

Last Modified: 11-13-2015	6.6 D	Doc ID: RM000001HRW02BX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: INNER REAR VIEW MIRROR: CALIBRATION; 2016 MY Tacoma [08/2015 -]		

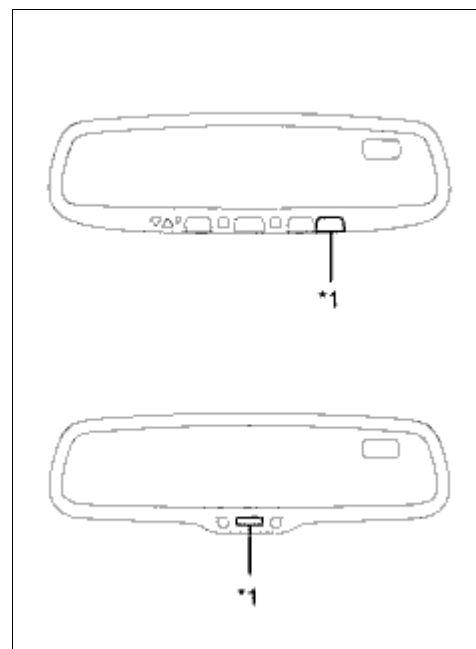
CALIBRATION

1. SELECT COMPASS DISPLAY MODE

- (a) The compass switch allows you to select the Display or Non-display mode of the compass.

Text in Illustration

*A	w/ Garage Door Opener
*B	w/o Garage Door Opener
*1	Compass Switch / EC Control Switch



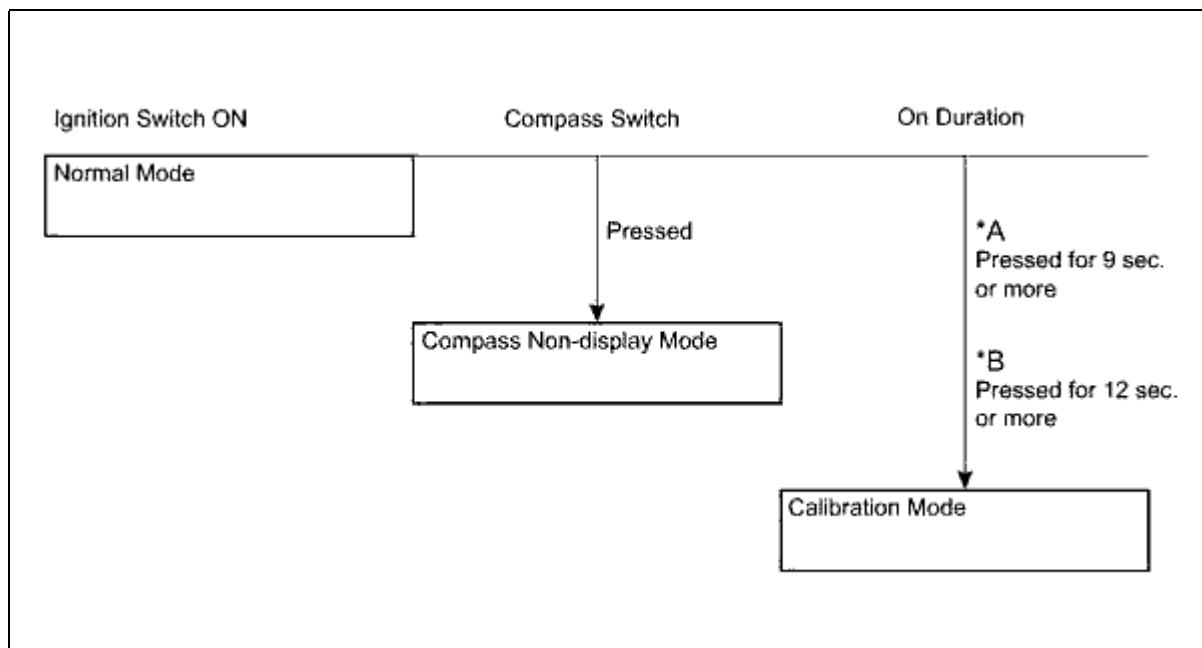
2. PERFORM CALIBRATION

- (a) As each vehicle has its own magnetic field, calibration should be performed for each individual vehicle. This compass function is used when storing the record of the vehicle's magnetic field.

3. WHEN COMPASS IS MAGNETIZED

- (a) A compass could be magnetized during shipping by vessels or freight cars. Therefore, make sure to perform calibration and ensure that calibration is performed properly before delivery. If this cannot be done (cannot be completed in spite of driving around several times), it may be caused by magnetization. Demagnetize the vehicle using a demagnetizer and perform calibration again.

4. SET COMPASS



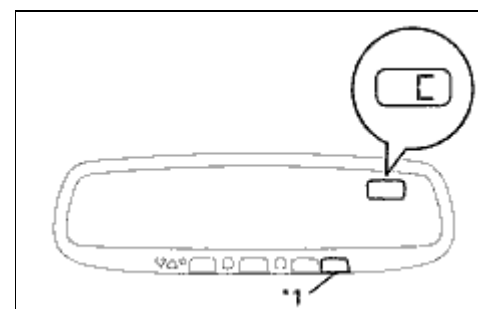
Text in Illustration

*A	w/ Garage Door Opener
*B	w/o Garage Door Opener

5. CALIBRATION SETTING MODE

(a) w/ Garage Door Opener:

- (1) Pressing the compass switch for 9 seconds or more in the normal mode will activate the calibration setting mode. "C" is displayed on the compass display.

