 3 bolts.

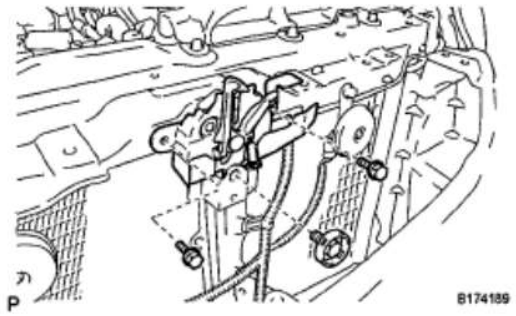
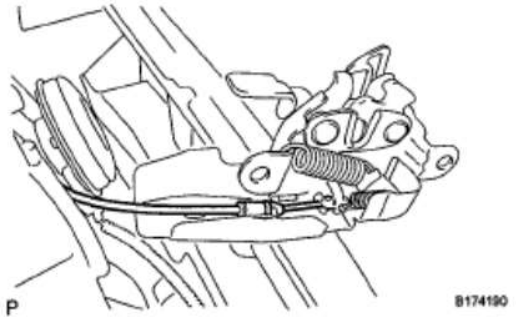


Fig. 65: Identifying Hood Lock Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   c. Disconnect the hood lock control cable and remove the hood lock assembly.



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Fig. 66: Identifying Hood Lock Control Cable
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. **REMOVE HOOD LOCK ASSEMBLY (w/ Engine Hood Courtesy Switch)**
   a. Disconnect the connector.

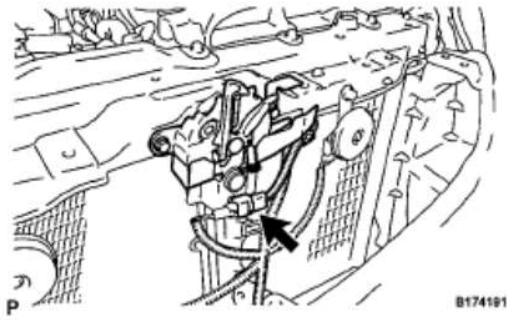


Fig. 67: Locating Hood Lock Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Remove the hood lock nut cap.

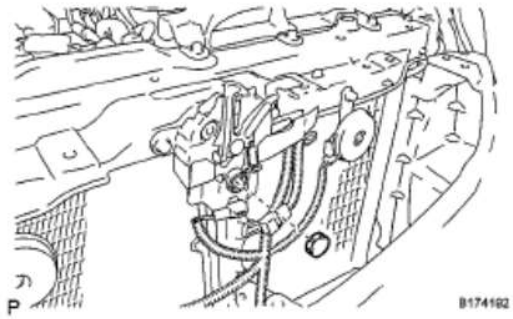


Fig. 68: Identifying Hood Lock Nut Cap
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   c. Remove the 3 bolts.

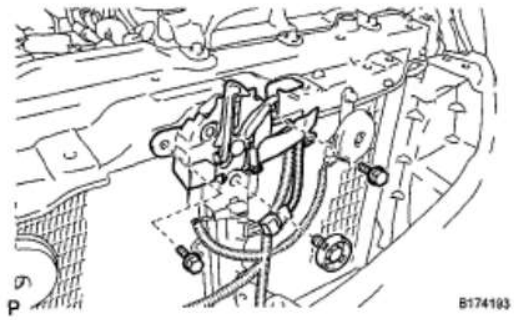


Fig. 69: Identifying Hood Lock Assembly Bolts

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

d. Disconnect the hood lock control cable and remove the hood lock assembly.

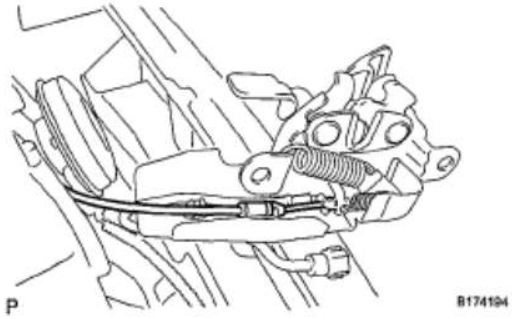


Fig. 70: Identifying Hood Lock Control Cable
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. **REMOVE HOOD LOCK CONTROL CABLE ASSEMBLY**
   a. Disconnect the hood lock control cable from the hood lock control lever.

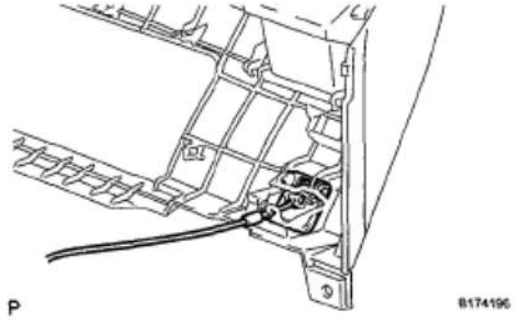


Fig. 71: Identifying Hood Lock Control Cable And Hood Lock Control Lever
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Using a screwdriver, disconnect the clamps shown in the illustration.

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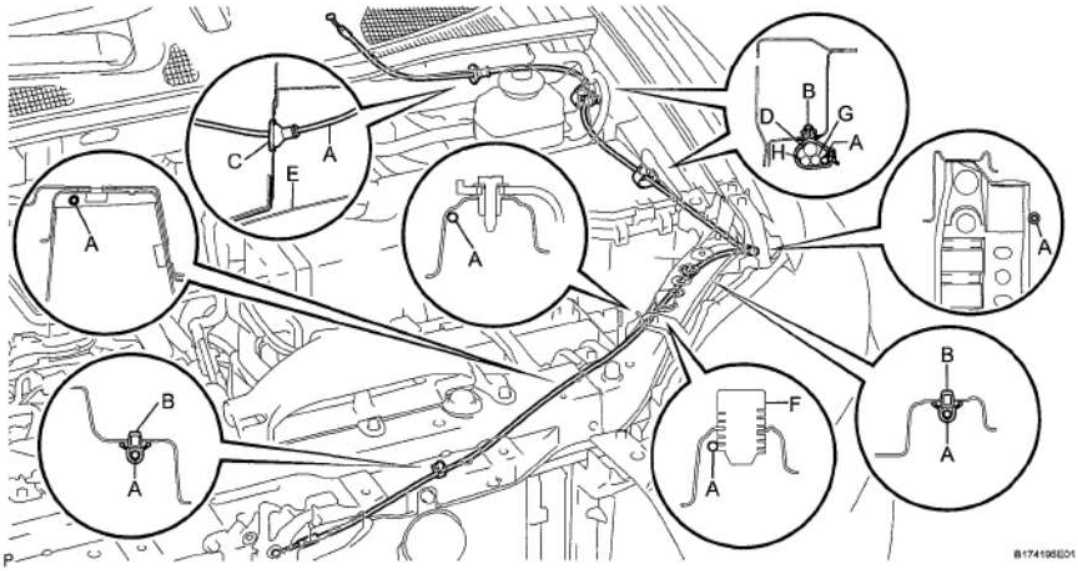


Fig. 72: Identifying Hood Lock Control Cable, Clamp, Hood Cable Grommet, Wire Harness, Fender Line And Hood Support Rubber
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

PART NAME REFERENCE

Area	Part Name	Area	Part Name
A	Hood lock control cable	E	Fender liner
B	Clamp	F	Hood stopper rubber
C	Hood cable grommet	G	Front washer hose
D	Wire harness	H	Rear washer hose

HINT:

Tape the screwdriver tip before use.

c. Pull the cable from the engine compartment and remove it.

INSTALLATION

1. **INSTALL HOOD LOCK CONTROL CABLE ASSEMBLY**
   a. Pass the hood lock control cable assembly into the engine compartment.

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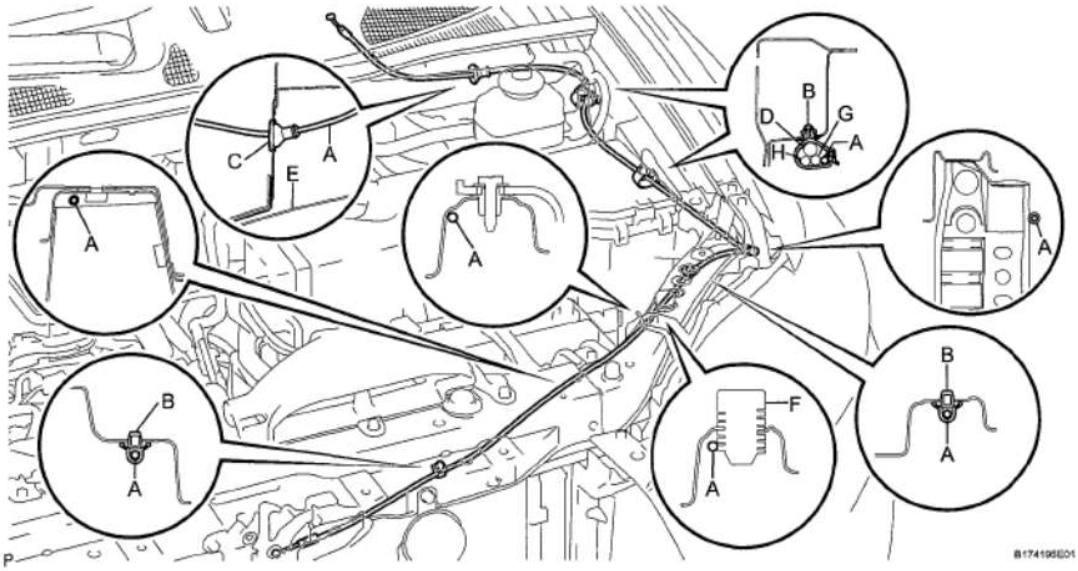


Fig. 73: Identifying Hood Lock Control Cable, Clamp, Hood Cable Grommet, Wire Harness, Fender Line And Hood Support Rubber
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

PART NAME REFERENCE

Area	Part Name	Area	Part Name
A	Hood lock control cable	E	Fender liner
B	Clamp	F	Hood stopper rubber
C	Hood cable grommet	G	Front washer hose
D	Wire harness	H	Rear washer hose

b. Pass the cable through the upper radiator support.
c. Connect the clamps as shown in the illustration.
d. Connect the hood lock control cable to the hood lock control lever.

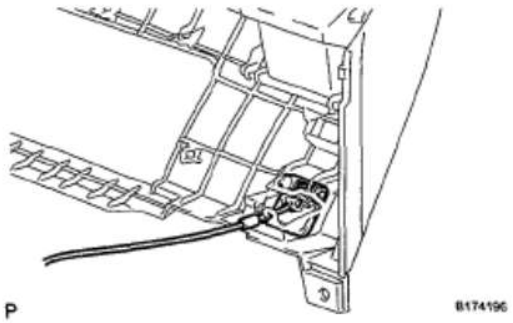


Fig. 74: Identifying Hood Lock Control Cable And Hood Lock Control Lever
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL HOOD LOCK ASSEMBLY (w/o Engine Hood Courtesy Switch)**

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a. Apply MP grease to the sliding areas of the lock.

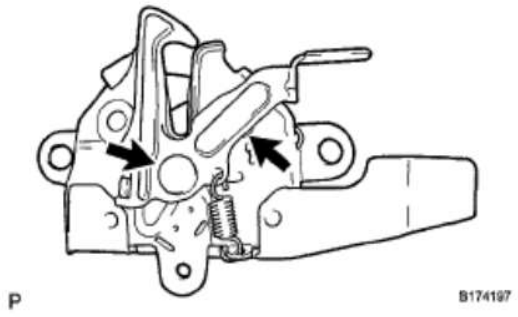


Fig. 75: Locating Grease Applying Area Of Lock
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Connect the hood lock control cable.

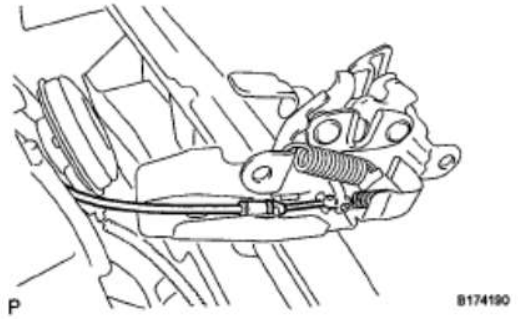


Fig. 76: Identifying Hood Lock Control Cable
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Install the hood lock assembly with the 3 bolts.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

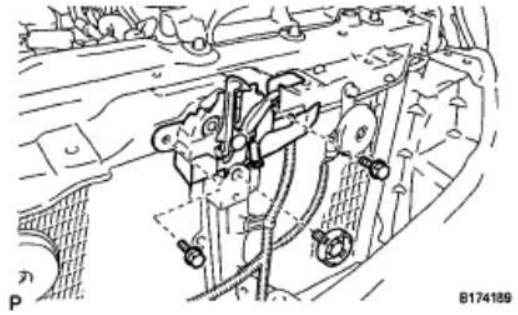


Fig. 77: Identifying Hood Lock Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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d. Install the hood lock nut cap.

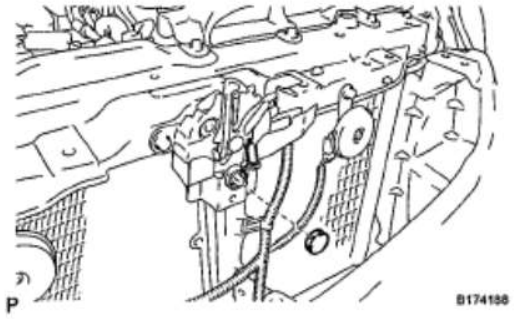


Fig. 78: Identifying Hood Lock Nut Cap
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **INSTALL HOOD LOCK ASSEMBLY (w/ Engine Hood Courtesy Switch)**
   a. Apply MP grease to the sliding areas of the lock.

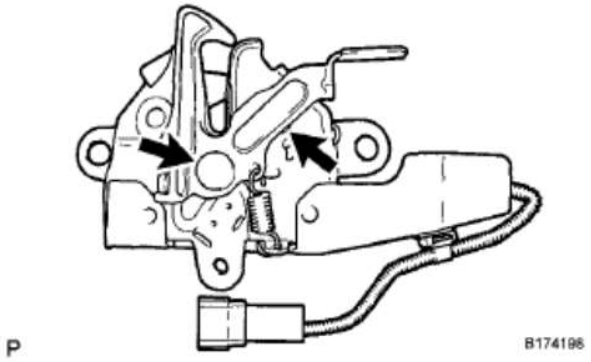


Fig. 79: Locating Grease Applying Areas Of Lock
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Connect the hood lock control cable.

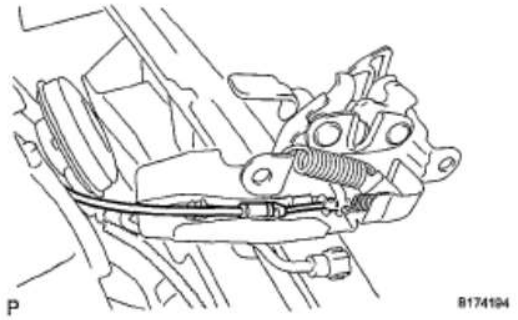


Fig. 80: Identifying Hood Lock Control Cable
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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c. Install the hood lock assembly with the 3 bolts.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

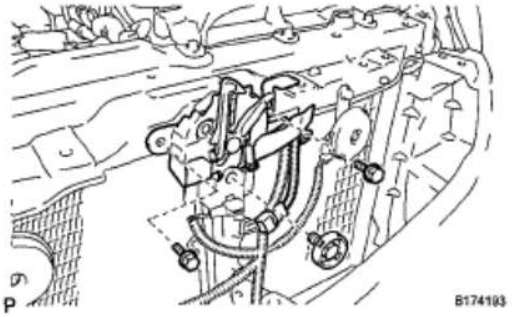


Fig. 81: Identifying Hood Lock Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Install the hood lock nut cap.

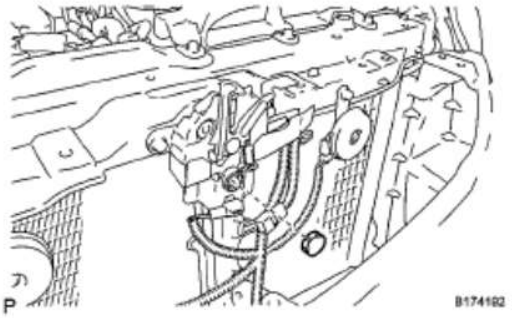
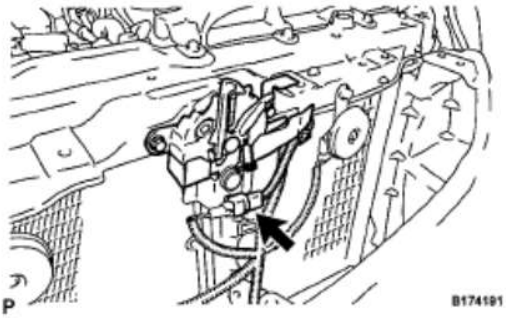


Fig. 82: Identifying Hood Lock Nut Cap
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

e. Connect the connector.

4. **INSPECT HOOD SUB-ASSEMBLY** (See **ON-VEHICLE INSPECTION**)
5. **ADJUST HOOD SUB-ASSEMBLY** (See **REASSEMBLY**)
6. **INSTALL RADIATOR GRILLE** (See **INSTALLATION**)



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Fig. 83: Locating Hood Lock Connector
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7. **INSTALL COOL AIR INTAKE DUCT SEAL** (See **INSTALLATION**)
8. **INSTALL FRONT FENDER LINER LH** (See **INSTALLATION**)
9. **INSTALL FRONT FENDER MOULDING SUB-ASSEMBLY LH** (See **INSTALLATION**)
10. **INSTALL NO. 1 ENGINE UNDER COVER**
11. **INSTALL ENGINE UNDER COVER ASSEMBLY (for 2GR-FE)** (See **INSTALLATION**)

FRONT DOOR

COMPONENTS

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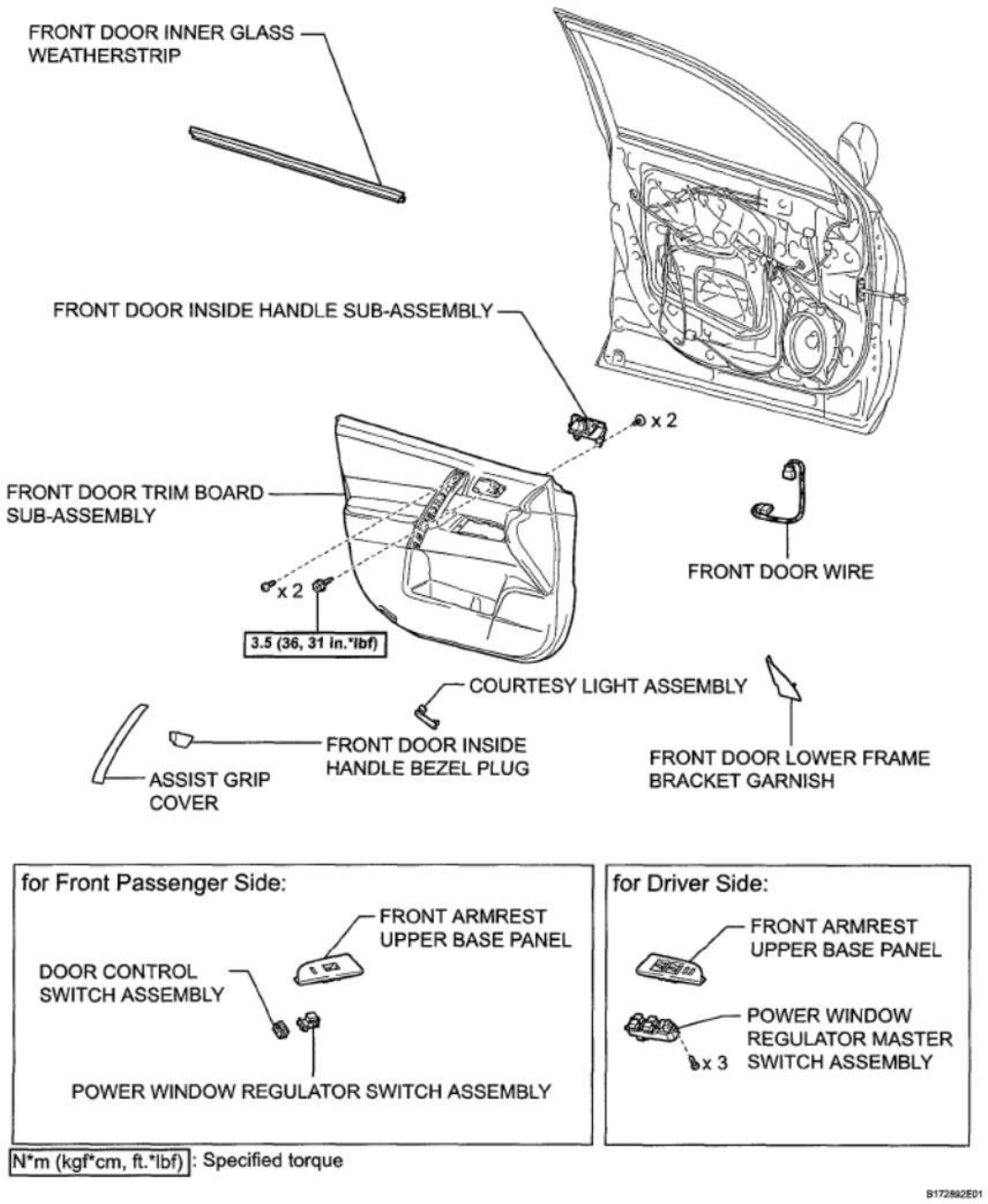


Fig. 84: Identifying Front Door Components With Torque Specification (1 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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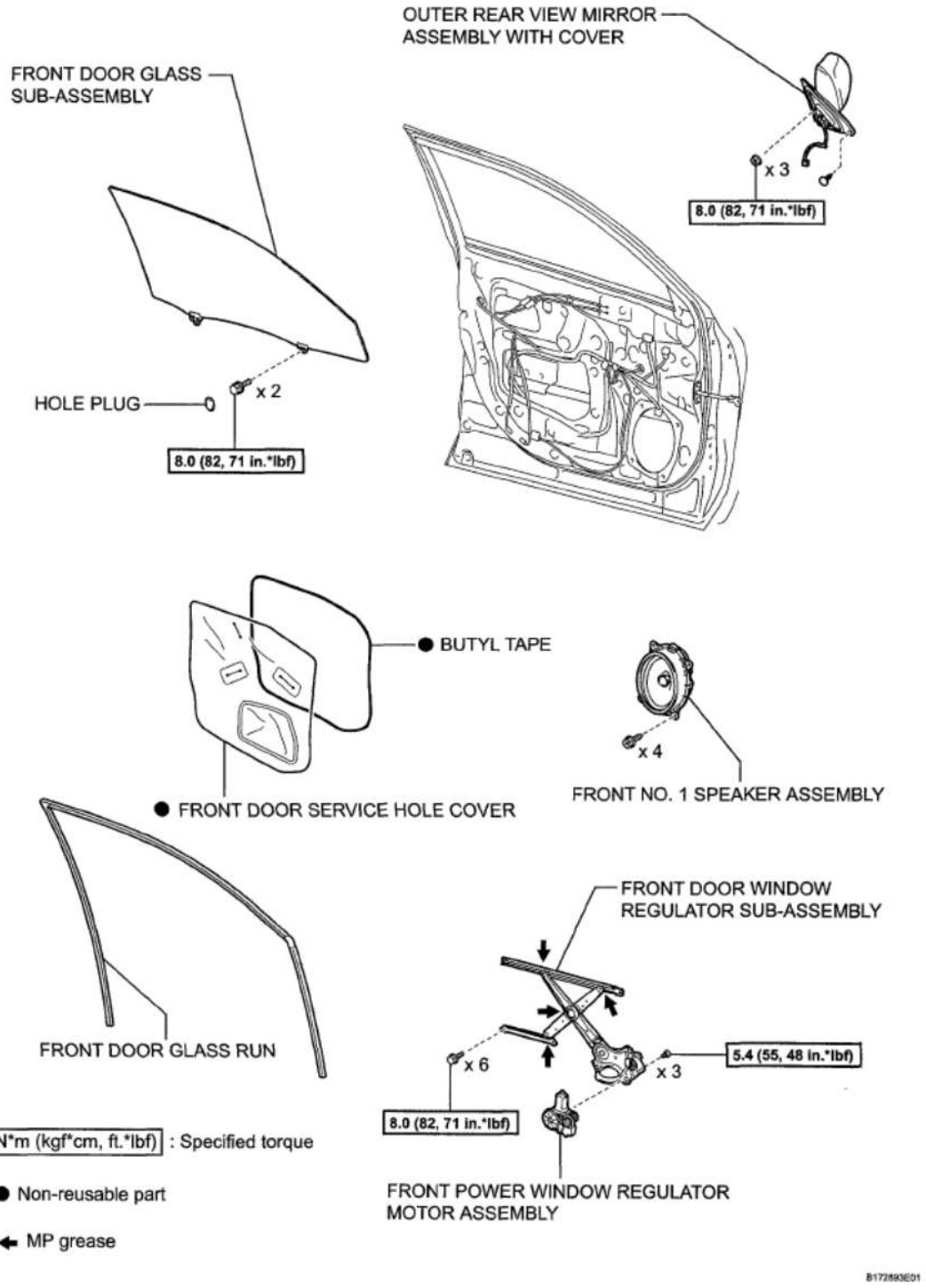


Fig. 85: Identifying Front Door Components With Torque Specification (2 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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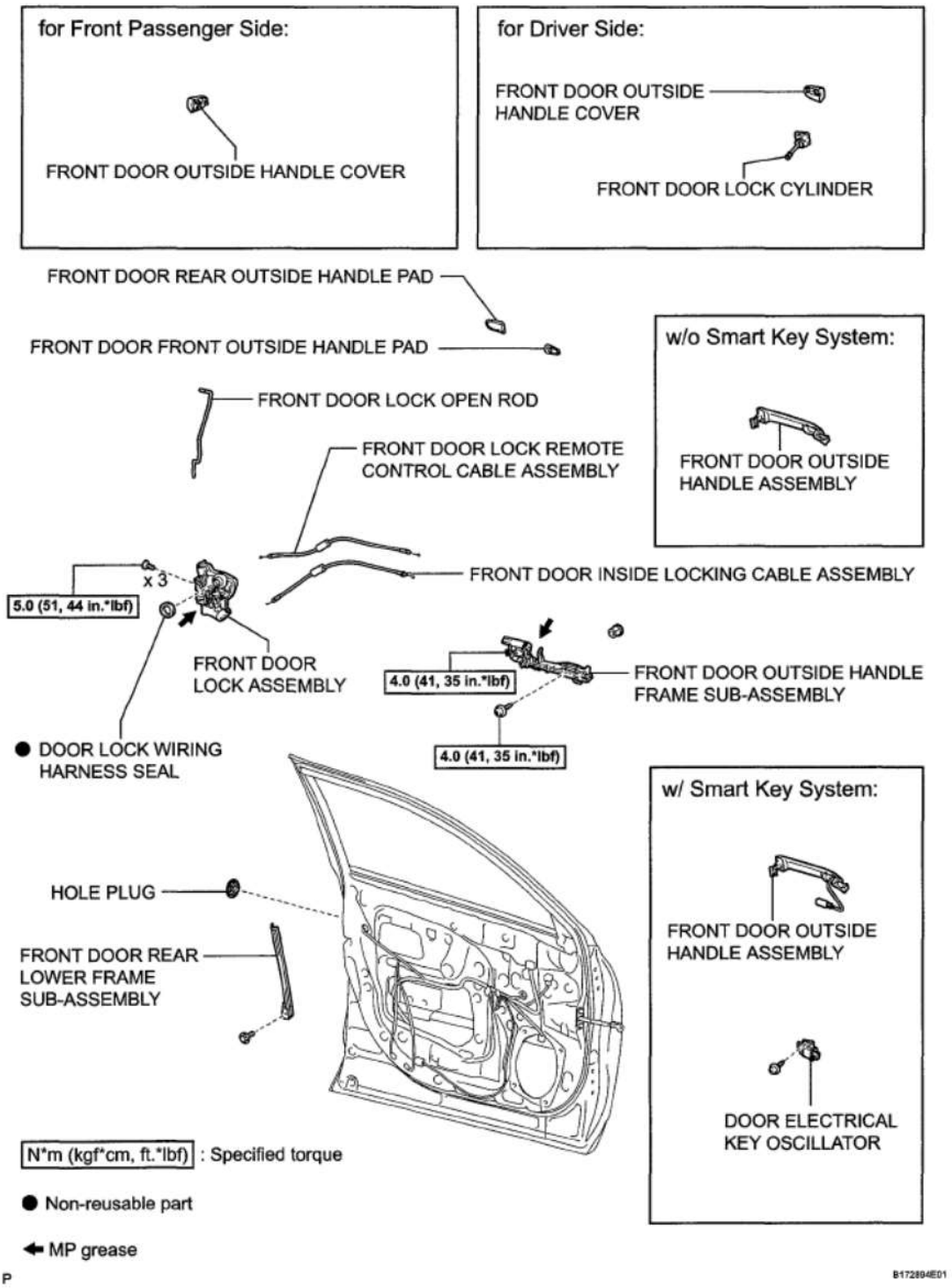


Fig. 86: Identifying Front Door Components With Torque Specification (3 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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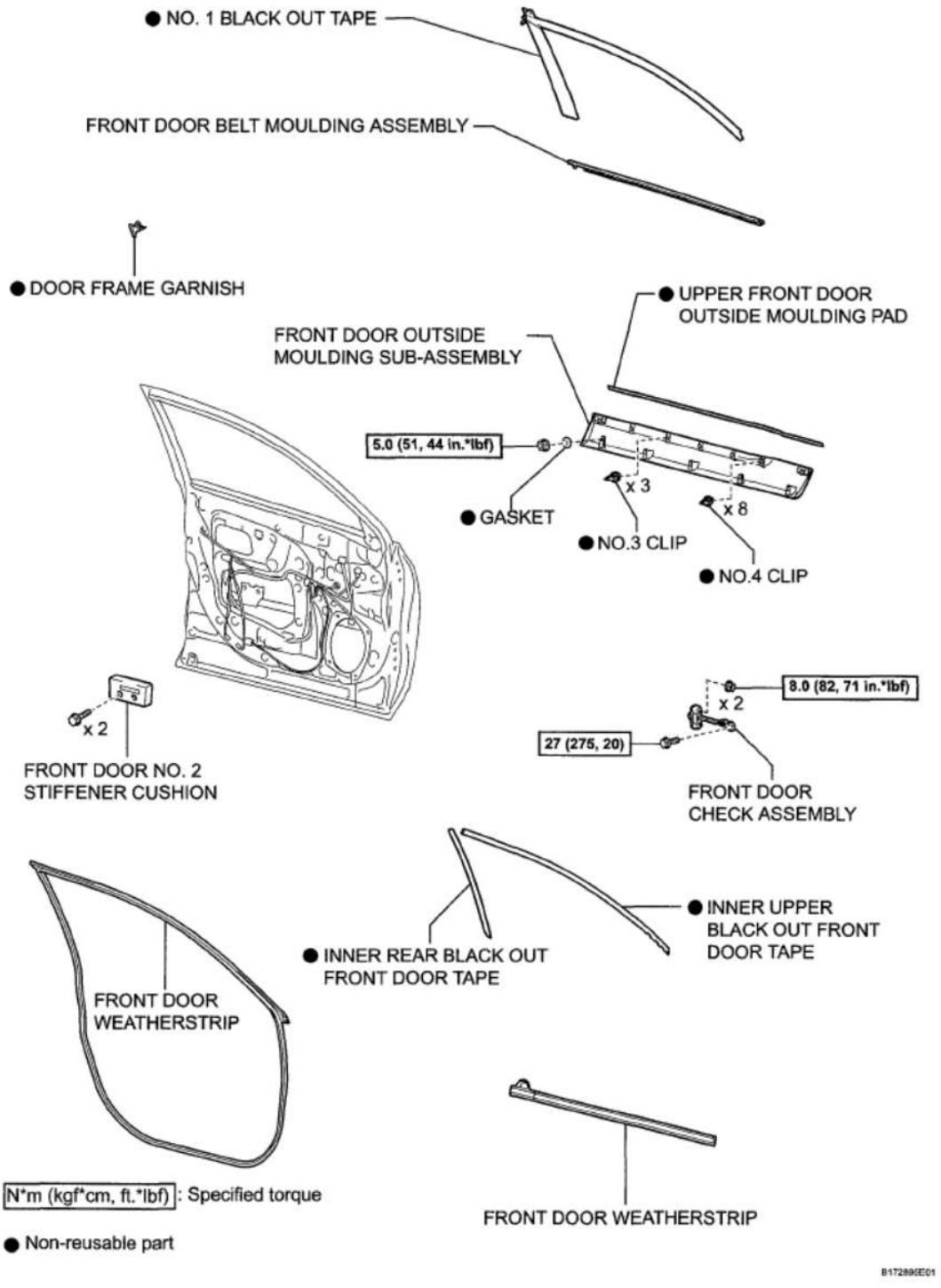


Fig. 87: Identifying Front Door Components With Torque Specification (4 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ON-VEHICLE INSPECTION

1. **INSPECT FRONT DOOR PANEL SUB-ASSEMBLY**

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a. Check that the clearance measurements of areas A through P are within each standard range.

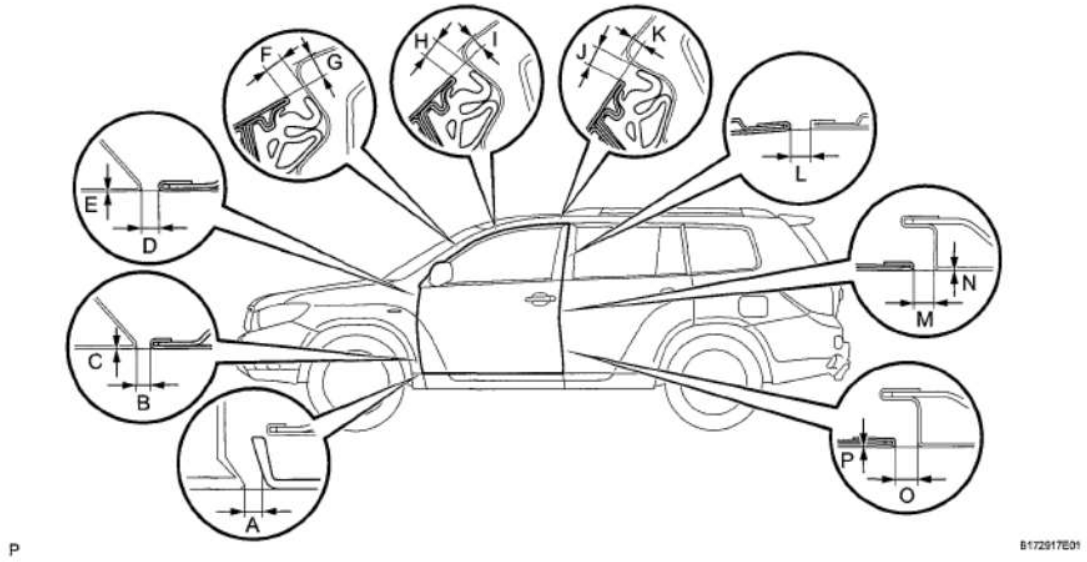


Fig. 88: Identifying Front Door Panel Sub-Assembly Clearance
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard clearance

STANDARD CLEARANCE REFERENCE

Area	Measurement	Area	Measurement
A	2.9 to 6.9 mm (0.114 to 0.272 in.)	I	2.5 to 5.5 mm (0.098 to 0.217 in.)
B	3.0 to 6.0 mm (0.118 to 0.236 in.)	J	4.2 to 7.2 mm (0.165 to 0.284 in.)
C	-1.5 to 1.5 mm (-0.059 to 0.059 in.)	K	2.9 to 5.9 mm (0.114 to 0.232 in.)
D	3.0 to 6.0 mm (0.118 to 0.236 in.)	L	3.3 to 6.3 mm (0.130 to 0.248 in.)
E	-1.5 to 1.5 mm (-0.059 to 0.059 in.)	M	3.3 to 6.3 mm (0.130 to 0.248 in.)
F	4.2 to 7.2 mm (0.165 to 0.284 in.)	N	-1.5 to 1.5 mm (-0.059 to 0.059 in.)
G	6.4 to 9.4 mm (0.252 to 0.370 in.)	0	3.3 to 6.3 mm (0.130 to 0.248 in.)
H	4.2 to 7.2 mm (0.165 to 0.284 in.)	P	-1.5 to 1.5 mm (-0.059 to 0.059 in.)

DISASSEMBLY

1. **DISCONNECT NEGATIVE BATTERY TERMINAL**

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CAUTION: Wait for 90 seconds after disconnecting the terminal to prevent airbag deployment (See AIRBAG SYSTEM).

NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

2. **REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH**
   a. Disengage the claw and clip, and remove the front door lower frame bracket garnish.

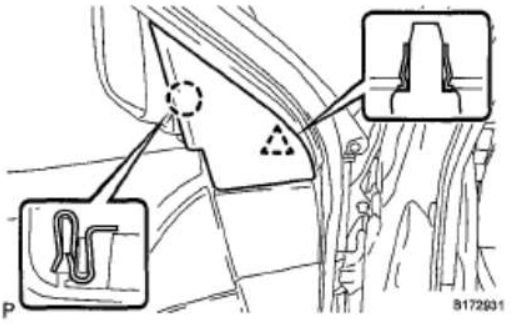


Fig. 89: Identifying Front Door Lower Frame Bracket Garnish With Claw And Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **REMOVE FRONT DOOR INSIDE HANDLE BEZEL PLUG**
   a. Using a screwdriver with the tip wrapped with protective tape, disengage the 3 claws, and remove the front door inside handle bezel plug.

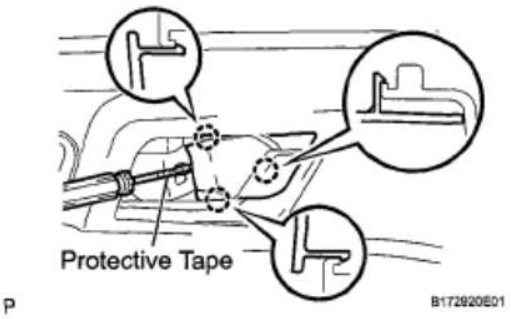


Fig. 90: Removing Front Door Inside Handle Bezel Plug
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **REMOVE FRONT ARMREST UPPER BASE PANEL**
   a. Using a screwdriver with the tip wrapped with protective tape, disengage the 7 claws and clip, and remove the front armrest upper base panel.
   b. Disconnect the connector.

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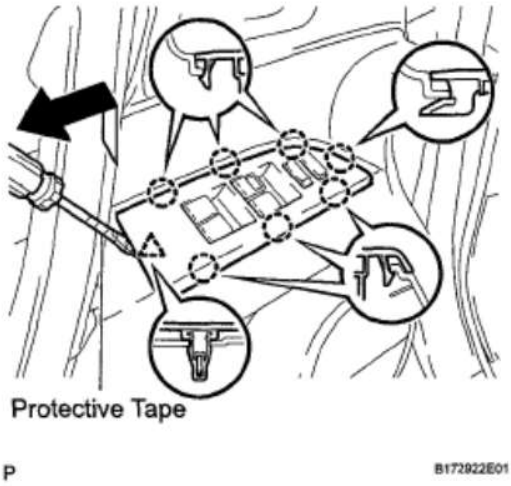


Fig. 91: Removing Front Armrest Upper Base Panel
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **REMOVE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY (for Driver Side)**
   a. Remove the 3 screws and the power window regulator master switch assembly.

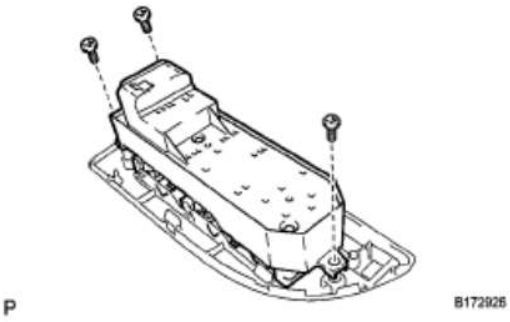
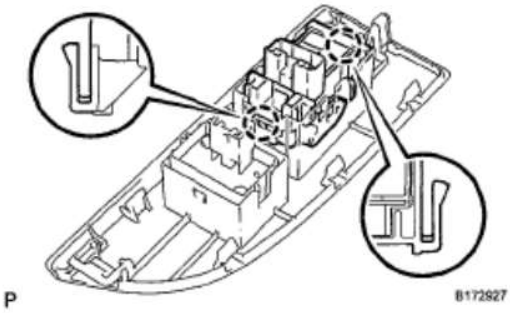


Fig. 92: Identifying Power Window Regulator Master Switch Assembly With Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **REMOVE POWER WINDOW REGULATOR SWITCH ASSEMBLY (for Front Passenger Side)**
   a. Disengage the 2 claws and remove the power window regulator switch assembly.



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Fig. 93: Identifying Power Window Regulator Switch Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. **REMOVE DOOR CONTROL SWITCH ASSEMBLY (for Front Passenger Side)**
   a. Disengage the 2 claws and remove the door control switch assembly.

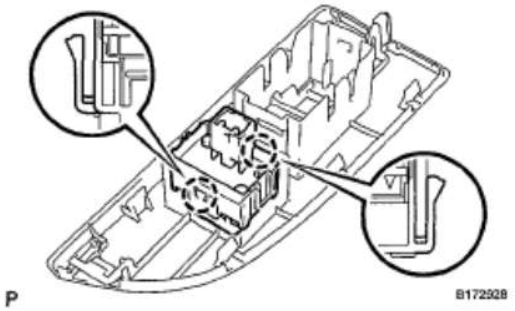


Fig. 94: Identifying Door Control Switch Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. **REMOVE ASSIST GRIP COVER**
   a. Using a screwdriver with the tip wrapped with protective tape, disengage the 4 claws and remove the assist grip cover.

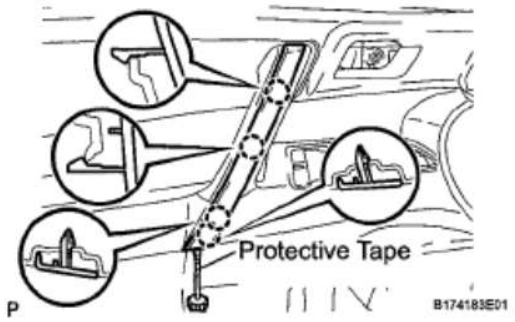


Fig. 95: Removing Assist Grip Cover
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. **REMOVE COURTESY LIGHT ASSEMBLY**
   a. Using a screwdriver with the tip wrapped with protective tape, disengage the claw and remove the courtesy light assembly.
   b. Disconnect the connector.

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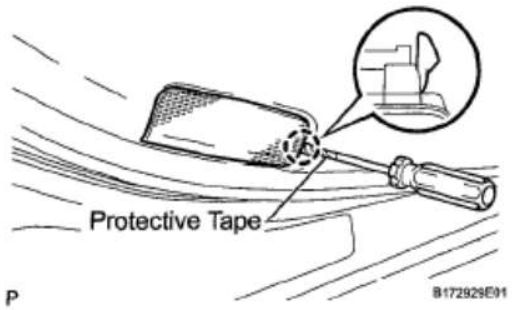


Fig. 96: Removing Courtesy Light Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. **REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY**
    a. Remove the 3 screws.

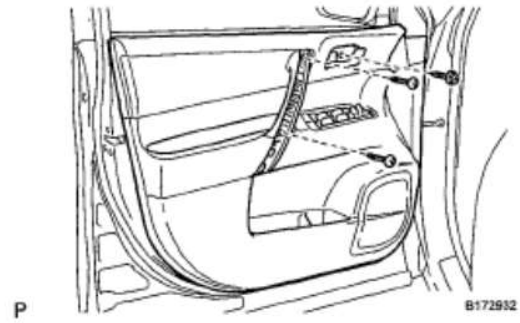


Fig. 97: Identifying Front Door Trim Board Sub-Assembly With Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Using a clip remover, disengage the 9 clips.
    c. Disengage the 5 claws and separate the front door trim board sub-assembly from the front door inner glass weatherstrip.

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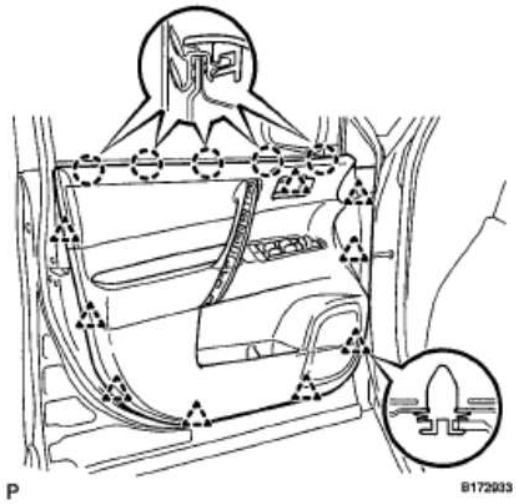


Fig. 98: Identifying Front Door Trim Board Sub-Assembly With Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Disengage the 2 clamps.
e. Disconnect the front door lock remote control cable and front door inside locking cable.
f. Disconnect the connector.

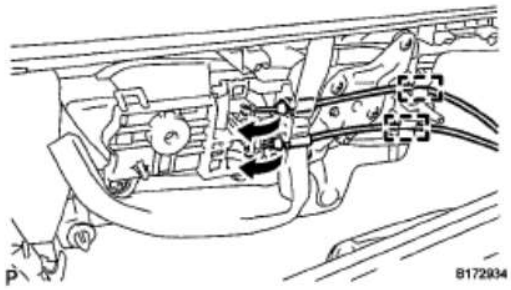


Fig. 99: Disconnecting Front Door Lock Remote Control Cable And Front Door Inside Locking Cable
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

11. **REMOVE FRONT DOOR INSIDE HANDLE SUB-ASSEMBLY**
    a. Remove the 2 screws.
    b. Disengage the 2 claws and remove the front door inside handle sub-assembly.