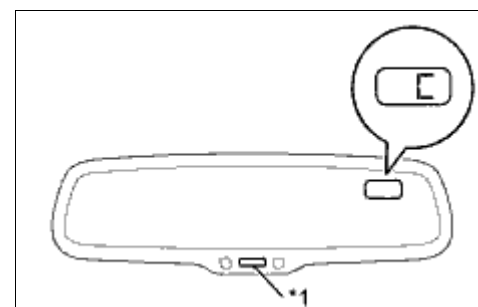


Text in Illustration

*1	Compass Switch
----	----------------

(b) w/o Garage Door Opener:

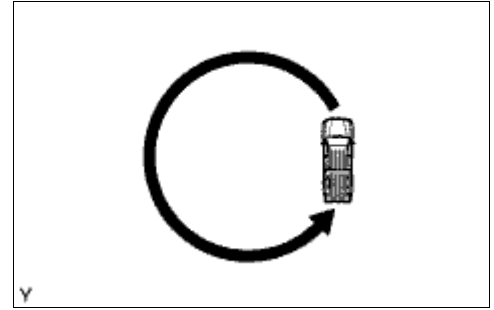
- (1) Pressing the compass switch for 12 seconds or more in the normal mode will activate the calibration setting mode. "C" is displayed on the compass display.



Text in Illustration

*1	Compass Switch
----	----------------

- (c) Drive the vehicle at a slow speed of 8 km/h (5 mph) or less in a circular direction.



- (d) Driving in a circle 1 to 3 times will display the azimuthal direction on the display, completing the calibration.

HINT:

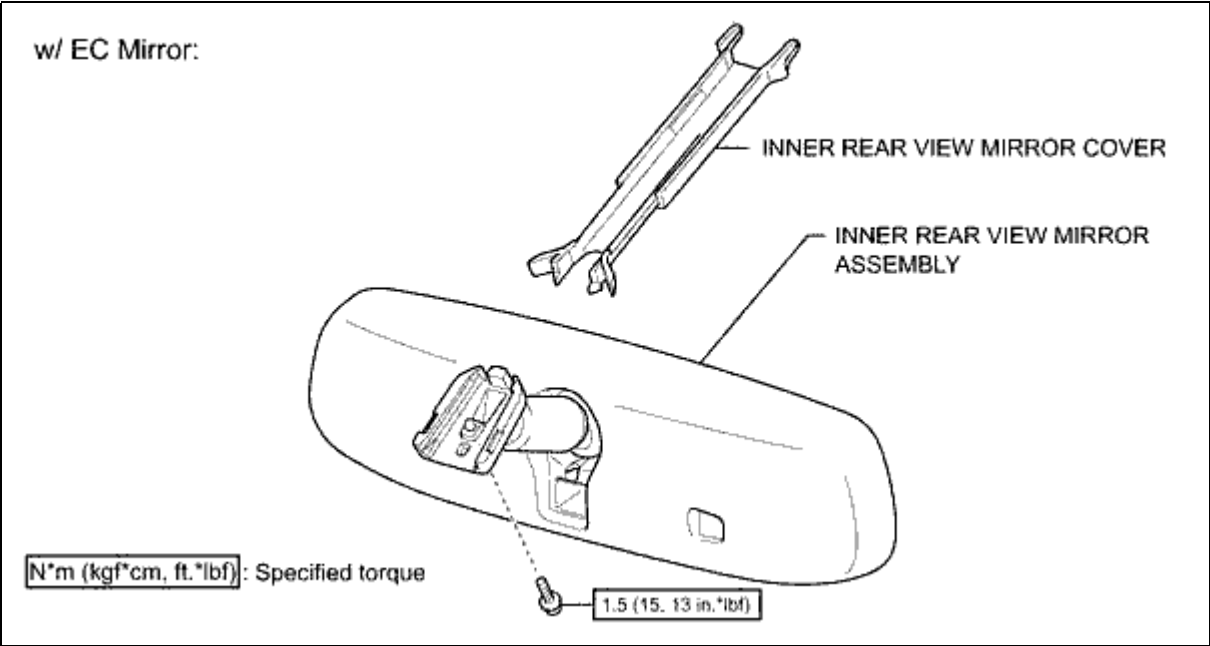
After the calibration is completed, it is not necessary to perform the above procedures unless the magnetic field strength is drastically changed. If this happens, the azimuthal display will be changed to "C".



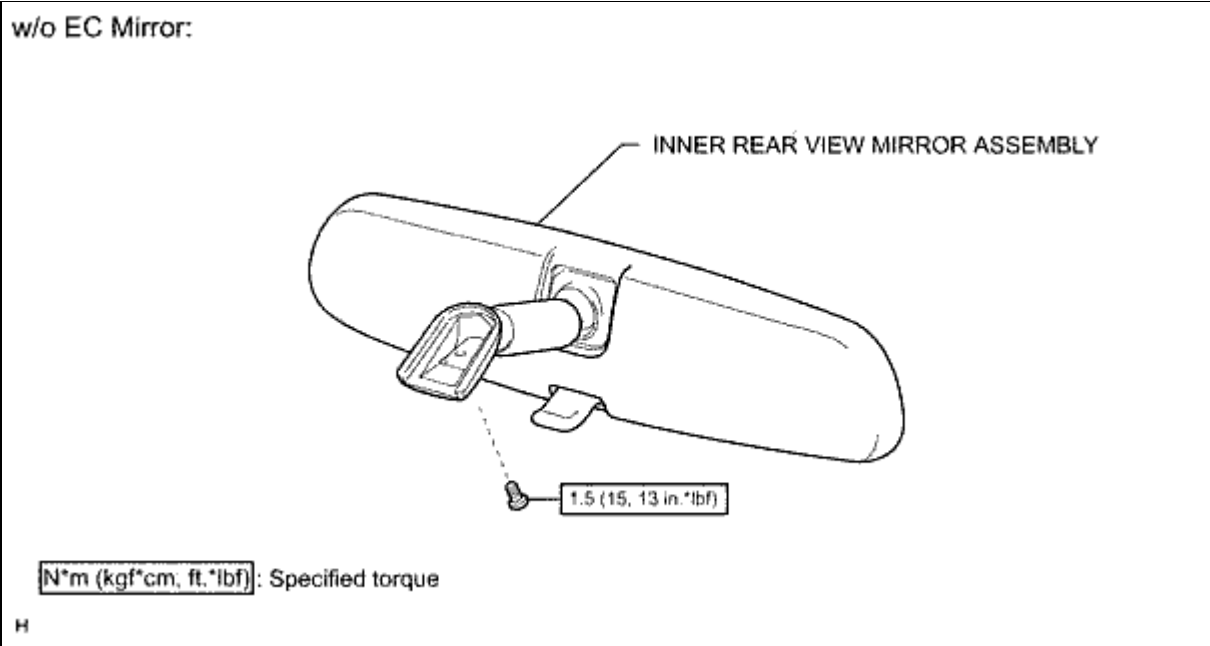
Last Modified: 11-13-2015	6.6 K	Doc ID: RM000002W6F00WX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: INNER REAR VIEW MIRROR: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



Last Modified: 11-13-2015	6.6 G	Doc ID: RM0000016ZE00PX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: INNER REAR VIEW MIRROR: INSPECTION; 2016 MY Tacoma [08/2015 -]		

INSPECTION

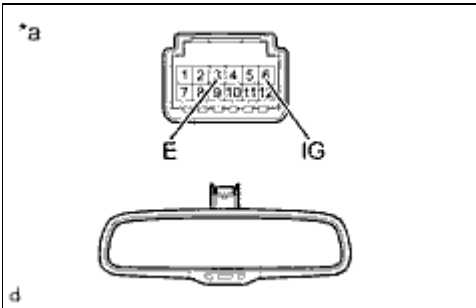
1. INSPECT INNER REAR VIEW MIRROR ASSEMBLY (w/ EC Mirror)

(a) Check operation of the electrochromic inner rear view mirror.

- (1) Connect the positive (+) lead of the battery to terminal 6 (IG) and negative (-) lead to terminal 3 (E).

Text in Illustration

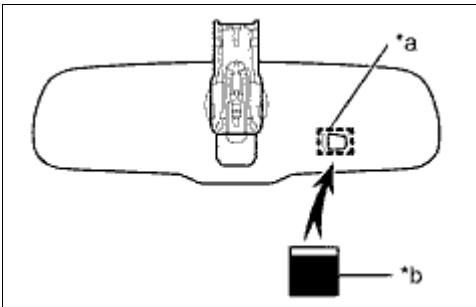
*a	Component without harness connected (Inner Rear View Mirror Assembly)
----	--



- (2) Attach black-colored tape to the forward sensor to prevent it from sensing light.

Text in Illustration

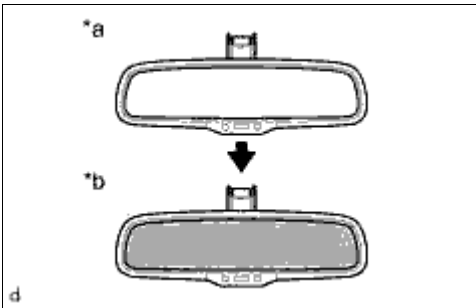
*a	Forward Sensor
*b	Black-colored Tape



- (3) Shine an electric light on the mirror. Check that the mirror surface changes from bright to dark.

Text in Illustration

*a	Bright
*b	Dark



HINT:

When the environment is very bright, the antiglare operation may occur immediately after the tape is applied. If the result is not as specified, replace the mirror assembly.



Last Modified: 11-13-2015	6.6 A	Doc ID: RM0000014CL05UX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: INNER REAR VIEW MIRROR: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

INSTALLATION

1. INSTALL INNER REAR VIEW MIRROR ASSEMBLY (w/ EC Mirror)

- (a) Using a T20 "TORX" socket wrench, install the inner rear view mirror assembly with the screw.

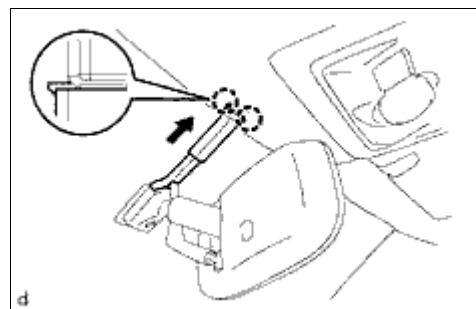
Torque:

1.5 N·m {15 kgf·cm, 13in·lbf}

- (b) Connect the connector.

2. INSTALL INNER REAR VIEW MIRROR COVER (w/ EC Mirror)

- (a) Slide the inner rear view mirror cover in the direction indicated by the arrow in the illustration to engage the 2 claws to the roof headlining to install the inner rear view mirror cover.



3. INSTALL INNER REAR VIEW MIRROR ASSEMBLY (w/o EC Mirror)

- (a) Using a T20 "TORX" socket wrench, install the inner rear view mirror assembly with the screw.

Torque:

1.5 N·m {15 kgf·cm, 13in·lbf}

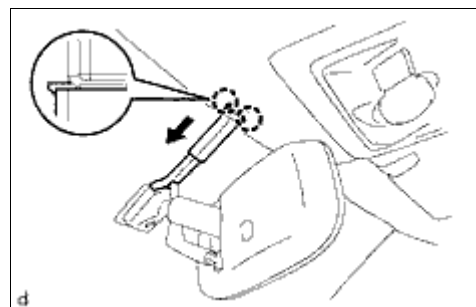


Last Modified: 11-13-2015	6.6 A	Doc ID: RM000001HRX01IX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: INNER REAR VIEW MIRROR: REMOVAL; 2016 MY Tacoma [08/2015 -]		

REMOVAL

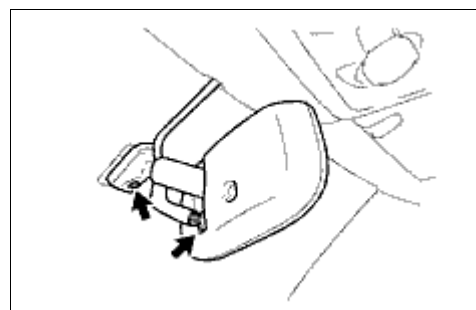
1. REMOVE INNER REAR VIEW MIRROR COVER (w/ EC Mirror)

- (a) Slide the inner rear view mirror cover in the direction indicated by the arrow in the illustration to disengage the 2 claws from the roof headlining to remove the inner rear view mirror cover.