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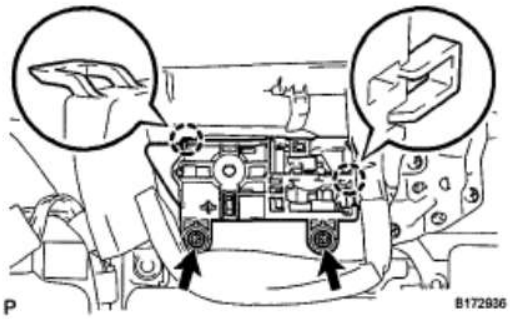


Fig. 100: Locating Front Door Inside Handle Sub-Assembly Screws With Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

12. **REMOVE FRONT DOOR WIRE (for Driver Side)**
    a. Disengage the 3 clamps and remove the front door wire.

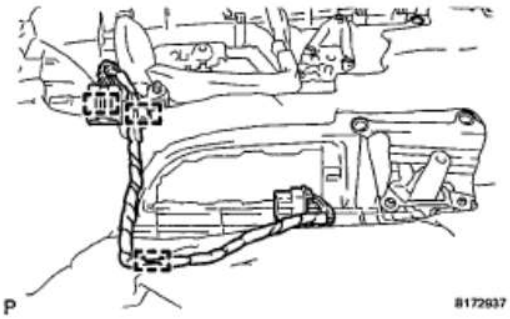


Fig. 101: Identifying Front Door Wire Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

13. **REMOVE FRONT DOOR INNER GLASS WEATHERSTRIP**
    a. Remove the front door inner glass weatherstrip from the front door panel.
14. **REMOVE FRONT NO. 1 SPEAKER ASSEMBLY** (See **INSTALLATION**)
15. **REMOVE OUTER REAR VIEW MIRROR ASSEMBLY WITH COVER** (See **REMOVAL**)

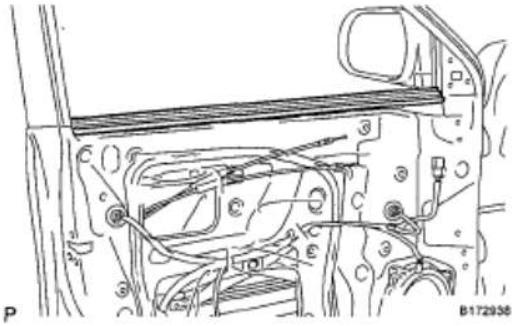


Fig. 102: Identifying Front Door Inner Glass Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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16. **REMOVE FRONT DOOR SERVICE HOLE COVER**

a. Disconnect the each connector and 2 clamps, and remove the front door service hole cover.

HINT:

Remove the remaining butyl tape on the door side.

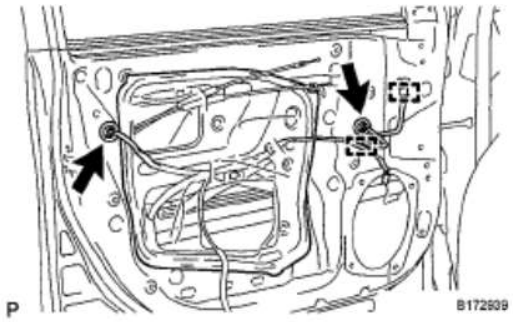


Fig. 103: Locating Front Door Service Hole Cover With Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

17. **REMOVE FRONT DOOR GLASS SUB-ASSEMBLY**

a. Remove the hole plug.
b. Connect the negative battery terminal.
c. Connect the power window regulator motor connector.
d. Connect the power window regulator master switch assembly and move the front door glass sub-assembly so that the door glass bolts can be seen.

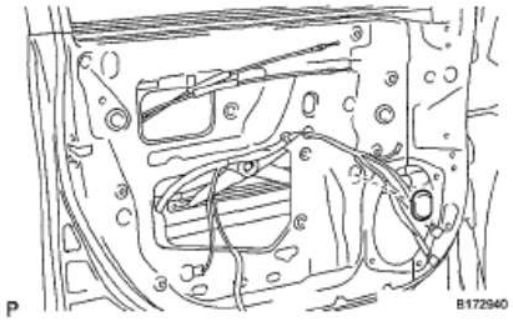


Fig. 104: Identifying Power Window Regulator Master Switch Assembly And Front Door Glass Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

e. Disconnect the negative battery terminal and power window regulator master switch assembly.
f. Disconnect the power window regulator motor connector.
g. Remove the 2 bolts.

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NOTE: After the bolts are removed, do not allow the door to fall.

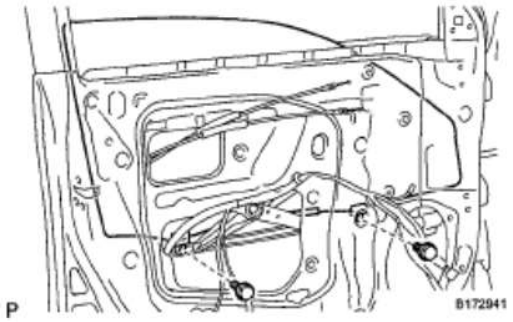


Fig. 105: Identifying Bolts Of Front Door Glass Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

h. Remove the front door glass sub-assembly as shown in the illustration.

NOTE: Do not damage the door glass.

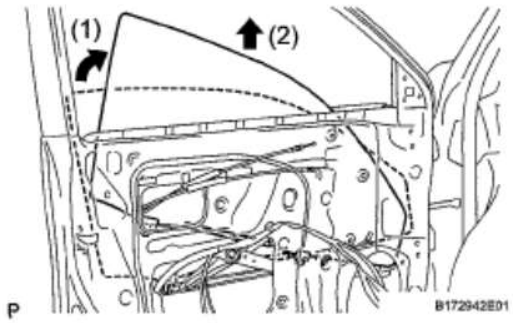


Fig. 106: Removing Front Door Glass Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

18. **REMOVE FRONT DOOR WINDOW REGULATOR SUB-ASSEMBLY**

a. Loosen the temporary bolt.

NOTE: Do not remove the temporary bolt. If the temporary bolt is removed, the front door window regulator may fall and cause damage.

b. Remove the 5 bolts.
c. Remove the front door window regulator sub-assembly and the front power window regulator motor assembly as a unit.
d. Remove the temporary bolt from the front door window regulator sub-assembly.

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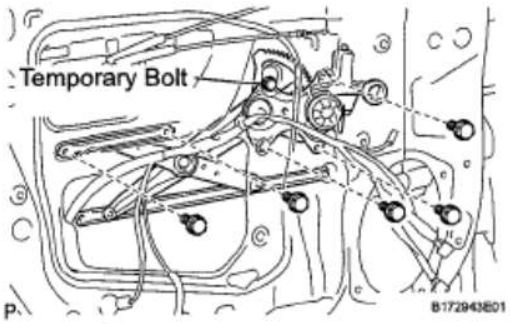


Fig. 107: Identifying Front Door Window Regulator Sub-Assembly Bolts And Temporary Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

19. **REMOVE FRONT POWER WINDOW REGULATOR MOTOR ASSEMBLY**
    a. Using a "TORX" driver (T25), remove the 3 screws and the front power window regulator motor assembly.

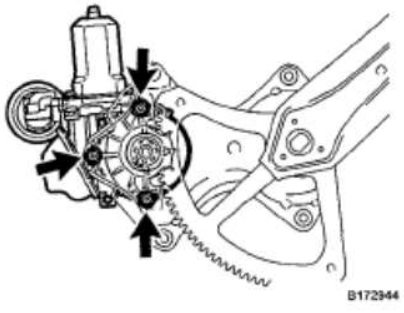


Fig. 108: Locating Front Power Window Regulator Motor Assembly Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

20. **REMOVE FRONT DOOR GLASS RUN**
    a. Remove the front door glass run.

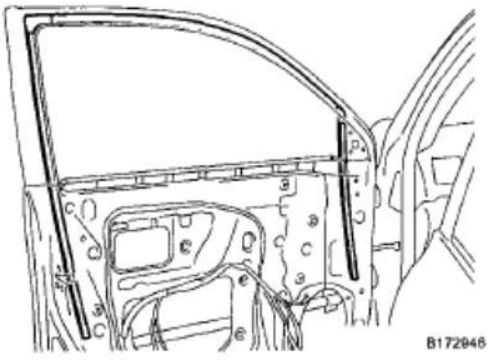


Fig. 109: Identifying Front Door Glass Run
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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21. **REMOVE FRONT DOOR REAR LOWER FRAME SUB-ASSEMBLY**
    a. Remove the bolt and the front door rear lower frame sub-assembly as shown in the illustration.

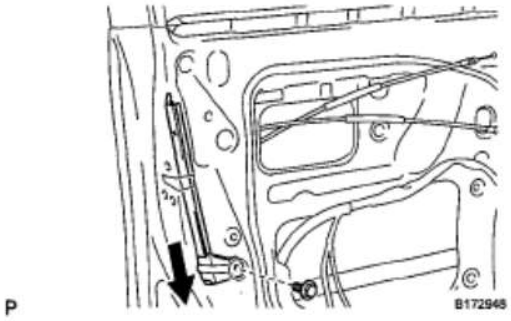


Fig. 110: Removing Bolt And Front Door Rear Lower Frame Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

22. **REMOVE FRONT DOOR OUTSIDE HANDLE COVER (for Driver Side)**
    a. Remove the hole plug.
    b. Using a "TORX" socket wrench (T30), loosen the screw and remove the front door outside handle cover and the door lock key cylinder as a unit.

    HINT:

    The screw cannot be removed because it is integrated into the front door outside handle frame sub-assembly.

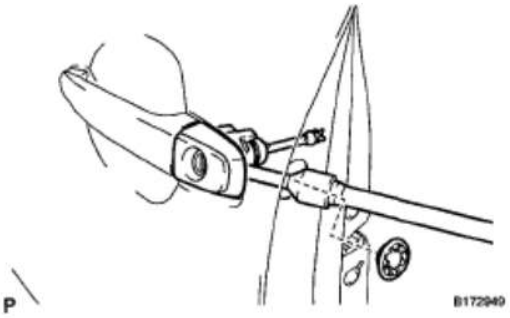


Fig. 111: Loosening Front Door Outside Handle Cover Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    c. Using a screwdriver, disengage the 2 claws and remove the front door outside handle cover.

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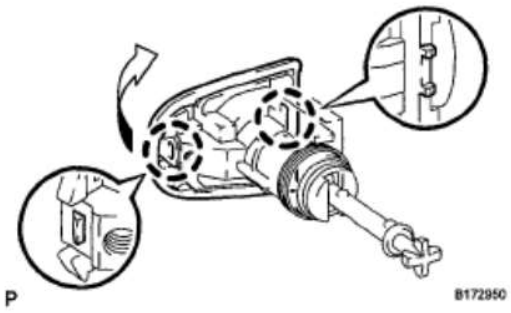


Fig. 112: Removing Front Door Outside Handle Cover
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

23. **REMOVE FRONT DOOR OUTSIDE HANDLE COVER (for Front Passenger Side)**
    a. Remove the hole plug.
    b. Using a "TORX" socket wrench (T30), loosen the screw and remove the front door outside handle cover and the door lock key cylinder as a unit.

       HINT:

       The screw cannot be removed because it is integrated into the front door outside handle frame sub-assembly.

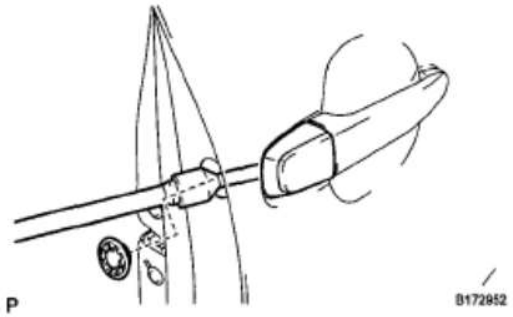


Fig. 113: Loosening Front Door Outside Handle Cover Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

24. **REMOVE FRONT DOOR OUTSIDE HANDLE ASSEMBLY (w/o Smart Key System)**
    a. Remove the front door outside handle assembly as shown in the illustration.

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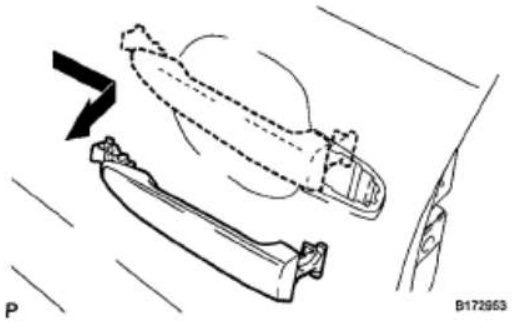


Fig. 114: Removing Front Door Outside Handle Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

25. **REMOVE FRONT DOOR OUTSIDE HANDLE ASSEMBLY (w/ Smart Key System)**
    a. Disconnect the connector.

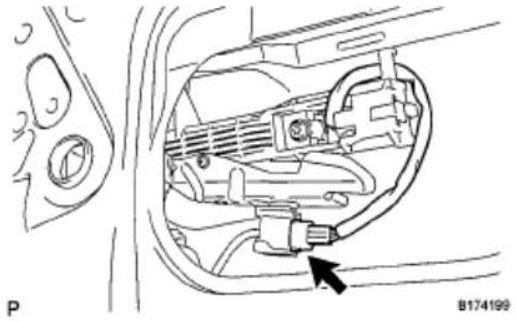


Fig. 115: Locating Front Door Outside Handle Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Remove the front door outside handle assembly as shown in the illustration.

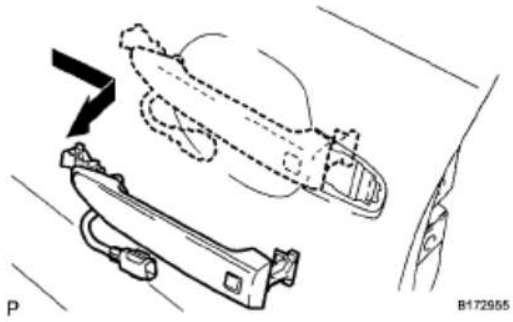


Fig. 116: Removing Front Door Outside Handle Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

26. **REMOVE FRONT DOOR FRONT OUTSIDE HANDLE PAD**
    a. Disengage the 3 claws and remove the front door front outside handle pad.

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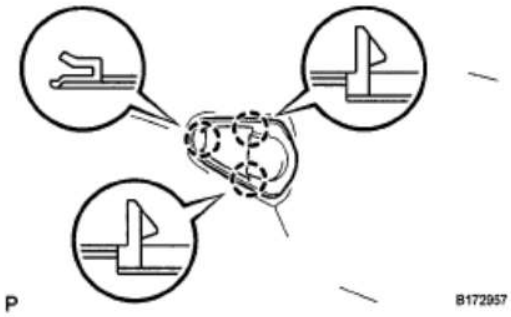


Fig. 117: Identifying Front Door Front Outside Handle Pad Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

27. **REMOVE FRONT DOOR REAR OUTSIDE HANDLE PAD**
    a. Disengage the 2 claws and remove the front door rear outside handle pad.

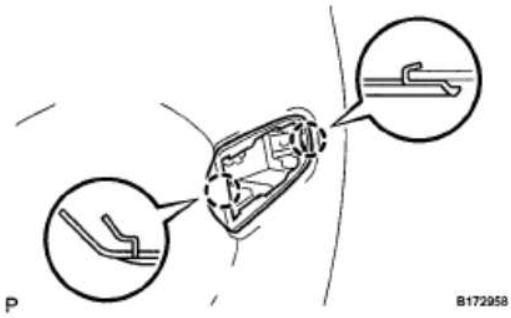


Fig. 118: Identifying Front Door Rear Outside Handle Pad Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

28. **REMOVE FRONT DOOR LOCK ASSEMBLY**
    a. Using a "TORX" socket wrench (T30), remove the 3 screws.
    b. Slide the front door lock assembly downward, and remove the front door lock assembly and cables as a unit.
    c. Remove the door lock wiring harness seal from the front door lock assembly.

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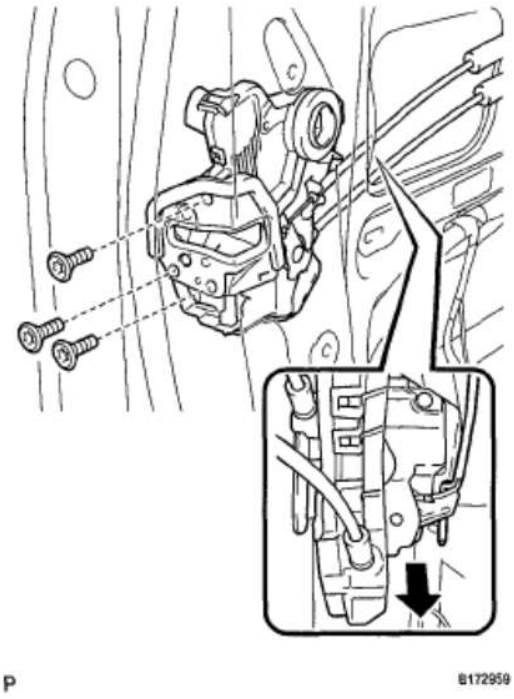


Fig. 119: Removing Front Door Lock Assembly And Cables
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

29. **REMOVE FRONT DOOR LOCK REMOTE CONTROL CABLE ASSEMBLY**
    a. Remove the front door lock remote control cable assembly.

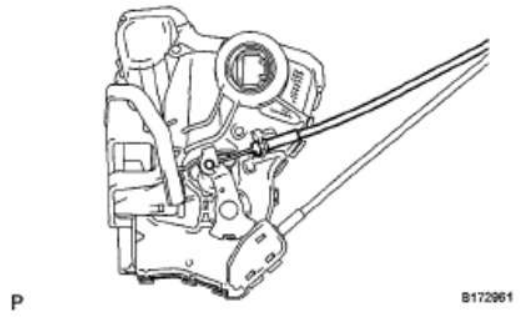


Fig. 120: Identifying Front Door Lock Remote Control Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

30. **REMOVE FRONT DOOR INSIDE LOCKING CABLE ASSEMBLY**
    a. Using a screwdriver, disengage the 3 claws.

    HINT:

    Tape the screwdriver tip before use.

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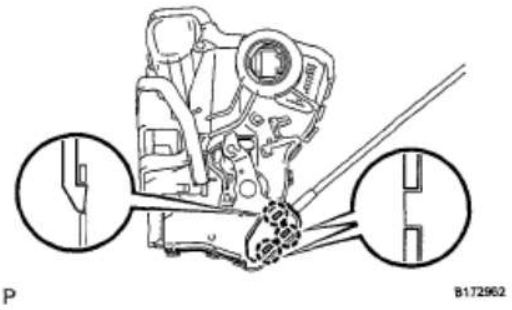


Fig. 121: Identifying Claws Of Front Door Inside Locking Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Remove the front door inside locking cable assembly.

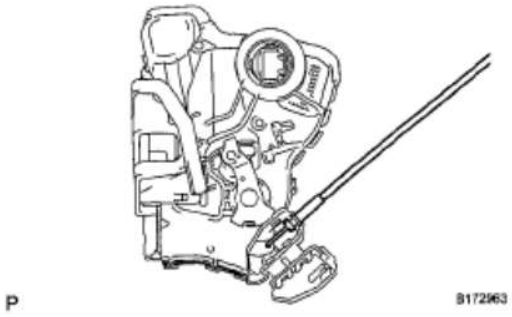


Fig. 122: Identifying Front Door Inside Locking Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

31. **REMOVE FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY (w/o Smart Key System)**
    a. Using a "TORX" socket wrench (T30), remove the screw.
    b. Disengage the 2 claws and remove the front door outside handle frame sub-assembly.

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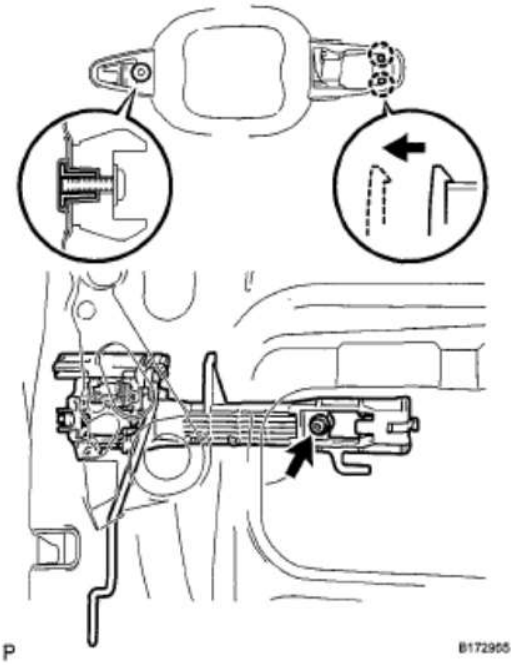


Fig. 123: Disengaging Claws And Removing Front Door Outside Handle Frame Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

32. **REMOVE FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY (w/ Smart Key System)**
    a. Using a "TORX" socket wrench (T30), remove the screw.
    b. Disconnect the connector.
    c. Disengage the clamp.
    d. Disengage the 2 claws and remove the front door outside handle frame sub-assembly.

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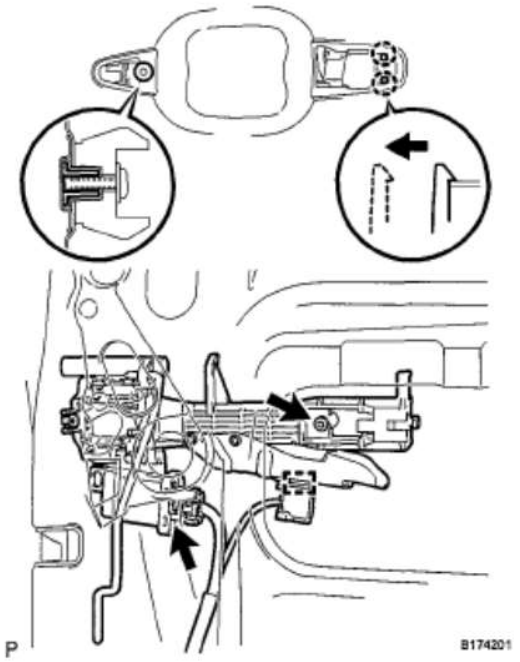


Fig. 124: Removing Front Door Outside Handle Frame Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

33. **REMOVE FRONT DOOR LOCK OPEN ROD**
    a. Remove the front door lock open rod as shown in the illustration.

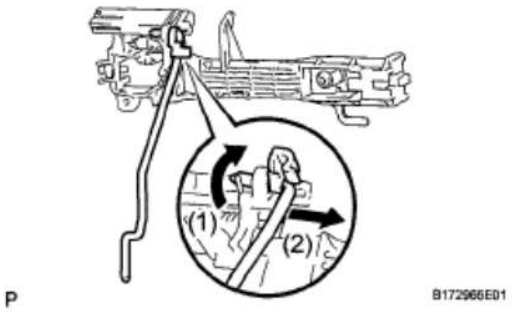


Fig. 125: Removing Front Door Lock Open Rod
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

34. **REMOVE DOOR ELECTRICAL KEY OSCILLATOR (w/ Smart Key System)**
    a. Remove the screw and door electrical key oscillator.

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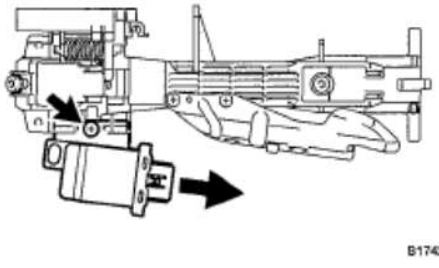


Fig. 126: Removing Screw And Door Electrical Key Oscillator
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

35. **REMOVE FRONT DOOR CHECK ASSEMBLY**
    a. Remove the bolt, 2 nuts, and front door check assembly.

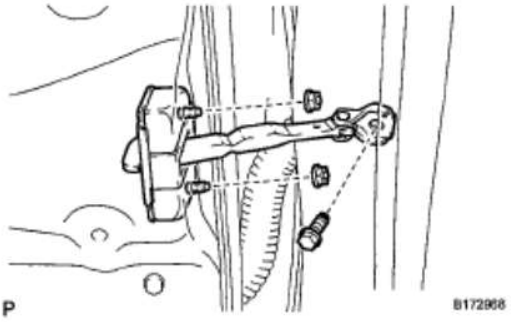


Fig. 127: Identifying Front Door Check Assembly With Bolt And Nuts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

36. **REMOVE FRONT DOOR WEATHERSTRIP**
    a. Using a clip remover, disengage the 17 clips and remove the front door weatherstrip.

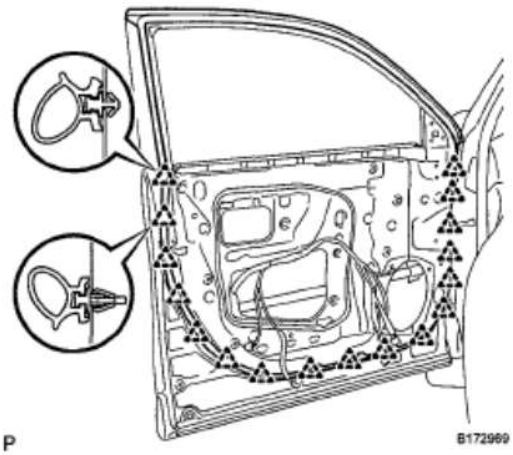


Fig. 128: Identifying Front Door Weatherstrip Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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37. **REMOVE DOOR FRAME GARNISH**
    a. Disengage the clip and remove the door frame garnish.

    HINT:

    This clip needs to be replaced with a new one because the clip will break when removing the door frame garnish.

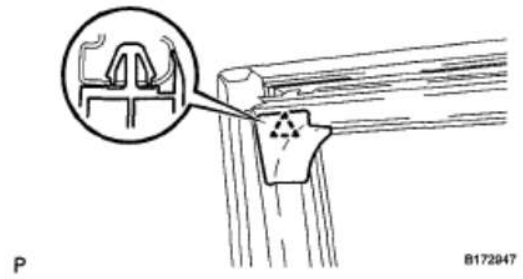


Fig. 129: Identifying Door Frame Garnish Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

38. **REMOVE FRONT DOOR NO. 2 STIFFENER CUSHION**
    a. Remove the 2 bolts.
    b. Remove the 2 guides and the front door No. 2 stiffener cushion.
39. **REMOVE FRONT DOOR BELT MOULDING ASSEMBLY** (See **REMOVAL**)

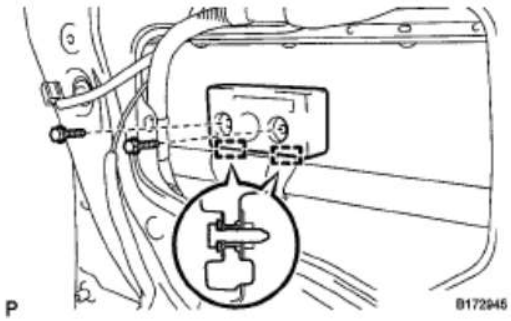


Fig. 130: Identifying Front Door No. 2 Stiffener Cushion With Guides And Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

40. **REMOVE FRONT DOOR WEATHERSTRIP**
    a. Disengage the claw.
    b. Disengage the 8 clips and remove the front door weatherstrip.
41. **REMOVE FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY** (See **REMOVAL**)
42. **REMOVE NO. 1 BLACK OUT TAPE** (See **REMOVAL**)
43. **REMOVE INNER UPPER BLACK OUT FRONT DOOR TAPE** (See **REMOVAL**)
44. **REMOVE INNER REAR BLACK OUT FRONT DOOR TAPE** (See **INSTALLATION**)

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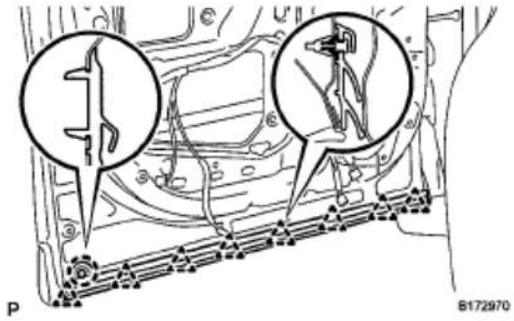


Fig. 131: Identifying Front Door Weatherstrip Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ADJUSTMENT

HINT:

- Before adjusting the door positions of vehicles equipped with side airbags and curtain shield airbags, be sure to disconnect the battery. After adjustment, inspect the SRS warning light, the side airbag system, and the curtain shield airbag system for normal operation. Then initialize both airbag systems.
- Use the same procedures for the RH side and LH side.

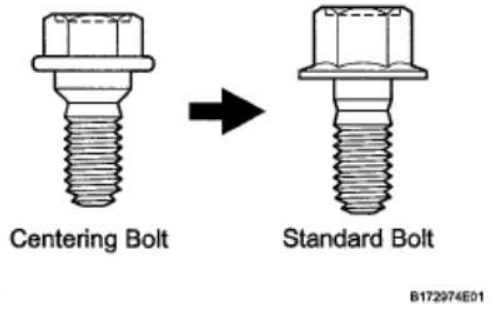


Fig. 132: Identifying Centering Bolt And Standard Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- The procedures listed below are for the LH side.
- Centering bolts are used to mount the door hinge to the vehicle body and door. The door cannot be adjusted with the centering bolts installed on it. Substitute the centering bolts with standard bolts (with washers) when making adjustments.
- A bolt without a torque specification is shown in the standard bolt chart (See **SERVICE SPECIFICATIONS - STANDARD BOLT**).

1. **DISCONNECT NEGATIVE BATTERY TERMINAL**

CAUTION: Wait for 90 seconds after disconnecting the terminal to prevent airbag deployment (See AIRBAG SYSTEM).

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NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

2. **ADJUST FRONT DOOR**
   a. Using SST, loosen the hinge bolts on the vehicle body and adjust the door position.

      SST 09812-00010

   b. Tighten the hinge bolts on the vehicle body after the adjustment.

      Torque: 26 N*m (265 kgf*cm, 19 ft.*lbf)

   c. Loosen the hinge bolts on the door and adjust the door position.
   d. Tighten the hinge bolts on the door after the adjustment.

      Torque: 27 N*m (275 kgf*cm, 20 ft.*lbf)

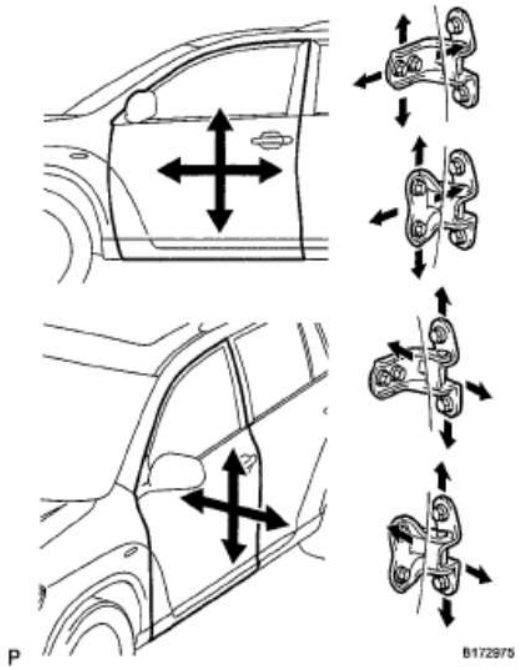


Fig. 133: Adjusting Front Door Hinge
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   e. Adjust the striker position by slightly loosening the striker mounting screws with a "TORX" socket wrench (T40) and hitting the striker with a plastic hammer.
   f. Using a "TORX" socket wrench (T40), tighten the striker mounting screws after the adjustment.

      Torque: 23 N*m (235 kgf*cm, 17 ft.*lbf)

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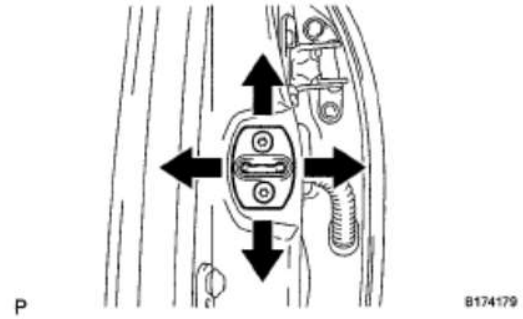


Fig. 134: Adjusting Striker
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **CONNECT NEGATIVE BATTERY TERMINAL**

NOTE: **When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).**

4. **INSPECT SRS WARNING LIGHT**

(See **DIAGNOSIS SYSTEM**)

REASSEMBLY

1. **REPAIR INSTRUCTION** (See **INSTALLATION**)
2. **INSTALL INNER REAR BLACK OUT FRONT DOOR TAPE** (See **INSTALLATION**)
3. **INSTALL INNER UPPER BLACK OUT FRONT DOOR TAPE** (See **INSTALLATION**)
4. **INSTALL NO. 1 BLACK OUT TAPE** (See **INSTALLATION**)
5. **INSTALL FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY** (See **INSTALLATION**)
6. **INSTALL FRONT DOOR WEATHERSTRIP**
   a. Engage the 8 clips and claw, and install the front door weatherstrip.
7. **INSTALL FRONT DOOR BELT MOULDING ASSEMBLY** (See **INSTALLATION**)

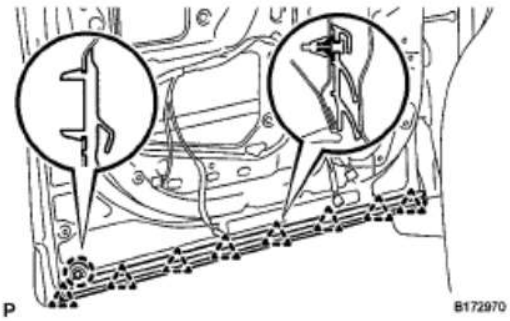


Fig. 135: Identifying Front Door Weatherstrip Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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8. **INSTALL FRONT DOOR NO. 2 STIFFENER CUSHION**
   a. Engage the 2 guides and install the front door No. 2 stiffener cushion with the 2 bolts.

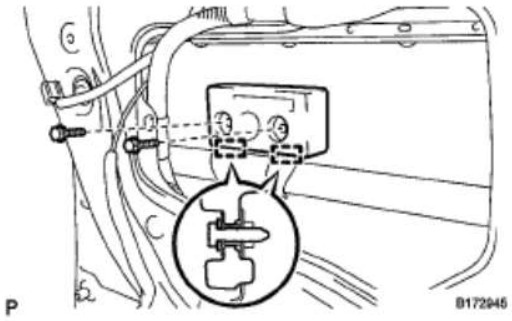


Fig. 136: Identifying Front Door No. 2 Stiffener Cushion With Guides And Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. **INSTALL DOOR FRAME GARNISH**
   a. Engage a new clip and install the door frame garnish.

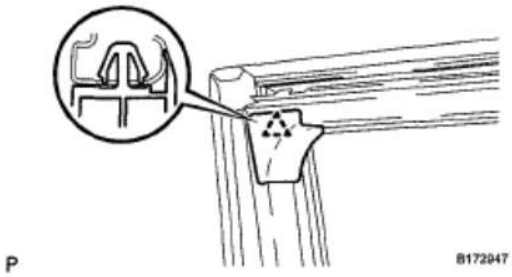


Fig. 137: Identifying Door Frame Garnish Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. **INSTALL FRONT DOOR WEATHERSTRIP**
    a. Engage the 17 clips and install the front door weatherstrip.

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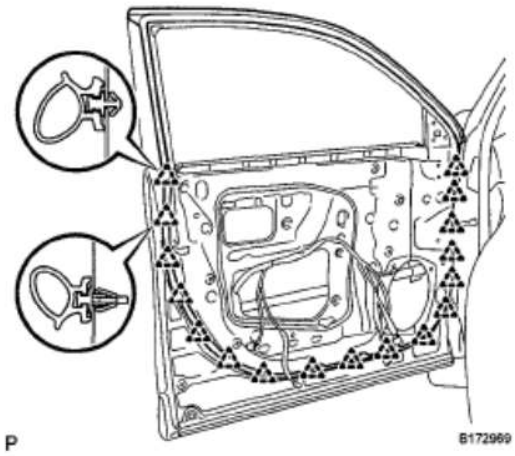


Fig. 138: Identifying Front Door Weatherstrip Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

11. **INSTALL FRONT DOOR CHECK ASSEMBLY**
    a. Install the front door check assembly with the bolt and 2 nuts.

    Torque: Bolt

    27 N*m (275 kgf*cm, 20 ft.*lbf)

    Nut

    8.0 N*m (82 kgf*cm, 71 in.*lbf)

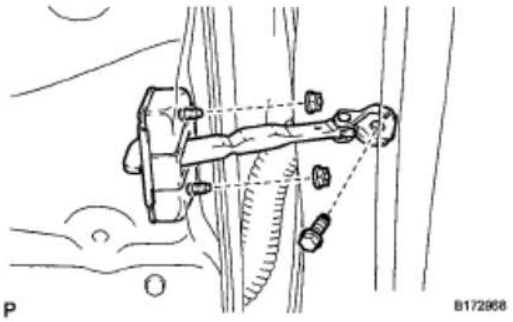


Fig. 139: Identifying Front Door Check Assembly With Bolt And Nuts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

12. **INSTALL DOOR ELECTRICAL KEY OSCILLATOR (w/ Smart Key System)**
    a. Install the door electrical key oscillator with the screw.

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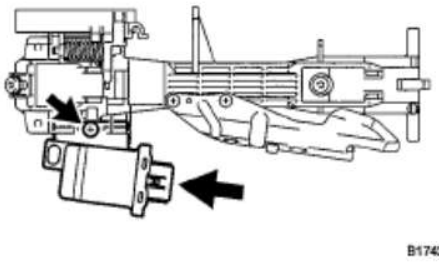


Fig. 140: Installing Door Electrical Key Oscillator With Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

13. **INSTALL FRONT DOOR LOCK OPEN ROD**
    a. Install the front door lock open rod as shown in the illustration.
14. **INSTALL FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY (w/o Smart Key System)**
    a. Apply MP grease to the sliding parts of the front door outside handle frame sub-assembly.

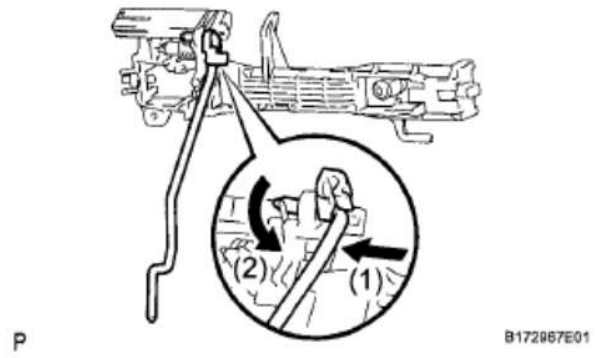


Fig. 141: Installing Front Door Lock Open Rod
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Engage the 2 claws to install the front door outside handle frame sub-assembly.
    c. Using a "TORX" socket wrench (T30), install the front door outside handle frame sub-assembly with the screw.

    Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)

15. **INSTALL FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY (w/ Smart Key System)**
    a. Apply MP grease to the sliding parts of the front door outside handle frame sub-assembly.

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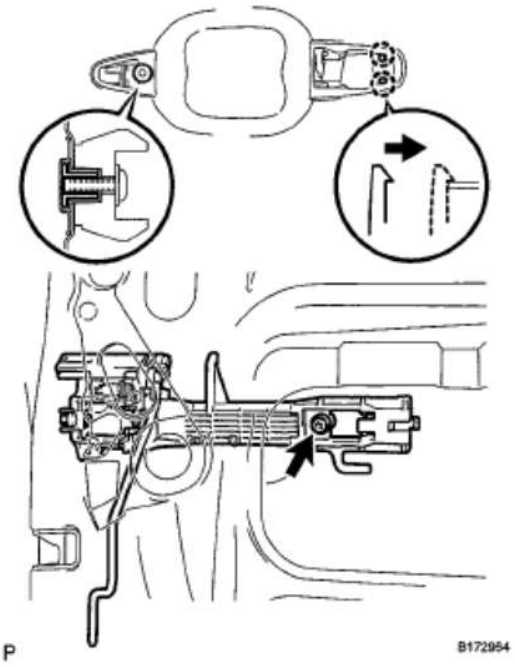


Fig. 142: Engaging Claws To Installing Front Door Outside Handle Frame Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Engage the 2 claws to install the front door outside handle frame sub-assembly.
c. Using a "TORX" socket wrench (T30), install the front door outside handle frame sub-assembly with the screw.

Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)

d. Engage the clamp.
e. Connect the connector.

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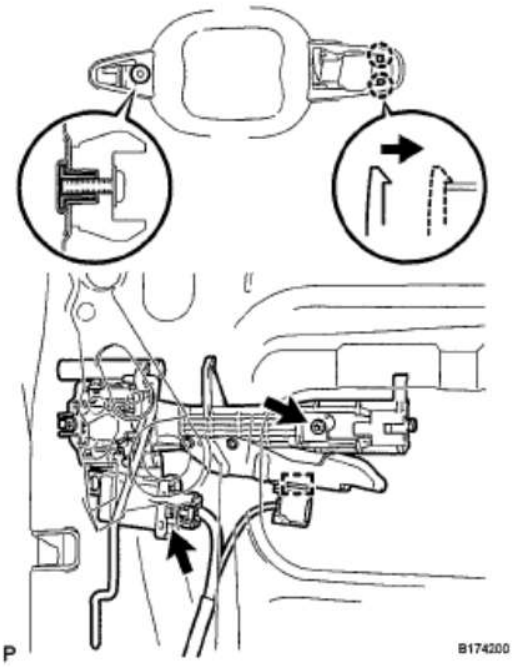


Fig. 143: Engaging Claws To Installing Front Door Outside Handle Frame Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

16. **INSTALL FRONT DOOR INSIDE LOCKING CABLE ASSEMBLY**
    a. Install the front door inside locking cable assembly.

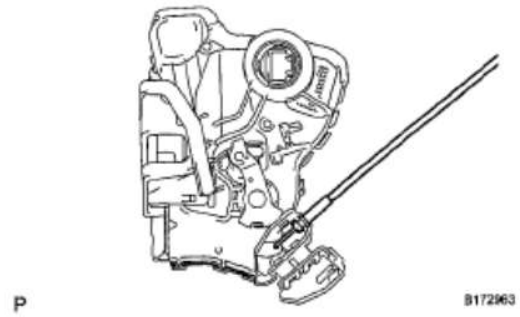


Fig. 144: Identifying Front Door Inside Locking Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Engage the 3 claws.

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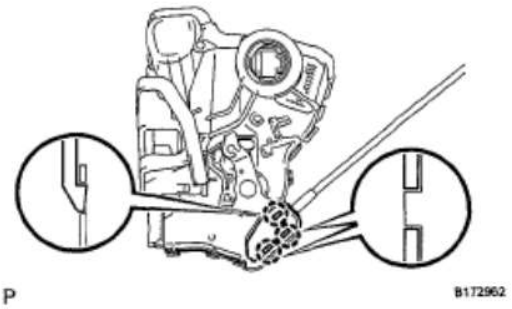


Fig. 145: Identifying Claws Of Front Door Inside Locking Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

17. **INSTALL FRONT DOOR LOCK REMOTE CONTROL CABLE ASSEMBLY**
    a. Install the front door lock remote control cable assembly.
18. **INSTALL FRONT DOOR LOCK ASSEMBLY**

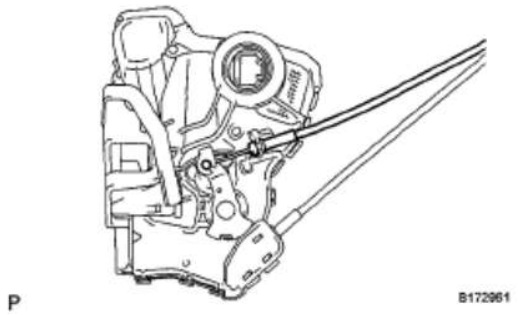


Fig. 146: Identifying Front Door Lock Remote Control Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE:

- **When reusing the removed front door lock assembly, replace the door lock wiring harness seal on the connector with a new one.**
- **Do not allow grease or dust to adhere to the door lock wiring harness seal surface of the connector.**
- **Reusing the door lock wiring harness seal or using a damaged door lock wiring harness seal may cause water intrusion to the connection. This may result in a malfunction of the front door lock assembly.**

a. Apply MP grease to the sliding parts of the front door lock assembly.
b. Install a new door lock wiring harness seal to the front door lock assembly.
c. Insert the front door lock open rod to the front door lock assembly.
d. Make sure that the front door lock open rod is securely connected to the front door lock assembly.
e. Using a "TORX" socket wrench (T30), install the front door lock assembly with the 3 screws.

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Torque: 5.0 N*m (51 kgf*cm, 44 in.*lbf)

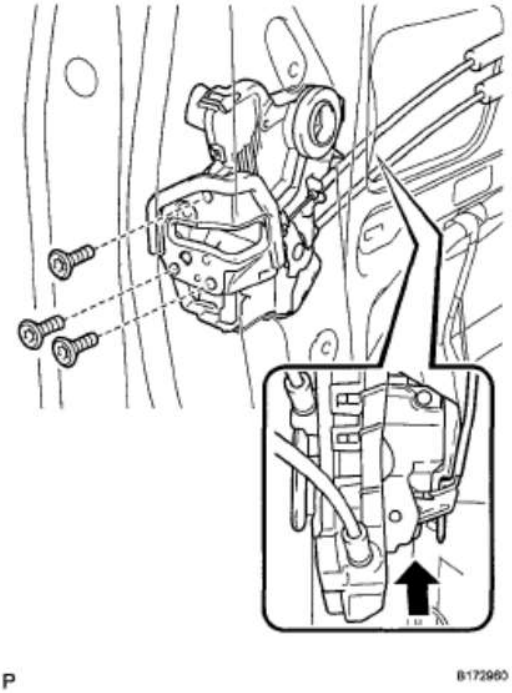


Fig. 147: Installing Front Door Lock Assembly With Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

19. **INSTALL FRONT DOOR REAR OUTSIDE HANDLE PAD**
    a. Engage the 2 claws to install the front door rear outside handle pad.