2. REMOVE INNER REAR VIEW MIRROR ASSEMBLY (w/ EC Mirror)

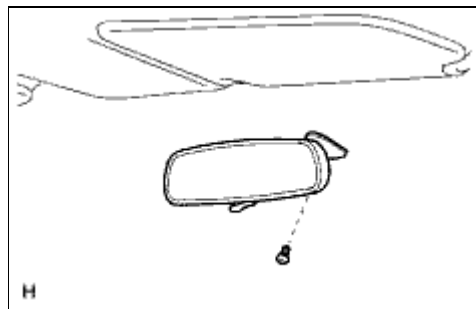
- (a) Disconnect the connector.



- (b) Using a T20 "TORX" socket wrench, remove the screw and inner rear view mirror assembly.

3. REMOVE INNER REAR VIEW MIRROR ASSEMBLY (w/o EC Mirror)

- (a) Using a T20 "TORX" socket wrench, remove the screw and inner rear view mirror assembly.



Last Modified: 11-13-2015	6.6 G	Doc ID: RM0000016Z900AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: OUTER MIRROR SWITCH: INSPECTION; 2016 MY Tacoma [08/2015 -]		

INSPECTION

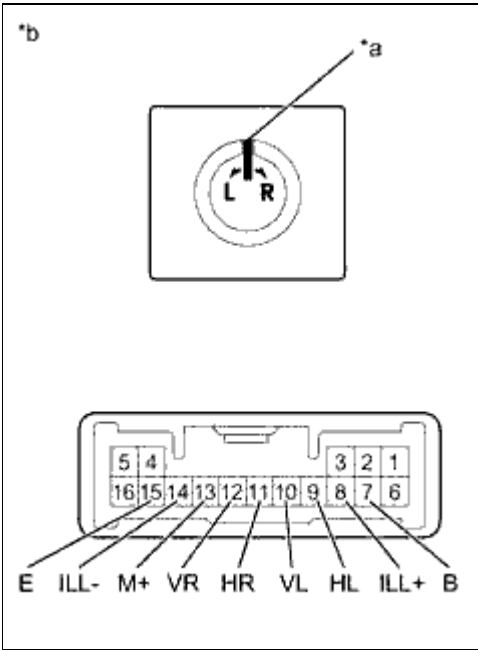
1. INSPECT OUTER MIRROR SWITCH ASSEMBLY

(a) Check the mirror select switch and mirror surface adjust switch.

(1) Turn the mirror select switch to the L position.

Text in Illustration

*a	Mirror Select and Surface Adjust Switch
*b	Component without harness connected (Outer Mirror Switch Assembly)



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

Standard Resistance (for left side):

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
10 (VL) - 7 (B) 13 (M+) - 15 (E)	Up	Below 1 Ω
	Off	10 kΩ or higher
10 (VL) - 15 (E) 13 (M+) - 7 (B)	Down	Below 1 Ω
	Off	10 kΩ or higher
9 (HL) - 7 (B) 13 (M+) - 15 (E)	Left	Below 1 Ω
	Off	10 kΩ or higher
9 (HL) - 15 (E) 13 (M+) - 7 (B)	Right	Below 1 Ω
	Off	10 kΩ or higher

(3) Turn the mirror select switch to the R position.

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

Standard Resistance (for right side):

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
12 (VR) - 7 (B) 13 (M+) - 15 (E)	Up	Below 1 Ω
	Off	10 k Ω or higher
12 (VR) - 15 (E) 13 (M+) - 7 (B)	Down	Below 1 Ω
	Off	10 k Ω or higher
11 (HR) - 7 (B) 13 (M+) - 15 (E)	Left	Below 1 Ω
	Off	10 k Ω or higher
11 (HR) - 15 (E) 13 (M+) - 7 (B)	Right	Below 1 Ω
	Off	10 k Ω or higher

If the result is not as specified, replace the outer mirror switch assembly.

(b) Check the switch illumination.

(1) Apply battery voltage between the terminals of the light and check the operation of the light.

OK:

MEASUREMENT CONNECTION	SPECIFIED CONDITION
Battery positive (+) → Terminal 8 (ILL+)	Light comes on
Battery negative (-) → Terminal 14 (ILL-)	

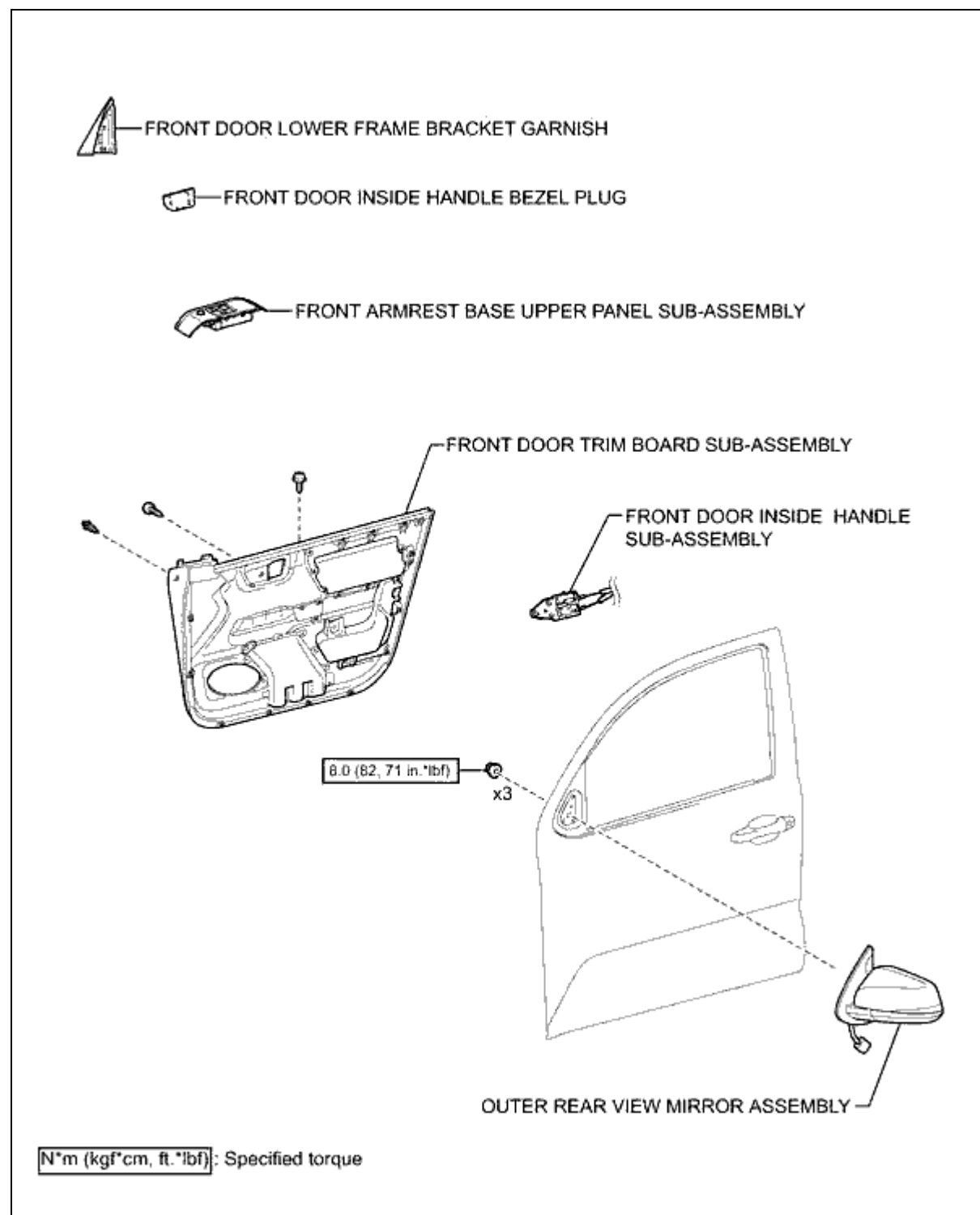
If the result is not as specified, replace the outer mirror switch assembly.



Last Modified: 11-13-2015	6.6 K	Doc ID: RM0000016ZB00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: OUTER REAR VIEW MIRROR: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

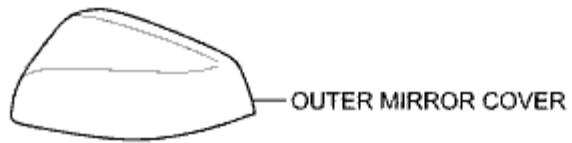
COMPONENTS

ILLUSTRATION

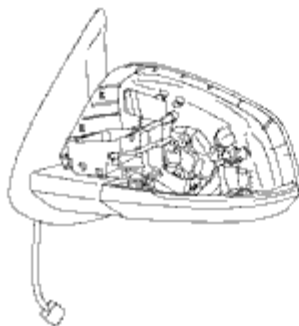
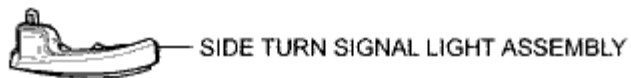
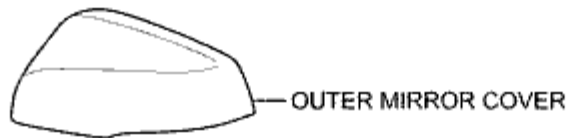


ILLUSTRATION

w/o Side Turn Signal Light:



w/ Side Turn Signal Light:



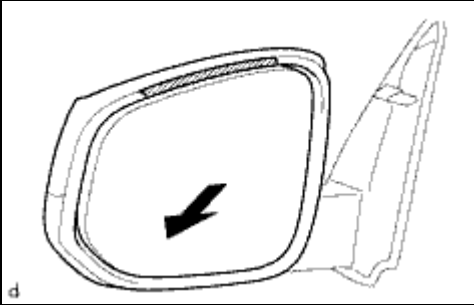
Last Modified: 11-13-2015	6.6 A	Doc ID: RM000005VGU000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: OUTER REAR VIEW MIRROR: DISASSEMBLY; 2016 MY Tacoma [08/2015 -]		

DISASSEMBLY

- HINT:**
- Use the same procedures for both the LH and RH sides.
 - The procedure described below is for the LH side.

1. REMOVE OUTER MIRROR

(a) Push the lower part of the mirror surface and tilt it.

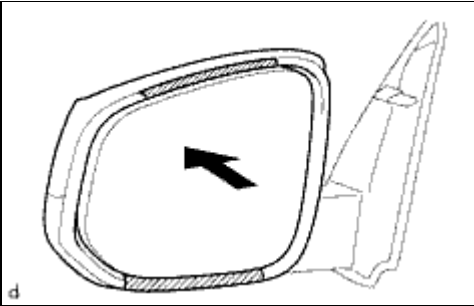


Text in Illustration

	Protective Tape
	Push

(b) Apply protective tape to the area shown in the illustration.

(c) Push the upper part of the mirror surface and tilt it.

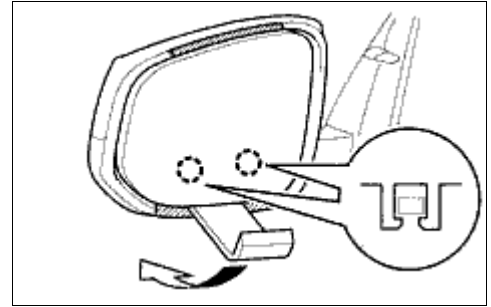


Text in Illustration

	Protective Tape
	Push

(d) Apply protective tape to the area shown in the illustration.