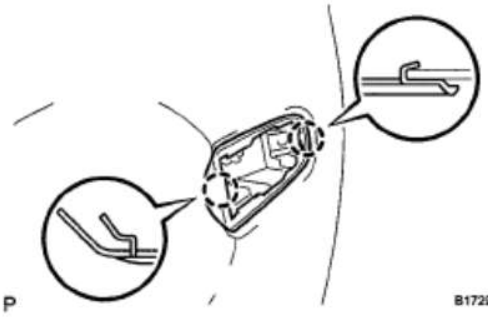


Fig. 148: Identifying Front Door Rear Outside Handle Pad Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

20. **INSTALL FRONT DOOR FRONT OUTSIDE HANDLE PAD**
    a. Engage the 3 claws to install the front door front outside handle pad.

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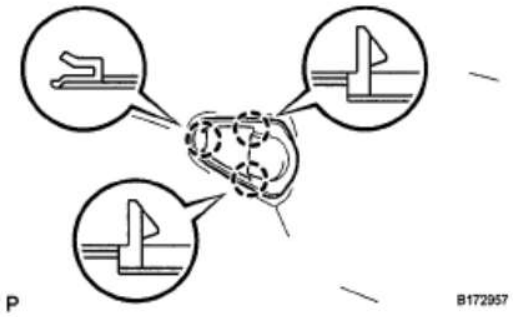


Fig. 149: Identifying Front Door Front Outside Handle Pad Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

21. **INSTALL FRONT DOOR OUTSIDE HANDLE ASSEMBLY (w/o Smart Key System)**
    a. Insert the front end of the front door outside handle assembly into the front door outside handle frame.
    b. Insert the rear end of the front door outside handle assembly into the front door outside handle frame. Next, slide the front door outside handle assembly toward the front of the vehicle to install it.

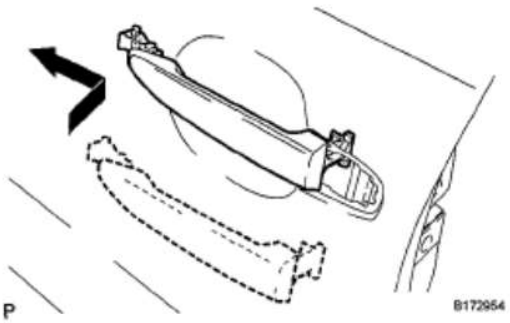


Fig. 150: Installing Front Door Outside Handle Assembly (W/O Smart Key System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

22. **INSTALL FRONT DOOR OUTSIDE HANDLE ASSEMBLY (w/ Smart Key System)**
    a. Insert the front end of the front door outside handle assembly into the front door outside handle frame.
    b. Insert the rear end of the front door outside handle assembly into the front door outside handle frame. Next, slide the front door outside handle assembly toward the front of the vehicle to install it.

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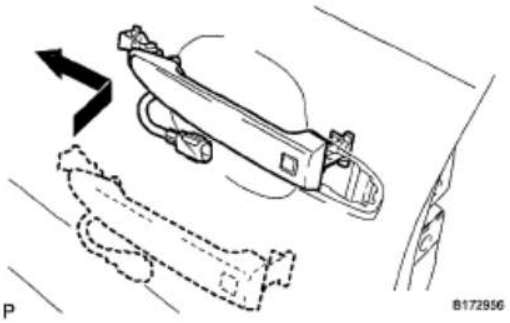


Fig. 151: Installing Front Door Outside Handle Assembly (W/ Smart Key System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Connect the connector.

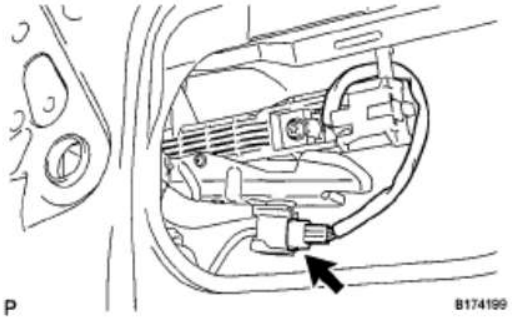


Fig. 152: Locating Front Door Outside Handle Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

23. **INSTALL FRONT DOOR OUTSIDE HANDLE COVER (for Driver Side)**
    a. Engage the 2 claws to install the front door outside handle cover to the front door lock cylinder.

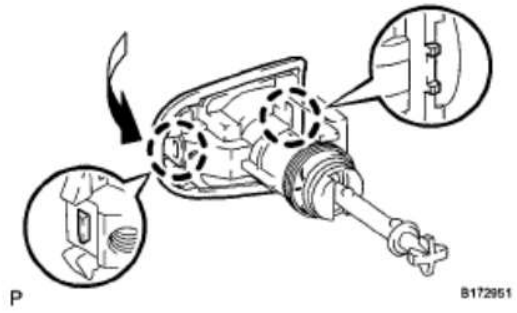


Fig. 153: Engaging Claws To Installing Front Door Outside Handle Cover To Front Door Lock Cylinder
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Install the front door lock cylinder.

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HINT:

Make sure that the front door lock cylinder rod is inserted into the front door lock assembly.

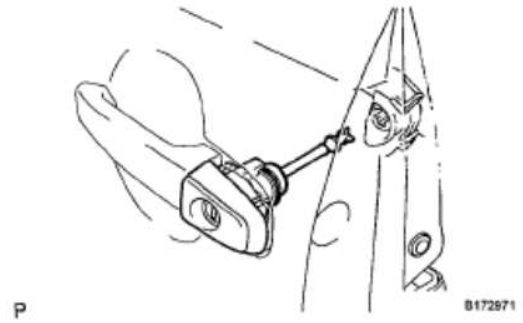


Fig. 154: Identifying Front Door Lock Cylinder Rod
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Using a "TORX" socket wrench (T30), install the front door lock cylinder with the screw.

Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)

d. Install the hole plug.

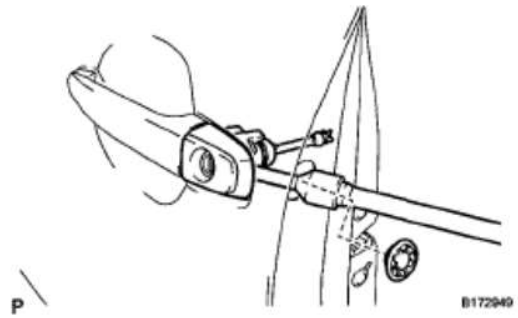


Fig. 155: Loosening Front Door Outside Handle Cover Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

24. **INSTALL FRONT DOOR OUTSIDE HANDLE COVER (for Front Passenger Side)**
    a. Using a "TORX" socket wrench (T30), install the front door lock cylinder with the screw.

    Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)

    b. Install the hole plug.

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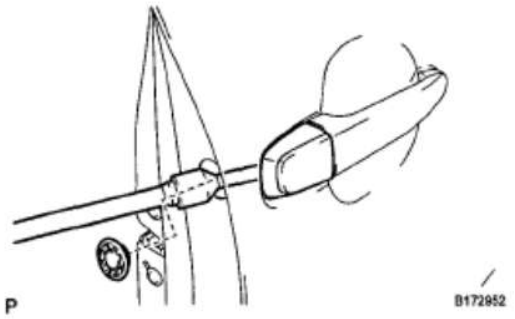


Fig. 156: Installing Front Door Lock Cylinder With Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

25. **INSTALL FRONT DOOR REAR LOWER FRAME SUB-ASSEMBLY**
    a. Install the front door rear lower frame sub-assembly with the bolt.

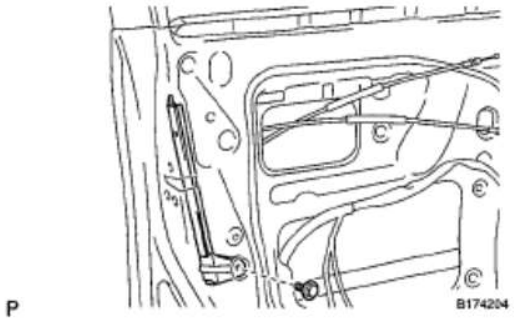
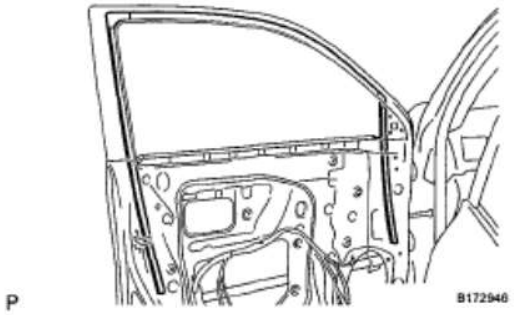


Fig. 157: Identifying Front Door Rear Lower Frame Sub-Assembly With Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

26. **INSTALL FRONT DOOR GLASS RUN**
    a. Install the front door glass run.
27. **INSTALL FRONT POWER WINDOW REGULATOR MOTOR ASSEMBLY**

NOTE: **The regulator arm must be below the intermediate position when installing the power window regulator motor.**



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Fig. 158: Identifying Front Door Glass Run
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Using a "TORX" driver (T25), install the front power window regulator motor sub-assembly with the 3 screws.

Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

HINT:

A new front window regulator uses self-tapping screws to thread new installation holes when the self-tapping screws are inserted.

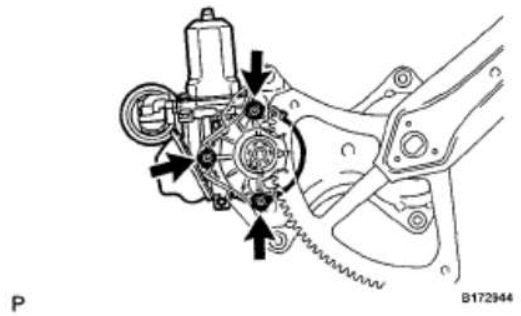


Fig. 159: Locating Front Power Window Regulator Motor Assembly Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

28. **INSTALL FRONT DOOR WINDOW REGULATOR SUB-ASSEMBLY**
   a. Apply MP grease to the sliding parts of the front door window regulator sub-assembly.
   b. Install the temporary bolt to the front door window regulator sub-assembly.
   c. Temporarily install the window regulator.
   d. Tighten the 6 bolts in the order shown in the illustration to install the front window regulator.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

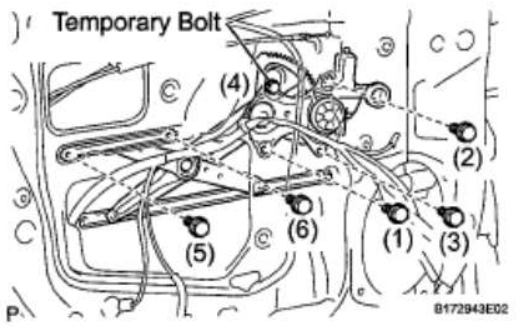


Fig. 160: Identifying Front Window Regulator Bolts Tightening Sequence
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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29. **INSTALL FRONT DOOR GLASS SUB-ASSEMBLY**
    a. Insert the front door glass sub-assembly into the front door panel along the front door glass run as indicated in the order of the arrows in the illustration.

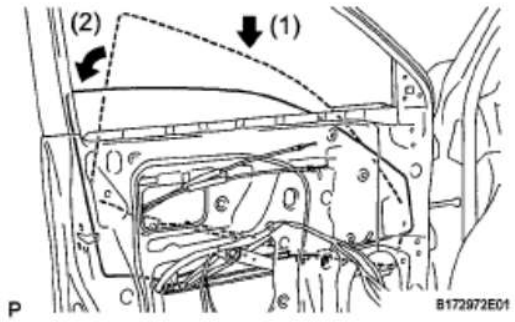


Fig. 161: Inserting Front Door Glass Sub-Assembly Into Front Door Panel Along Front Door Glass Run
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Install the front door glass sub-assembly with the 2 bolts.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

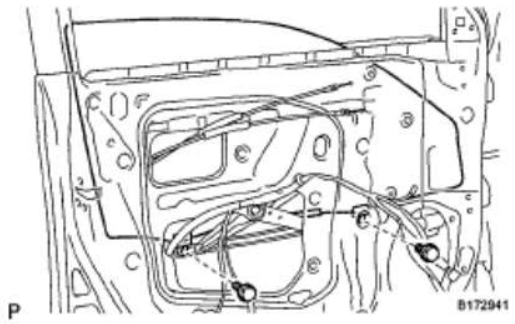


Fig. 162: Identifying Bolts Of Front Door Glass Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    c. Install the hole plug.

30. **INSTALL FRONT DOOR SERVICE HOLE COVER**
    a. Apply butyl tape to the front door panel.
    b. Pass the front door lock remote control cable and rear door inside the locking cable through a new front door service hole cover.

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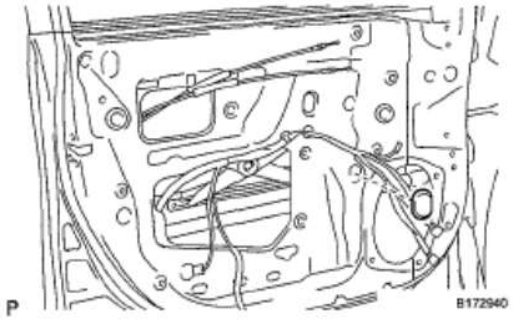


Fig. 163: Identifying Power Window Regulator Master Switch Assembly And Front Door Glass Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Attach the front door service hole cover according to the reference points on the front door panel.

NOTE: Securely install the front door service hole cover avoiding wrinkles and air bubbles.

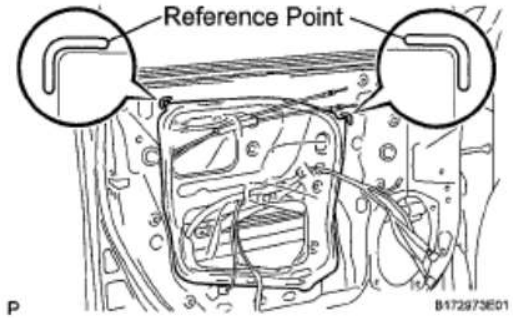


Fig. 164: Identifying Reference Points On Front Door Panel
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Connect each connector.
e. Engage the 2 clamps.

31. **INSTALL OUTER REAR VIEW MIRROR ASSEMBLY WITH COVER** (See **INSTALLATION**)
32. **INSTALL FRONT NO. 1 SPEAKER ASSEMBLY** (See **INSTALLATION**)

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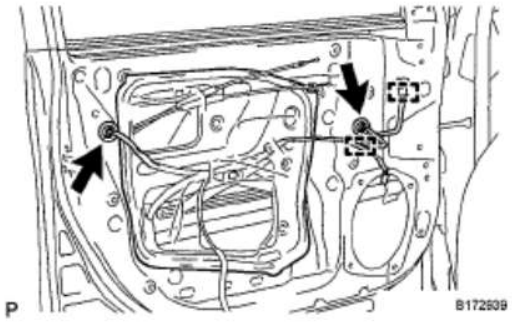


Fig. 165: Locating Front Door Service Hole Cover With Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

33. **INSTALL FRONT DOOR INNER GLASS WEATHERSTRIP**
    a. Install the front door inner glass weatherstrip.

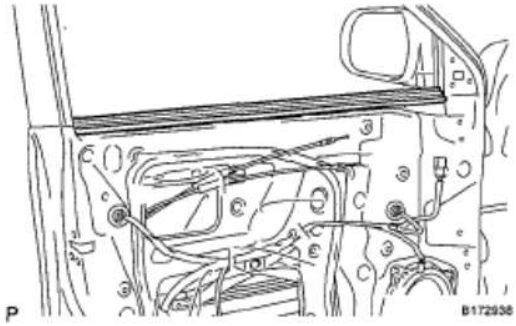


Fig. 166: Identifying Front Door Inner Glass Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

34. **INSTALL FRONT DOOR WIRE (for Driver Side)**
    a. Engage the 3 clamps and install the front door wire.

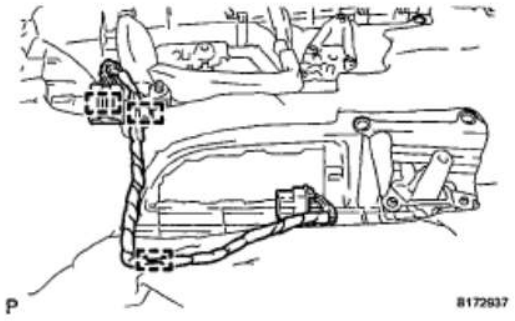


Fig. 167: Identifying Front Door Wire Clamps
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

35. **INSTALL FRONT DOOR INSIDE HANDLE SUB-ASSEMBLY**

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a. Engage the 2 claws.
b. Install the 2 screws and install the front door inside handle sub-assembly.

36. **INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY**

a. Connect the connector.

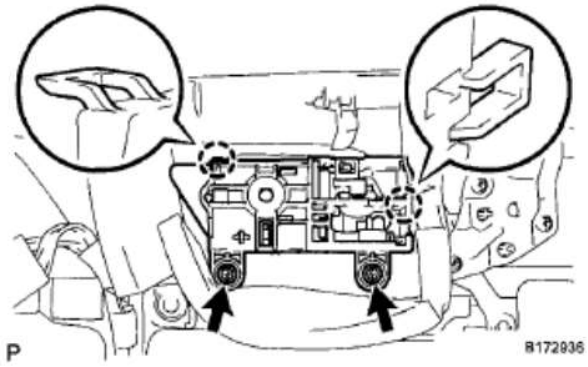


Fig. 168: Identifying Front Door Inner Glass Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Connect the front door lock remote control cable and front door inside locking cable to the front door inside handle sub-assembly.
c. Engage the 2 clamps.

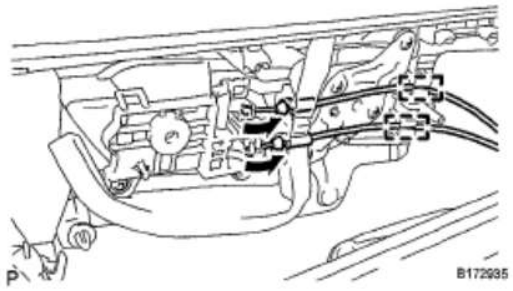


Fig. 169: Connecting Front Door Lock Remote Control Cable And Front Door Inside Locking Cable To Front Door Inside Handle Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Engage the front door trim board with the 5 claws on the front door inner glass weatherstrip.
e. Engage the 9 clips.

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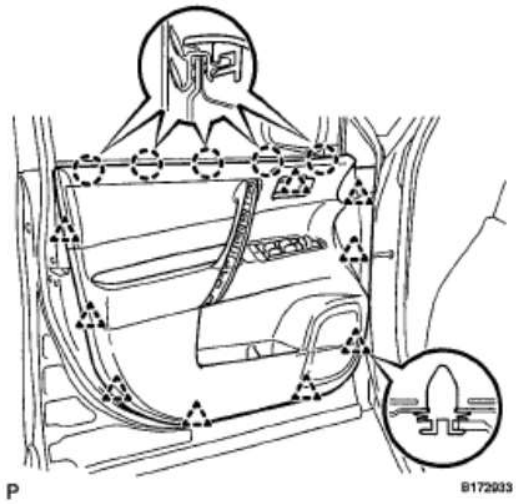


Fig. 170: Identifying Front Door Trim Board Sub-Assembly With Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

f. Install the 2 screws.
g. Install the screw < A > and front door trim board to the front door panel.

Torque: 3.5 N*m (36 kgf*cm, 31 in.*lbf)

37. **INSTALL COURTESY LIGHT ASSEMBLY**
a. Connect the connector.

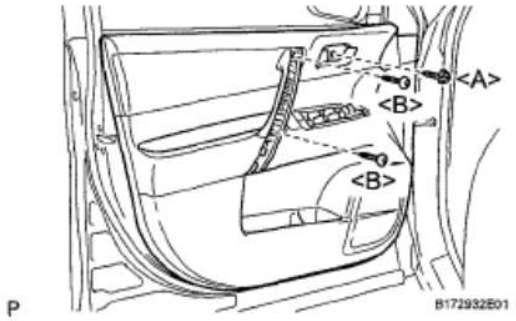


Fig. 171: Identifying Front Door Trim Board Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Engage the claw and install the courtesy light assembly.

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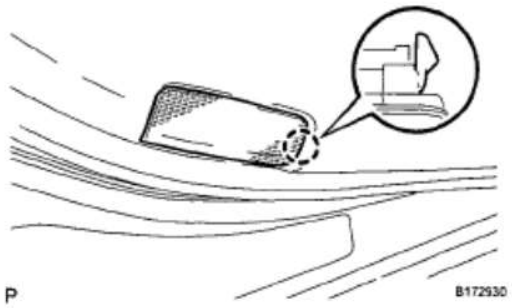


Fig. 172: Identifying Claw Of Courtesy Light Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

38. **INSTALL ASSIST GRIP COVER**
    a. Engage the 4 claws and install the assist grip cover.

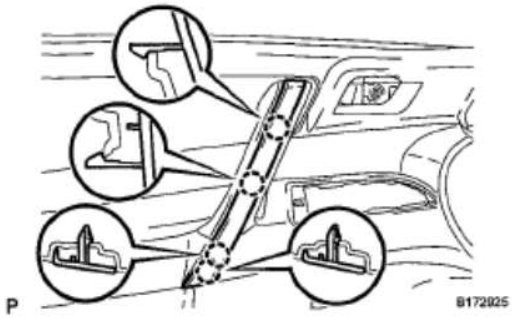


Fig. 173: Identifying Assist Grip Cover Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

39. **INSTALL POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY (for Driver Side)**
    a. Install the power window regulator master switch assembly with the 3 screws.

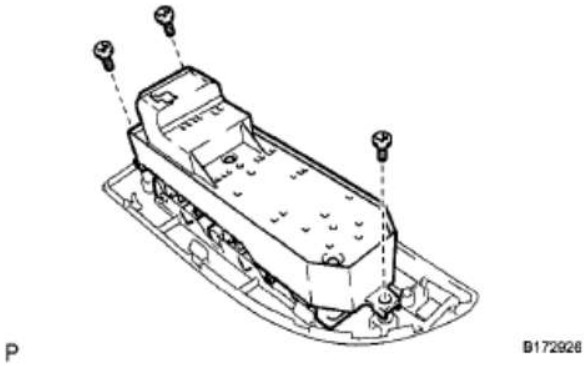


Fig. 174: Identifying Door Control Switch Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

40. **INSTALL DOOR CONTROL SWITCH ASSEMBLY (for Front Passenger Side)**

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a. Engage the 2 claws and install the door control switch assembly.

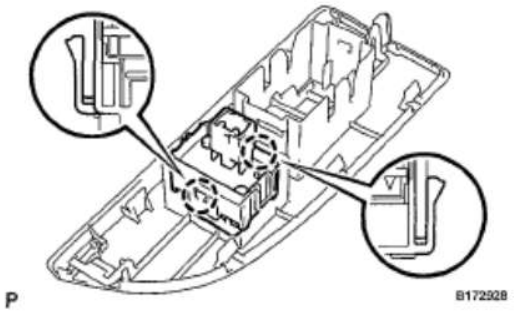


Fig. 175: Identifying Door Control Switch Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

41. **INSTALL POWER WINDOW REGULATOR SWITCH ASSEMBLY (for Front Passenger Side)**
    a. Engage the 2 claws and install the power window regulator switch assembly.
42. **INSTALL FRONT ARMREST UPPER BASE PANEL**
    a. Connect the connector.

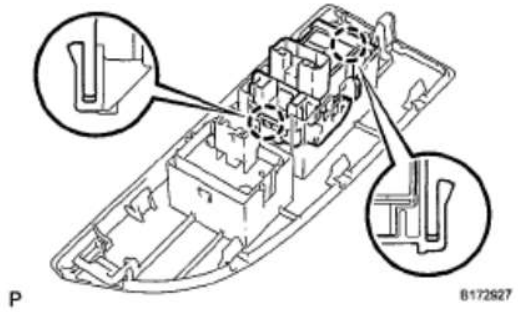


Fig. 176: Identifying Power Window Regulator Switch Assembly Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Engage the 7 claws and clip and install the front armrest upper base panel.

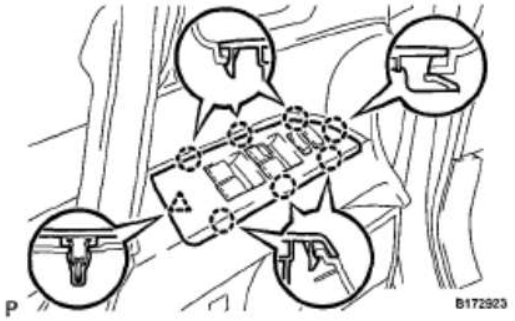


Fig. 177: Identifying Front Armrest Upper Base Panel Claws And Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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43. **INSTALL FRONT DOOR INSIDE HANDLE BEZEL PLUG**
    a. Engage the 3 claws and install the front door inside handle bezel plug.

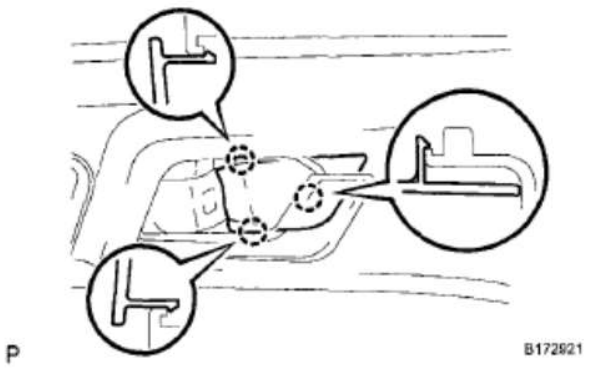


Fig. 178: Identifying Front Door Inside Handle Bezel Plug Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

44. **INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH**
    a. Engage the clip and claw, and install the front door lower frame bracket garnish.
45. **CONNECT NEGATIVE BATTERY TERMINAL**

NOTE: **When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).**

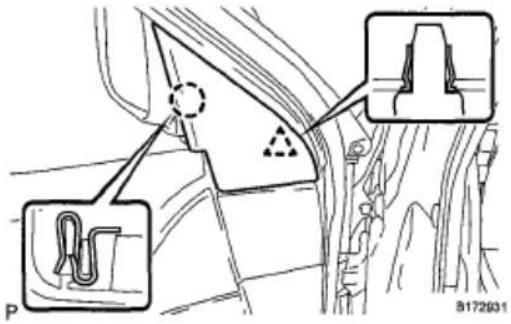


Fig. 179: Identifying Front Door Lower Frame Bracket Garnish With Claw And Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

46. **INITIALIZE POWER WINDOW CONTROL SYSTEM (for Driver Side)**

(See **CUSTOMIZE PARAMETERS**)

REAR DOOR

COMPONENTS

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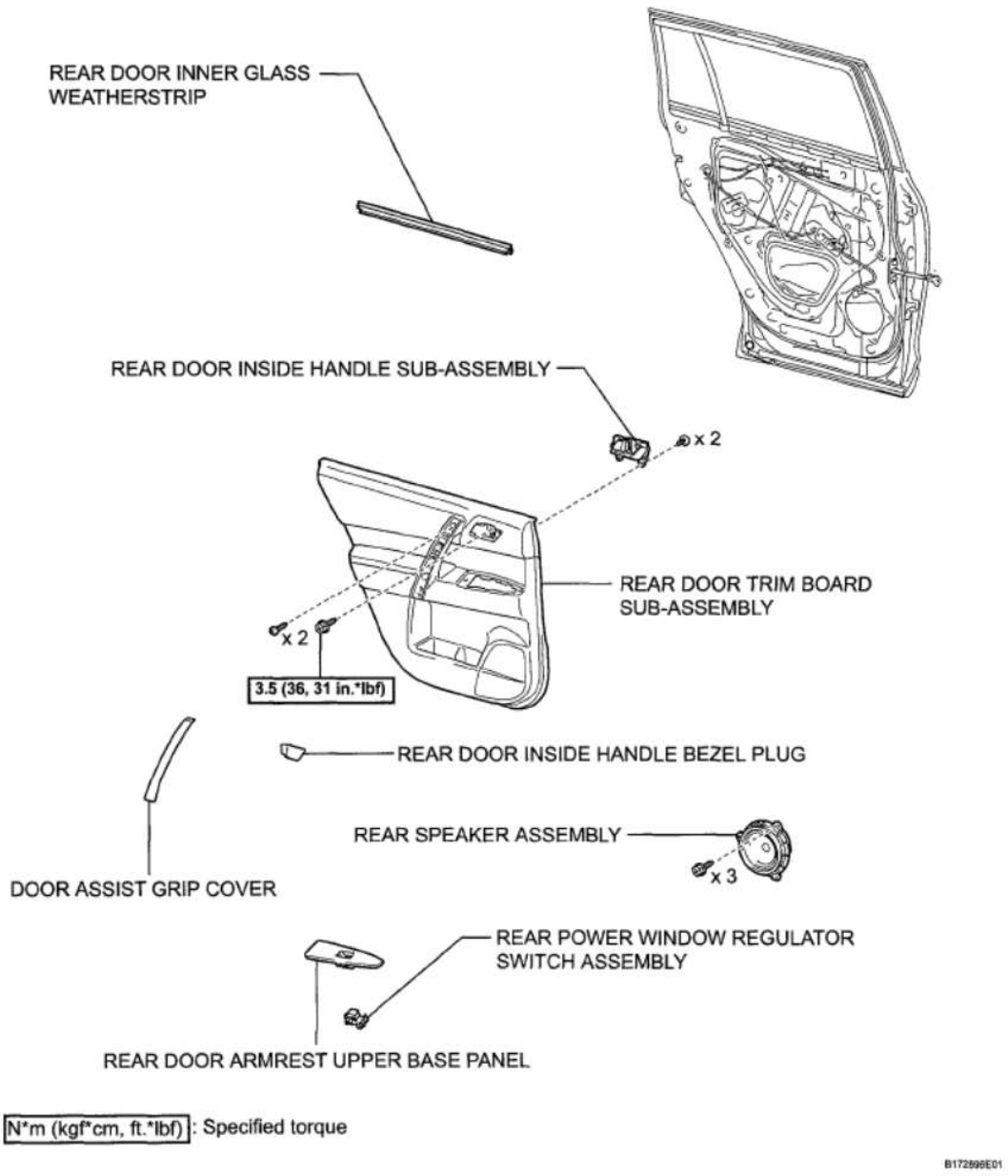


Fig. 180: Identifying Rear Door Components With Torque Specification (1 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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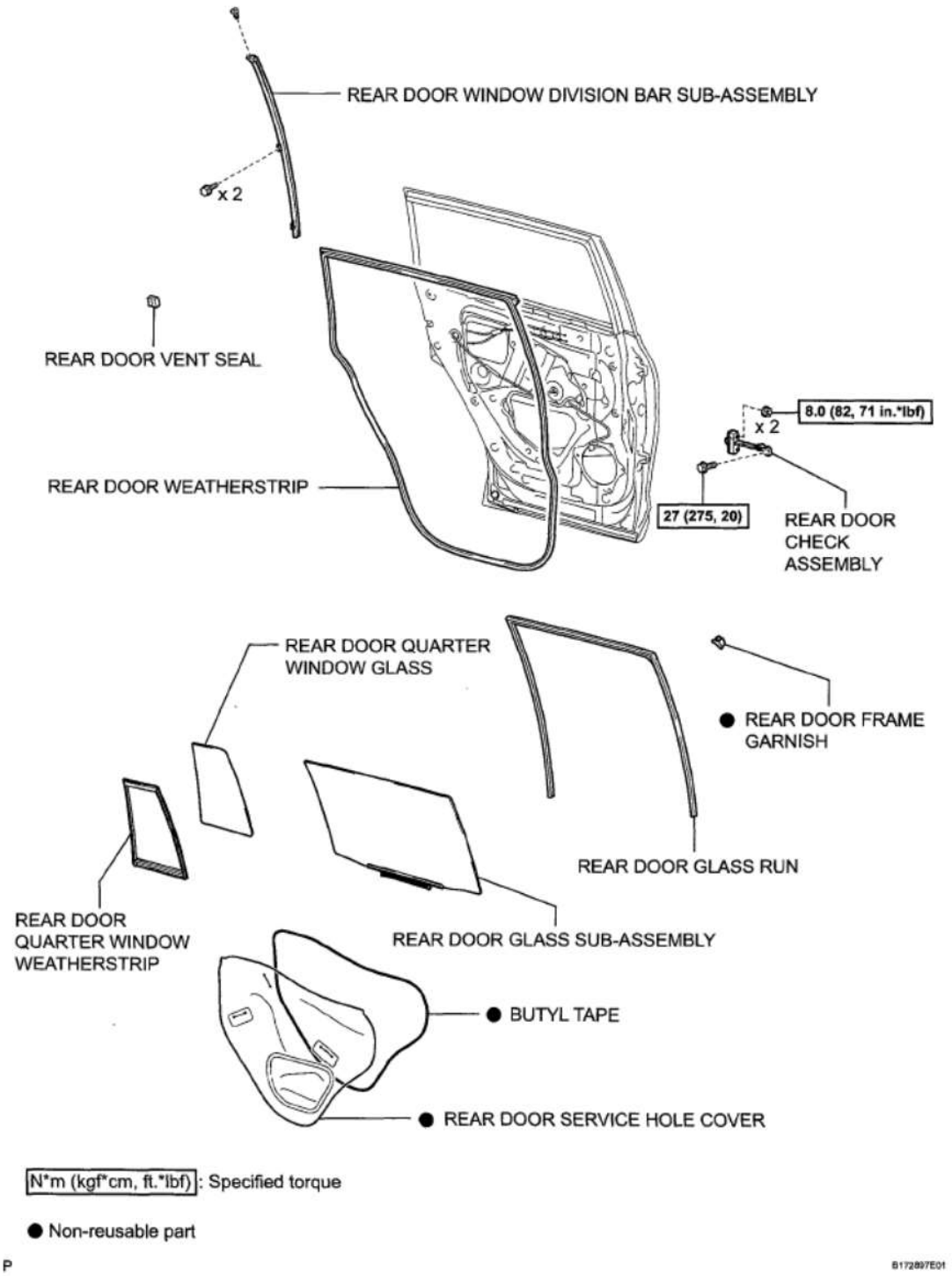


Fig. 181: Identifying Rear Door Components With Torque Specification (2 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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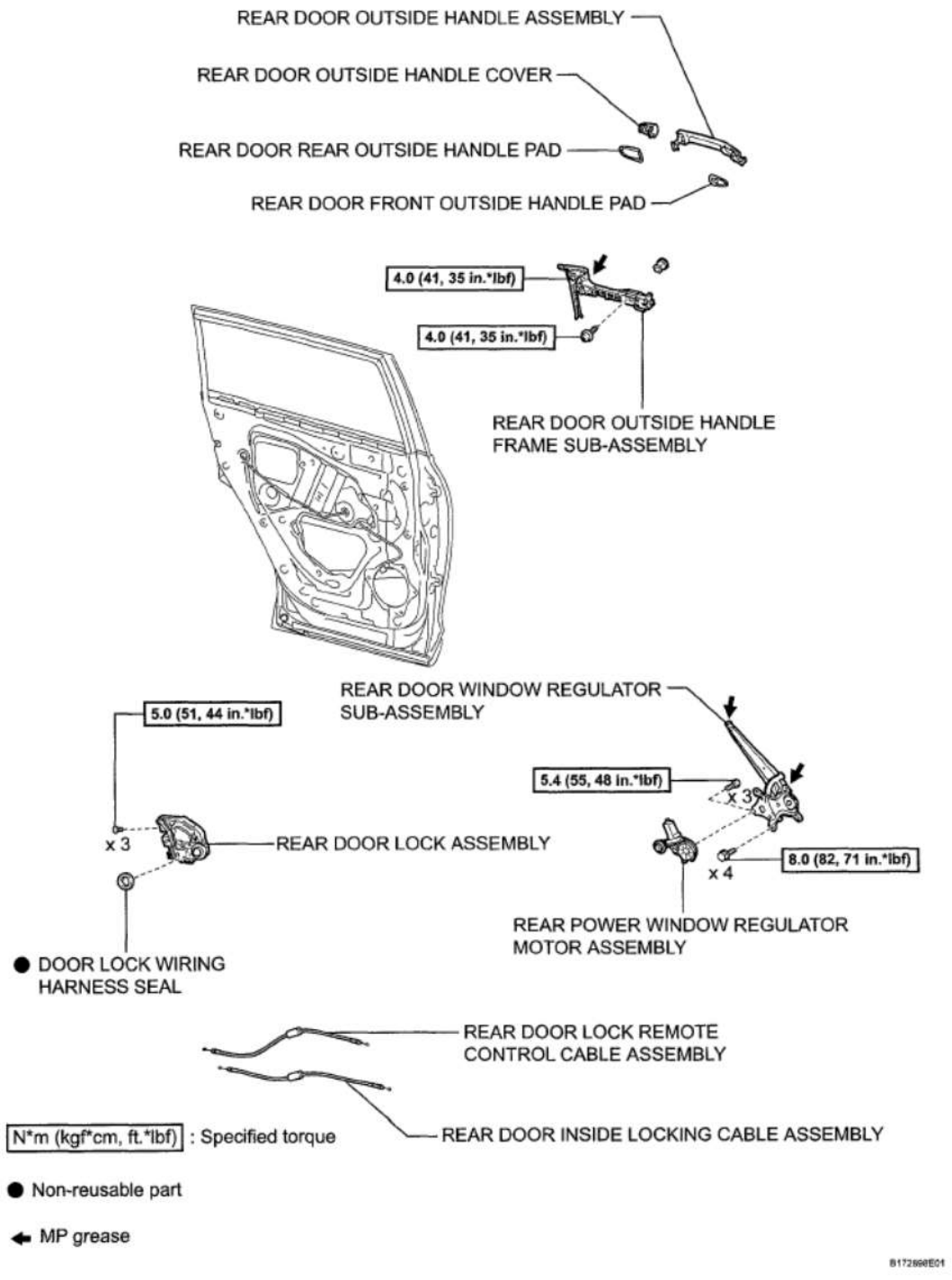


Fig. 182: Identifying Rear Door Components With Torque Specification (3 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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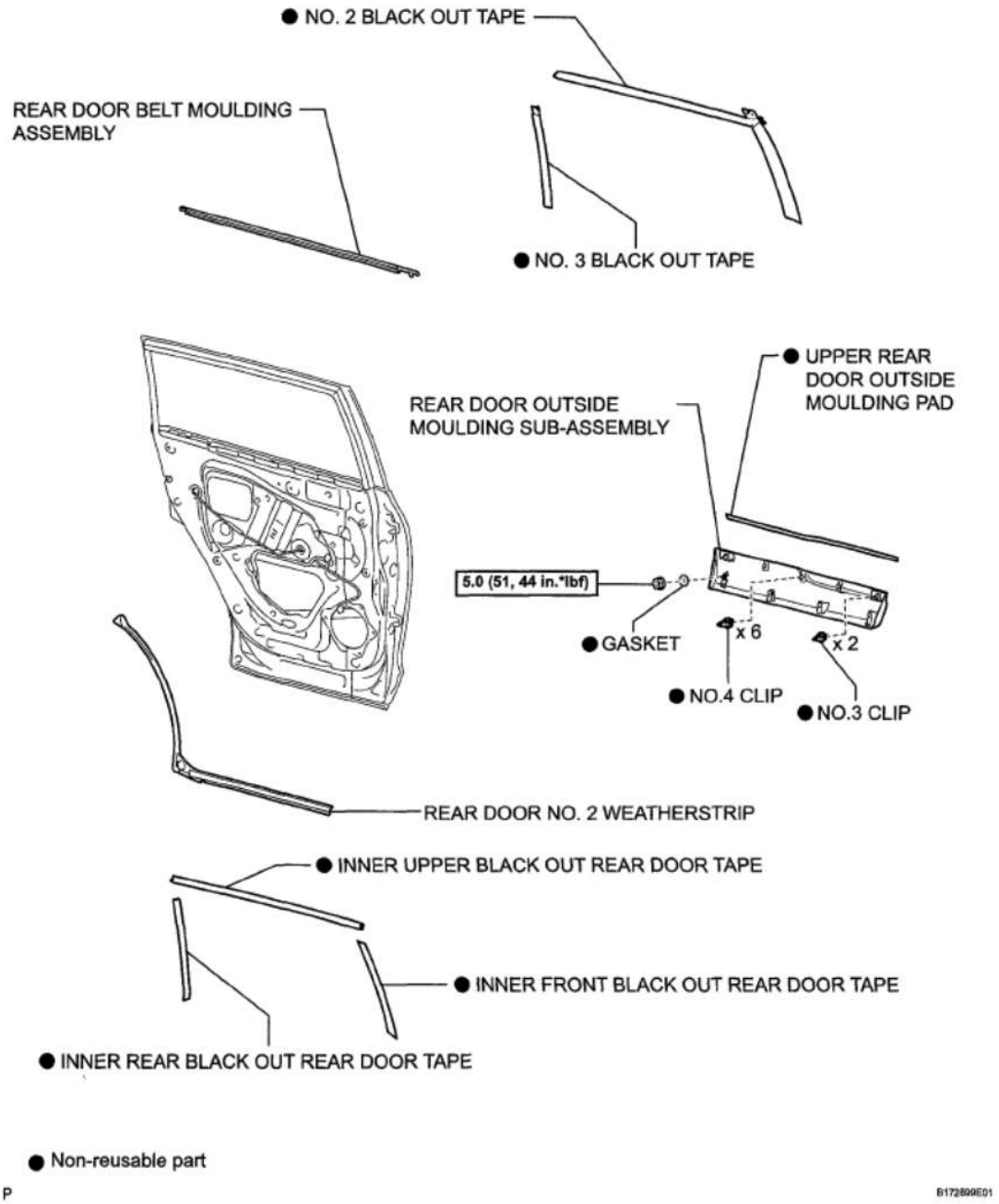


Fig. 183: Identifying Rear Door Components With Torque Specification (4 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ON-VEHICLE INSPECTION

1. **INSPECT REAR DOOR PANEL SUB-ASSEMBLY**
   a. Check that the clearance measurements of areas A through K are within each standard range.

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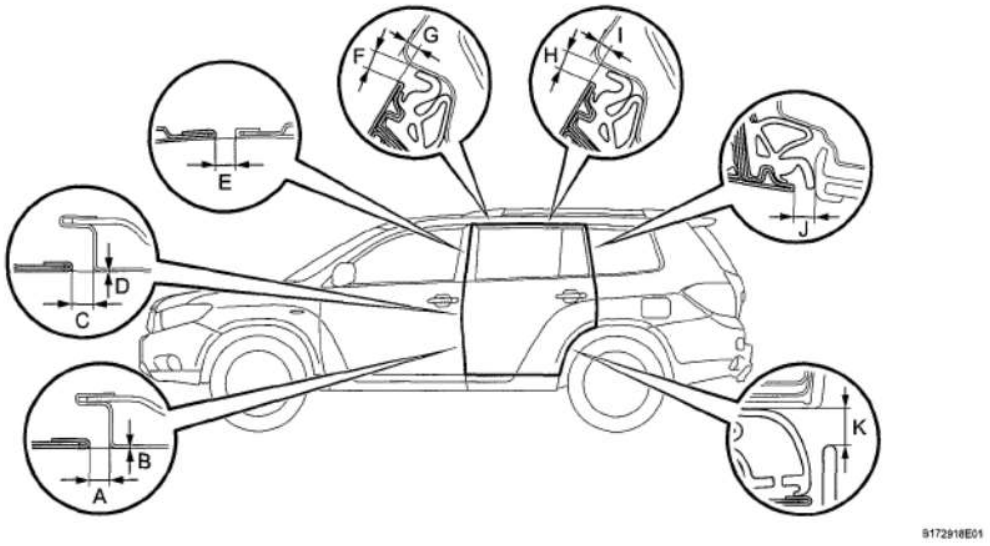


Fig. 184: Identifying Rear Door Panel Clearance
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard clearance

STANDARD CLEARANCE REFERENCE

Area	Measurement	Area	Measurement
A	3.3 to 6.3 mm (0.130 to 0.248 in.)	G	3.0 to 6.0 mm (0.118 to 0.236 in.)
B	-1.5 to 1.5 mm (-0.059 to 0.059 in.)	H	4.2 to 7.2 mm (0.165 to 0.284 in.)
C	3.3 to 6.3 mm (0.130 to 0.248 in.)	I	3.1 to 6.1 mm (0.122 to 0.240 in.)
D	-1.5 to 1.5 mm (-0.059 to 0.059 in.)	J	4.0 to 8.0 mm (0.158 to 0.315 in.)
E	3.3 to 6.3 mm (0.130 to 0.248 in.)	K	6.3 to 10.3 mm (0.248 to 0.405 in.)
F	4.2 to 7.2 mm (0.165 to 0.284 in.)	-	-

DISASSEMBLY

1. **DISCONNECT NEGATIVE BATTERY TERMINAL**

CAUTION: Wait for 90 seconds after disconnecting the terminal to prevent airbag deployment (See AIRBAG SYSTEM).

NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

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2. **REMOVE REAR DOOR INSIDE HANDLE BEZEL PLUG**
   a. Using a screwdriver with the tip wrapped with protective tape, disengage the 3 claws and remove the rear door inside handle bezel plug.

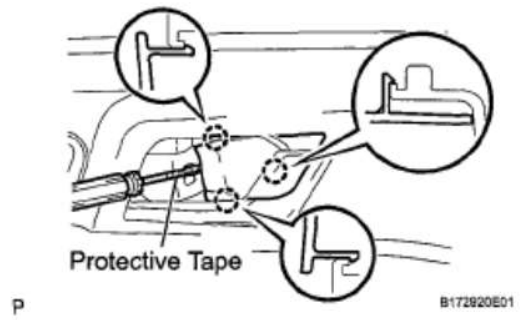


Fig. 185: Removing Rear Door Inside Handle Bezel Plug
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **REMOVE REAR DOOR ARMREST UPPER BASE PANEL**
   a. Using a screwdriver with the tip wrapped with protective tape, disengage the 6 claws and 2 clips, and remove the rear door armrest upper base panel.
   b. Disconnect the connector.