- (e) Using a moulding remover D, disengage the 2 claws on the lower part of the outer mirror.

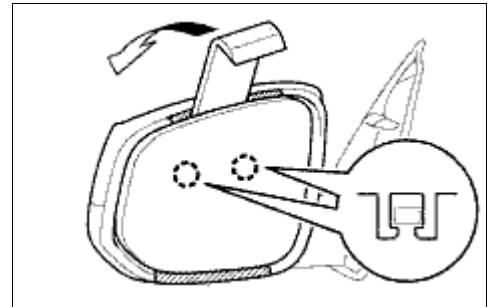


- (f) Push the lower part of the mirror surface.

HINT:

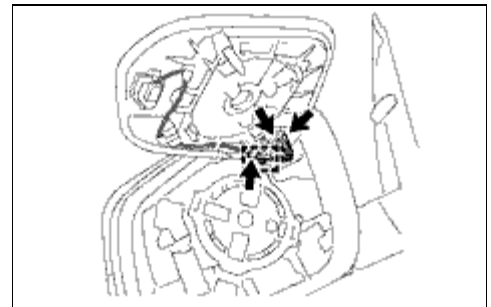
If excessive force is used when pressing down the mirror surface, the 2 claws will engage again.

- (g) Using a moulding remover D, disengage the 2 claws on the upper part of the outer mirror.



- (h) Remove the protective tape.

- (i) Disengage the clamp.



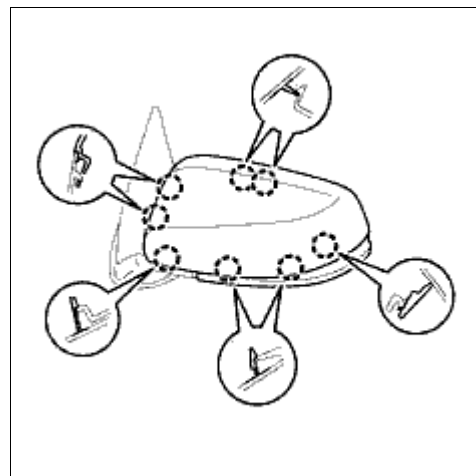
- (j) Disconnect the 3 connectors to remove the outer mirror.

NOTICE:

- Do not bend the tabs excessively to prevent them from being damaged.
- If the tabs are damaged, replace the outer mirror with a new one.
- If the wire harness is damaged or any of the wires are broken, replace the outer rear view mirror assembly with a new one.

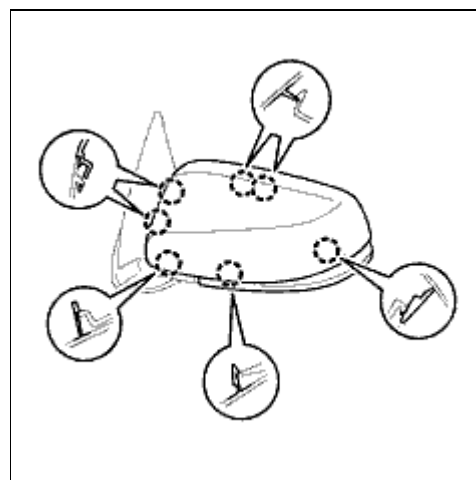
2. REMOVE OUTER MIRROR COVER (w/o Side Turn Signal Light)

(a) Disengage the 8 claws to remove the outer mirror cover.



3. REMOVE OUTER MIRROR COVER (w/ Side Turn Signal Light)

(a) Disengage the 7 claws to remove the outer mirror cover.



4. REMOVE SIDE TURN SIGNAL LIGHT ASSEMBLY (w/ Side Turn Signal Light)

INFO



Last Modified: 11-13-2015	6.6 G	Doc ID: RM00000177J00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: OUTER REAR VIEW MIRROR: INSPECTION; 2016 MY Tacoma [08/2015 -]		

INSPECTION

1. INSPECT OUTER MIRROR LH

- (a) Check the outer mirror heater operation.

Text in Illustration

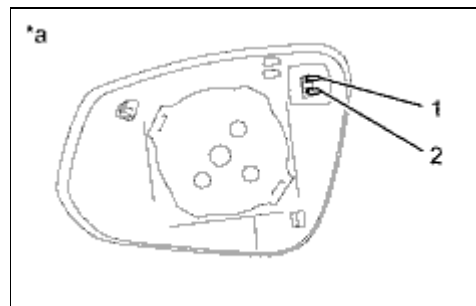
*a	Component without harness connected (Outer Mirror LH)
----	--

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	25°C (77°F)	8.5 to 11.5 Ω

If the result is not as specified, replace the outer mirror LH.



- (b) Check the operation of the outer rear view mirror indicator. (w/ Blind Spot Monitor)

Text in Illustration

*a	Component without harness connected (Outer Mirror LH)
----	--

- (1) Apply 6 V battery voltage to the terminals of the connector, and check that the outer rear view mirror indicator comes on.

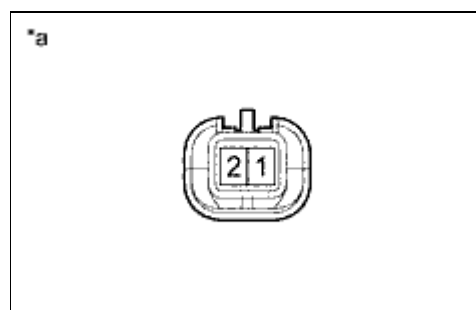
NOTICE:

Do not apply a voltage of more than 6 V.

HINT:

Connect 4 new 1.5 V dry-cell batteries in series.

OK:



TESTER CONNECTION	SPECIFIED CONDITION
6 V battery positive (+) → 2 6 V battery negative (-) → 1	Outer rear view mirror indicator comes on

If the result is not as specified, replace the outer mirror LH.

2. INSPECT OUTER MIRROR RH

(a) Check the outer mirror heater operation.

Text in Illustration

*a	Component without harness connected (Outer Mirror RH)
----	--

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	25°C (77°F)	8.5 to 11.5 Ω

If the result is not as specified, replace the outer mirror RH.

(b) Check the operation of the outer rear view mirror indicator. (w/ Blind Spot Monitor)

Text in Illustration

*a	Component without harness connected (Outer Mirror RH)
----	--

(1) Apply 6 V battery voltage to the terminals of the connector, and check that the outer rear view mirror indicator comes on.

NOTICE:

Do not apply a voltage of more than 6 V.

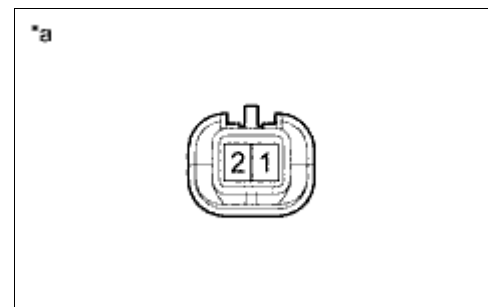
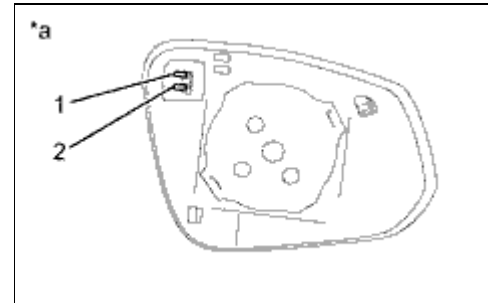
HINT:

Connect 4 new 1.5 V dry-cell batteries in series.

OK:

TESTER CONNECTION	SPECIFIED CONDITION
6 V battery positive (+) → 2 6 V battery negative (-) → 1	Outer rear view mirror indicator comes on

If the result is not as specified, replace the outer mirror RH.



3. INSPECT OUTER REAR VIEW MIRROR ASSEMBLY LH

(a) Check the operation of the mirror surface.

Text in Illustration

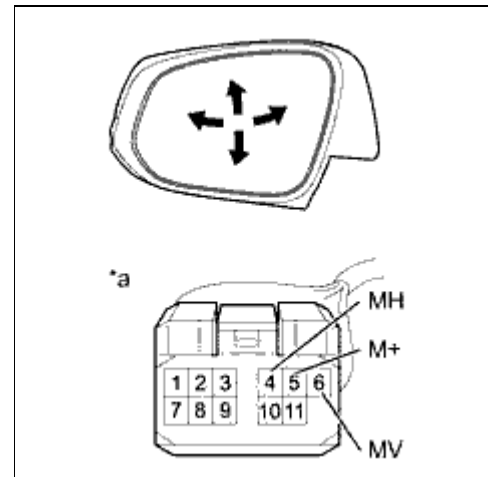
*a	Component without harness connected (Outer Rear View Mirror Assembly LH)
----	---

(1) Apply battery voltage and check the operation of the mirror.

OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 6 (MV) Battery negative (-) → Terminal 5 (M+)	Turns upward
Battery positive (+) → Terminal 5 (M+) Battery negative (-) → Terminal 6 (MV)	Turns downward
Battery positive (+) → Terminal 4 (MH) Battery negative (-) → Terminal 5 (M+)	Turns right
Battery positive (+) → Terminal 5 (M+) Battery negative (-) → Terminal 4 (MH)	Turns left

If the result is not as specified, replace the outer rear view mirror assembly LH.



(b) Check the side turn signal light assembly LH.

Text in Illustration

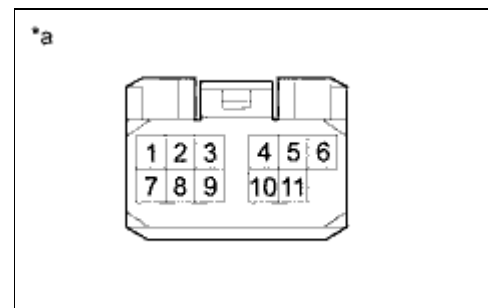
*a	Component without harness connected (Outer Rear View Mirror Assembly LH)
----	---

(1) Apply battery voltage to the terminals of the connector, and check the illumination condition.

OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 10 Battery negative (-) → Terminal 11	Side turn light illuminates

If the result is not as specified, replace the outer rear view mirror assembly LH.



(c) Check the operation of the mirror heater.

Text in Illustration

*a	Component without harness connected (Outer Rear View Mirror Assembly LH)
----	---

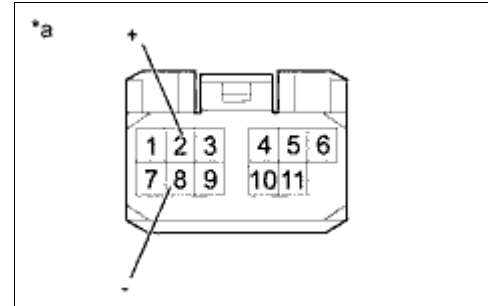
(1) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Terminal 2 (+) - Terminal 8 (-)	25°C (77°F)	8.5 to 11.5 Ω

If the result is not as specified, replace the outer rear view mirror assembly LH.

(2) Connect the cable from the positive (+) battery terminal to terminal 2 (+) and the negative (-) battery terminal to terminal 8 (-), and then check that the mirror becomes warm.



HINT:

It takes a short time for the mirror to become warm.

OK:

Mirror becomes warm.

If the result is not as specified, replace the outer rear view mirror assembly LH.

(d) Check the operation of the BSM.

Text in Illustration

*a	Component without harness connected (Outer Rear View Mirror Assembly LH)
----	---

(1) Apply 6 V dry-cell battery voltage to the terminals of the connector, and check the illumination condition.