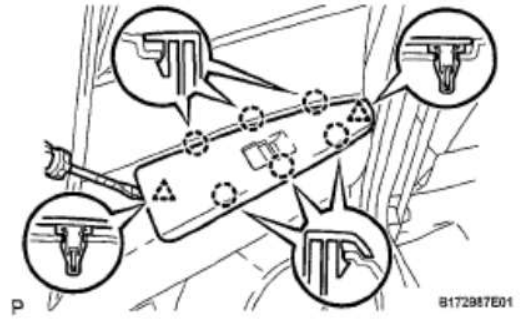


Fig. 186: Removing Rear Door Armrest Upper Base Panel
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **REMOVE REAR POWER WINDOW REGULATOR SWITCH ASSEMBLY**
   a. Disengage the 2 claws and remove the rear power window regulator switch assembly.

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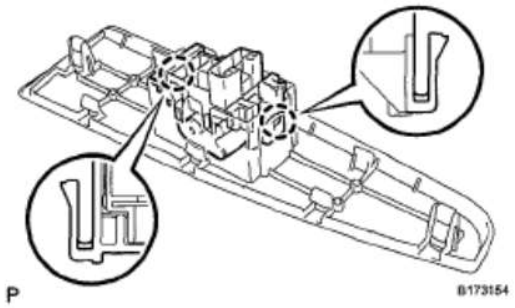


Fig. 187: Identifying Claws Of Rear Power Window Regulator Switch Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **REMOVE DOOR ASSIST GRIP COVER**
   a. Using a screwdriver with the tip wrapped with protective tape, disengage the 4 claws and remove the door assist grip cover.

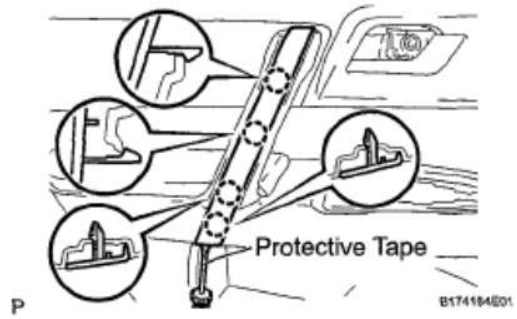


Fig. 188: Removing Door Assist Grip Cover
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY**
   a. Remove the 3 screws.

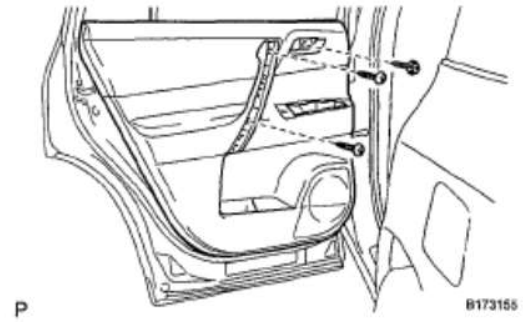


Fig. 189: Identifying Rear Door Trim Board Sub-Assembly With Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Using a clip remover, disengage the 9 clips.

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c. Disengage the 5 claws and separate the rear door trim board sub-assembly from the rear door inner glass weatherstrip.

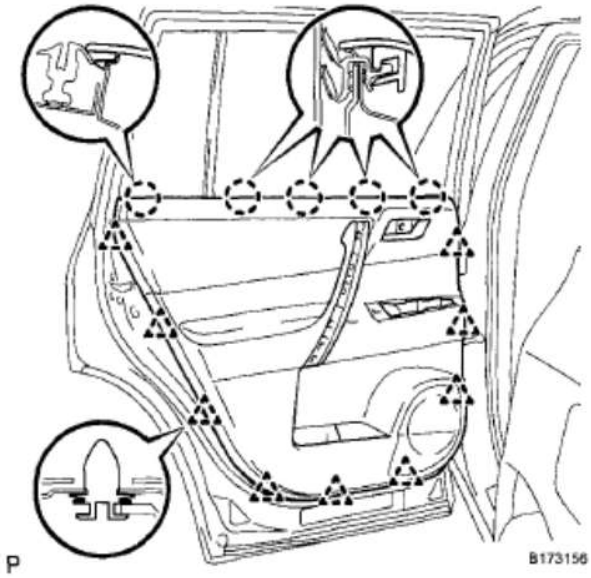


Fig. 190: Identifying Rear Door Trim Board Sub-Assembly With Claws And Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Disengage the 2 clamps.
e. Disconnect the front door lock remote control cable and rear door inside locking cable.

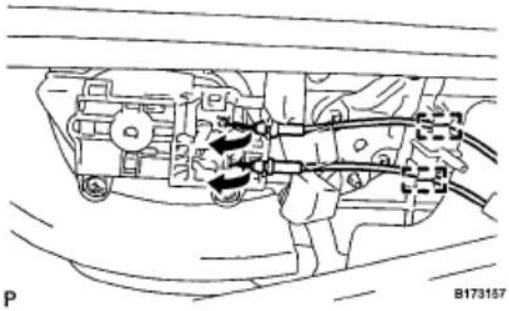


Fig. 191: Disconnecting Front Door Lock Remote Control Cable And Rear Door Inside Locking Cable
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. **REMOVE REAR DOOR INSIDE HANDLE SUB-ASSEMBLY**
   a. Remove the 2 screws.
   b. Disengage the 2 claws and disconnect the rear door inside handle sub-assembly.
8. **REMOVE REAR SPEAKER ASSEMBLY** (See **ON-VEHICLE INSPECTION**)

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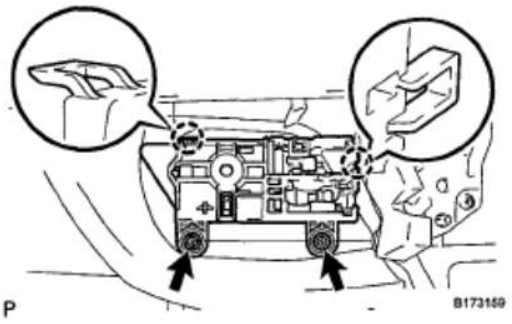


Fig. 192: Locating Rear Door Inside Handle Sub-Assembly Screws With Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. **REMOVE REAR DOOR INNER GLASS WEATHERSTRIP**
   a. Remove the rear door inner glass weatherstrip from the rear door panel.

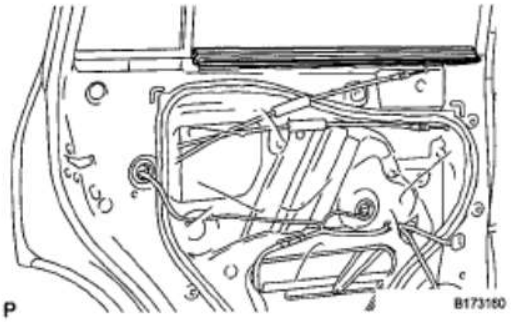


Fig. 193: Identifying Rear Door Inner Glass Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. **REMOVE REAR DOOR SERVICE HOLE COVER**
    a. Disconnect the connector.
    b. Remove the rear door service hole cover.

    HINT:

    Remove the remaining tape on the door.

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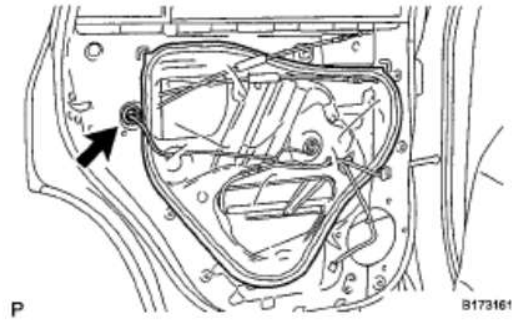


Fig. 194: Locating Rear Door Service Hole Cover
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

11. **REMOVE REAR DOOR CHECK ASSEMBLY**
    a. Remove the bolt, 2 nuts, and the rear door check assembly.

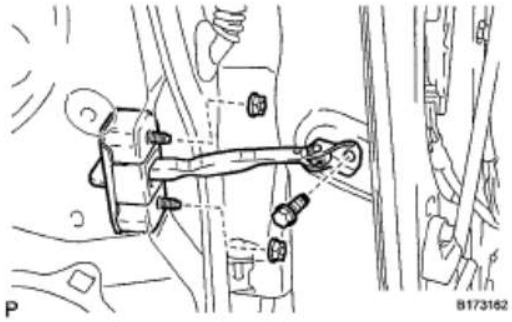


Fig. 195: Identifying Rear Door Check Assembly With Bolt And Nuts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

12. **REMOVE REAR DOOR WEATHERSTRIP**
    a. Using a clip remover, disengage the 19 clips and remove the rear door weatherstrip.

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Fig. 196: Identifying Rear Door Weatherstrip Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

13. **REMOVE REAR DOOR GLASS RUN**
    a. Remove the rear door glass run.

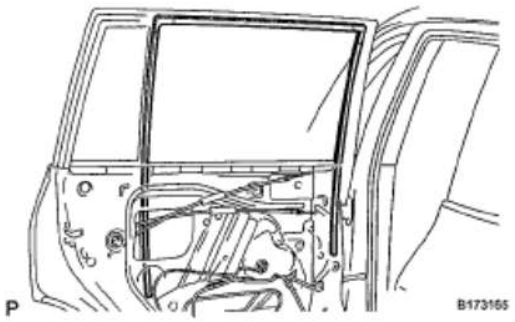


Fig. 197: Identifying Rear Door Glass Run
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

14. **REMOVE REAR DOOR FRAME GARNISH**
    a. Disengage the clip and remove the rear door frame garnish.

    HINT:

    This clip needs to be replaced with a new one because the clip will break when removing the rear door frame garnish.

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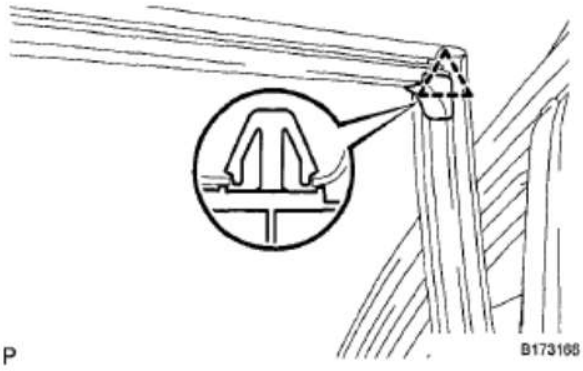


Fig. 198: Identifying Clip Of Rear Door Frame Garnish
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

15. **REMOVE REAR DOOR WINDOW DIVISION BAR SUB-ASSEMBLY**
    a. Remove the rear door vent seal.

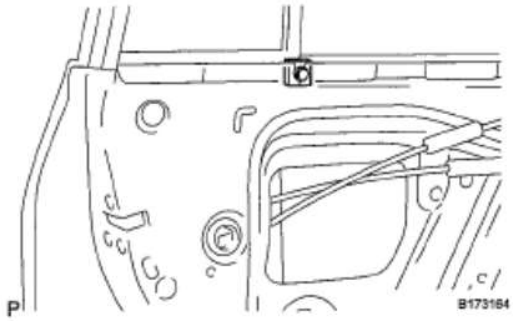


Fig. 199: Identifying Rear Door Vent Seal
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Remove the 2 bolts, screw, and the rear door window division bar sub-assembly.

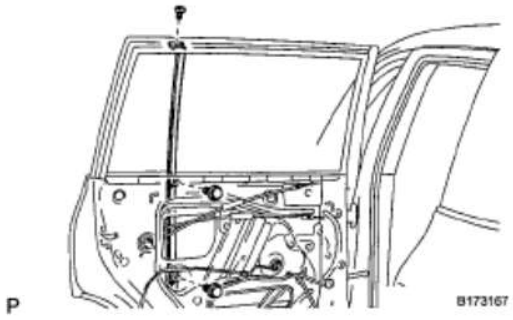


Fig. 200: Identifying Rear Door Window Division Bar Sub-Assembly With Bolts And Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

16. **REMOVE REAR DOOR QUARTER WINDOW GLASS**

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a. Remove the rear door quarter window glass and the rear door quarter window weatherstrip as a unit as shown in the illustration.
b. Remove the rear door quarter window glass from the rear door quarter window weatherstrip.

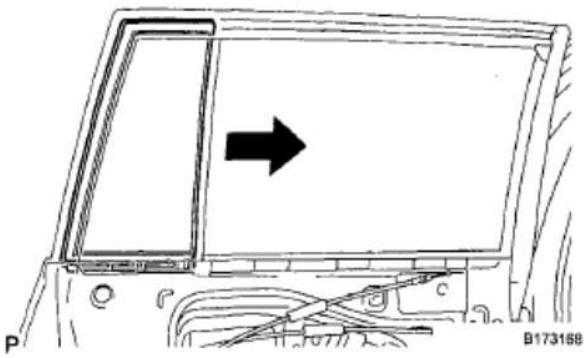


Fig. 201: Removing Rear Door Quarter Window Glass From Rear Door Quarter Window Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

17. **REMOVE REAR DOOR GLASS SUB-ASSEMBLY**
    a. Remove the rear door glass sub-assembly from the rear door window regulator sub-assembly as shown in the illustration.

NOTE: Do not damage the door glass.

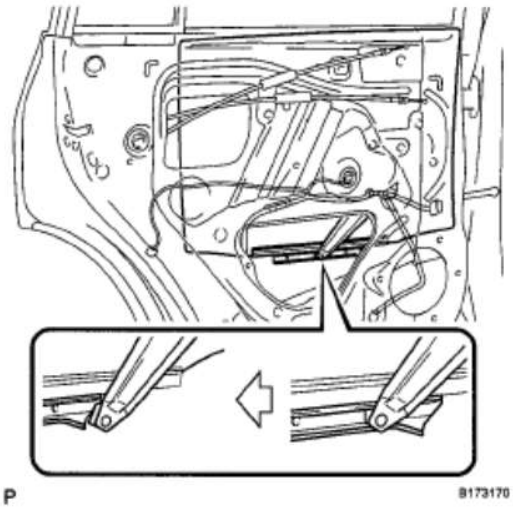


Fig. 202: Removing Rear Door Glass Sub-Assembly From Rear Door Window Regulator Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

18. **REMOVE REAR DOOR WINDOW REGULATOR SUB-ASSEMBLY**

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a. Disconnect the connector.
b. Loosen the temporary bolt.

NOTE: Do not remove the temporary bolt. If the temporary bolt is removed, the rear door window regulator may fall and cause damage.

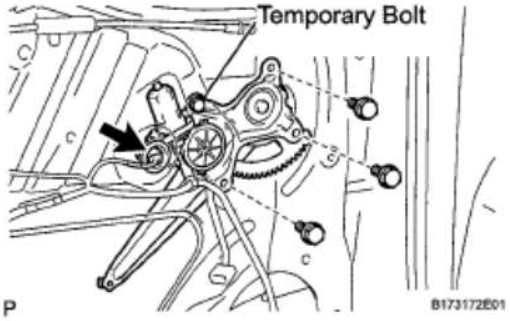


Fig. 203: Locating Rear Door Window Regulator Connector With Temporary Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Remove the 3 bolts.
d. Remove the rear door window regulator sub-assembly and the rear power window regulator motor assembly as a unit.
e. Remove the temporary bolt from the rear door window regulator sub-assembly.

19. **REMOVE REAR POWER WINDOW REGULATOR MOTOR ASSEMBLY**

a. Connect the positive (+) lead of the battery to terminal 2, and the negative (-) lead to terminal 1 of the rear power window regulator motor assembly to move the lift arm to the position shown in the illustration.

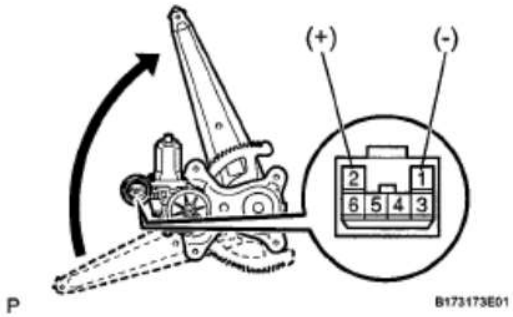


Fig. 204: Connecting Battery Lead To Terminal Of Rear Power Window Regulator Motor Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Using a "TORX" driver (T25), remove the 3 screws and the rear power window regulator motor assembly.

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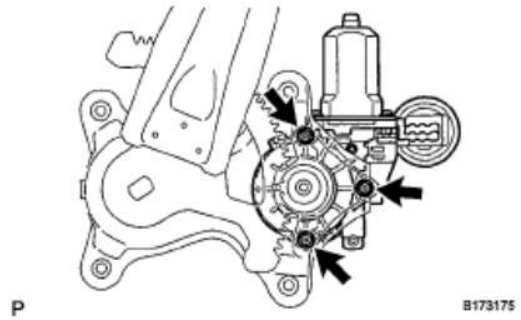


Fig. 205: Locating Rear Power Window Regulator Motor Assembly Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

20. **REMOVE REAR DOOR LOCK ASSEMBLY**
    a. Using a "TORX" socket wrench (T30), remove the 3 screws.
    b. Move the rear door lock assembly downward and pull the release plate out of the rear door outside handle frame.
    c. Remove the door lock wiring harness seal from the rear door lock assembly.

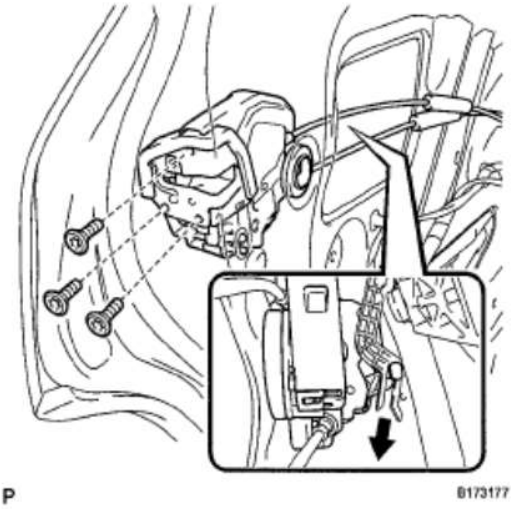


Fig. 206: Removing Rear Door Lock Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

21. **REMOVE REAR DOOR LOCK REMOTE CONTROL CABLE ASSEMBLY**
    a. Using a screwdriver, disengage the claw.

    HINT:

    Tape the screwdriver tip before use.

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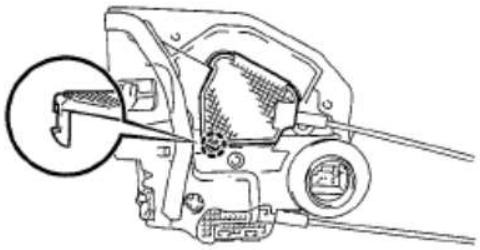


Fig. 207: Identifying Claw On Rear Door Lock Remote Control Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Remove the rear door lock remote control cable assembly.

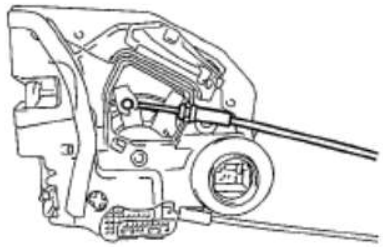


Fig. 208: Identifying Rear Door Lock Remote Control Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

22. **REMOVE REAR DOOR INSIDE LOCKING CABLE ASSEMBLY**

a. Using a screwdriver, disengage the 3 claws.

HINT:

Tape the screwdriver tip before use.

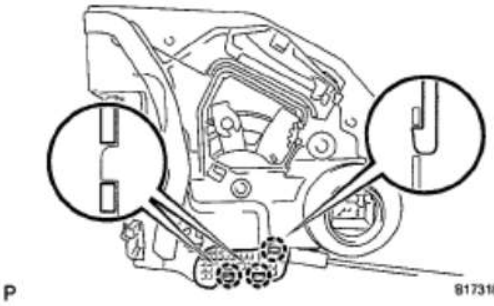


Fig. 209: Identifying Claws On Rear Door Inside Locking Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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b. Remove the rear door inside locking cable assembly.

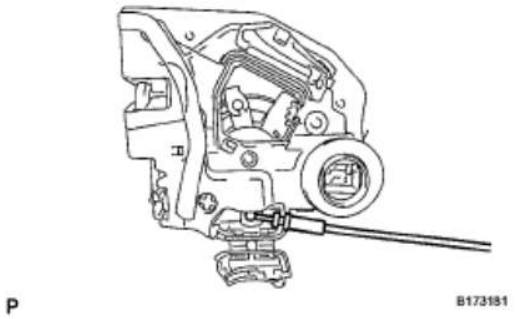


Fig. 210: Identifying Rear Door Inside Locking Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

23. **REMOVE REAR DOOR OUTSIDE HANDLE COVER**

a. Using a "TORX" socket wrench (T30), loosen the screw.

HINT:

The screw cannot be removed because it is integrated into the rear door outside handle frame sub-assembly.

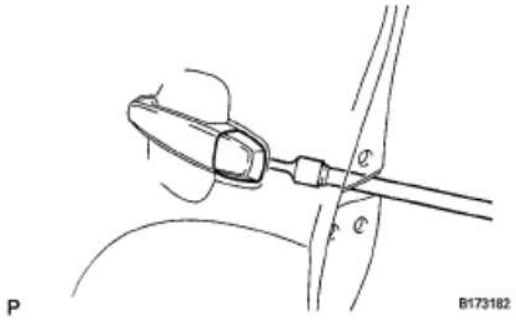


Fig. 211: Loosening Rear Door Outside Handle Cover Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Disengage the claw and remove the rear door outside handle cover.

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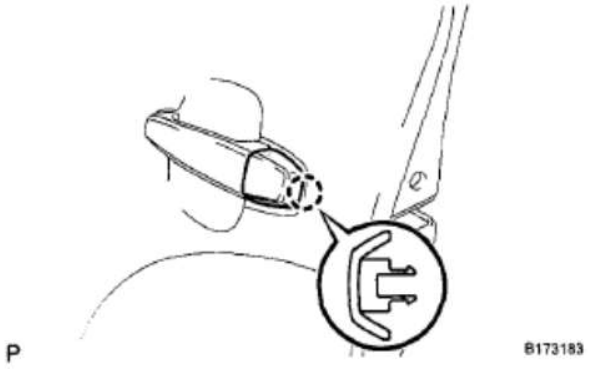


Fig. 212: Identifying Rear Door Outside Handle Cover Claw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

24. **REMOVE REAR DOOR OUTSIDE HANDLE ASSEMBLY**

a. Pull and hold the release plate of the rear door outside handle frame sub-assembly as shown in the illustration.

NOTE: The rear door outside handle assembly may be damaged when removing the rear door outside handle assembly, unless the release plate of the rear door outside handle frame sub-assembly is pulled and held.

b. Remove the rear door outside handle assembly as shown in the illustration.



Fig. 213: Releasing Plate Of Rear Door Outside Handle Frame Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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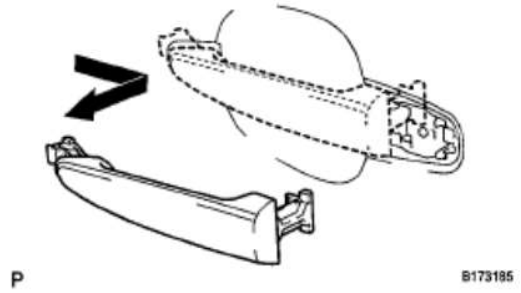


Fig. 214: Removing Rear Door Outside Handle Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

25. **REMOVE REAR DOOR FRONT OUTSIDE HANDLE PAD**
    a. Disengage the 3 claws and remove the rear door front outside handle pad.

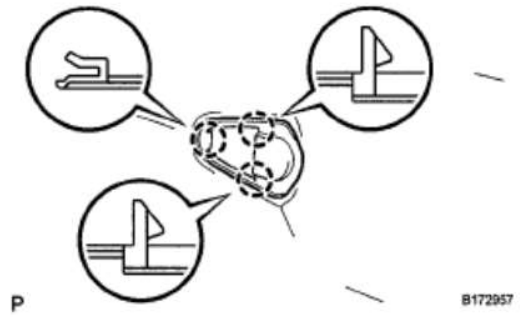


Fig. 215: Identifying Front Door Front Outside Handle Pad Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

26. **REMOVE REAR DOOR REAR OUTSIDE HANDLE PAD**
    a. Disengage the 2 claws and remove the rear door rear outside handle pad.

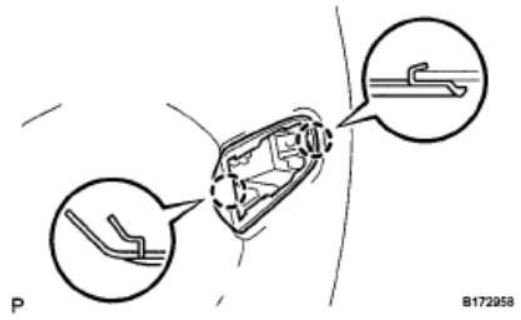


Fig. 216: Identifying Front Door Rear Outside Handle Pad Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

27. **REMOVE REAR DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY**
    a. Using a "TORX" socket wrench (T30), remove the screw.

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b. Disengage the 2 claws and remove the rear door outside handle frame sub-assembly.

28. **REMOVE REAR DOOR BELT MOULDING ASSEMBLY** (See **REMOVAL**)

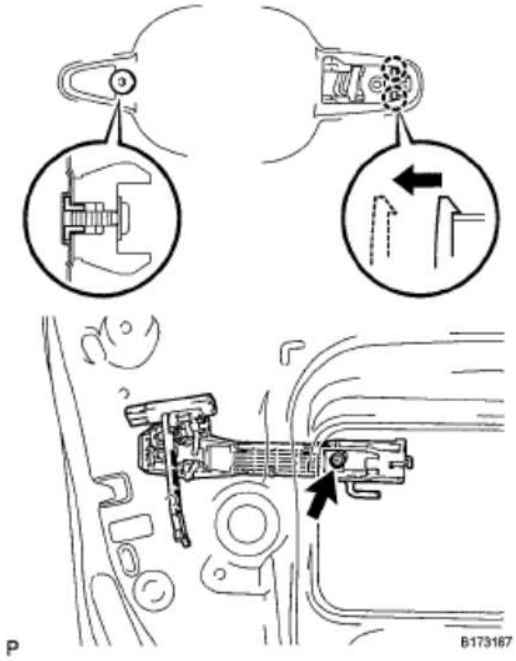


Fig. 217: Removing Rear Door Outside Handle Frame Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

29. **REMOVE REAR DOOR NO. 2 WEATHERSTRIP**
    a. Disengage the claw.
    b. Disengage the 11 clips and remove the rear door No. 2 weatherstrip.
30. **REMOVE REAR DOOR OUTSIDE MOULDING SUB-ASSEMBLY** (See **INSTALLATION**)
31. **REMOVE NO. 3 BLACK OUT TAPE** (See **REMOVAL**)
32. **REMOVE NO. 2 BLACK OUT TAPE** (See **REMOVAL**)
33. **REMOVE INNER UPPER BLACK OUT REAR DOOR TAPE** (See **INSTALLATION**)
34. **REMOVE INNER FRONT BLACK OUT REAR DOOR TAPE** (See **INSTALLATION**)
35. **REMOVE INNER REAR BLACK OUT REAR DOOR TAPE** (See **INSTALLATION**)

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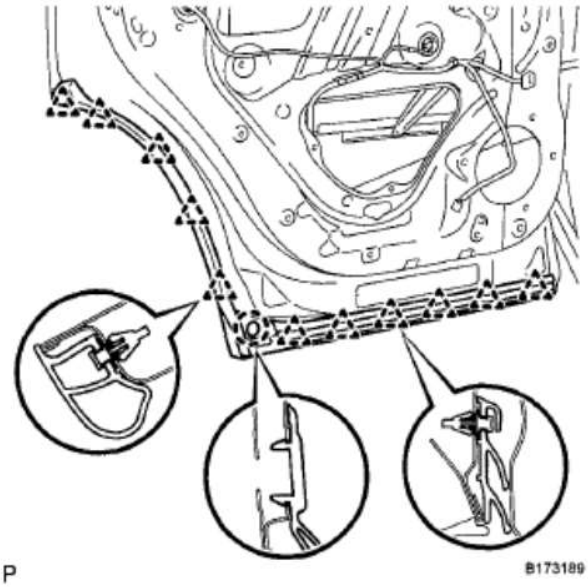


Fig. 218: Identifying Rear Door No. 2 Weatherstrip Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ADJUSTMENT

NOTE: Before adjusting the door positions of vehicles equipped with side airbags and curtain shield airbags, be sure to disconnect the battery. After adjustment, inspect the SRS warning light, the side airbag system, and the curtain shield airbag system for normal operation. Then initialize both airbag systems.

HINT:

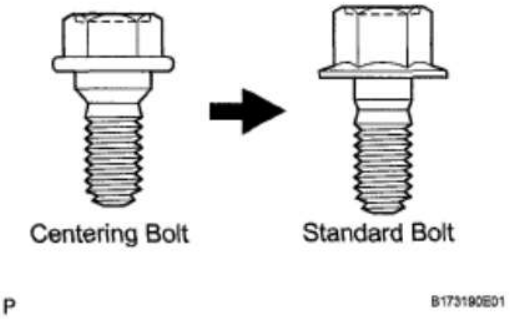


Fig. 219: Identifying Centering Bolt And Standard Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- Use the same procedures for the RH side and LH side.
- The following procedure is for the LH side.
- Centering bolts are used to mount the door hinge to the vehicle body and door. The door cannot be adjusted with the centering bolts installed on it. Substitute the centering bolts with standard bolts (with

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washers) when making adjustments.

- Bolts without a specific torque specifications are shown in the standard bolt chart (See **SERVICE SPECIFICATIONS - STANDARD BOLT**).

1. **DISCONNECT NEGATIVE BATTERY TERMINAL**

CAUTION: Wait for 90 seconds after disconnecting the terminal to prevent airbag deployment (See AIRBAG SYSTEM).

NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

2. **ADJUST REAR DOOR**
   a. Loosen the hinge bolts on the vehicle body and adjust the door position.

      SST 09812-00010

   b. Tighten the hinge bolts on the vehicle body after the adjustment.

      Torque: 26 N*m (265 kgf*cm, 19 ft.*lbf)

   c. Loosen the hinge bolts on the door and adjust the door position.
   d. Tighten the hinge bolts on the door after the adjustment.

      Torque: 27 N*m (275 kgf*cm, 20 ft.*lbf)

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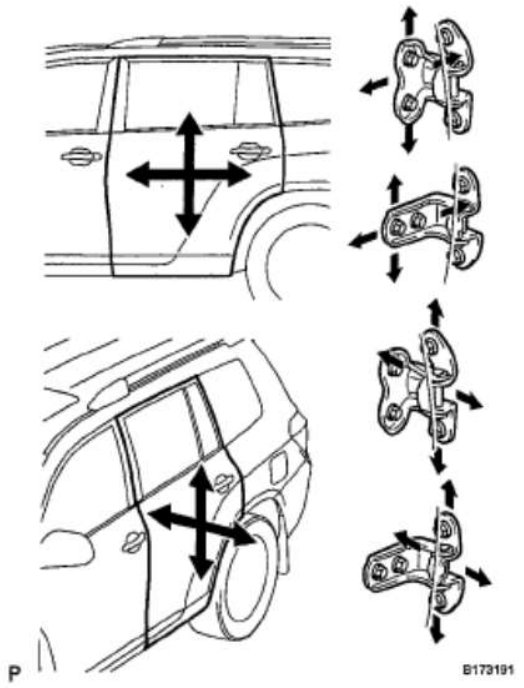


Fig. 220: Adjusting Rear Door Hinge
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

e. Adjust the striker position by slightly loosening the striker mounting screws with a "TORX" socket wrench (T40) and hitting the striker with a plastic hammer.
f. Using a "TORX" socket wrench (T40), tighten the striker mounting screws after the adjustment.

Torque: 23 N*m (235 kgf*cm, 17 ft.*lbf)

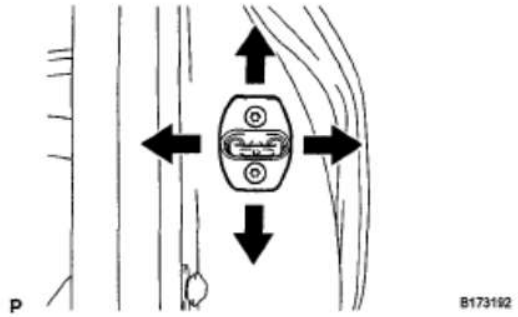


Fig. 221: Adjusting Striker
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **CONNECT NEGATIVE BATTERY TERMINAL**

NOTE: **When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).**

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4. **INSPECT SRS WARNING LIGHT**

   (See **DIAGNOSIS SYSTEM**)

REASSEMBLY

1. **REPAIR INSTRUCTION** (See **INSTALLATION**)
2. **INSTALL INNER REAR BLACK OUT REAR DOOR TAPE** (See **INSTALLATION**)
3. **INSTALL INNER FRONT BLACK OUT REAR DOOR TAPE** (See **INSTALLATION**)
4. **INSTALL INNER UPPER BLACK OUT REAR DOOR TAPE** (See **INSTALLATION**)
5. **INSTALL NO. 2 BLACK OUT TAPE** (See **INSTALLATION**)
6. **INSTALL NO. 3 BLACK OUT TAPE** (See **INSTALLATION**)
7. **INSTALL REAR DOOR OUTSIDE MOULDING SUB-ASSEMBLY** (See **INSTALLATION**)
8. **INSTALL REAR DOOR NO. 2 WEATHERSTRIP**
   a. Engage the 11 clips and claw, and install the rear door No. 2 weatherstrip.
9. **INSTALL REAR DOOR BELT MOULDING ASSEMBLY** (See **INSTALLATION**)
10. **INSTALL REAR DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY**
    a. Apply MP grease to the sliding parts on the rear door outside handle frame sub-assembly.

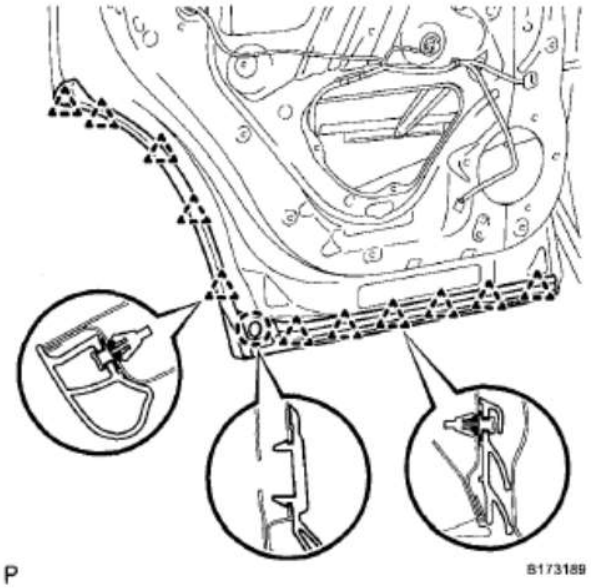


Fig. 222: Identifying Rear Door No. 2 Weatherstrip Clips And Claw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Engage the 2 claws to install the rear door outside handle frame sub-assembly.
   c. Using a "TORX" socket wrench (T30), install the rear door outside handle frame sub-assembly with the screw.

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Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)

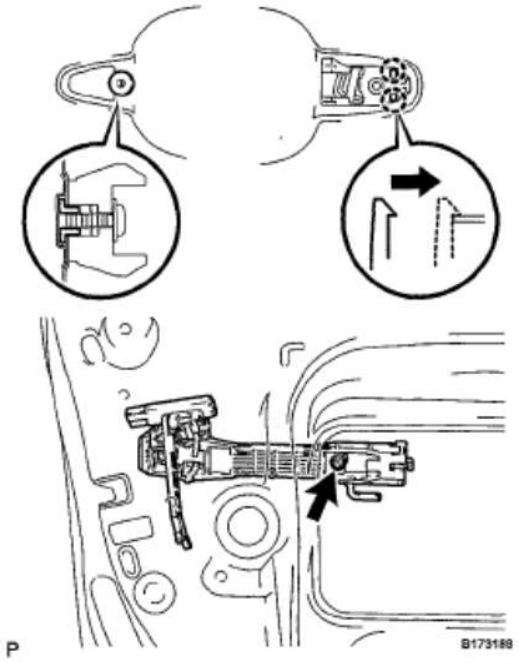


Fig. 223: Installing Rear Door Outside Handle Frame Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

11. **INSTALL REAR DOOR REAR OUTSIDE HANDLE PAD**
    a. Engage the 2 claws to install the rear door rear outside handle pad.

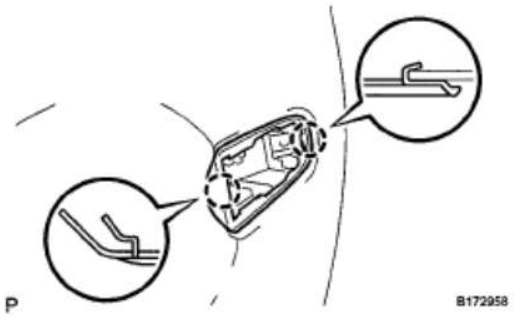


Fig. 224: Identifying Rear Door Rear Outside Handle Pad Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

12. **INSTALL REAR DOOR FRONT OUTSIDE HANDLE PAD**
    a. Engage the 3 claws to install the rear door front outside handle pad.

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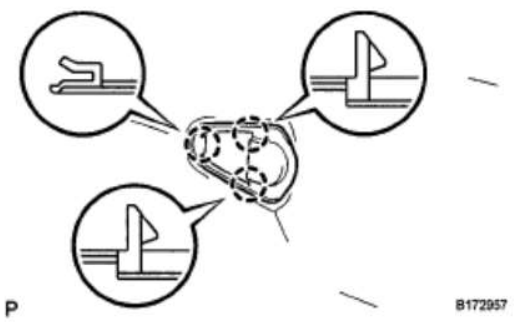


Fig. 225: Identifying Rear Door Front Outside Handle Pad Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

13. **INSTALL REAR DOOR OUTSIDE HANDLE ASSEMBLY**
    a. Insert the front end of the rear door outside handle assembly into the rear door outside handle frame.

    NOTE: If the bellcrank lever is not pulled and held when installing the outside handle, the bellcrank lever will interfere with the outside handle and the release plate may be damaged.

    b. Insert the rear end of the rear door outside handle assembly into the rear door outside handle frame. Next, slide the rear door outside handle assembly toward the front of the vehicle to install it.

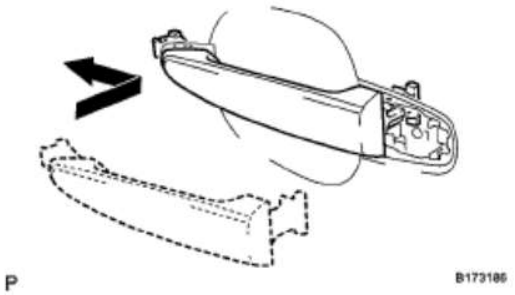


Fig. 226: Installing Rear Door Outside Handle Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

14. **INSTALL REAR DOOR OUTSIDE HANDLE COVER**
    a. Engage the claw to install the rear door outside handle cover.

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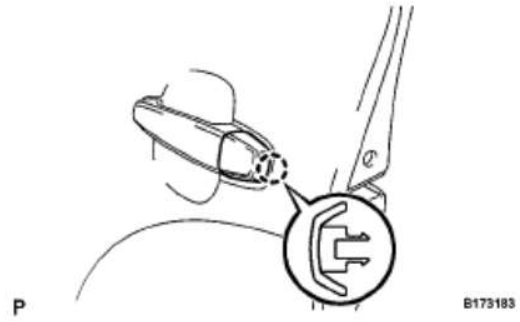


Fig. 227: Identifying Rear Door Outside Handle Cover Claw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Using a "TORX" socket wrench (T30), install the rear door outside handle cover with the screw.

Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)

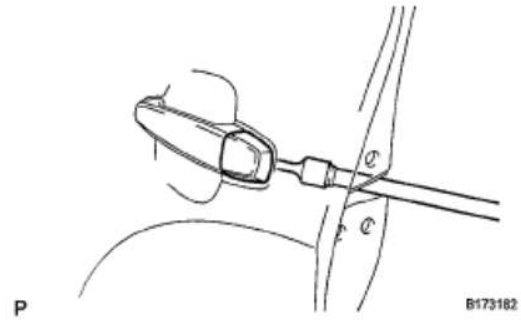


Fig. 228: Loosening Rear Door Outside Handle Cover Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

15. **INSTALL REAR DOOR INSIDE LOCKING CABLE ASSEMBLY**

a. Install the rear door inside locking cable assembly.

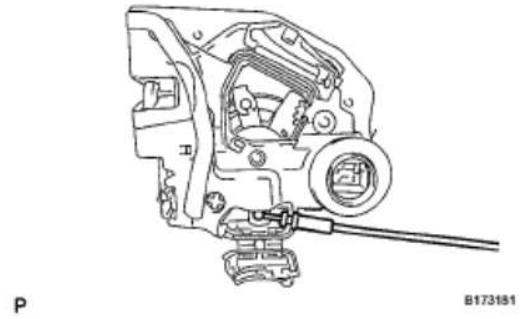


Fig. 229: Identifying Rear Door Inside Locking Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Engage the 3 claws.

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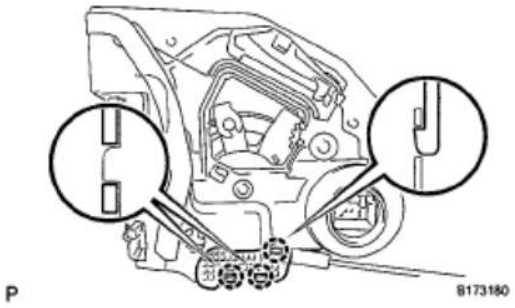


Fig. 230: Identifying Claws On Rear Door Inside Locking Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

16. **INSTALL REAR DOOR LOCK REMOTE CONTROL CABLE ASSEMBLY**
    a. Install the rear door lock remote control cable assembly.

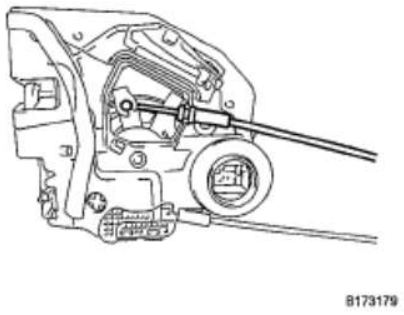


Fig. 231: Identifying Rear Door Lock Remote Control Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Engage the claw.
17. **INSTALL REAR DOOR LOCK ASSEMBLY**

NOTE:

- **When reusing the removed rear door lock assembly, replace the door lock wiring harness seal on the connector with a new one.**
- **Do not allow grease or dust to adhere to the door lock wiring harness seal surface of the connector.**
- **Reusing the door lock wiring harness seal or using a damaged door lock wiring harness seal may cause water intrusion to the connection. This may result in a malfunction of the rear door lock assembly.**

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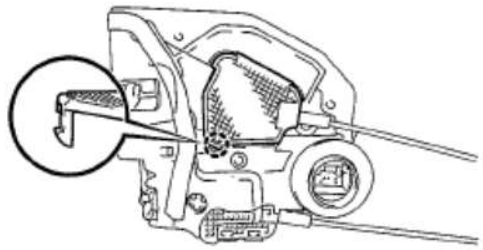


Fig. 232: Identifying Claw On Rear Door Lock Remote Control Cable Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Apply MP grease to the sliding parts of the rear door lock assembly.
b. Install a new door lock wiring harness seal to the rear door lock assembly.
c. Insert the rear door lock assembly to the rear door outside handle release plate, and set it to the rear door panel.
d. Make sure that the rear door outside handle frame release plate is securely connected to the rear door lock assembly.
e. Using a "TORX" socket wrench (T30), install the rear door lock assembly with the 3 screws.

Torque: 5.0 N*m (51 kgf*cm, 44 in.*lbf)

18. **INSTALL REAR POWER WINDOW REGULATOR MOTOR ASSEMBLY**

NOTE: The regulator arm must be below the intermediate position when installing the rear power window regulator motor assembly.

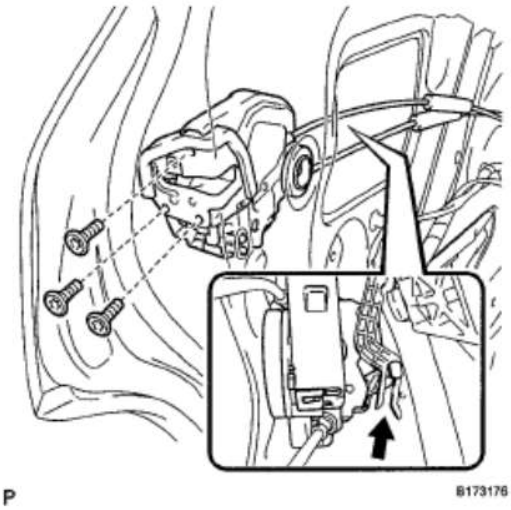


Fig. 233: Installing Rear Door Lock Assembly With Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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a. Using a "TORX" driver (T25), install the rear power window regulator motor assembly with the 3 screws.

Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

HINT:

A new rear window regulator uses self-tapping screws to thread new installation holes when the self-tapping screws are inserted.

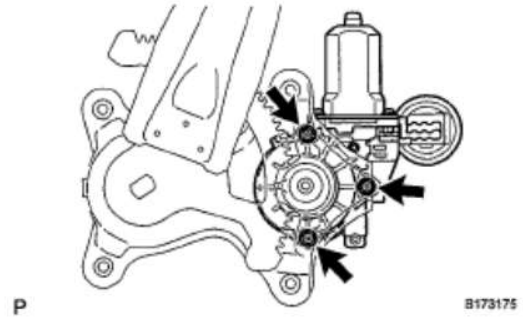


Fig. 234: Locating Rear Power Window Regulator Motor Assembly Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Connect the positive (+) lead of the battery to terminal 1, and the negative (-) lead to terminal 2 of the rear power window regulator motor assembly to move the lift arm to the position shown in the illustration.

19. **INSTALL REAR DOOR WINDOW REGULATOR SUB-ASSEMBLY**

a. Apply MP grease to the sliding parts of the rear door window regulator sub-assembly.

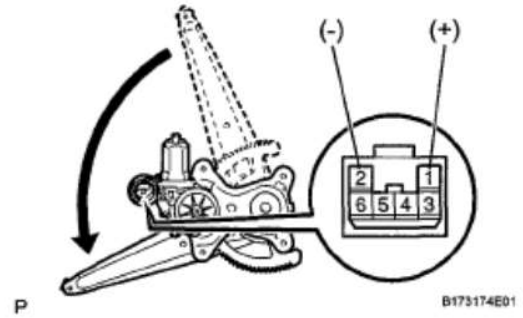


Fig. 235: Connecting Battery Lead To Terminal Of Rear Power Window Regulator Motor Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Install the temporary bolt to the rear door window regulator sub-assembly.
c. Temporarily install the window regulator.
d. Tighten the 4 bolts in the order shown in the illustration to install the rear door window regulator.

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Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

e. Connect the connector.

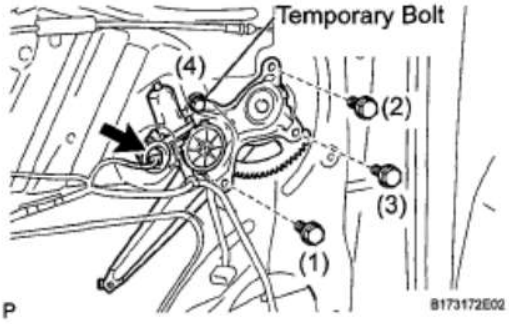


Fig. 236: Locating Connector With Temporary Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

20. **INSTALL REAR DOOR FRAME GARNISH**
    a. Engage a new clip and install the rear door frame garnish.

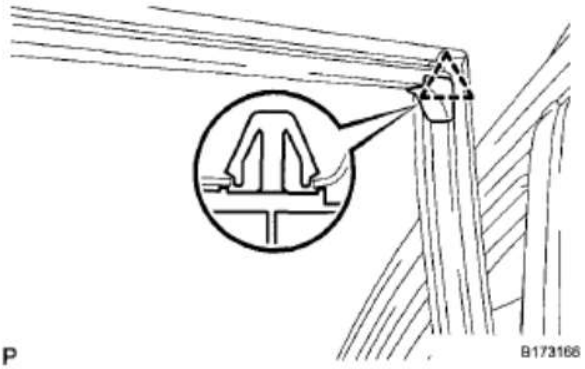


Fig. 237: Identifying Rear Door Frame Garnish Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

21. **INSTALL REAR DOOR GLASS RUN**
    a. Install the rear door glass run.

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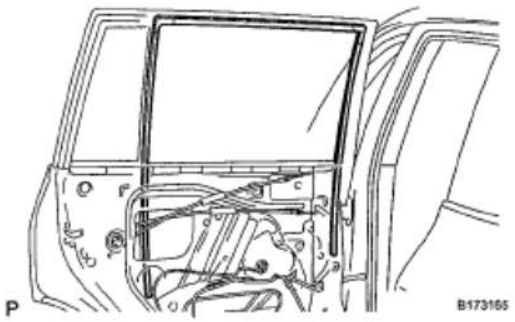


Fig. 238: Identifying Rear Door Glass Run
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

22. **INSTALL REAR DOOR GLASS SUB-ASSEMBLY**
    a. Slide the rear door glass sub-assembly to install it as shown in the illustration.
23. **INSTALL REAR DOOR QUARTER WINDOW GLASS**
    a. Install the rear door quarter window glass to the rear door quarter window weatherstrip.

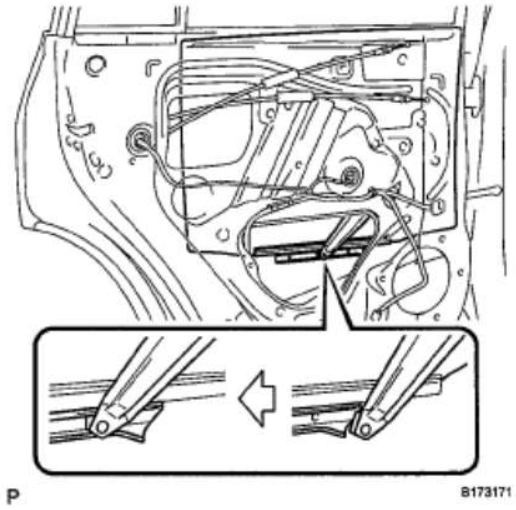


Fig. 239: Installing Rear Door Quarter Window Glass To Rear Door Quarter Window Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Install the rear door quarter window glass together with the rear door quarter window weatherstrip in the direction indicated by the arrow in the illustration.
24. **INSTALL REAR DOOR WINDOW DIVISION BAR SUB-ASSEMBLY**
    a. Insert the rear door window division bar sub-assembly from above.
    b. Install the rear door glass run to the rear door lower window frame sub-assembly.

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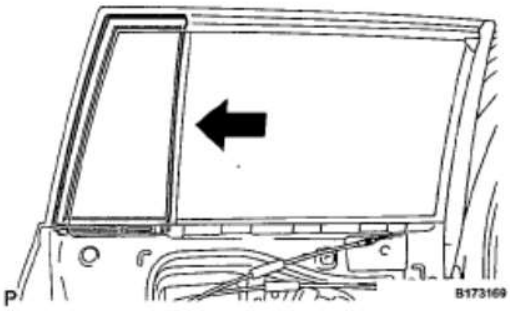


Fig. 240: Installing Rear Door Quarter Window Glass With Rear Door Quarter Window Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Install the rear door window division bar sub-assembly with the 2 bolts and screw.

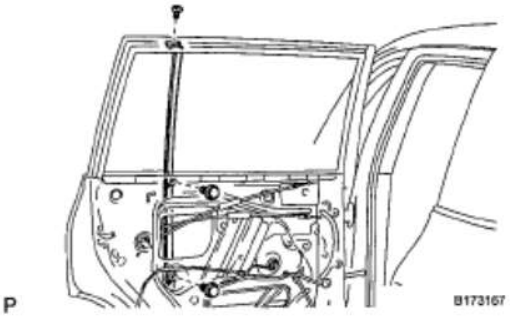


Fig. 241: Identifying Rear Door Window Division Bar Sub-Assembly With Bolts And Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Install the rear door vent seal.

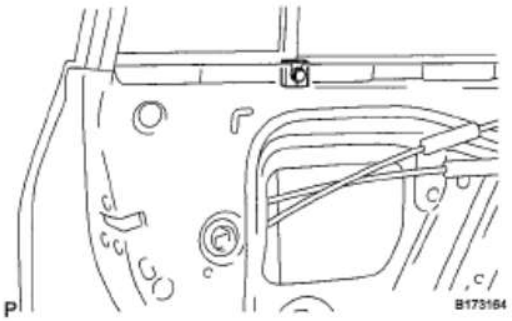


Fig. 242: Identifying Rear Door Vent Seal
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

25. **INSTALL REAR DOOR WEATHERSTRIP**
    a. Engage the 19 clips and install the rear door weatherstrip.

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Fig. 243: Identifying Rear Door Weatherstrip Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

26. **INSTALL REAR DOOR CHECK ASSEMBLY**
    a. Install the rear door check assembly with the bolt and 2 nuts.

    Torque: Bolt

    27 N*m (275 kgf*cm, 20 ft.*lbf)

    Nut

    8.0 N*m (82 kgf*cm, 71 in.*lbf)

27. **INSTALL REAR DOOR SERVICE HOLE COVER**
    a. Apply butyl tape to the rear door panel.

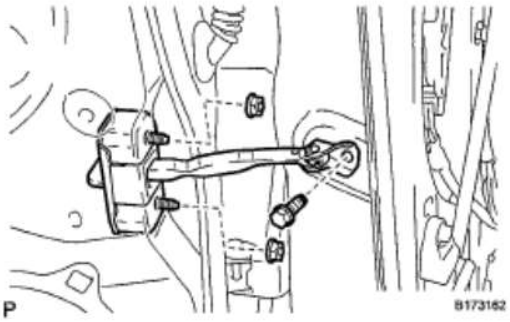


Fig. 244: Identifying Rear Door Check Assembly With Bolt And Nuts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Pass the rear door lock remote control cable, rear door inside locking cable and each connector

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through a new rear door service hole cover.

c. Attach the rear door service hole cover according to the reference points on the rear door panel.

NOTE: Securely install the rear door service hole cover avoiding wrinkles and air bubbles.

d. Connect the connector.

28. **INSTALL REAR SPEAKER ASSEMBLY** (See **INSTALLATION**)

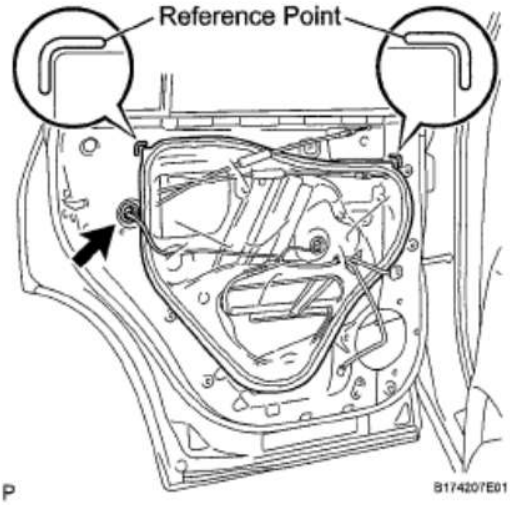


Fig. 245: Locating Connector With Reference Points On Rear Door Panel
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

29. **INSTALL REAR DOOR INNER GLASS WEATHERSTRIP**

a. Install the rear door inner glass weatherstrip.

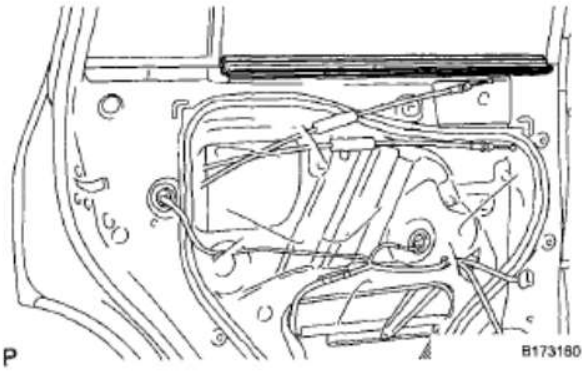


Fig. 246: Identifying Rear Door Inner Glass Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

30. **INSTALL REAR DOOR INSIDE HANDLE SUB-ASSEMBLY**

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a. Engage the 2 claws.
b. Install the 2 screws and install the rear door inside handle sub-assembly.

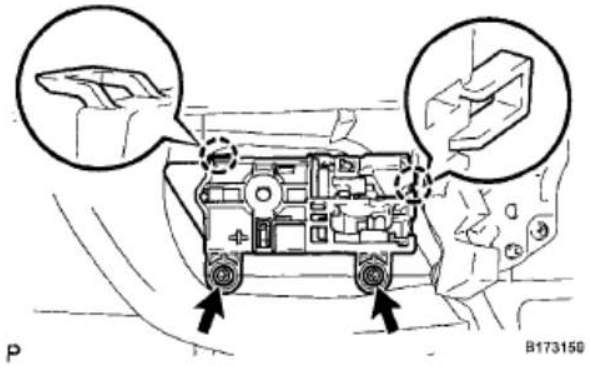


Fig. 247: Identifying Rear Door Inside Handle Sub-Assembly With Clips And Claw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

31. **INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY**
a. Connect the rear door lock remote control cable and rear door inside locking cable to the rear door inside handle sub-assembly.
b. Engage the 2 clamps.

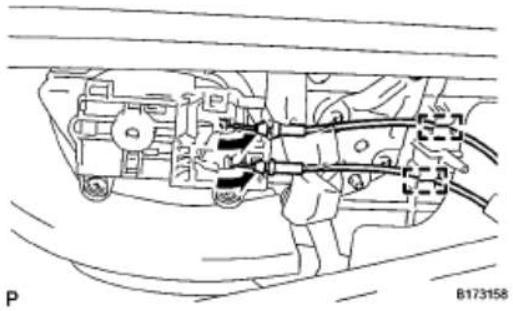


Fig. 248: Connecting Rear Door Lock Remote Control Cable And Rear Door Inside Locking Cable To Rear Door Inside Handle Sub-Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Engage the rear door trim board with the 5 claws on the rear door inner glass weatherstrip.
d. Engage the 9 clips and install the rear door trim board to the rear door panel.

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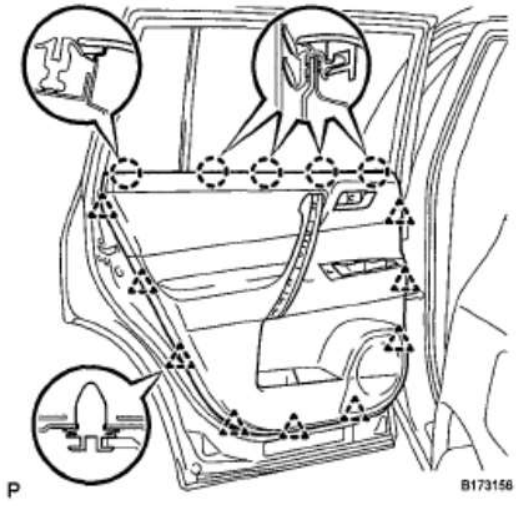


Fig. 249: Identifying Claws On Rear Door Inner Glass Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

e. Install the 2 screws.
f. Install the screw < A >.

Torque: 3.5 N*m (36 kgf*cm, 31 in.*lbf)

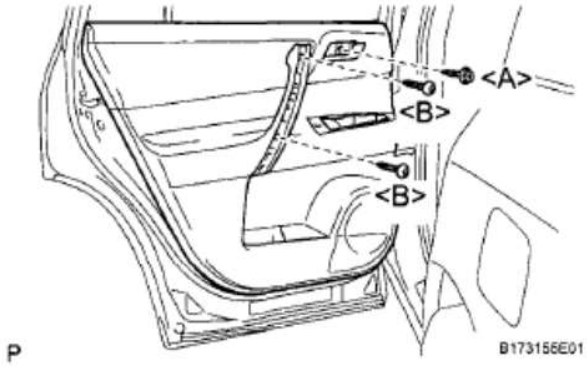


Fig. 250: Identifying Rear Door Trim Board Sub-Assembly With Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

32. **INSTALL DOOR ASSIST GRIP COVER**
    a. Engage the 4 claws and install the door assist grip cover.

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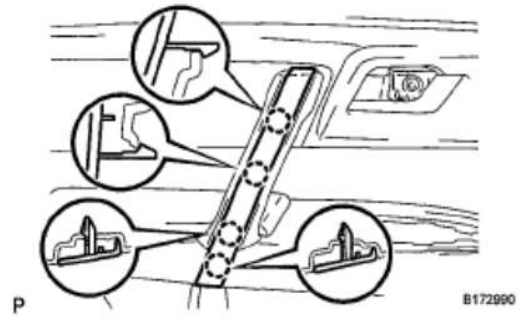


Fig. 251: Identifying Door Assist Grip Cover Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

33. **INSTALL REAR POWER WINDOW REGULATOR SWITCH ASSEMBLY**
    a. Engage the 2 claws and install the rear power window regulator switch assembly.
34. **INSTALL REAR DOOR ARMREST UPPER BASE PANEL**
    a. Connect the connector.

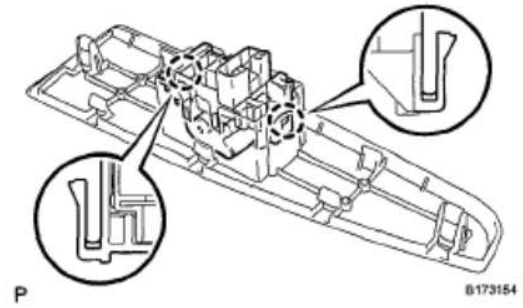


Fig. 252: Identifying Claws Of Rear Power Window Regulator Switch Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Engage the 6 claws and 2 clips and install the rear door armrest upper base panel.

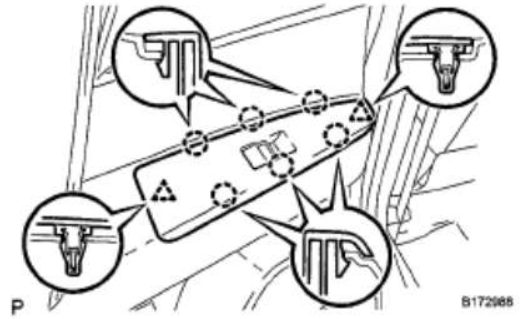


Fig. 253: Identifying Rear Door Armrest Upper Base Panel Claws And Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

35. **INSTALL REAR DOOR INSIDE HANDLE BEZEL PLUG**

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a. Engage the 3 claws to install the rear door inside handle bezel plug.

36. **CONNECT NEGATIVE BATTERY TERMINAL**

NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

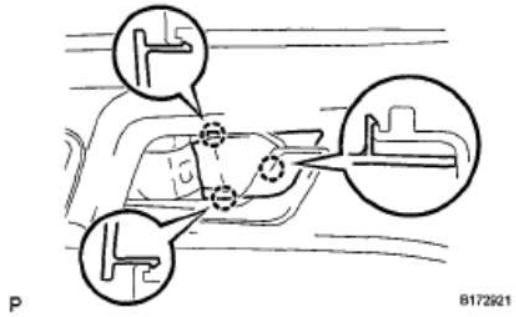


Fig. 254: Identifying Claws On Rear Door Inside Handle Bezel Plug
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

BACK DOOR

COMPONENTS

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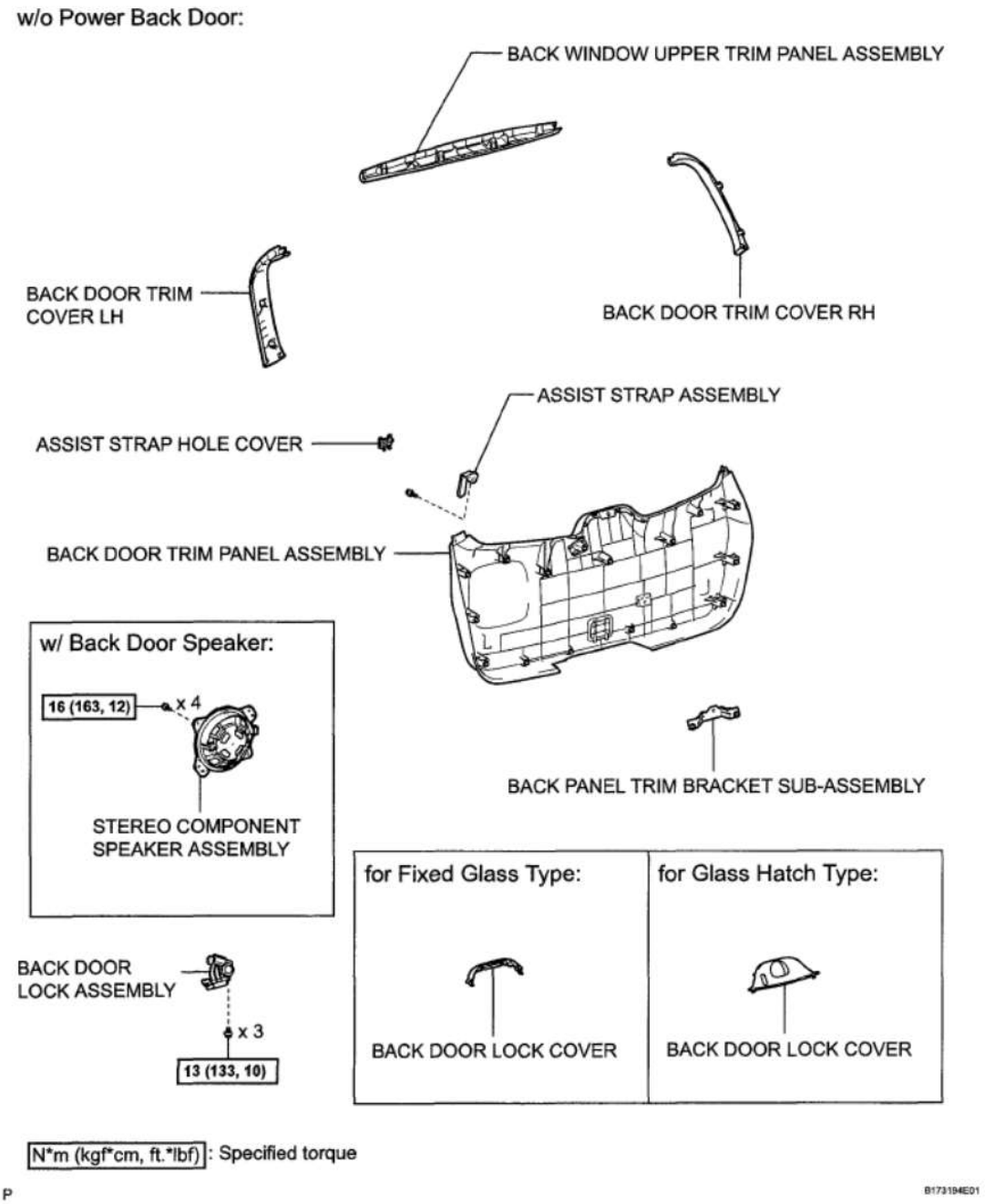


Fig. 255: Identifying Back Door Components With Torque Specification (1 Of 5)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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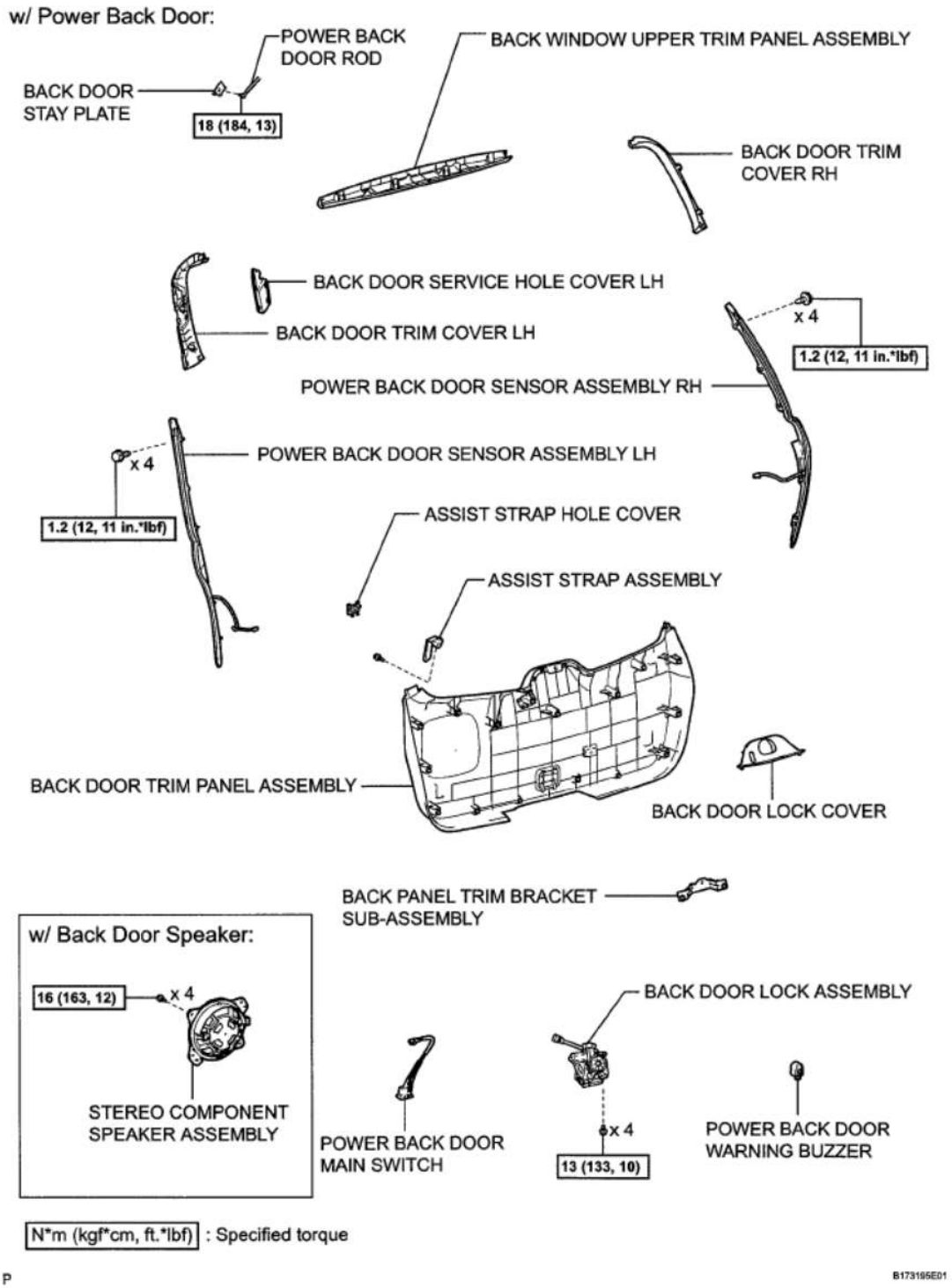


Fig. 256: Identifying Back Door Components With Torque Specification (2 Of 5)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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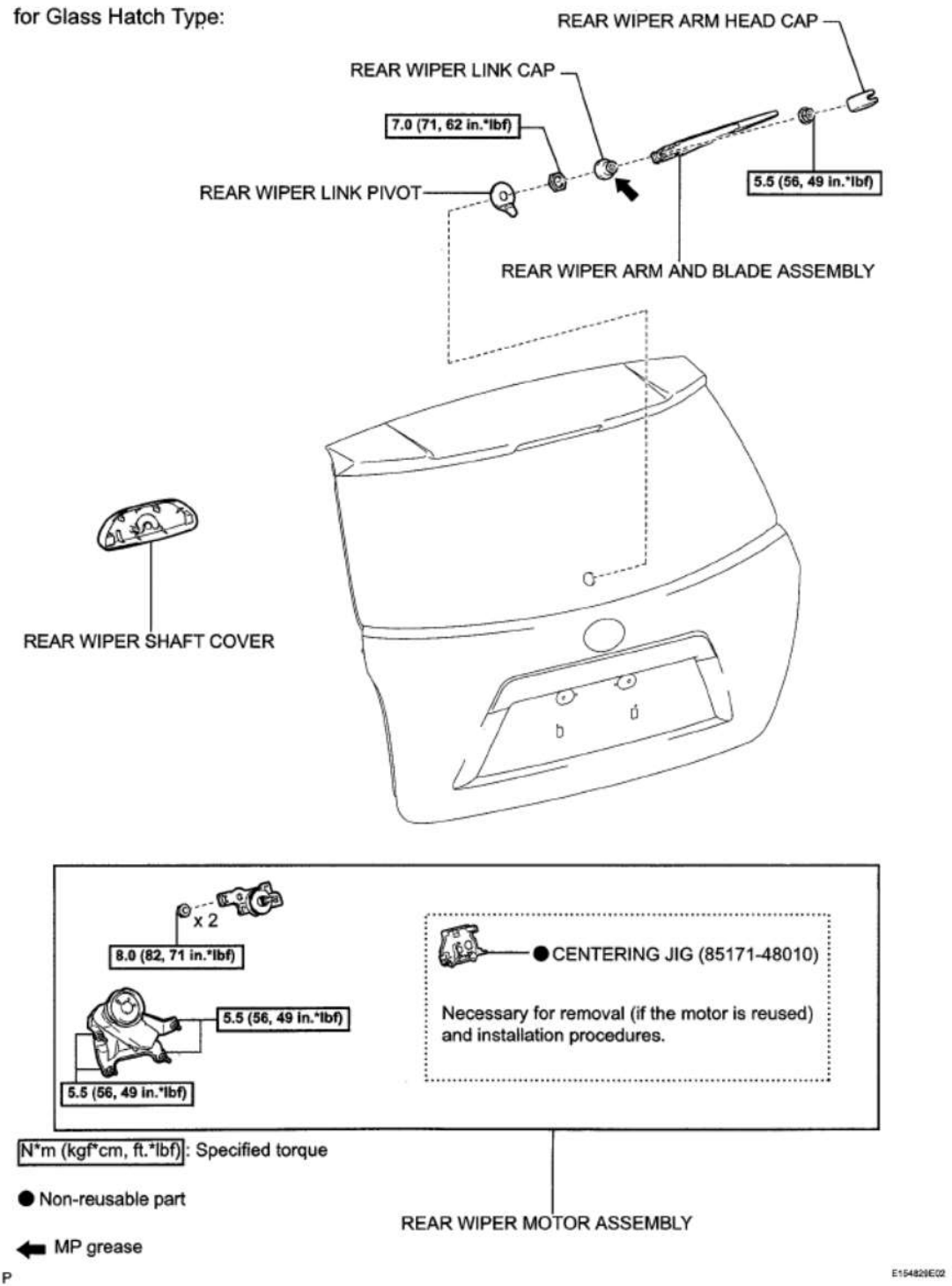


Fig. 257: Identifying Back Door Components With Torque Specification (3 Of 5)
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for Fixed Glass Type:

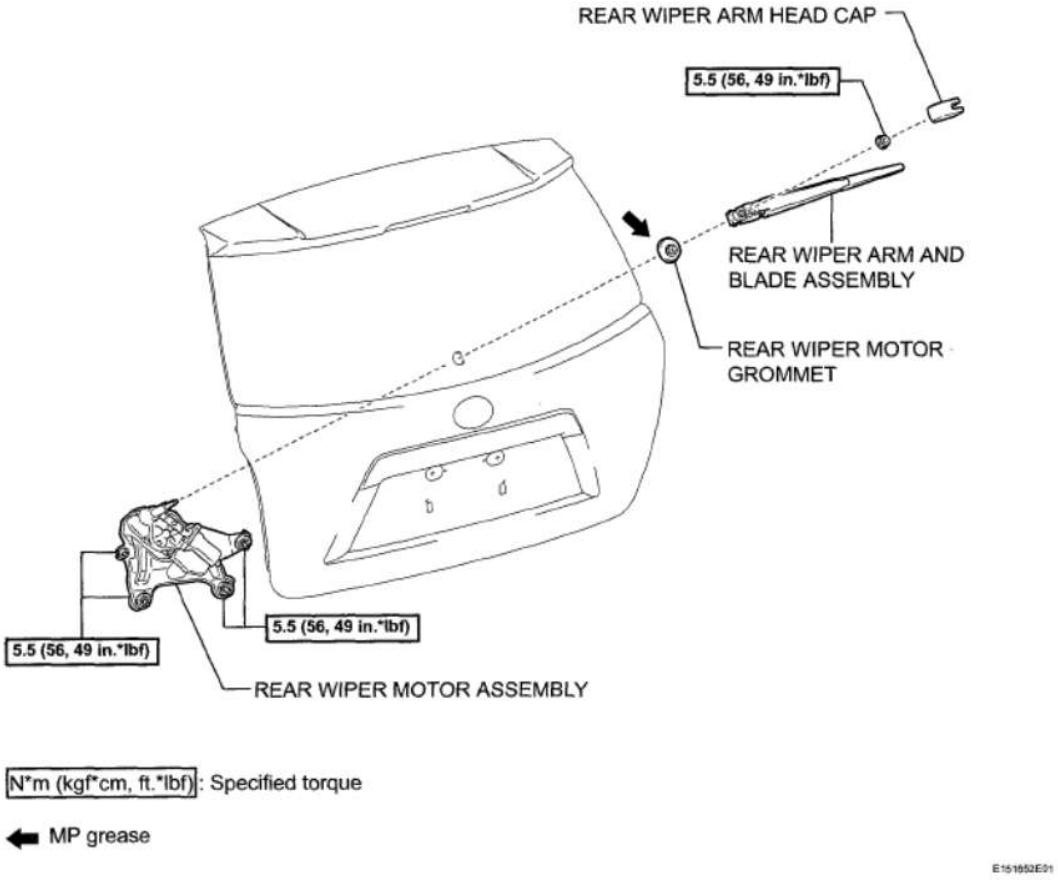


Fig. 258: Identifying Back Door Components With Torque Specification (4 Of 5)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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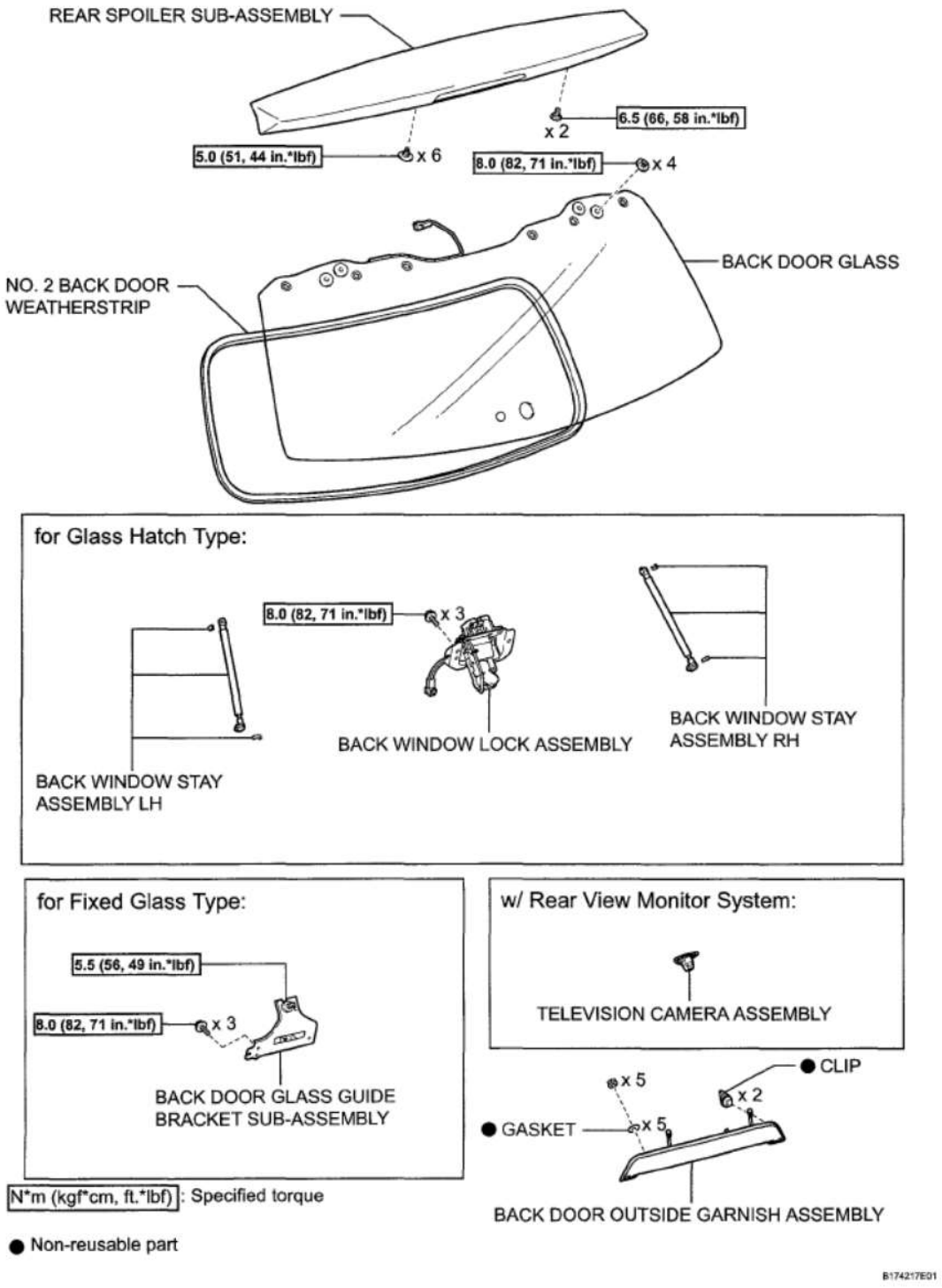


Fig. 259: Identifying Back Door Components With Torque Specification (5 Of 5)
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ON-VEHICLE INSPECTION

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1. **INSPECT BACK DOOR PANEL SUB-ASSEMBLY**
   a. Check that the clearance measurements of areas A through M are within each standard range.

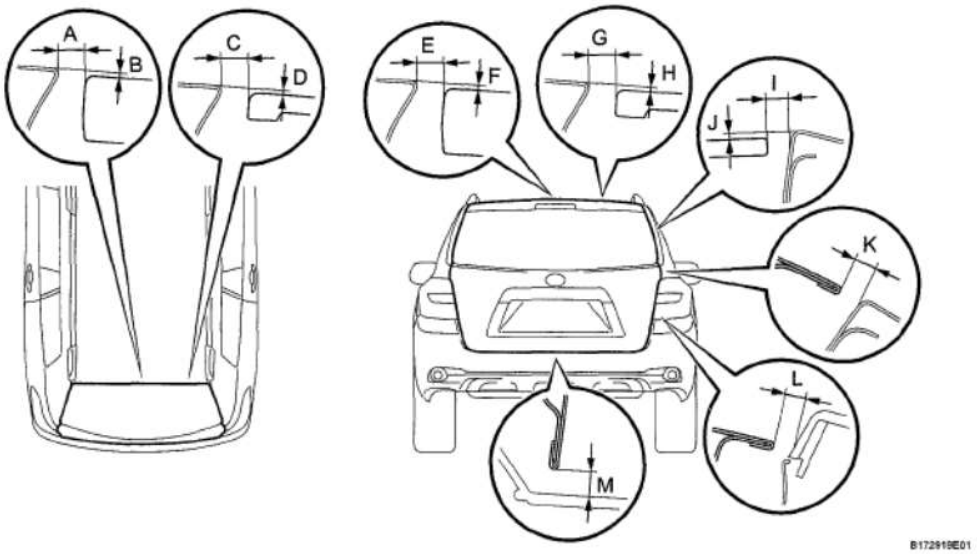


Fig. 260: Identifying Back Door Panel Clearance
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard clearance

STANDARD CLEARANCE REFERENCE

Area	Measurement	Area	Measurement
A	7.8 to 11.8 mm (0.307 to 0.465 in.)	I	4.0 to 8.0 mm (0.158 to 0.315 in.)
B	-3.0 to 0.5 mm (-0.118 to 0.020 in.)	J (for Glass Hatch Type:)	2.0 to 3.5 mm (0.079 to 0.138 in.)
C	7.8 to 11.8 mm (0.307 to 0.465 in.)	J (for Fixed Glass Type.)	2.5 to 3.0 mm (0.098 to 0.118 in.)
D	-3.0 to 0.5 mm (-0.118 to 0.020 in.)	K (Height is 1930 mm (75.984 in.) or more:)	4.0 to 7.0 mm (0.158 to 0.276 in.)
E	7.8 to 11.8 mm (0.307 to 0.465 in.)	K (Height is 1930 mm (75.984 in.) below:)	3.5 to 6.5 mm (0.138 to 0.256 in.)
F	-3.0 to 0.5 mm (-0.118 to 0.020 in.)	L	4.0 to 8.0 mm (0.158 to 0.315 in.)
G	7.8 to 11.8 mm (0.307 to 0.465 in.)	M	4.5 to 8.5 mm (0.177 to 0.335 in.)
H	-3.0 to 0.5 mm (-0.118 to 0.020 in.)	-	-

DISASSEMBLY

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1. **PRECAUTION**

NOTE: **For the glass hatch type, if any of the following parts are removed and installed or adjusted, the location of the axis of the rear wiper motor assembly will change, causing the wiping angle to change. Be sure to remove and install the rear wiper motor assembly using the centering jig.**

BACK DOOR REFERENCE

Back door glass	Rear wiper motor assembly
Back door hinge assembly	Rear wiper link pivot
Back window stay assembly	ear spoiler sub-assembly
Back window lock assembly	-

2. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY**
   a. Disengage the 4 clips and 4 claws, and remove the back window upper trim panel assembly.

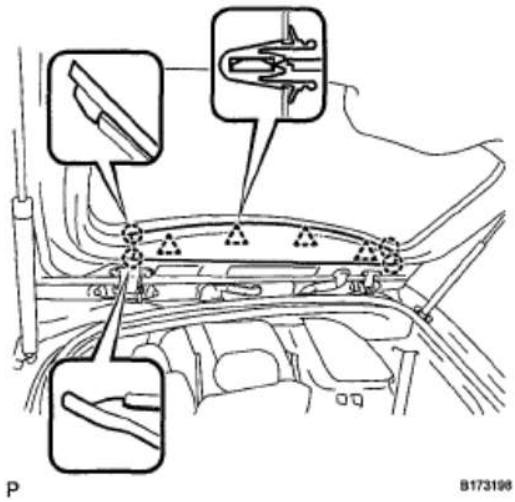


Fig. 261: Identifying Back Window Upper Trim Panel Assembly With Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **REMOVE BACK DOOR TRIM COVER LH (w/o Power Back Door)**
   a. Disengage the 2 clips and 2 claws, and remove the back door trim cover LH.

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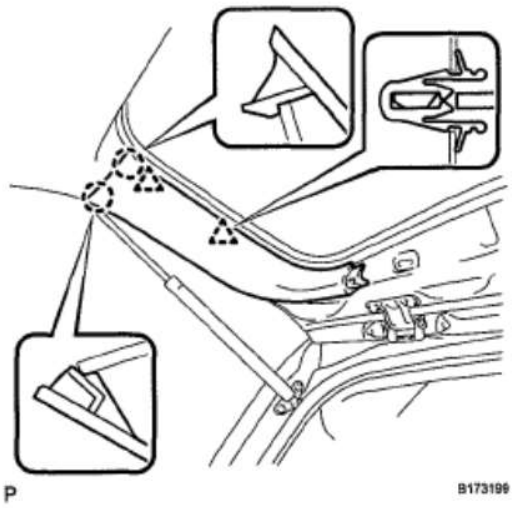


Fig. 262: Identifying Back Door Trim Cover LH Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **REMOVE BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)**
   a. Disengage the 6 claws, and remove the back door service hole cover LH.

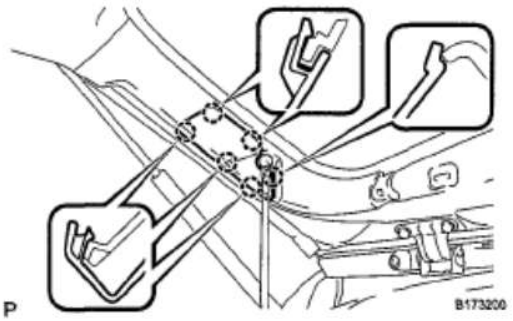
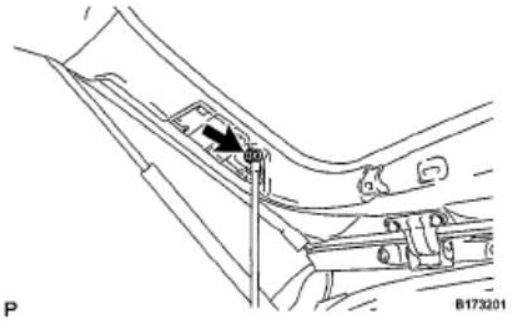


Fig. 263: Identifying Back Door Service Hole Cover LH Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **DISCONNECT POWER BACK DOOR ROD (w/ Power Back Door)**
   a. Disconnect the power back door rod and remove the back door stay plate.



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Fig. 264: Locating Power Back Door Rod Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **REMOVE BACK DOOR TRIM COVER LH (w/ Power Back Door)**
   a. Disengage the 2 clips and 2 claws, and remove the back door trim cover LH.

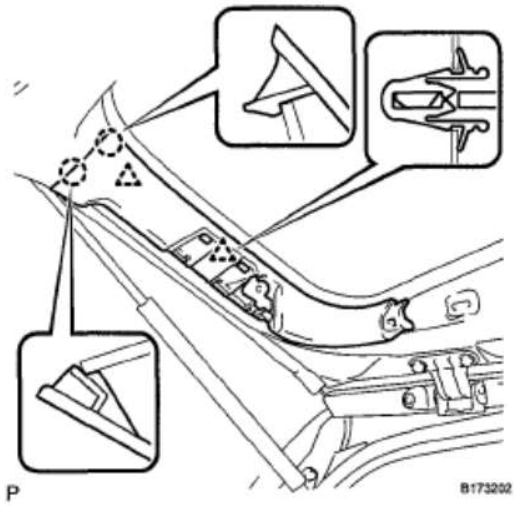


Fig. 265: Identifying Back Door Trim Cover LH Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. **REMOVE BACK DOOR TRIM COVER RH**
   a. Disengage the 2 clips and 2 claws, and remove the back door trim cover RH.

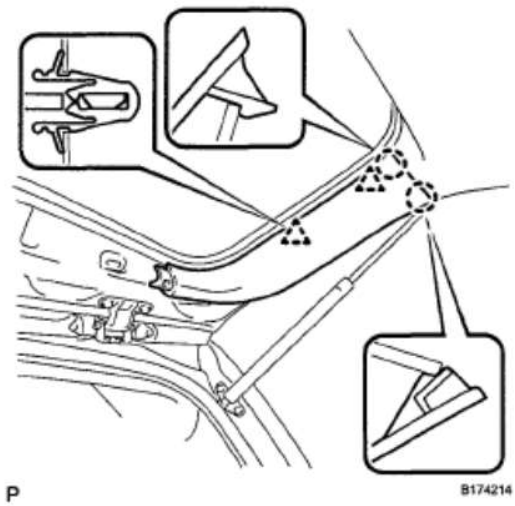


Fig. 266: Identifying Back Door Trim Cover RH Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. **REMOVE BACK DOOR LOCK COVER (for Glass Hatch Type)**

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a. Disengage the 2 claws and 4 guides, and remove the back door lock cover.

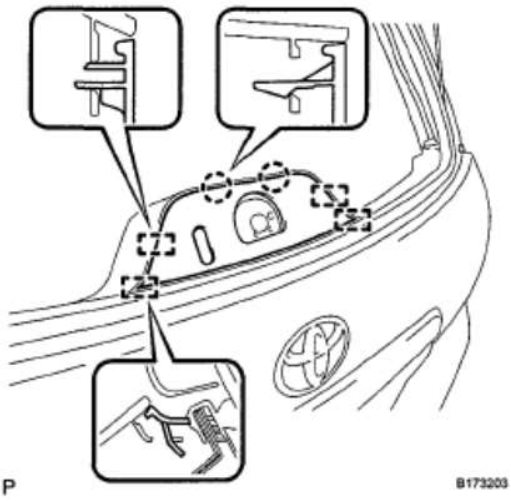


Fig. 267: Identifying Back Door Lock Cover Claws And Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. **REMOVE ASSIST STRAP HOLE COVER**
   a. Disengage the 2 claws and 2 guides, and remove the assist strap hole cover.

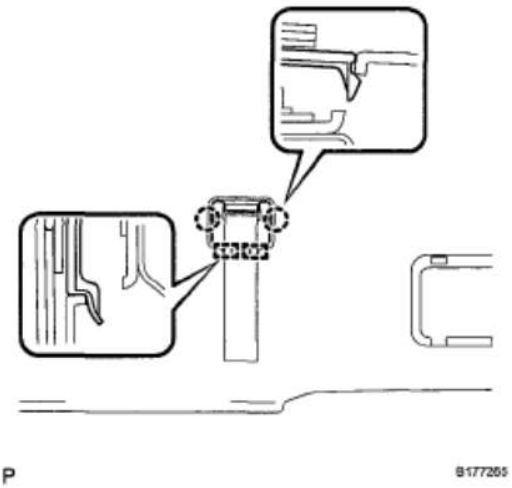


Fig. 268: Identifying Assist Strap Hole Cover Claws And Guides
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10. **REMOVE ASSIST STRAP ASSEMBLY**
    a. Remove the bolt and assist strap assembly.

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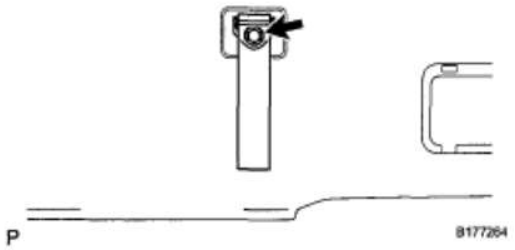


Fig. 269: Locating Assist Strap Assembly Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

11. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY**
    a. Disengage the 16 clips and remove the back door trim panel assembly.



Fig. 270: Identifying Back Door Trim Panel Assembly With Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

12. **REMOVE BACK DOOR LOCK COVER (for Fixed Glass Type)**
    a. Disengage the 2 claws and 4 guides, and remove the back door lock cover.

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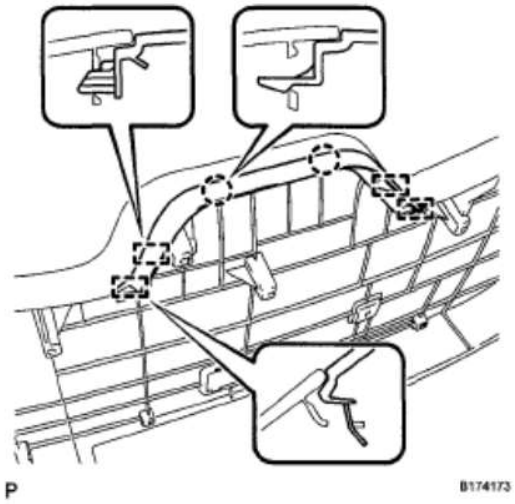


Fig. 271: Identifying Back Door Lock Cover Claws And Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

13. **REMOVE BACK PANEL TRIM BRACKET SUB-ASSEMBLY**
    a. Disengage the 2 clips and remove the back panel trim bracket sub-assembly.

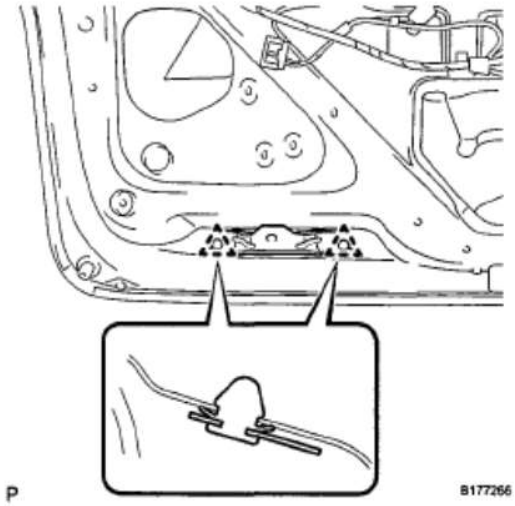


Fig. 272: Identifying Back Panel Trim Bracket Sub-Assembly With Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

14. **REMOVE BACK DOOR LOCK ASSEMBLY (w/o Power Back Door)**
    a. Disconnect the connector.
    b. Remove the 3 bolts and back door lock assembly.

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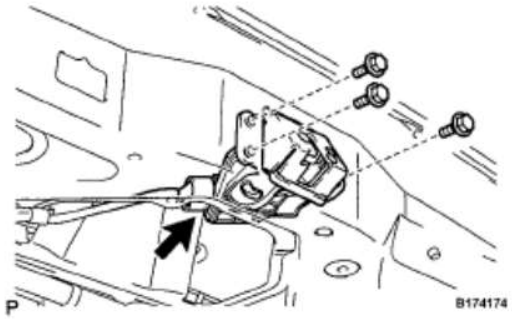


Fig. 273: Locating Back Door Lock Assembly Connector With Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

15. **REMOVE BACK DOOR LOCK ASSEMBLY (w/ Power Back Door)**
    a. Disconnect the connector.
    b. Disengage the clamp.

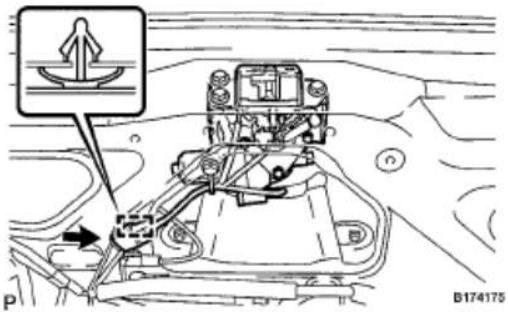
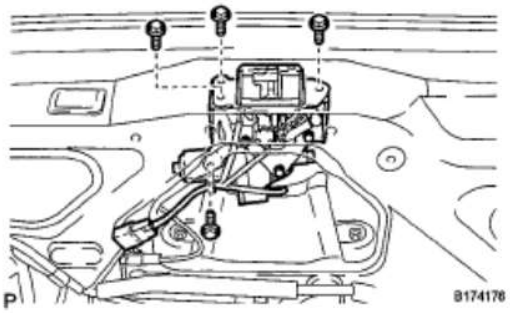


Fig. 274: Locating Back Door Lock Assembly Connector With Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    c. Remove the 4 bolts and back door lock assembly.
16. **REMOVE STEREO COMPONENT SPEAKER ASSEMBLY (w/ Back Door Speaker)** (See **INSTALLATION**)
17. **REMOVE POWER BACK DOOR WARNING BUZZER (w/ Power Back Door)** (See **REMOVAL**)
18. **REMOVE POWER BACK DOOR MAIN SWITCH (w/ Power Back Door)** (See **REMOVAL**)



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Fig. 275: Identifying Back Door Lock Assembly With Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

19. **REMOVE POWER BACK DOOR SENSOR ASSEMBLY LH (w/ Power Back Door)** (See **REMOVAL**)
20. **REMOVE POWER BACK DOOR SENSOR ASSEMBLY RH (w/ Power Back Door)**

HINT:

Use the same procedure for the RH side and the LH side.

21. **REMOVE BACK DOOR OUTSIDE GARNISH ASSEMBLY** (See **REMOVAL**)
22. **REMOVE TELEVISION CAMERA ASSEMBLY (w/ Rear View Monitor System)** (See **REMOVAL**)
23. **REMOVE REAR WIPER SHAFT COVER (for Glass Hatch Type)** (See **REMOVAL**)
24. **REMOVE REAR WIPER ARM HEAD CAP** (See **REMOVAL**)
25. **REMOVE REAR WIPER ARM AND BLADE ASSEMBLY** (See **REMOVAL**)
26. **REMOVE REAR WIPER MOTOR GROMMET (for Fixed Glass Type)** (See **REMOVAL**)
27. **REMOVE REAR WIPER LINK CAP (for Glass Hatch Type)** (See **REMOVAL**)
28. **REMOVE REAR WIPER LINK PIVOT (for Glass Hatch Type)** (See **REMOVAL**)
29. **REMOVE REAR WIPER MOTOR ASSEMBLY (for Glass Hatch Type)** (See **REMOVAL**)
30. **REMOVE REAR WIPER MOTOR ASSEMBLY (for Fixed Glass Type)** (See **REMOVAL**)
31. **REMOVE BACK WINDOW LOCK ASSEMBLY (for Glass Hatch Type)** (See **REMOVAL**)
32. **REMOVE BACK DOOR GLASS GUIDE BRACKET SUB-ASSEMBLY (for Fixed Glass Type)**
    a. Loosen the bolt < A >.

NOTE: **Bolt < A > cannot be removed from the back door glass guide bracket sub-assembly.**

    b. Remove the 3 bolts.

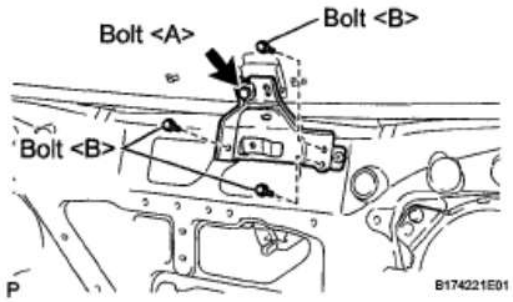


Fig. 276: Locating Back Door Glass Guide Bracket Sub-Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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c. Disengage the clip and remove the back door glass guide bracket sub-assembly.

33. **REMOVE REAR SPOILER SUB-ASSEMBLY** (See **REMOVAL**)
34. **REMOVE BACK WINDOW STAY ASSEMBLY LH (for Glass Hatch Type)** (See **BACK WINDOW SUPPORT**)
35. **REMOVE BACK WINDOW STAY ASSEMBLY RH (for Glass Hatch Type)**

HINT:

Use the same procedure for the RH side and the LH side.

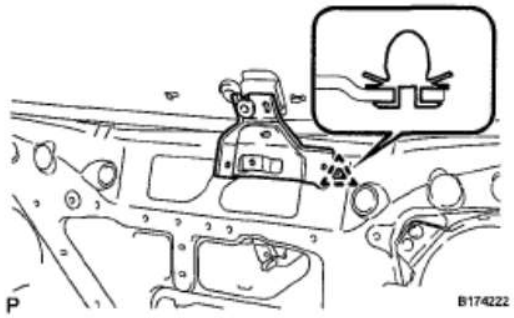


Fig. 277: Identifying Back Door Glass Guide Bracket Sub-Assembly With Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

36. **REMOVE BACK DOOR GLASS** (See **INSTALLATION**)
37. **REMOVE NO. 2 BACK DOOR WEATHERSTRIP**
    a. Remove the No. 2 back door weatherstrip.

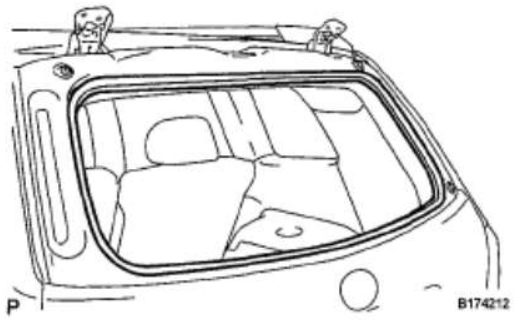


Fig. 278: Identifying No. 2 Back Door Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ADJUSTMENT

HINT:

- Use the same procedure for the RH side and LH side.

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- The following procedure is for the LH side.
- Centering bolts are used to mount the door hinge to the vehicle body and door. The door cannot be adjusted with the centering bolts installed. Substitute the centering bolts with standard bolts (with washers) when making adjustments.
- A bolt without a torque specification is shown in the standard bolt chart (See **SERVICE SPECIFICATIONS - STANDARD BOLT**).

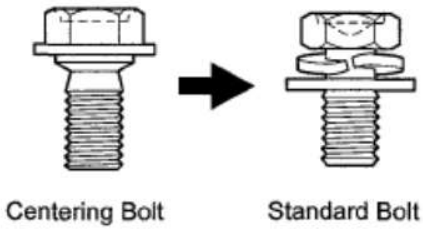


Fig. 279: Identifying Centering Bolt And Standard Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. **PRECAUTION**

NOTE:

- **For the glass hatch type, if the back door adjustment is performed, the location of the axis of the rear wiper motor assembly will change, causing the wiping angle to change. Be sure to remove and install the rear wiper motor assembly using the centering jig.**
- **Do not open the glass hatch before installing the rear wiper link pivot.**

2. **REMOVE DECK BOARD ASSEMBLY** (See **REMOVAL**)
3. **REMOVE NO. 3 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
4. **REMOVE NO. 2 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
5. **REMOVE TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **REMOVAL**)
6. **REMOVE REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **REMOVAL**)
7. **REMOVE REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
8. **REMOVE DECK SIDE TRIM BOX LH** (See **REMOVAL**)
9. **REMOVE REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
10. **REMOVE JACK CARRIER SUPPORT**
11. **REMOVE JACK CARRIER CUSHION** (See **REMOVAL**)
12. **REMOVE JACK ASSEMBLY** (See **REMOVAL**)
13. **REMOVE JACK CARRIER ASSEMBLY** (See **REMOVAL**)
14. **REMOVE DECK SIDE TRIM BOX RH** (See **REMOVAL**)
15. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **REMOVAL**)

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16. **REMOVE REAR MAT** (See **REMOVAL**)
17. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **REMOVAL**)
18. **REMOVE REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **REMOVAL**)
19. **REMOVE REAR FLOOR FINISH PLATE** (See **REMOVAL**)
20. **ADJUST BACK DOOR PANEL SUB-ASSEMBLY**
    a. Before adjusting the upper end of the back door up and down or left and right, loosen the bolts.
    b. Tighten the body side hinge after the adjustment.

    Torque: 20 N*m (204 kgf*cm, 15 ft.*lbf)

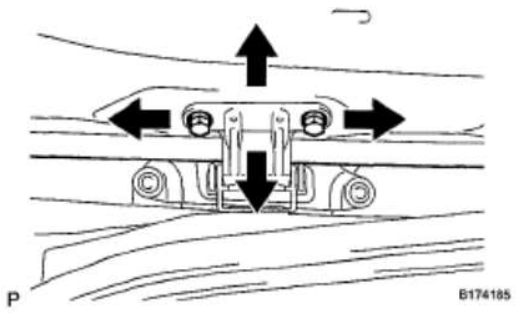


Fig. 280: Adjusting Upper End Of Back Door
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    c. Adjust the striker position by slightly loosening the striker mounting screws and hitting the striker with a plastic hammer.
    d. Tighten the striker mounting screws after the adjustment.

    Torque: 23 N*m (235 kgf*cm, 17 ft.*lbf)

21. **INSTALL REAR FLOOR FINISH PLATE** (See **INSTALLATION**)
22. **INSTALL REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
23. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **INSTALLATION**)

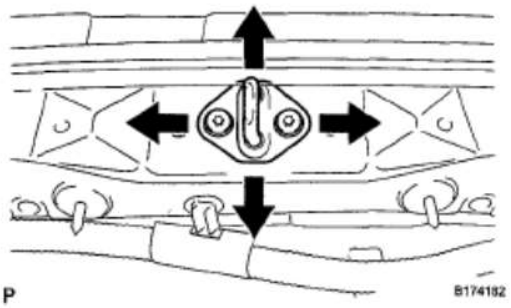


Fig. 281: Adjusting Striker
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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24. **INSTALL REAR MAT** (See **INSTALLATION**)
25. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
26. **INSTALL DECK SIDE TRIM BOX LH** (See **INSTALLATION**)
27. **INSTALL REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
28. **INSTALL DECK SIDE TRIM BOX RH** (See **INSTALLATION**)
29. **INSTALL JACK CARRIER ASSEMBLY** (See **INSTALLATION**)
30. **INSTALL JACK ASSEMBLY** (See **INSTALLATION**)
31. **INSTALL JACK CARRIER CUSHION** (See **INSTALLATION**)
32. **INSTALL JACK CARRIER SUPPORT**
33. **INSTALL REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
34. **INSTALL REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
35. **INSTALL TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **INSTALLATION**)
36. **INSTALL NO. 2 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
37. **INSTALL NO. 3 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
38. **INSTALL DECK BOARD ASSEMBLY** (See **INSTALLATION**)
39. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
40. **REMOVE BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **DISASSEMBLY**)
41. **REMOVE BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **ADJUSTMENT**)
42. **DISCONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **ADJUSTMENT**)
43. **REMOVE BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **ADJUSTMENT**)
44. **REMOVE BACK DOOR TRIM COVER RH** (See **ADJUSTMENT**)
45. **REMOVE BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **ADJUSTMENT**)
46. **REMOVE ASSIST STRAP HOLE COVER** (See **ADJUSTMENT**)
47. **REMOVE ASSIST STRAP ASSEMBLY** (See **ADJUSTMENT**)
48. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **ADJUSTMENT**)
49. **REMOVE REAR WIPER SHAFT COVER (for Glass Hatch Type)** (See **REMOVAL**)
50. **REMOVE REAR WIPER ARM HEAD CAP** (See **REMOVAL**)
51. **REMOVE REAR WIPER ARM AND BLADE ASSEMBLY** (See **REMOVAL**)
52. **REMOVE REAR WIPER LINK CAP (for Glass Hatch Type)** (See **REMOVAL**)
53. **REMOVE REAR WIPER LINK PIVOT (for Glass Hatch Type)** (See **REMOVAL**)
54. **REMOVE REAR WIPER MOTOR ASSEMBLY (for Glass Hatch Type)** (See **REMOVAL**)
55. **INSTALL REAR WIPER MOTOR ASSEMBLY (for Glass Hatch Type)** (See **INSTALLATION**)
56. **INSTALL REAR WIPER LINK PIVOT (for Glass Hatch Type)** (See **INSTALLATION**)
57. **INSTALL REAR WIPER LINK CAP (for Glass Hatch Type)** (See **INSTALLATION**)
58. **INSTALL REAR WIPER ARM AND BLADE ASSEMBLY (for Glass Hatch Type)** (See **INSTALLATION**)
59. **INSTALL REAR WIPER ARM HEAD CAP** (See **INSTALLATION**)

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60. **INSTALL REAR WIPER SHAFT COVER (for Glass Hatch Type)** (See **INSTALLATION**)
61. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
62. **INSTALL ASSIST STRAP ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
63. **INSTALL ASSIST STRAP HOLE COVER** (See **BACK DOOR OPENER SWITCH**)
64. **INSTALL BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **BACK DOOR OPENER SWITCH**)
65. **INSTALL BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
66. **INSTALL BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
67. **CONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
68. **INSTALL BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
69. **INSTALL BACK DOOR TRIM COVER RH** (See **BACK DOOR OPENER SWITCH**)
70. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)

REASSEMBLY

1. **PRECAUTION**

NOTE:

- **For the glass hatch type, if any of the following parts are removed and installed or adjusted, the location of the axis of the rear wiper motor assembly will change, causing the wiping angle to change. Be sure to remove and install the rear wiper motor assembly using the centering jig.**
- **After installing the back door glass, do not open it before installing the rear wiper link pivot.**

BACK DOOR REFERENCE

Back door glass	Rear wiper motor assembly
Back door hinge assembly	Rear wiper link pivot
Back window stay assembly	Rear spoiler sub-assembly
Back window lock assembly	-

2. **INSTALL NO. 2 BACK DOOR WEATHERSTRIP**
   a. Align the alignment mark (red) on the weatherstrip with the protruding portion on the body indicated by the arrow in the illustration, and install the No. 2 back door weatherstrip.

NOTE: **After installation, check that the corners fit correctly.**

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3. **INSTALL BACK DOOR GLASS** (See **INSTALLATION**)
4. **INSTALL BACK WINDOW STAY ASSEMBLY LH (for Glass Hatch Type)** (See **DISPOSAL**)
5. **INSTALL BACK WINDOW STAY ASSEMBLY RH (for Glass Hatch Type)**

   HINT:

   Use the same procedure for the RH side and the LH side.

6. **INSTALL REAR SPOILER SUB-ASSEMBLY** (See **INSTALLATION**)

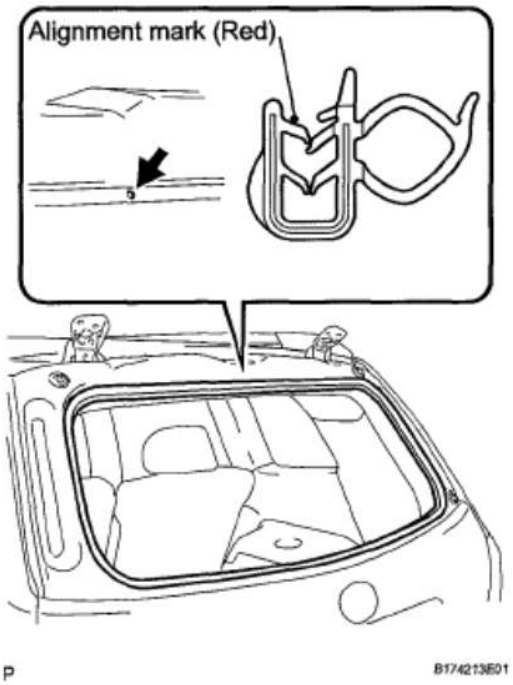
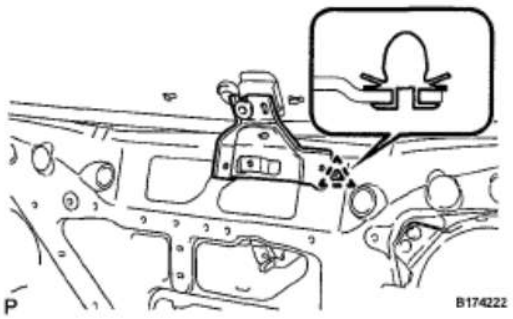


Fig. 282: Identifying Alignment Mark (Red) On Weatherstrip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. **INSTALL BACK DOOR GLASS GUIDE BRACKET SUB-ASSEMBLY (for Fixed Glass Type)**
   a. Engage the clip and install the back door glass guide bracket sub-assembly.



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Fig. 283: Identifying Back Door Glass Guide Bracket Sub-Assembly With Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Install the 3 bolts.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

c. Tighten the bolt < A >.

Torque: 5.5 N*m (56 kgf*cm, 49 in.*lbf)

8. **INSTALL BACK WINDOW LOCK ASSEMBLY (for Glass Hatch Type)** (See **INSTALLATION**)
9. **INSTALL REAR WIPER MOTOR ASSEMBLY (for Fixed Glass Type)** (See **INSTALLATION**)
10. **INSTALL REAR WIPER MOTOR ASSEMBLY (for Glass Hatch Type)** (See **INSTALLATION**)
11. **INSTALL REAR WIPER MOTOR GROMMET (for Fixed Glass Type)** (See **INSTALLATION**)

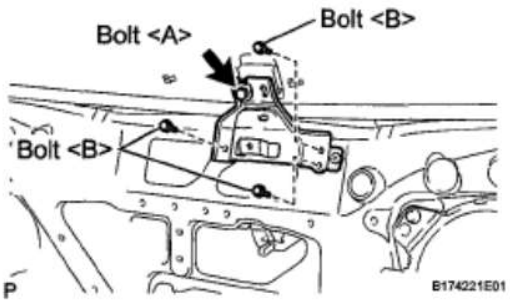


Fig. 284: Locating Back Door Glass Guide Bracket Sub-Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

12. **INSTALL REAR WIPER LINK PIVOT (for Glass Hatch Type)** (See **INSTALLATION**)
13. **INSTALL REAR WIPER LINK CAP (for Glass Hatch Type)** (See **INSTALLATION**)
14. **INSTALL REAR WIPER ARM AND BLADE ASSEMBLY (for Fixed Glass Type)** (See **INSTALLATION**)
15. **INSTALL REAR WIPER ARM AND BLADE ASSEMBLY (for Glass Hatch Type)** (See **INSTALLATION**)
16. **INSTALL REAR WIPER ARM HEAD CAP** (See **INSTALLATION**)
17. **INSTALL REAR WIPER SHAFT COVER (for Glass Hatch Type)** (See **INSTALLATION**)
18. **INSTALL TELEVISION CAMERA ASSEMBLY (w/ Rear View Monitor System)** (See **INSTALLATION**)
19. **INSTALL BACK DOOR OUTSIDE GARNISH ASSEMBLY** (See **INSTALLATION**)
20. **INSTALL POWER BACK DOOR SENSOR ASSEMBLY LH (w/ Power Back Door)** (See **INSPECTION**)
21. **INSTALL POWER BACK DOOR SENSOR ASSEMBLY RH (w/ Power Back Door)**

HINT:

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Use the same procedure for the RH side and the LH side.

22. **INSTALL POWER BACK DOOR MAIN SWITCH (w/ Power Back Door)** (See **INSPECTION**)
23. **INSTALL POWER BACK DOOR WARNING BUZZER (w/ Power Back Door)** (See **INSTALLATION**)
24. **INSTALL STEREO COMPONENT SPEAKER ASSEMBLY (w/ Back Door Speaker)** (See **INSTALLATION**)
25. **INSTALL BACK DOOR LOCK ASSEMBLY (w/o Power Back Door)**
    a. Connect the connector.
    b. Install the back door lock assembly with the 3 bolts.

    Torque: 13 N*m (133 kgf*cm, 10 ft.*lbf)

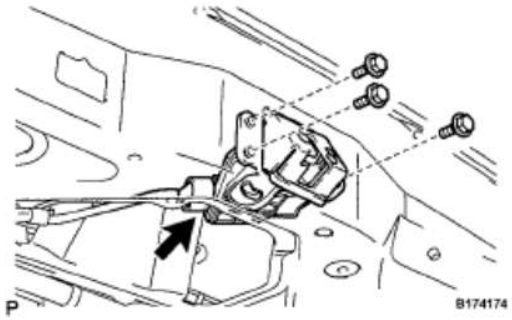


Fig. 285: Locating Back Door Lock Assembly Connector With Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

26. **INSTALL BACK DOOR LOCK ASSEMBLY (w/ Power Back Door)**
    a. Install the back door lock assembly with the 4 bolts.

    Torque: 13 N*m (133 kgf*cm, 10 ft.*lbf)

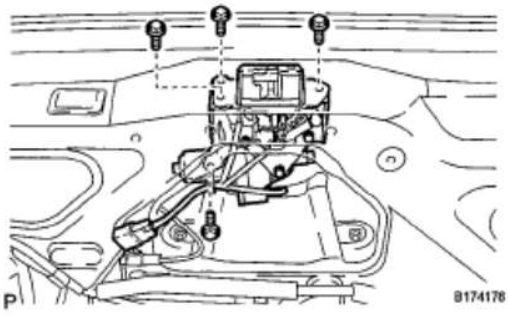


Fig. 286: Identifying Back Door Lock Assembly With Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Connect the connector.
    c. Engage the clamp.

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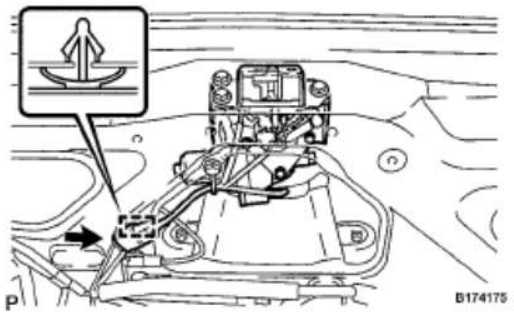


Fig. 287: Locating Back Door Lock Assembly Connector With Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

27. **INSTALL BACK PANEL TRIM BRACKET SUB-ASSEMBLY**
    a. Engage the 2 clips and install the back panel trim bracket sub-assembly.

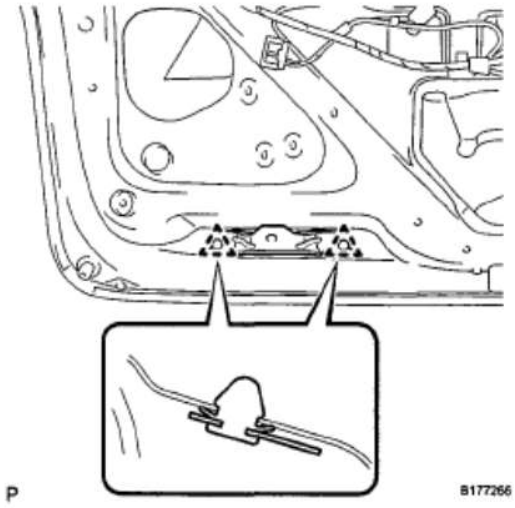


Fig. 288: Identifying Back Panel Trim Bracket Sub-Assembly With Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

28. **INSTALL BACK DOOR LOCK COVER (for Fixed Glass Type)**
    a. Engage the 4 guides and 2 claws, and install the back door lock cover.

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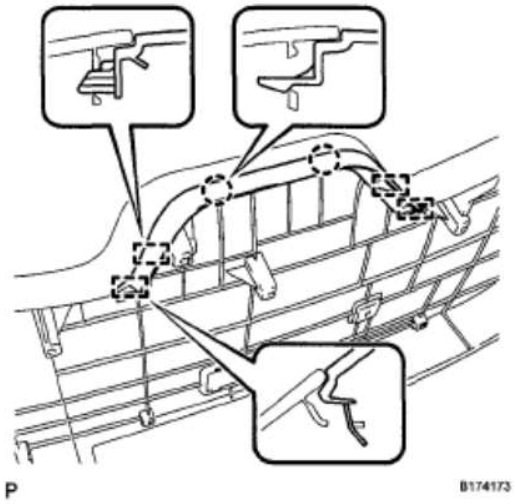


Fig. 289: Identifying Back Door Lock Cover Claws And Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

29. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY**
    a. Engage the 16 clips and install the back door trim panel assembly.



Fig. 290: Identifying Back Door Trim Panel Assembly With Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

30. **INSTALL ASSIST STRAP ASSEMBLY**
    a. Install the assist strap assembly with the bolt.

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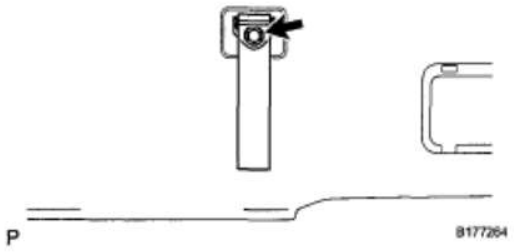


Fig. 291: Locating Assist Strap Assembly Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

31. **INSTALL ASSIST STRAP HOLE COVER**
    a. Engage the 2 guides and 2 claws, and install the assist strap hole cover.

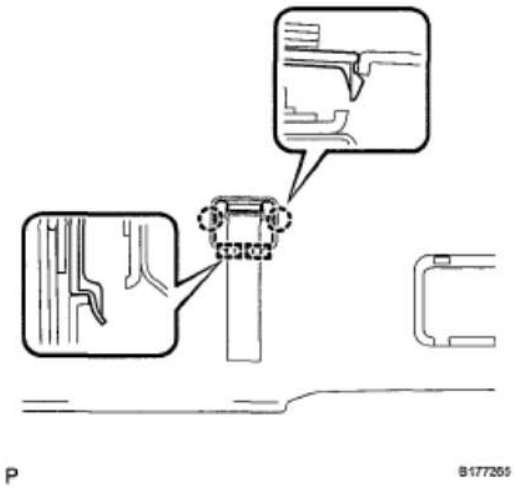


Fig. 292: Identifying Assist Strap Hole Cover Claws And Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

32. **INSTALL BACK DOOR LOCK COVER (for Glass Hatch Type)**
    a. Engage the 4 guides and 2 claws, and install the back door lock cover.

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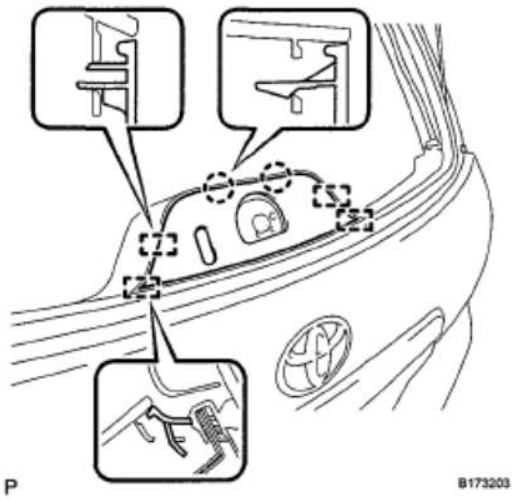


Fig. 293: Identifying Back Door Lock Cover Claws And Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

33. **INSTALL BACK DOOR TRIM COVER LH (w/o Power Back Door)**
    a. Engage the 2 clips and 2 claws, and install the back door trim cover LH.

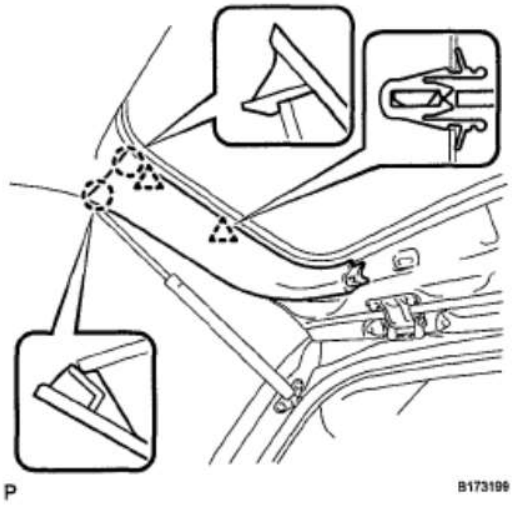


Fig. 294: Identifying Back Door Trim Cover LH Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

34. **INSTALL BACK DOOR TRIM COVER LH (w/ Power Back Door)**
    a. Engage the 2 clips and 2 claws, and install the back door trim cover LH.

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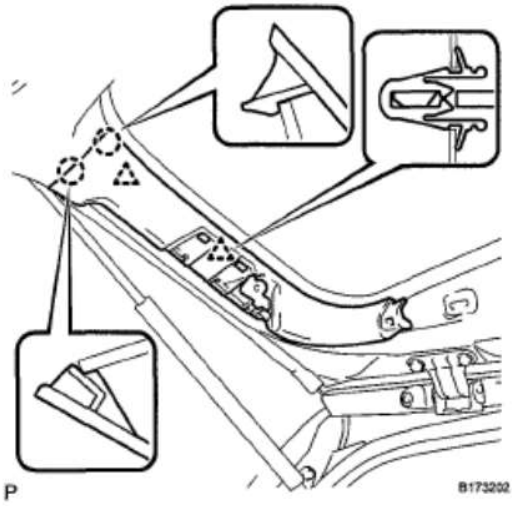


Fig. 295: Identifying Back Door Trim Cover LH Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

35. **CONNECT POWER BACK DOOR ROD (w/ Power Back Door)**
    a. Install the back door stay plate and connect the power back door rod.

    Torque: 18 N*m (184 kgf*cm, 13 ft.*lbf)

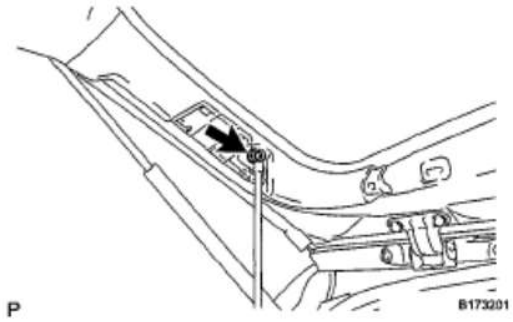


Fig. 296: Locating Power Back Door Rod Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

36. **INSTALL BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)**
    a. Engage the 6 claws and install the back door service hole cover LH.

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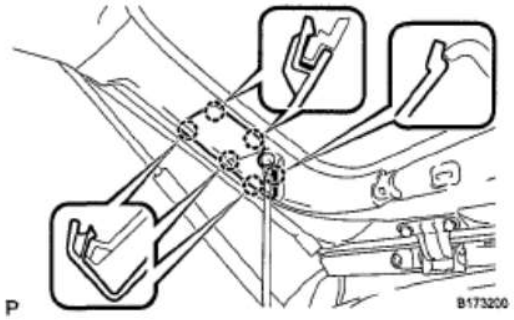


Fig. 297: Identifying Back Door Service Hole Cover LH Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

37. **INSTALL BACK DOOR TRIM COVER RH**
    a. Engage the 2 clips and 2 claws, and install the back door trim cover RH.

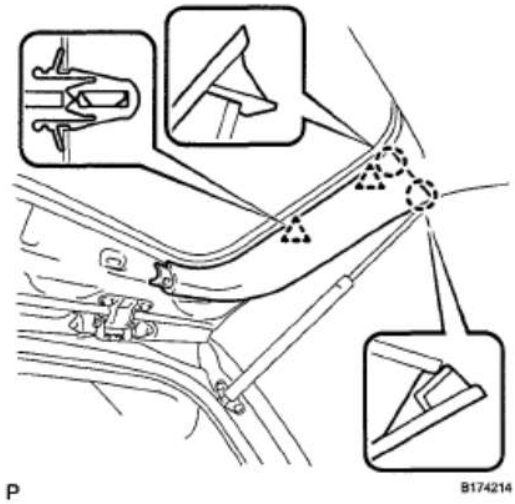


Fig. 298: Identifying Back Door Trim Cover RH Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

38. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY**
    a. Engage the 4 clips and 4 claws, and install the back window upper trim panel assembly.

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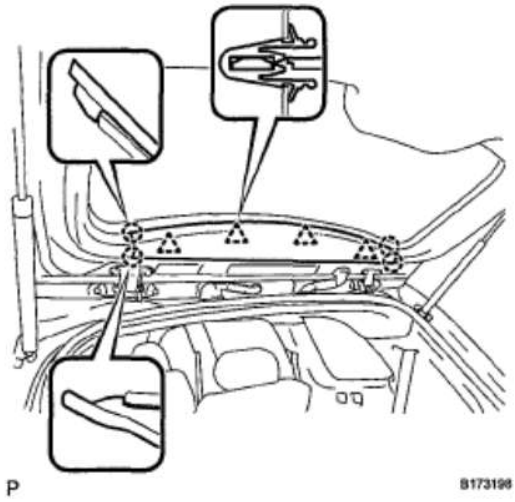


Fig. 299: Identifying Back Window Upper Trim Panel Assembly With Clips And Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

BACK DOOR OPENER SWITCH

COMPONENTS

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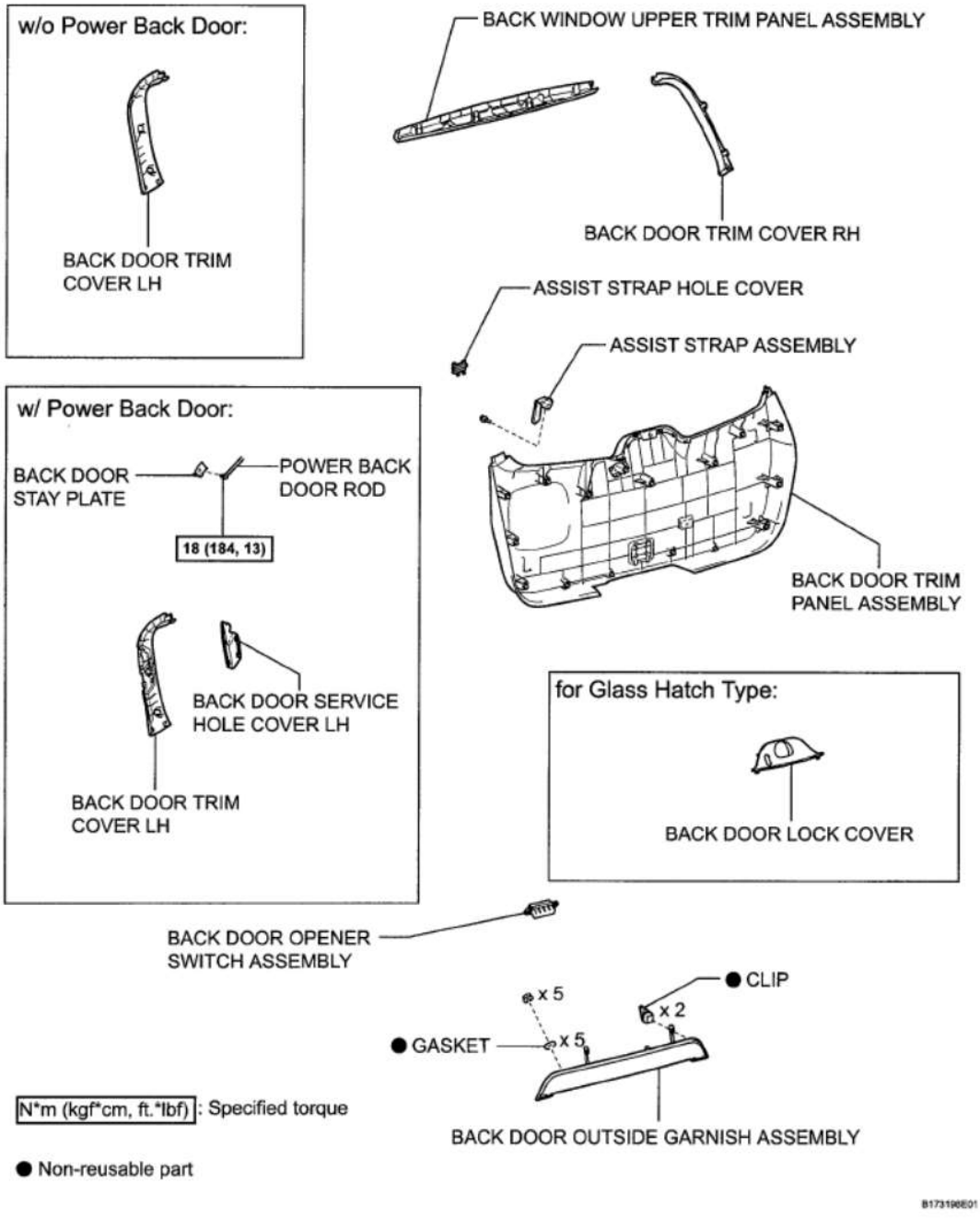


Fig. 300: Identifying Back Door Opener Switch Components With Torque Specification
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
2. **REMOVE BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **DISASSEMBLY**)
3. **REMOVE BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **ADJUSTMENT**)

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4. **DISCONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **ADJUSTMENT**)
5. **REMOVE BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **ADJUSTMENT**)
6. **REMOVE BACK DOOR TRIM COVER RH** (See **ADJUSTMENT**)
7. **REMOVE BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **ADJUSTMENT**)
8. **REMOVE ASSIST STRAP HOLE COVER** (See **ADJUSTMENT**)
9. **REMOVE ASSIST STRAP ASSEMBLY** (See **ADJUSTMENT**)
10. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **ADJUSTMENT**)
11. **REMOVE BACK DOOR OUTSIDE GARNISH ASSEMBLY** (See **REMOVAL**)
12. **REMOVE BACK DOOR OPENER SWITCH ASSEMBLY**
    a. Remove the back door opener switch assembly.

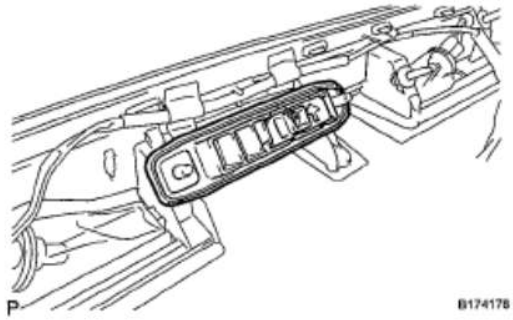


Fig. 301: Identifying Back Door Opener Switch Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT BACK DOOR OPENER SWITCH ASSEMBLY**
    a. Check operation of the opener switch.
        1. Measure the resistance according to the value (s) in the table below.

Component without harness connected: (Back Door Opener Switch)

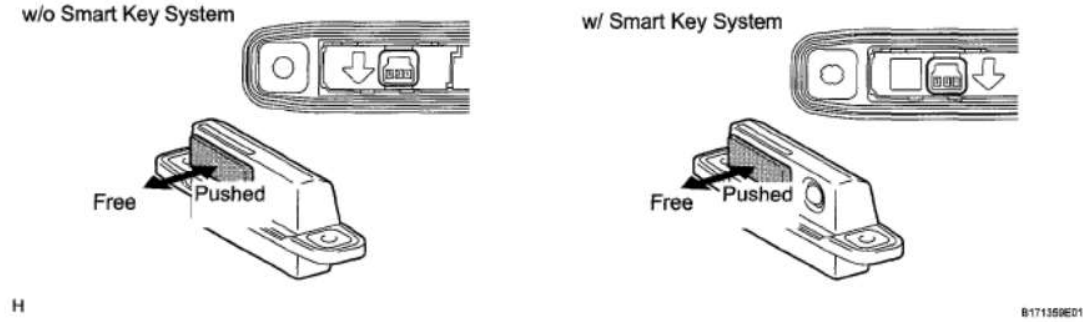


Fig. 302: Checking Operation Of Opener Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Switch Position	Specified Condition
2-3	Back door opener switch not pushed (OFF)	10 kohms or higher
2-3	Back door opener switch pushed (ON)	Below 1 ohms

If the result is not specified, replace the back door opener switch assembly.

b. Check operation of the lock switch (w/ Smart Key System).
   1. Measure the resistance according to the value (s) in the table below.

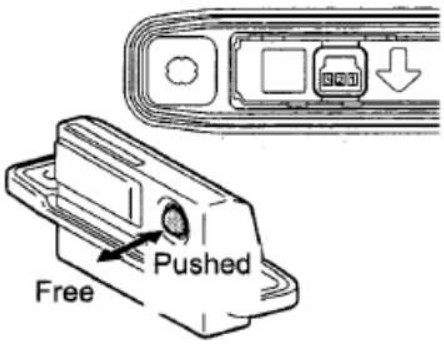
Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Switch Position	Specified Condition
1-2	Back door lock switch not pushed (OFF)	10 kohms or higher
1-2	Back door lock switch pushed (ON)	Below 1 ohms

If the result is not specified, replace the back door opener switch assembly.

Component without harness connected:
(Back Door Opener Switch (Lock Switch))



H B171360E01

Fig. 303: Checking Operation Of Lock Switch (W/ Smart Key System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

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1. **INSTALL BACK DOOR OPENER SWITCH ASSEMBLY**
   a. Install the back door opener switch assembly.
2. **INSTALL BACK DOOR OUTSIDE GARNISH ASSEMBLY** (See **INSTALLATION**)
3. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
4. **INSTALL ASSIST STRAP ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
5. **INSTALL ASSIST STRAP HOLE COVER** (See **BACK DOOR OPENER SWITCH**)

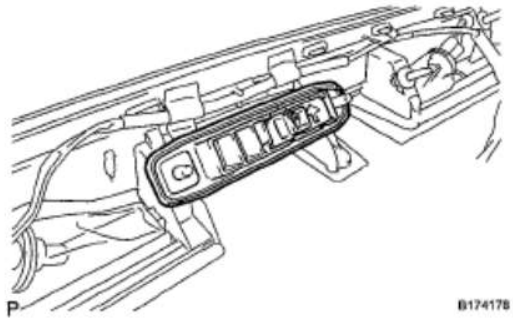


Fig. 304: Identifying Back Door Opener Switch Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **INSTALL BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **BACK DOOR OPENER SWITCH**)
7. **INSTALL BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
8. **INSTALL BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
9. **CONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
10. **INSTALL BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
11. **INSTALL BACK DOOR TRIM COVER RH** (See **BACK DOOR OPENER SWITCH**)
12. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)

POWER BACK DOOR MAIN SWITCH

COMPONENTS

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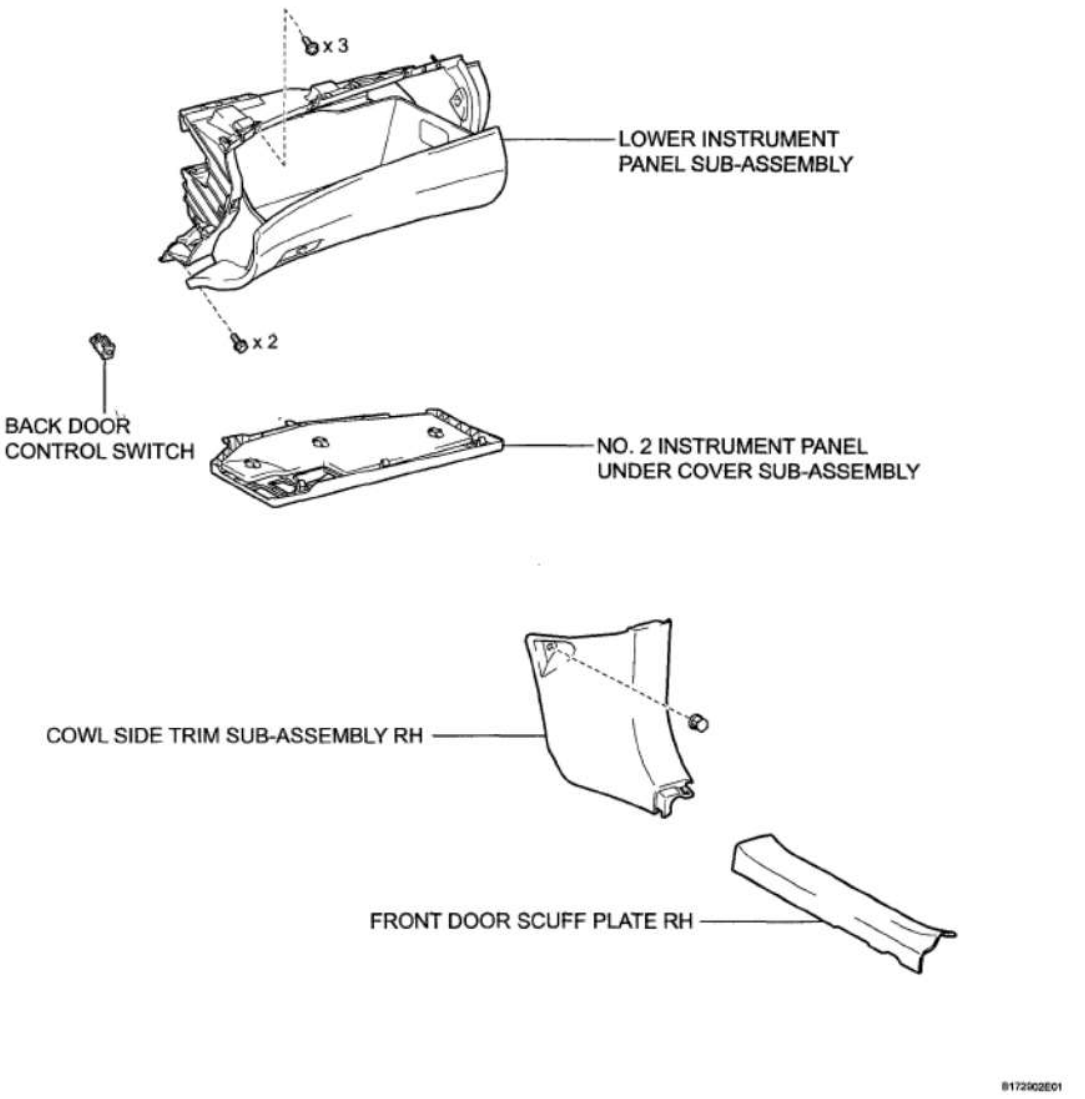


Fig. 305: Identifying Power Back Door Main Switch Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE FRONT DOOR SCUFF PLATE RH**
   a. Disengage the 8 claws and guide, and remove the front door scuff plate RH.

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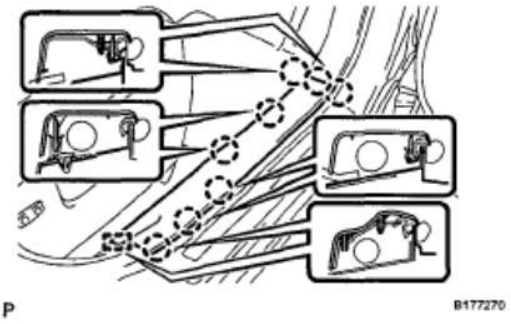


Fig. 306: Identifying Front Door Scuff Plate RH Claws And Guide
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH**
   a. Remove the clip.
   b. Disengage the clip and claw, and remove the cowl side trim sub-assembly RH.
3. **REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **REMOVAL**)
4. **REMOVE LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **REMOVAL**)

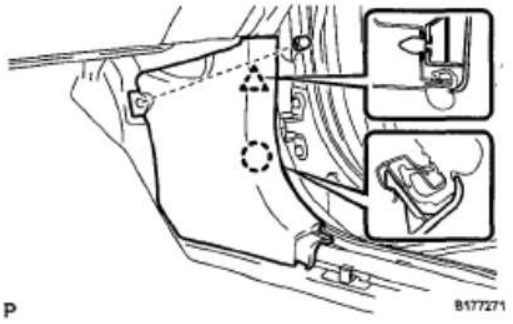


Fig. 307: Identifying Clip And Claw Of Cowl Side Trim Sub-Assembly RH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **REMOVE BACK DOOR CONTROL SWITCH**
   a. Disengage the 2 claws and remove the back door control switch.

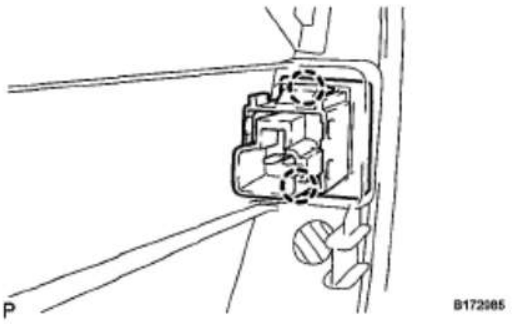


Fig. 308: Identifying Back Door Control Switch Claws

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

INSPECTION

1. **INSPECT POWER BACK DOOR MAIN SWITCH**
   a. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Switch Condition	Specified Condition
1-2	Free (OFF)	10 kohms or higher
1-2	Pushed (ON)	Below 1 ohms

If the result is not as specified, replace the switch.

Component without harness connected:
(Power Back Door Main Switch)

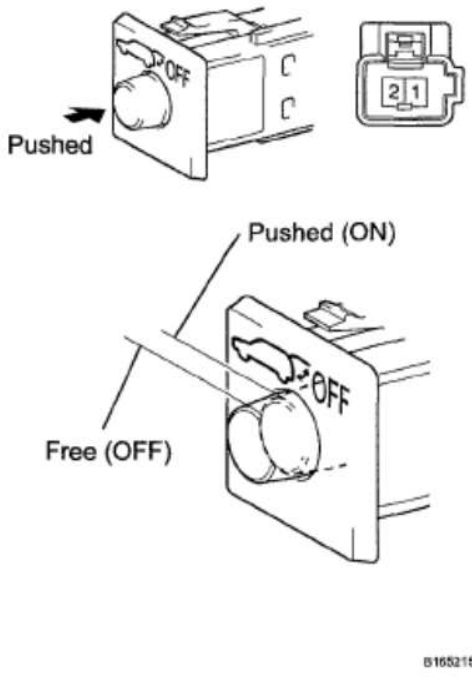


Fig. 309: Inspecting Power Back Door Main Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

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1. **INSTALL BACK DOOR CONTROL SWITCH**
   a. Engage the 2 claws and install the back door control switch.
2. **INSTALL LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
3. **INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **INSTALLATION**)

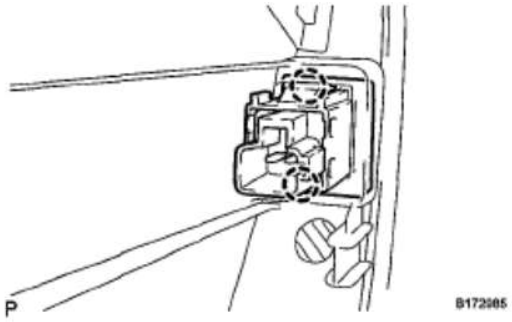


Fig. 310: Identifying Back Door Control Switch Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH**
   a. Engage the claw and clip, install the cowl side trim sub-assembly RH.
   b. Install the clip.

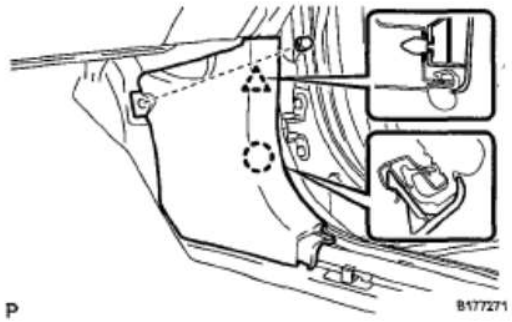


Fig. 311: Identifying Clip And Claw Of Cowl Side Trim Sub-Assembly RH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **INSTALL FRONT DOOR SCUFF PLATE RH**
   a. Engage the guide and the 8 claws, and install the front door scuff plate RH.

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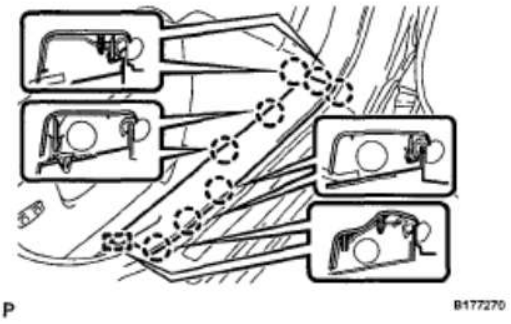


Fig. 312: Identifying Front Door Scuff Plate RH Claws And Guide
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

POWER BACK DOOR OPENER/CLOSER SWITCH

COMPONENTS

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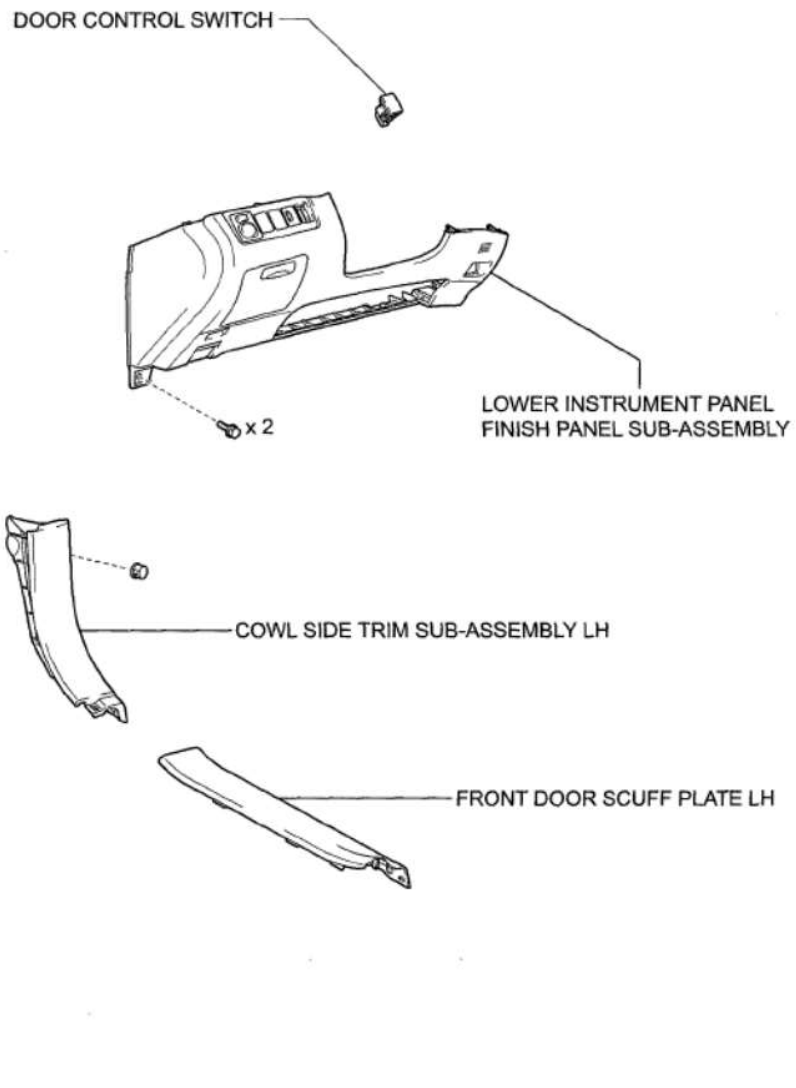


Fig. 313: Identifying Power Back Door Opener/Closer Switch Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE FRONT DOOR SCUFF PLATE LH** (See **REMOVAL**)
2. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH** (See **REMOVAL**)
3. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **REMOVAL**)
4. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
5. **REMOVE DOOR CONTROL SWITCH**
   a. Disengage the 2 claws and remove the door control switch.

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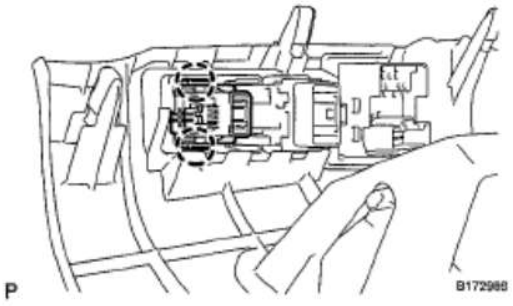


Fig. 314: Identifying Door Control Switch Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT POWER BACK DOOR OPENER/CLOSER SWITCH**
   a. Measure the resistance of the switch.

   Standard resistance

   RESISTANCE SPECIFICATION

Tester Connection	Switch Condition	Specified Condition
4-1	Pushed (ON)	Below 1 ohms
4-1	Free (OFF)	10 kohms or higher

   If the result is not as specified, replace the switch.

   b. Check that the switch illuminates.

   Standard resistance

   RESISTANCE SPECIFICATION

Measurement Condition	Specified Condition
Battery positive (+) --> 3 (ILL+) Battery negative (-) --> 2 (ILL-)	Illuminates

   If the result is not as specified, replace the switch.

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Component without harness connected: (Power Back Door Opener/Closer Switch)

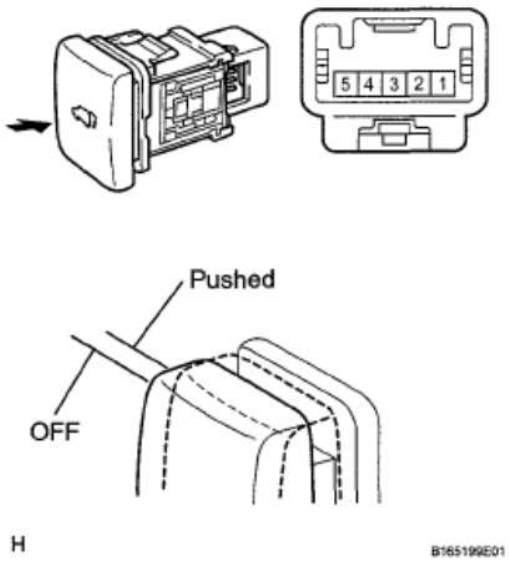


Fig. 315: Inspecting Power Back Door Opener/Closer Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL DOOR CONTROL SWITCH**
   a. Engage the 2 claws and install the door control switch.
2. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **INSTALLATION**)
3. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **INSTALLATION**)

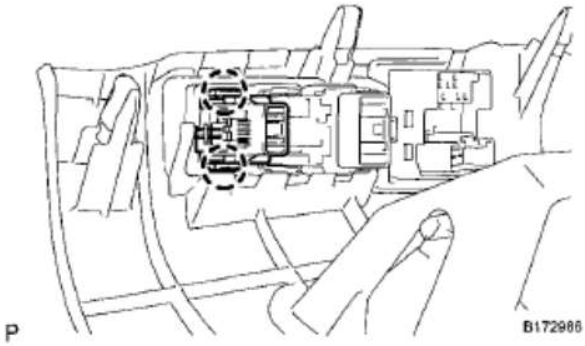


Fig. 316: Identifying Back Door Control Switch Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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4. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH** (See **INSTALLATION**)
5. **INSTALL FRONT DOOR SCUFF PLATE LH** (See **INSTALLATION**)

POWER BACK DOOR CLOSER SWITCH

COMPONENTS

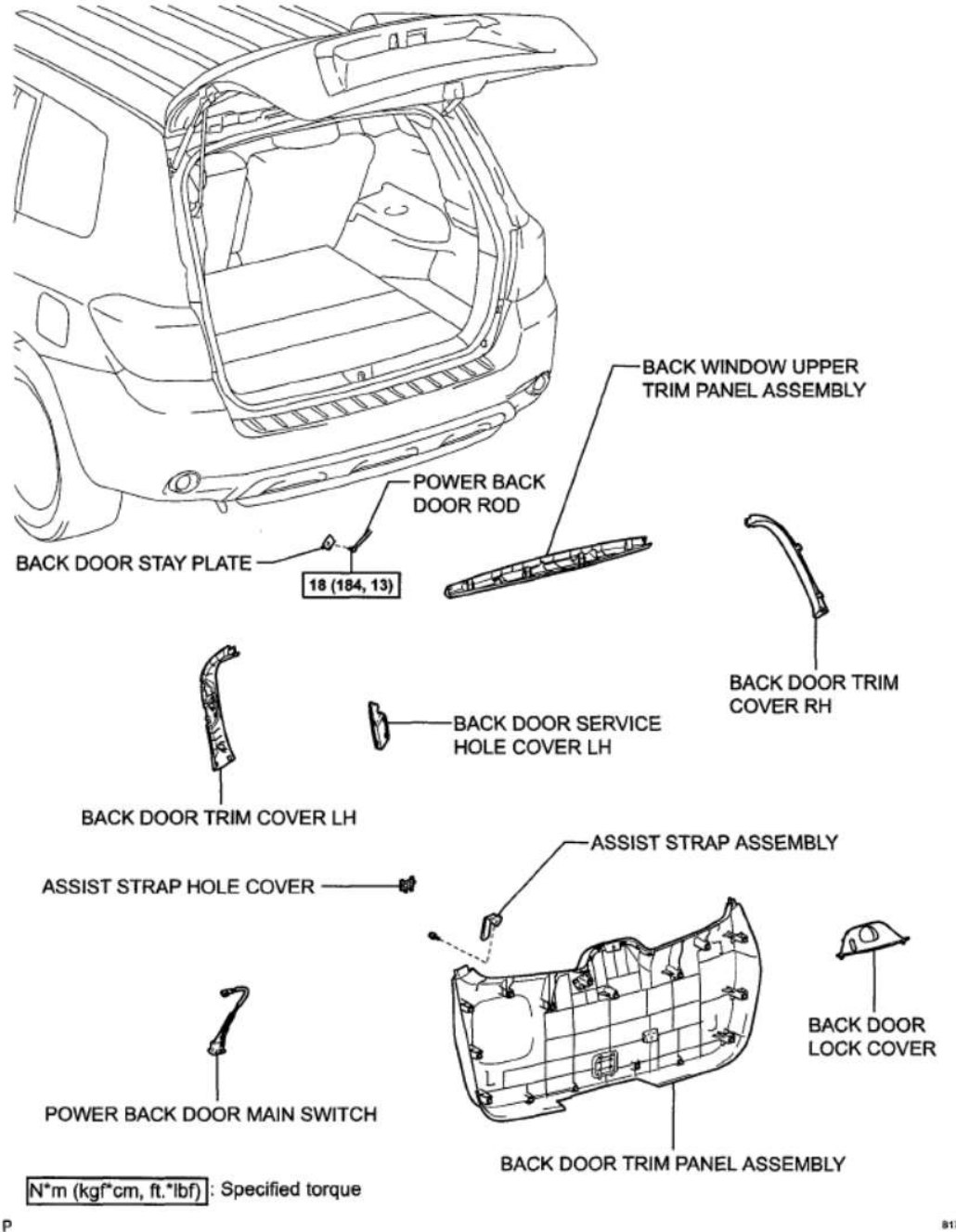


Fig. 317: Identifying Power Back Door Closer Switch Components With Torque Specification

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

REMOVAL

1. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
2. **REMOVE BACK DOOR SERVICE HOLE COVER LH** (See **ADJUSTMENT**)
3. **DISCONNECT POWER BACK DOOR ROD** (See **ADJUSTMENT**)
4. **REMOVE BACK DOOR TRIM COVER LH** (See **ADJUSTMENT**)
5. **REMOVE BACK DOOR TRIM COVER RH** (See **ADJUSTMENT**)
6. **REMOVE BACK DOOR LOCK COVER** (See **ADJUSTMENT**)
7. **REMOVE ASSIST STRAP HOLE COVER** (See **ADJUSTMENT**)
8. **REMOVE ASSIST STRAP ASSEMBLY** (See **ADJUSTMENT**)
9. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **ADJUSTMENT**)
10. **REMOVE POWER BACK DOOR MAIN SWITCH**
    a. Disconnect the connector.

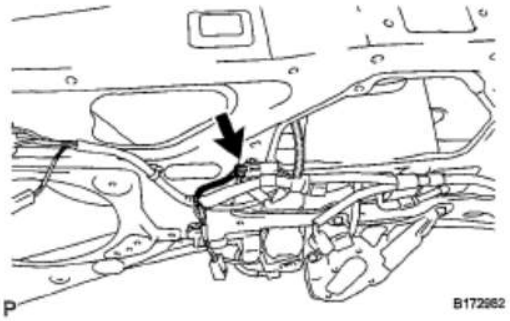


Fig. 318: Locating Power Back Door Main Switch Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Disengage the clamp.

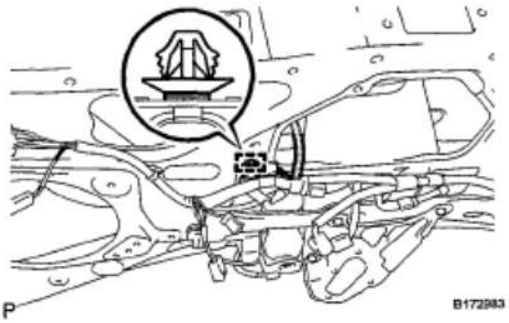


Fig. 319: Identifying Clamp On Power Back Door Main Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    c. Disengage the 4 claws and remove the power back door main switch.

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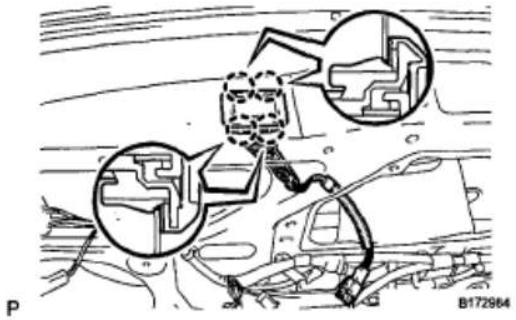


Fig. 320: Identifying Power Back Door Main Switch Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT POWER BACK DOOR CLOSER SWITCH**
   a. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Switch Condition	Specified Condition
1-2	Pushed (ON)	Below 1 ohms
1-2	Free (OFF)	10 kohms or higher

If the result is not as specified, replace the switch.

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Component without harness connected:
(Power Back Door Closer Switch)

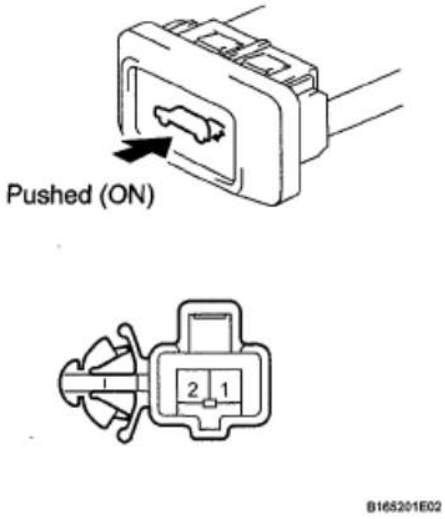


Fig. 321: Inspecting Power Back Door Closer Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL POWER BACK DOOR MAIN SWITCH**
   a. Engage the 4 claws and install the power back door main switch.

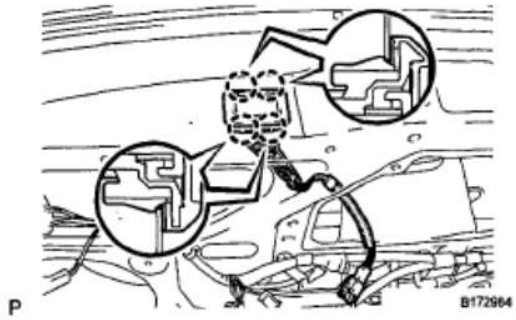


Fig. 322: Identifying Power Back Door Main Switch Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Engage the clamp.

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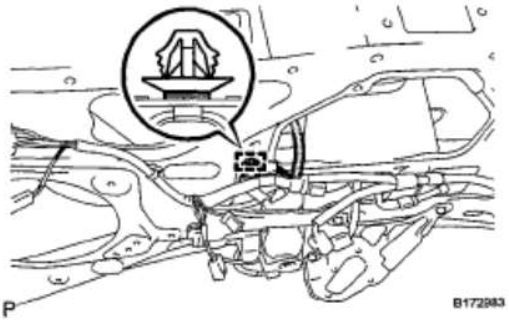


Fig. 323: Identifying Clamp On Power Back Door Main Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Connect the connector.

2. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
3. **INSTALL ASSIST STRAP ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
4. **INSTALL ASSIST STRAP HOLE COVER** (See **BACK DOOR OPENER SWITCH**)

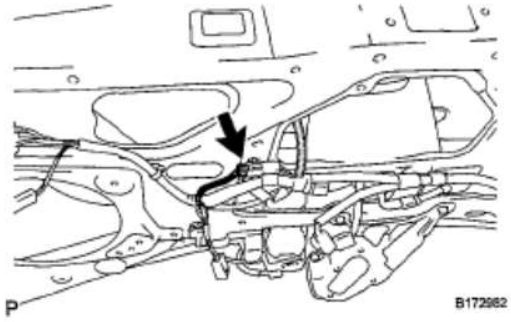


Fig. 324: Locating Power Back Door Main Switch Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **INSTALL BACK DOOR LOCK COVER** (See **BACK DOOR OPENER SWITCH**)
6. **INSTALL BACK DOOR TRIM COVER LH** (See **BACK DOOR OPENER SWITCH**)
7. **CONNECT POWER BACK DOOR ROD** (See **BACK DOOR OPENER SWITCH**)
8. **INSTALL BACK DOOR SERVICE HOLE COVER LH** (See **BACK DOOR OPENER SWITCH**)
9. **INSTALL BACK DOOR TRIM COVER RH** (See **BACK DOOR OPENER SWITCH**)
10. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)

POWER BACK DOOR TOUCH SENSOR

COMPONENTS

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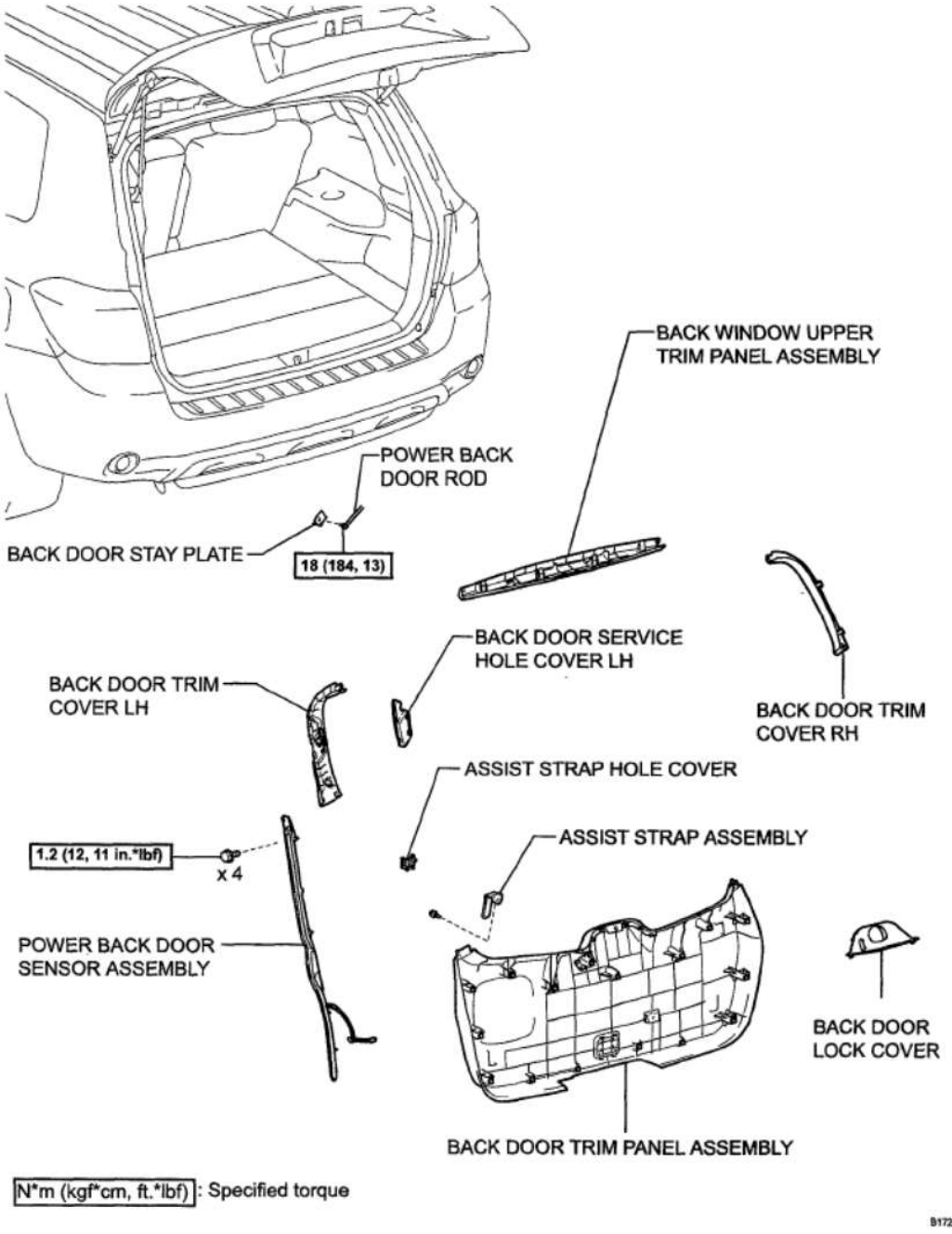


Fig. 325: Identifying Power Back Door Touch Sensor Components With Torque Specification
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
2. **REMOVE BACK DOOR SERVICE HOLE COVER LH** (See **ADJUSTMENT**)
3. **DISCONNECT POWER BACK DOOR ROD** (See **ADJUSTMENT**)

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4. **REMOVE BACK DOOR TRIM COVER LH** (See **ADJUSTMENT**)
5. **REMOVE BACK DOOR TRIM COVER RH** (See **ADJUSTMENT**)
6. **REMOVE BACK DOOR LOCK COVER** (See **ADJUSTMENT**)
7. **REMOVE ASSIST STRAP HOLE COVER** (See **ADJUSTMENT**)
8. **REMOVE ASSIST STRAP ASSEMBLY** (See **ADJUSTMENT**)
9. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **ADJUSTMENT**)
10. **REMOVE POWER BACK DOOR SENSOR ASSEMBLY**
    a. Disconnect the connector.
    b. Remove the 4 bolts.
    c. Disengage the 2 clips and remove the power back door sensor assembly.

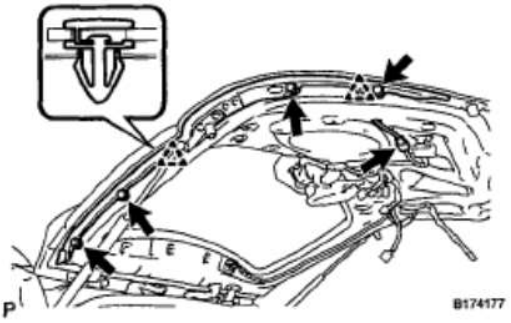


Fig. 326: Locating Power Back Door Sensor Assembly Bolts And Connector With Clips
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT POWER BACK DOOR TOUCH SENSOR**
    a. Measure the resistance according to the value (s) in the table below.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
1-2	Not pressed	Approx. 1 kohms
1-2	Pressed	Below 100 ohms

If the result is not as specified, replace the sensor.

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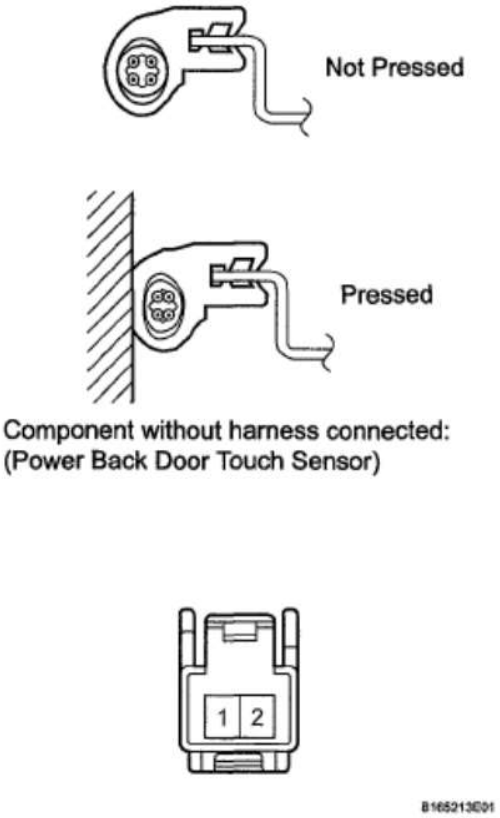


Fig. 327: Identifying Power Back Door Touch Sensor Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL POWER BACK DOOR SENSOR ASSEMBLY**
   a. Install the power back door sensor assembly with the 4 bolts and engage the 2 clips.

      Torque: 1.2 N*m (12 kgf*cm, 11 in.*lbf)

   b. Connect the connector.

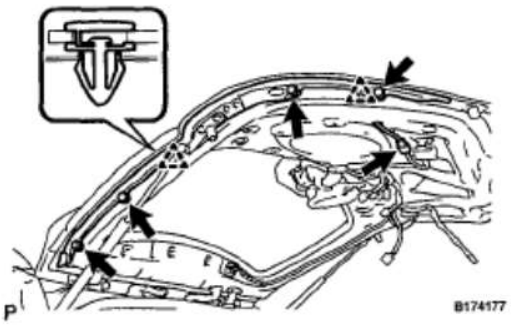


Fig. 328: Locating Power Back Door Sensor Assembly Bolts And Connector With Clips

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2. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
3. **INSTALL ASSIST STRAP ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
4. **INSTALL ASSIST STRAP HOLE COVER** (See **BACK DOOR OPENER SWITCH**)
5. **INSTALL BACK DOOR LOCK COVER** (See **BACK DOOR OPENER SWITCH**)
6. **INSTALL BACK DOOR TRIM COVER LH** (See **BACK DOOR OPENER SWITCH**)
7. **CONNECT POWER BACK DOOR ROD** (See **BACK DOOR OPENER SWITCH**)
8. **INSTALL BACK DOOR SERVICE HOLE COVER LH** (See **BACK DOOR OPENER SWITCH**)
9. **INSTALL BACK DOOR TRIM COVER RH** (See **BACK DOOR OPENER SWITCH**)
10. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)

POWER BACK DOOR DRIVE UNIT

COMPONENTS

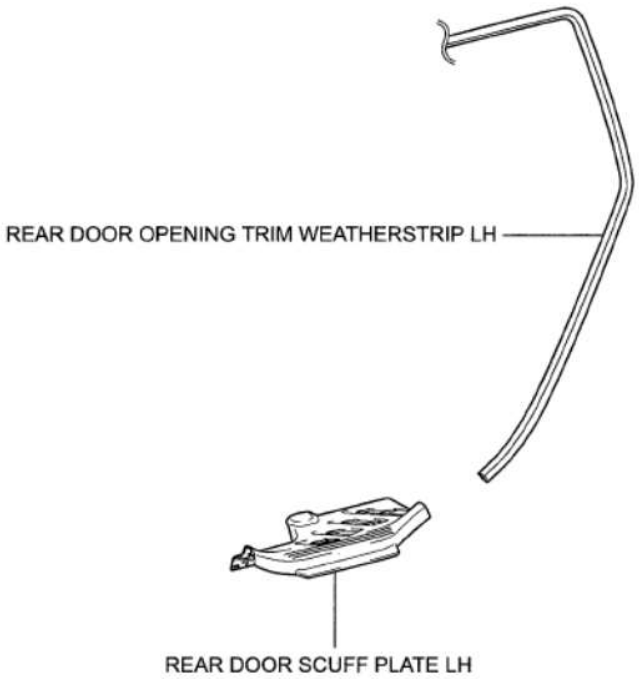


Fig. 329: Identifying Power Back Door Drive Unit Components (1 Of 6)
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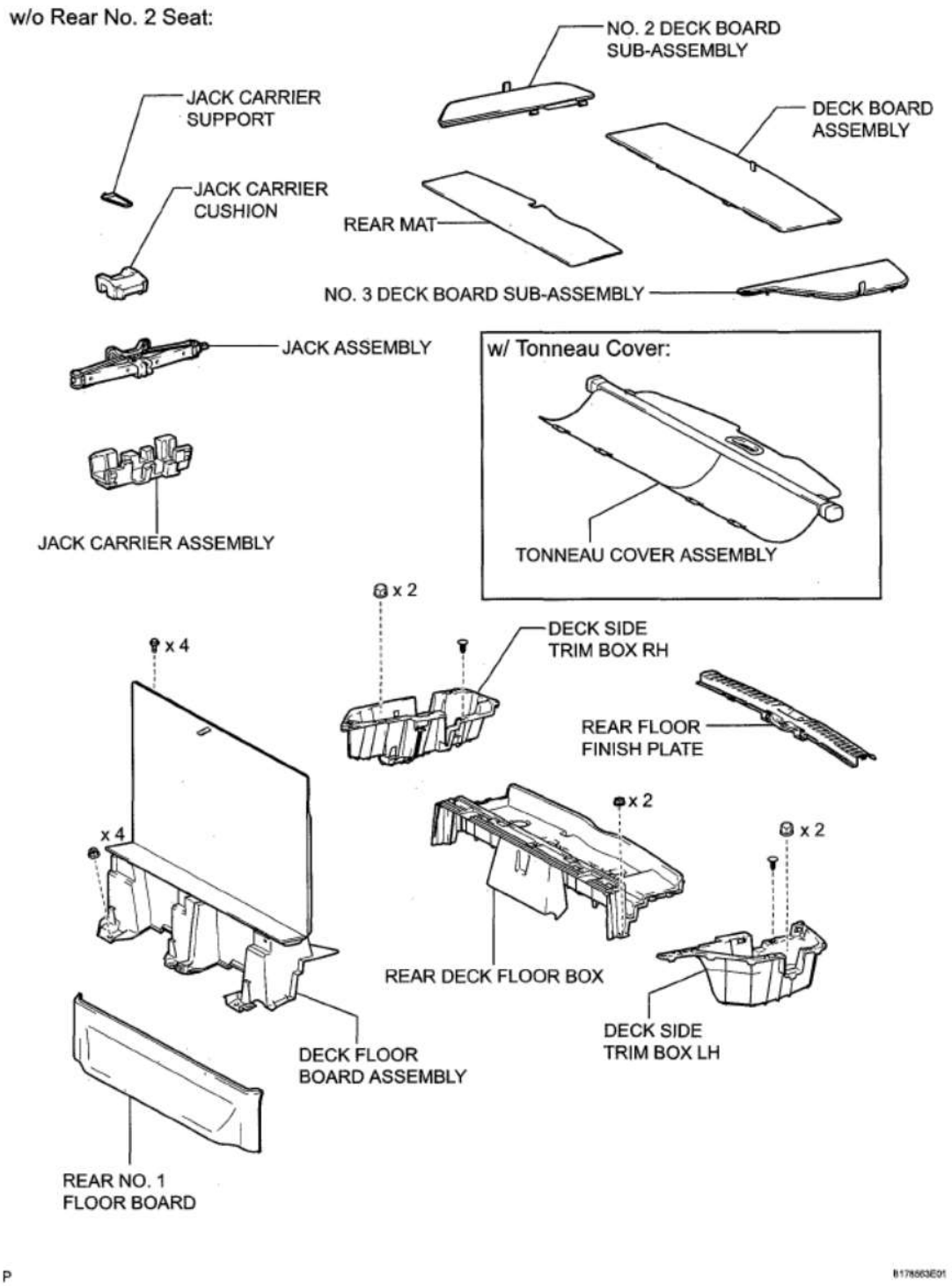


Fig. 330: Identifying Power Back Door Drive Unit Components (2 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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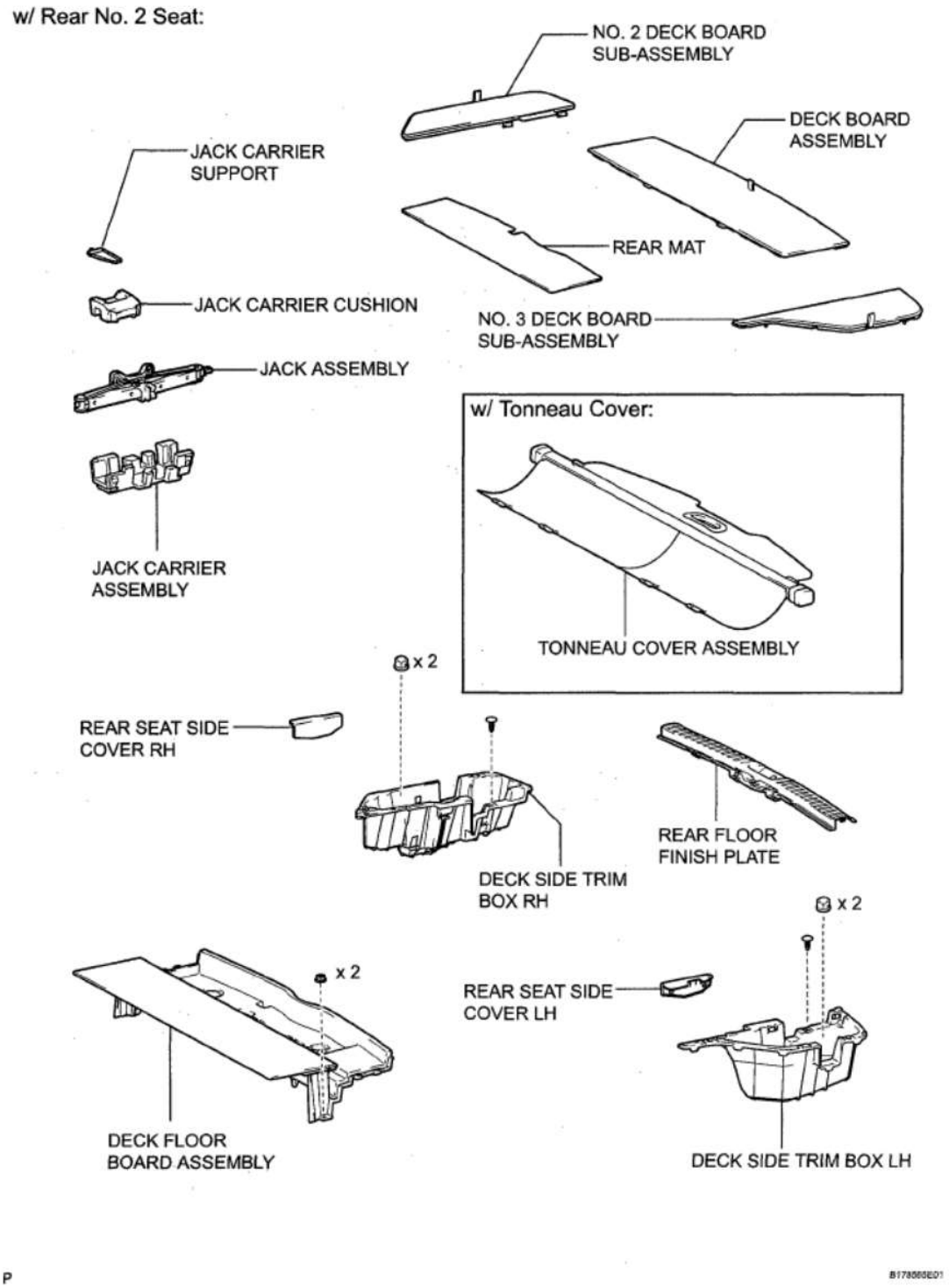


Fig. 331: Identifying Power Back Door Drive Unit Components (3 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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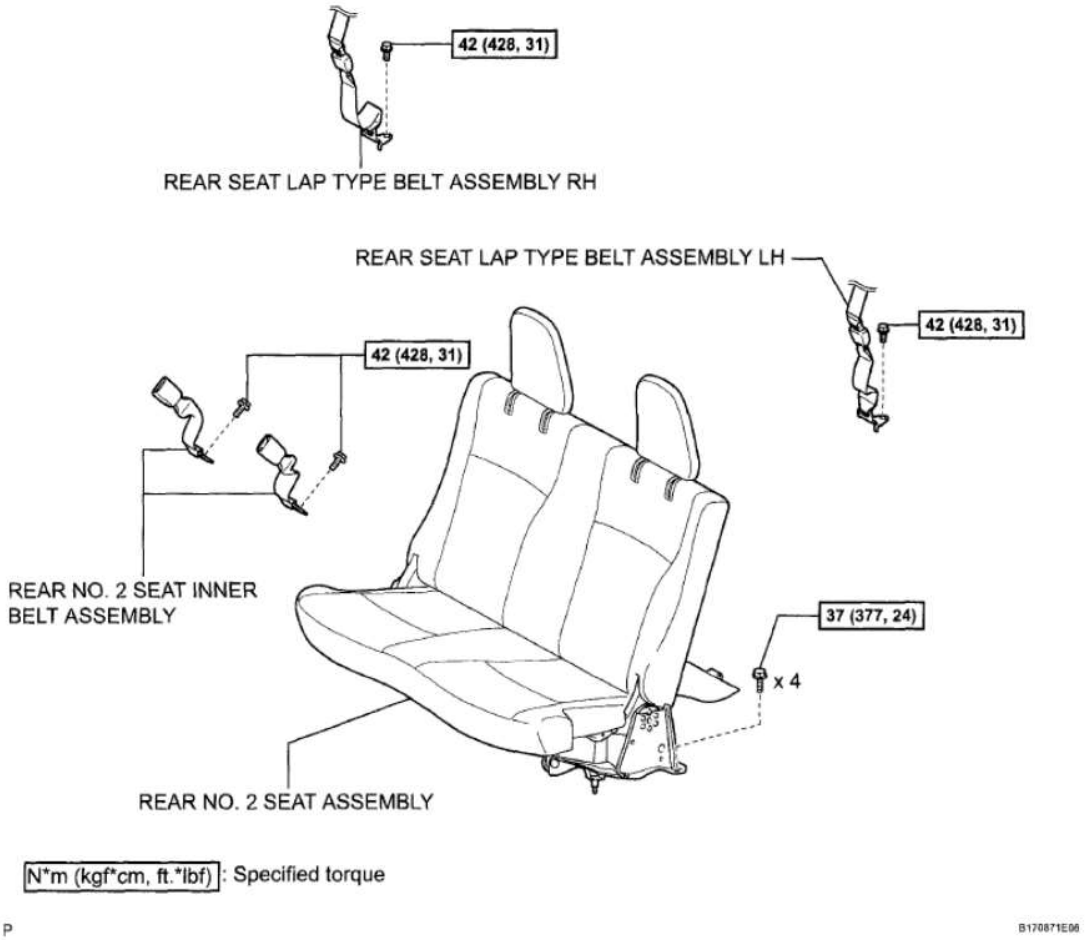


Fig. 332: Identifying Power Back Door Drive Unit Components (4 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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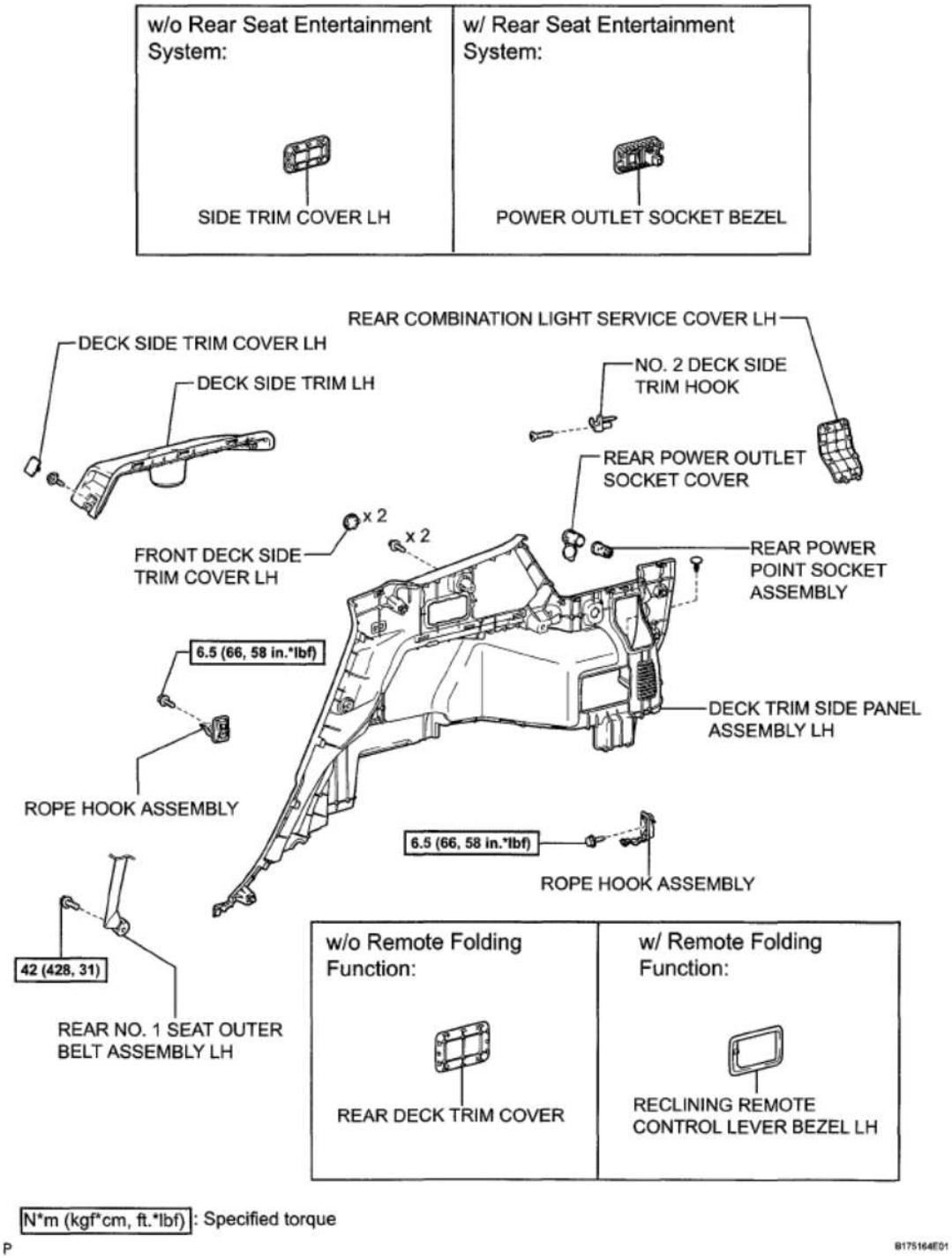


Fig. 333: Identifying Power Back Door Drive Unit Components (5 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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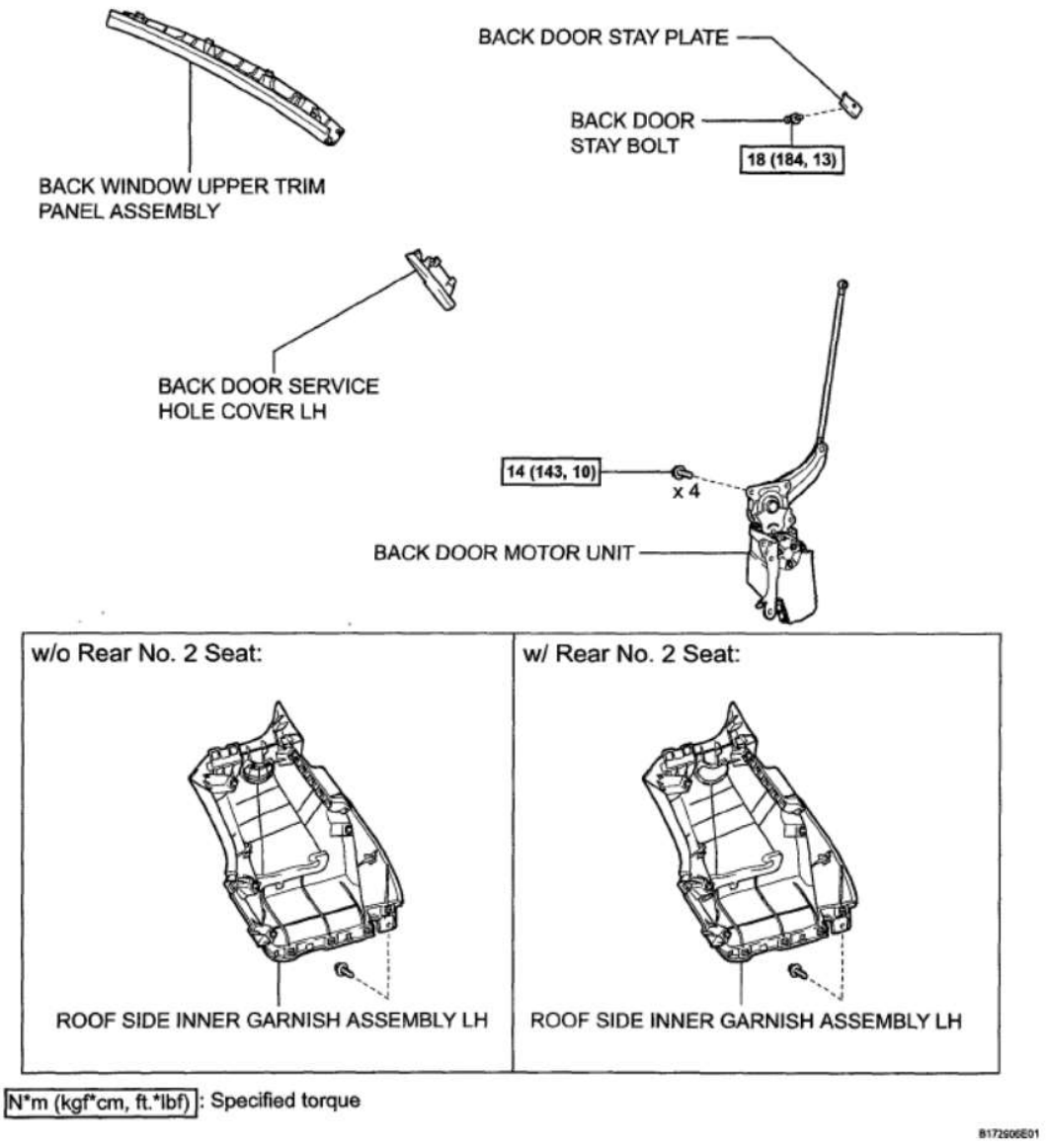


Fig. 334: Identifying Power Back Door Drive Unit Components (6 Of 6)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE REAR DOOR SCUFF PLATE LH** (See **REMOVAL**)
2. **DISCONNECT REAR DOOR OPENING TRIM WEATHERSTRIP LH**
3. **REMOVE DECK BOARD ASSEMBLY** (See **REMOVAL**)
4. **REMOVE NO. 3 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
5. **REMOVE NO. 2 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
6. **REMOVE TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **REMOVAL**)
7. **REMOVE REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **REMOVAL**)

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8. **REMOVE REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
9. **REMOVE DECK SIDE TRIM BOX LH** (See **REMOVAL**)
10. **REMOVE REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
11. **REMOVE JACK CARRIER SUPPORT**
12. **REMOVE JACK CARRIER CUSHION** (See **REMOVAL**)
13. **REMOVE JACK ASSEMBLY** (See **REMOVAL**)
14. **REMOVE JACK CARRIER ASSEMBLY** (See **REMOVAL**)
15. **REMOVE DECK SIDE TRIM BOX RH** (See **REMOVAL**)
16. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **REMOVAL**)
17. **REMOVE REAR MAT** (See **REMOVAL**)
18. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **REMOVAL**)
19. **REMOVE REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **REMOVAL**)
20. **REMOVE REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
21. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
22. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
23. **REMOVE REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **DISASSEMBLY**)
24. **REMOVE REAR FLOOR FINISH PLATE** (See **REMOVAL**)
25. **REMOVE DECK SIDE TRIM COVER LH** (See **REMOVAL**)
26. **REMOVE DECK SIDE TRIM LH** (See **REMOVAL**)
27. **REMOVE SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See **REMOVAL**)
28. **REMOVE POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See **REMOVAL**)
29. **REMOVE REAR COMBINATION LIGHT SERVICE COVER LH** (See **REMOVAL**)
30. **REMOVE REAR POWER POINT SOCKET ASSEMBLY** (See **REAR POWER OUTLET SOCKET**)
31. **REMOVE REAR POWER OUTLET SOCKET COVER** (See **INSTALLATION**)
32. **REMOVE REAR DECK TRIM COVER (w/o Remote Folding Function)** (See **REMOVAL**)
33. **REMOVE RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See **REMOVAL**)
34. **REMOVE ROPE HOOK ASSEMBLY** (See **REMOVAL**)
35. **REMOVE NO. 2 DECK SIDE TRIM HOOK** (See **REMOVAL**)
36. **REMOVE FRONT DECK SIDE TRIM COVER LH** (See **REMOVAL**)
37. **DISCONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See **REMOVAL**)
38. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY LH** (See **REMOVAL**)
39. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH** (See **REMOVAL**)
40. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)

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41. **REMOVE BACK DOOR SERVICE HOLE COVER LH** (See **ADJUSTMENT**)
42. **REMOVE BACK DOOR MOTOR UNIT**
    a. Disconnect the power back door rod and remove the back door stay plate.

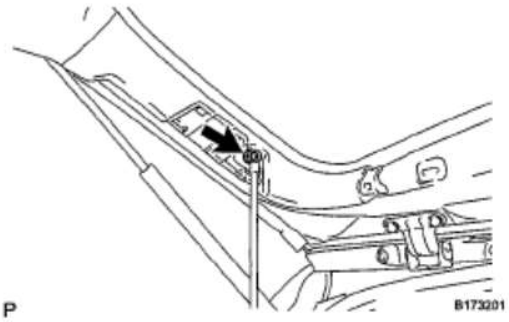


Fig. 335: Locating Power Back Door Rod Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    b. Disconnect the connector.
    c. Disengage the clip.
    d. Remove the 4 bolts and back door motor unit.

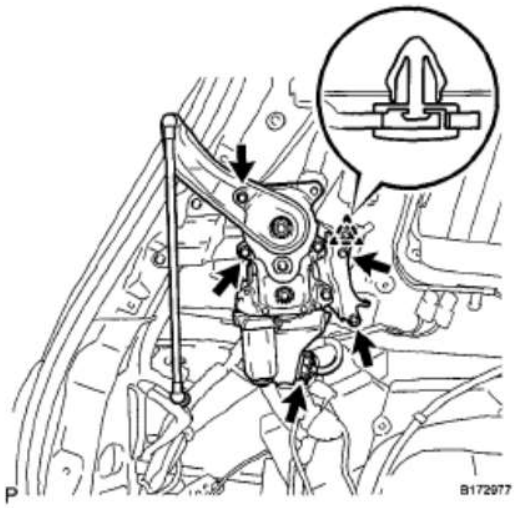


Fig. 336: Locating Back Door Motor Unit Connector And Bolts With Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL BACK DOOR MOTOR UNIT**
    a. Install the back door motor unit with the 4 bolts and clip.

    Torque: 14 N*m (143 kgf*cm, 10 ft.*lbf)

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b. Connect the connector.

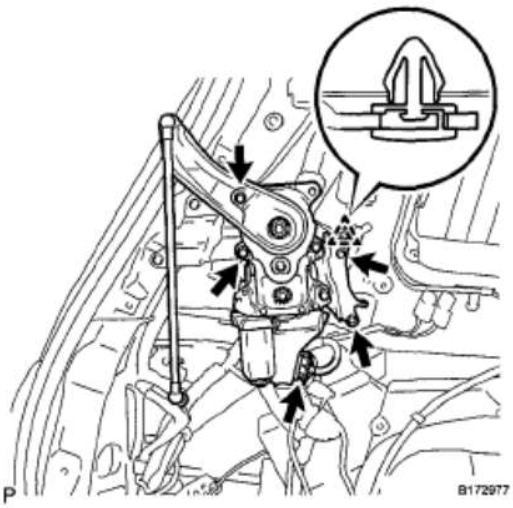


Fig. 337: Locating Back Door Motor Unit Connector And Bolts With Clip
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Install the back door stay plate and connect the power back door rod.

Torque: 18 N*m (184 kgf*cm, 13 ft.*lbf)

2. **INSTALL BACK DOOR SERVICE HOLE COVER LH** (See **BACK DOOR OPENER SWITCH**)
3. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)

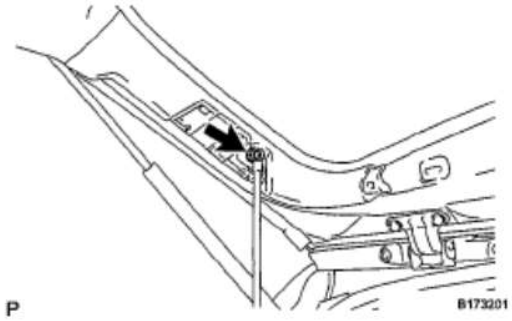


Fig. 338: Locating Power Back Door Rod Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH** (See **INSTALLATION**)
5. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY LH** (See **INSTALLATION**)
6. **CONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See **INSTALLATION**)
7. **INSTALL FRONT DECK SIDE TRIM COVER LH** (See **INSTALLATION**)

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8. **INSTALL NO. 2 DECK SIDE TRIM HOOK** (See **INSTALLATION**)
9. **INSTALL ROPE HOOK ASSEMBLY** (See **INSTALLATION**)
10. **INSTALL REAR DECK TRIM COVER (w/o Remote Folding Function)** (See **INSTALLATION**)
11. **INSTALL RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See **INSTALLATION**)
12. **INSTALL REAR POWER OUTLET SOCKET COVER** (See **INSTALLATION**)
13. **INSTALL REAR POWER POINT SOCKET ASSEMBLY** (See **INSTALLATION**)
14. **INSTALL REAR COMBINATION LIGHT SERVICE COVER LH** (See **INSTALLATION**)
15. **INSTALL SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See **INSTALLATION**)
16. **INSTALL POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
17. **INSTALL DECK SIDE TRIM LH** (See **INSTALLATION**)
18. **INSTALL DECK SIDE TRIM COVER LH** (See **INSTALLATION**)
19. **INSTALL REAR FLOOR FINISH PLATE** (See **INSTALLATION**)
20. **INSTALL REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
21. **CONNECT REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
22. **CONNECT REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
23. **INSTALL REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
24. **INSTALL REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
25. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
26. **INSTALL REAR MAT** (See **INSTALLATION**)
27. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
28. **INSTALL DECK SIDE TRIM BOX LH** (See **INSTALLATION**)
29. **INSTALL REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
30. **INSTALL DECK SIDE TRIM BOX RH** (See **INSTALLATION**)
31. **INSTALL JACK CARRIER ASSEMBLY** (See **INSTALLATION**)
32. **INSTALL JACK ASSEMBLY** (See **INSTALLATION**)
33. **INSTALL JACK CARRIER CUSHION** (See **INSTALLATION**)
34. **INSTALL JACK CARRIER SUPPORT**
35. **INSTALL REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
36. **INSTALL REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
37. **INSTALL TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **INSTALLATION**)
38. **INSTALL NO. 2 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
39. **INSTALL NO. 3 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
40. **INSTALL DECK BOARD ASSEMBLY** (See **INSTALLATION**)

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41. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
42. **INSTALL REAR DOOR SCUFF PLATE LH** (See **INSTALLATION**)

POWER BACK DOOR WARNING BUZZER

COMPONENTS

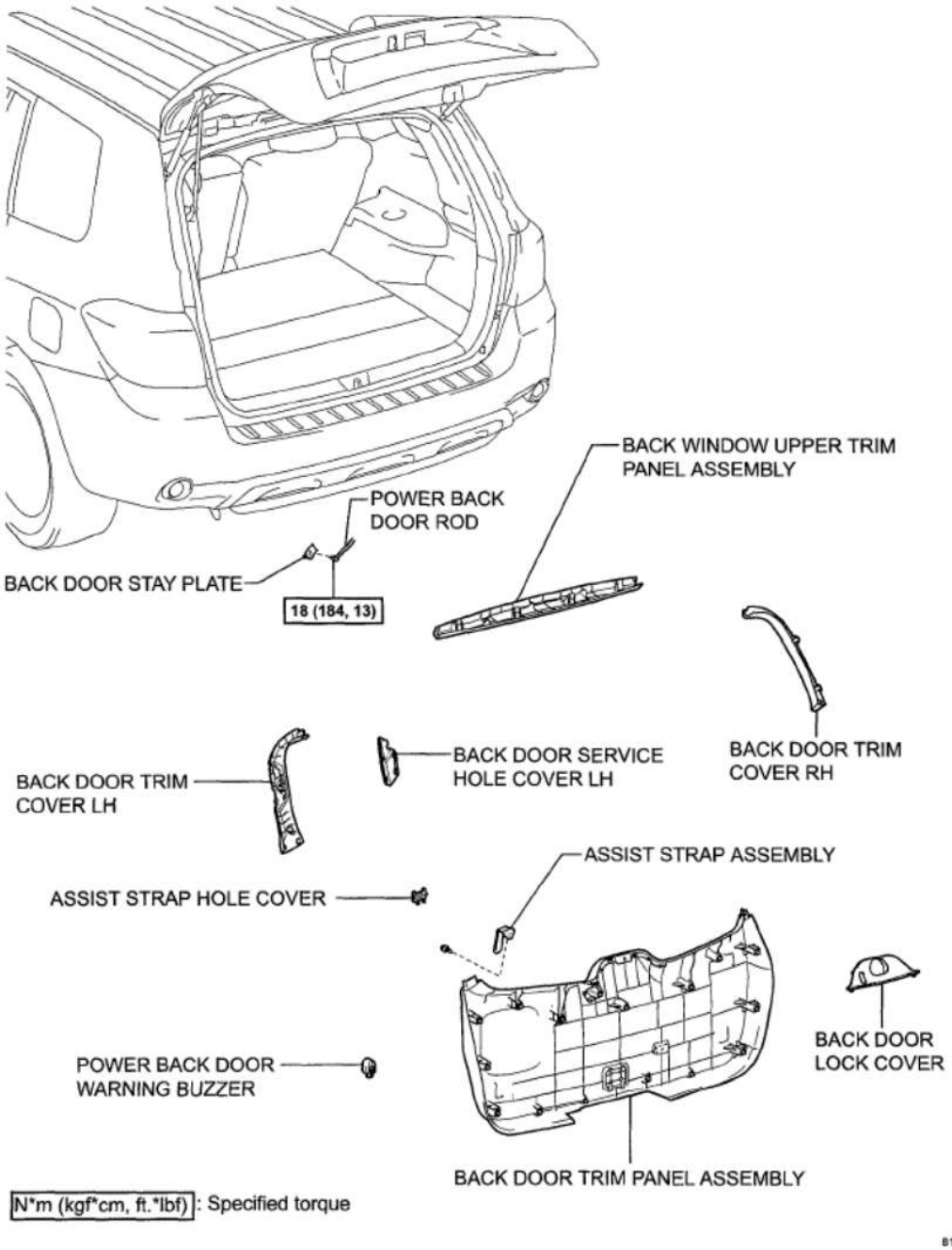


Fig. 339: Identifying Power Back Door Warning Buzzer Components With Torque Specification

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

REMOVAL

1. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
2. **REMOVE BACK DOOR SERVICE HOLE COVER LH** (See **ADJUSTMENT**)
3. **DISCONNECT POWER BACK DOOR ROD** (See **ADJUSTMENT**)
4. **REMOVE BACK DOOR TRIM COVER LH** (See **ADJUSTMENT**)
5. **REMOVE BACK DOOR TRIM COVER RH** (See **ADJUSTMENT**)
6. **REMOVE BACK DOOR LOCK COVER** (See **ADJUSTMENT**)
7. **REMOVE ASSIST STRAP HOLE COVER** (See **ADJUSTMENT**)
8. **REMOVE ASSIST STRAP ASSEMBLY** (See **ADJUSTMENT**)
9. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **ADJUSTMENT**)
10. **REMOVE POWER BACK DOOR WARNING BUZZER**
    a. Disconnect the connector.
    b. Disengage the clamp and remove the power back door warning buzzer.

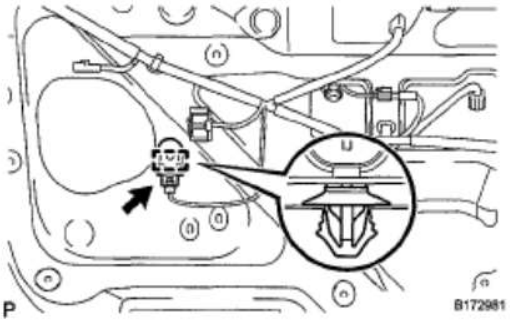


Fig. 340: Locating Power Back Door Warning Buzzer Connector With Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT POWER BACK DOOR WARNING BUZZER**
    a. Measure the resistance according to the value (s) in the table below.

    HINT:

    When battery voltage is applied directly to the buzzer, the buzzer will not sound.

Standard resistance

RESISTANCE SPECIFICATION

Tester Connection	Condition	Specified Condition
1-2	Always	950 to 1050 ohms

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If the result is not as specified, replace the wireless door lock buzzer.

Component without harness connected:
(Power Back Door Warning Buzzer)



H B177974E01

Fig. 341: Identifying Power Back Door Warning Buzzer Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL POWER BACK DOOR WARNING BUZZER**
   a. Engage the clamp and install the power back door warning buzzer.
   b. Connect the connector.

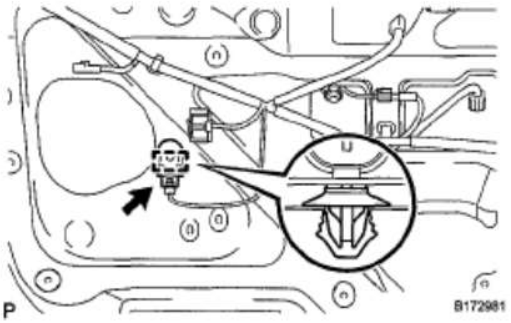


Fig. 342: Locating Power Back Door Warning Buzzer Connector With Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
3. **INSTALL ASSIST STRAP ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
4. **INSTALL ASSIST STRAP HOLE COVER** (See **BACK DOOR OPENER SWITCH**)
5. **INSTALL BACK DOOR LOCK COVER** (See **BACK DOOR OPENER SWITCH**)
6. **INSTALL BACK DOOR TRIM COVER LH** (See **BACK DOOR OPENER SWITCH**)
7. **CONNECT POWER BACK DOOR ROD** (See **BACK DOOR OPENER SWITCH**)

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8. **INSTALL BACK DOOR SERVICE HOLE COVER LH** (See **BACK DOOR OPENER SWITCH**)
9. **INSTALL BACK DOOR TRIM COVER RH** (See **BACK DOOR OPENER SWITCH**)
10. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)

BACK DOOR SUPPORT

COMPONENTS

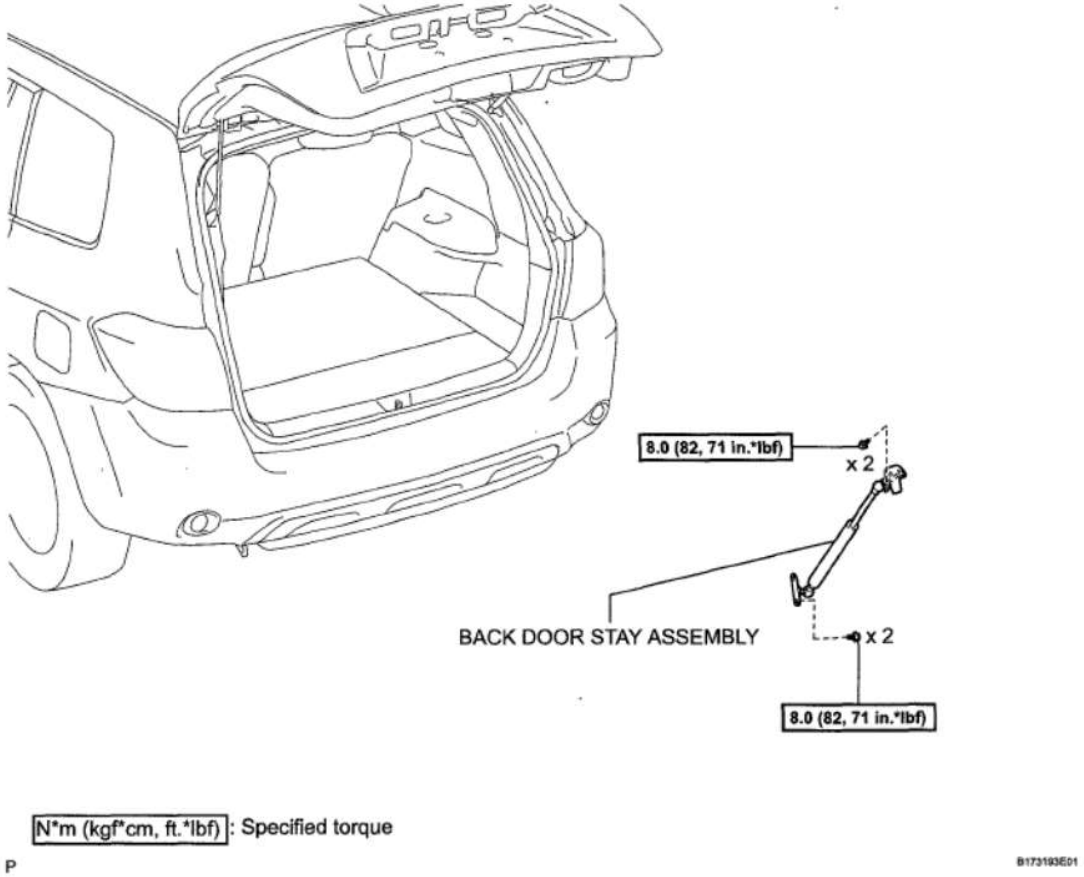


Fig. 343: Identifying Back Door Support Components With Torque Specification
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE BACK DOOR STAY ASSEMBLY**

NOTE:

- **Avoid touching the piston rod as much as possible to prevent foreign matter from attaching to it. Be sure to hold the cylinders while servicing.**
- **Do not wear cotton gloves or other similar materials when handling**

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the piston rod. Fibers may attach to the rod and result in gas leaks.

- **Do not apply any horizontal load to the door stay in the in order to prevent the piston rod from deforming.**

a. Remove the 4 bolts and back door stay assembly.

NOTE: **Remove the back door stay assembly while supporting the back door by hand.**

INSTALLATION

1. **INSTALL BACK DOOR STAY ASSEMBLY**

NOTE:

- **Avoid touching the piston rod as much as possible to prevent foreign matter from attaching to it. Be sure to hold the cylinders while servicing.**
- **Do not wear cotton gloves or other similar materials when handling the piston rod. Fibers may attach to the rod and result in gas leaks.**
- **Do not apply any horizontal load to the door stay in the in order to prevent the rod from being deformed.**

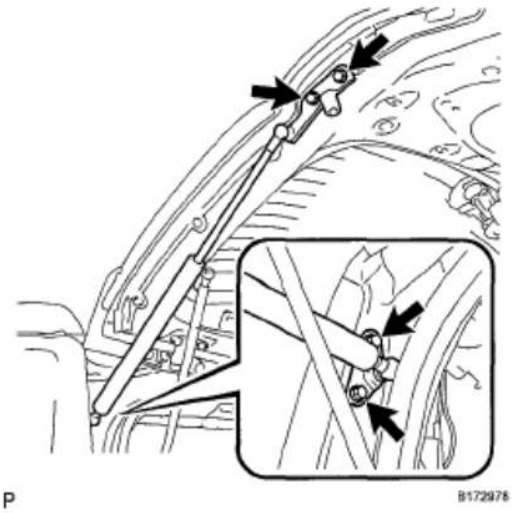


Fig. 344: Locating Back Door Stay Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Clean the threaded surface on the vehicle body with a non-residue solvent.
b. Apply adhesive to the threads of the 4 bolts.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

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c. Install the back door stay assembly with the 4 bolts.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

NOTE: Install the back door stay assembly while supporting the back door by hand.

d. Check that the back door stay assembly is engaged in the ball joint and that the back door stay assembly cannot be pulled out.

DISPOSAL

1. **DISPOSE OF BACK DOOR STAY ASSEMBLY**
   a. Secure the back door stay assembly horizontally in a vise with the piston-rod pulled out.

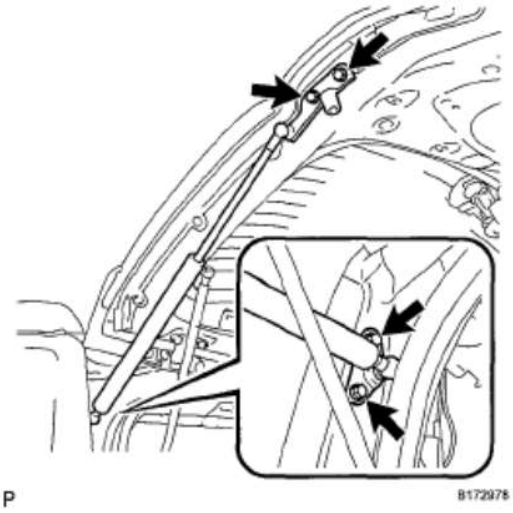


Fig. 345: Locating Back Door Stay Assembly Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

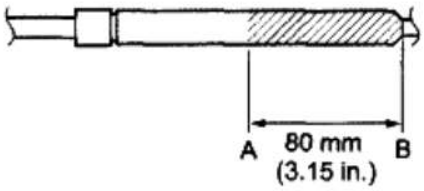
   b. Wear safety glasses. Use a metal saw to slowly cut a groove between A and B shown in the illustration to release the gas.

NOTE: Although the gas inside the back door stay assembly is colorless, odorless, and harmless, metal debris may scatter. Therefore, cover the back door stay assembly with a piece of cloth or other material.

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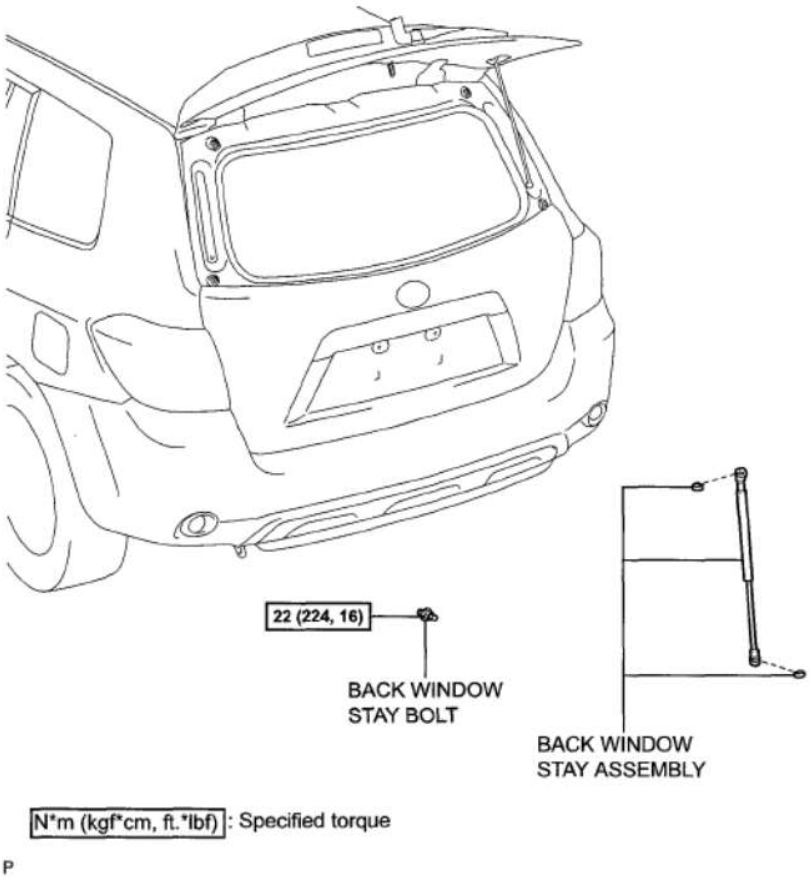


P B127037E01

Fig. 346: Identifying Hood Support Assembly Cutting Area
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

BACK WINDOW SUPPORT

COMPONENTS



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Fig. 347: Identifying Back Window Support Components With Torque Specification
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **PRECAUTION**

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NOTE: **If a back window stay assembly is removed and installed, the location of the axis of the rear wiper motor assembly will change, causing the wiping angle to change. Be sure to remove and install the rear wiper motor assembly using the centering jig.**

2. **REMOVE BACK WINDOW STAY ASSEMBLY**

NOTE:

- **Avoid touching the piston rod as much as possible to prevent foreign matter from attaching to it. Be sure to hold the cylinders while servicing.**
- **Do not wear cotton gloves or other similar materials when handling the piston rod. Fibers may attach to the piston rod and result in gas leaks.**
- **Do not apply any horizontal load to the window stay in the in order to prevent the piston rod from deforming.**

a. Using a screwdriver with the tip taped, remove the stop ring along the groove.
b. Release the ball joint and remove the back window stay assembly.

NOTE: **Remove the back door stay assembly while supporting the back door by hand.**

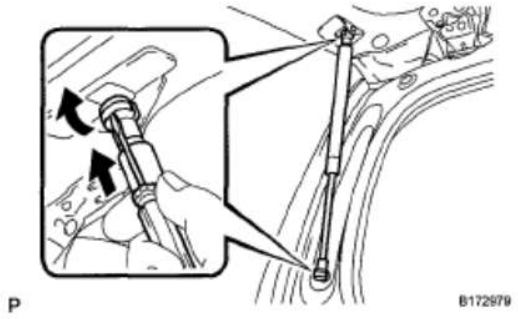


Fig. 348: Removing Back Window Stay Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **REMOVE BACK WINDOW STAY BOLT**
   a. Remove the back window stay bolt.

INSTALLATION

1. **PRECAUTION**

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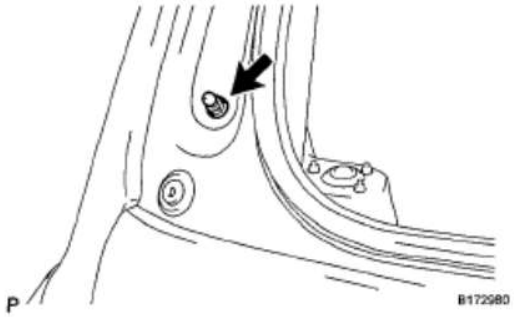


Fig. 349: Locating Back Window Stay Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE:

- **If a back window stay assembly is removed and installed, the location of the axis of the rear wiper motor assembly will change, causing the wiping angle to change. Be sure to remove and install the rear wiper motor assembly using the centering jig.**
- **After installing a back window stay assembly, install the rear wiper motor assembly. Do not open the glass hatch before installing the rear wiper link pivot.**

2. **INSTALL BACK WINDOW STAY BOLT**
   a. When replacing the back window stay bolt with a new one:
      1. Clean the threaded surface on the vehicle body with a non-residue solvent.
      2. Install the back window stay bolt.

         Torque: 22 N*m (224 kgf*cm, 16 ft.*lbf)

   b. When reusing the back window stay bolt:
      1. Clean the threaded surface on the vehicle body with a non-residue solvent.
      2. Apply adhesive to the threads of the back window stay bolt.

         Adhesive:

         Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

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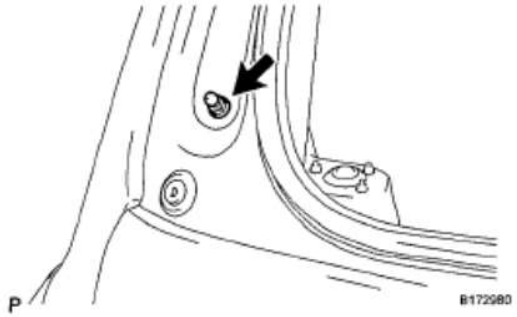


Fig. 350: Locating Back Window Stay Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. Install the back window stay bolt.

Torque: 22 N*m (224 kgf*cm, 16 ft.*lbf)

3. **INSTALL BACK WINDOW STAY ASSEMBLY**

NOTE:

- **Avoid touching the piston rod as much as possible to prevent foreign matter from attaching to it. Be sure to hold the cylinders while servicing.**
- **Do not wear cotton gloves or other similar materials when handling the piston rod. Fibers may attach to the piston rod and result in gas leaks.**
- **Do not apply any horizontal load to the cylinders in the in order to prevent the piston rod from deforming.**

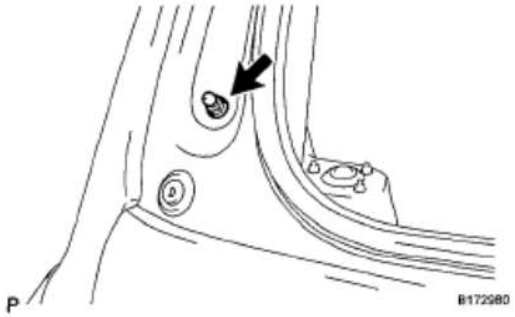


Fig. 351: Locating Back Window Stay Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. When replacing the back window stay assembly with a new one:
   1. Install the 2 stop rings to the back window stay assembly.

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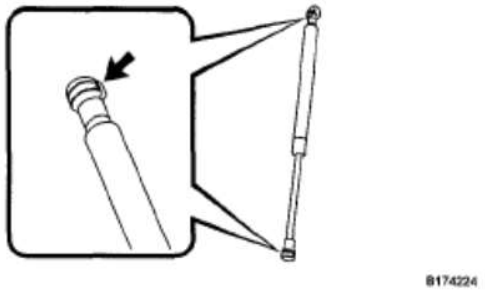


Fig. 352: Locating Back Window Stay Assembly Stop Rings
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Install the back window stay assembly.

NOTE: Install the back door stay assembly while supporting the back door by hand.

c. Check that the hood support assembly is engaged in the ball joint and that the hood support assembly cannot be pulled out.



Fig. 353: Identifying Back Window Stay Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
5. **REMOVE BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **DISASSEMBLY**)
6. **REMOVE BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **ADJUSTMENT**)
7. **DISCONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **ADJUSTMENT**)
8. **REMOVE BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **ADJUSTMENT**)
9. **REMOVE BACK DOOR TRIM COVER RH** (See **ADJUSTMENT**)
10. **REMOVE BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **ADJUSTMENT**)
11. **REMOVE ASSIST STRAP HOLE COVER** (See **ADJUSTMENT**)
12. **REMOVE ASSIST STRAP ASSEMBLY** (See **ADJUSTMENT**)
13. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **ADJUSTMENT**)

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14. **REMOVE REAR WIPER SHAFT COVER (for Glass Hatch Type)** (See **REMOVAL**)
15. **REMOVE REAR WIPER ARM HEAD CAP** (See **REMOVAL**)
16. **REMOVE REAR WIPER ARM AND BLADE ASSEMBLY** (See **REMOVAL**)
17. **REMOVE REAR WIPER LINK CAP (for Glass Hatch Type)** (See **REMOVAL**)
18. **REMOVE REAR WIPER LINK PIVOT (for Glass Hatch Type)** (See **REMOVAL**)
19. **REMOVE REAR WIPER MOTOR ASSEMBLY (for Glass Hatch Type)** (See **REMOVAL**)
20. **INSTALL REAR WIPER MOTOR ASSEMBLY (for Glass Hatch Type)** (See **INSTALLATION**)
21. **INSTALL REAR WIPER LINK PIVOT (for Glass Hatch Type)** (See **INSTALLATION**)
22. **INSTALL REAR WIPER LINK CAP (for Glass Hatch Type)** (See **INSTALLATION**)
23. **INSTALL REAR WIPER ARM AND BLADE ASSEMBLY (for Glass Hatch Type)** (See **INSTALLATION**)
24. **INSTALL REAR WIPER ARM HEAD CAP** (See **INSTALLATION**)
25. **INSTALL REAR WIPER SHAFT COVER (for Glass Hatch Type)** (See **INSTALLATION**)
26. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
27. **INSTALL ASSIST STRAP ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)
28. **INSTALL ASSIST STRAP HOLE COVER** (See **BACK DOOR OPENER SWITCH**)
29. **INSTALL BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **BACK DOOR OPENER SWITCH**)
30. **INSTALL BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
31. **INSTALL BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
32. **CONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
33. **INSTALL BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **BACK DOOR OPENER SWITCH**)
34. **INSTALL BACK DOOR TRIM COVER RH** (See **BACK DOOR OPENER SWITCH**)
35. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **BACK DOOR OPENER SWITCH**)

DISPOSAL

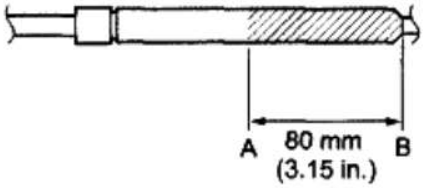
1. **DISPOSE OF BACK WINDOW STAY ASSEMBLY**
   a. Secure the back window stay assembly horizontally in a vise with the piston-rod pulled out.
   b. Wear safety glasses. Use a metal saw to slowly cut a groove between A and B shown in the illustration to release the gas.

NOTE: **Although the gas inside the back window stay assembly is colorless, odorless, and harmless, metal debris may scatter. Therefore, cover the back window stay assembly with a piece of cloth or other material.**

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Fig. 354: Identifying Hood Support Assembly Cutting Area
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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