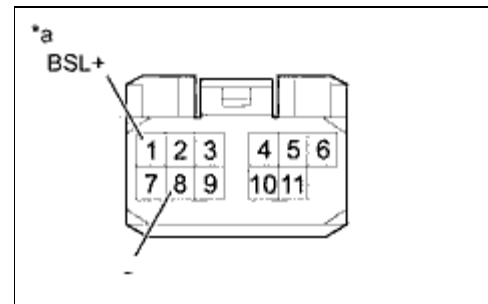
NOTICE:

Do not apply a voltage of 6 V or higher.

HINT:

Connect the 1.5 V 4 pieces batteries of a new series, applying a 6 V voltage of between each terminal of the connector.

OK:



MEASUREMENT CONDITION	SPECIFIED CONDITION
6 V battery positive (+) → Terminal 1 (BSL+)	BSM indicator illuminates

MEASUREMENT CONDITION	SPECIFIED CONDITION
6 V battery negative (-) → Terminal 8 (-)	

If the result is not as specified, replace the outer rear view mirror assembly LH.

4. INSPECT OUTER REAR VIEW MIRROR ASSEMBLY RH

- (a) Check the operation of the mirror surface.

Text in Illustration

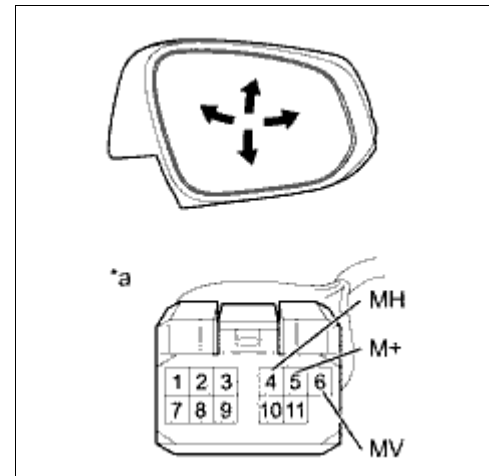
*a	Component without harness connected (Outer Rear View Mirror Assembly RH)
----	---

- (1) Apply battery voltage and check the operation of the mirror.

OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 6 (MV) Battery negative (-) → Terminal 5 (M+)	Turns upward
Battery positive (+) → Terminal 5 (M+) Battery negative (-) → Terminal 6 (MV)	Turns downward
Battery positive (+) → Terminal 4 (MH) Battery negative (-) → Terminal 5 (M+)	Turns right
Battery positive (+) → Terminal 5 (M+) Battery negative (-) → Terminal 4 (MH)	Turns left

If the result is not as specified, replace the outer rear view mirror assembly RH.



- (b) Check the side turn signal light assembly RH.

Text in Illustration

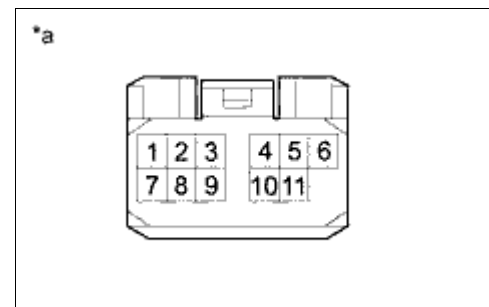
*a	Component without harness connected (Outer Rear View Mirror Assembly RH)
----	---

- (1) Apply battery voltage to the terminals of the connector, and check the illumination condition.

OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 10 Battery negative (-) → Terminal 11	Side turn light illuminates

If the result is not as specified, replace the outer rear view



mirror assembly RH.

(c) Check the operation of the mirror heater.

Text in Illustration

*a	Component without harness connected (Outer Rear View Mirror Assembly RH)
----	---

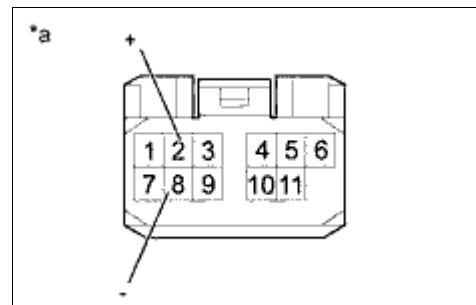
(1) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Terminal 2 (+) - Terminal 8 (-)	25°C (77°F)	8.5 to 11.5 Ω

If the result is not as specified, replace the outer rear view mirror assembly RH.

(2) Connect the cable from the positive (+) battery terminal to terminal 2 (+) and the negative (-) battery terminal to terminal 8 (-), and then check that the mirror becomes warm.



HINT:

It takes a short time for the mirror to become warm.

OK:

Mirror becomes warm.

If the result is not as specified, replace the outer rear view mirror assembly RH.

(d) Check the operation of the BSM.

Text in Illustration

*a	Component without harness connected (Outer Rear View Mirror Assembly RH)
----	---

(1) Apply 6 V dry-cell battery voltage to the terminals of the connector, and check the illumination condition.

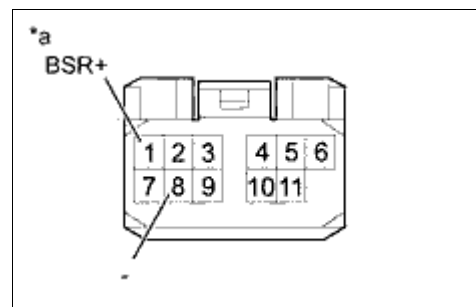
NOTICE:

Do not apply a voltage of 6 V or higher.

HINT:

Connect the 1.5 V 4 pieces batteries of a new series, applying a 6 V voltage of between each terminal of the connector.

OK:



MEASUREMENT CONDITION	SPECIFIED CONDITION
-----------------------	---------------------

MEASUREMENT CONDITION	SPECIFIED CONDITION
6 V battery positive (+) → Terminal 1 (BSR+)	BSM indicator illuminates
6 V battery negative (-) → Terminal 8 (-)	

If the result is not as specified, replace the outer rear view mirror assembly RH.



Last Modified: 11-13-2015	6.6 A	Doc ID: RM0000016ZA00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: OUTER REAR VIEW MIRROR: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

INSTALLATION

HINT:

- Use the same procedures for both the LH and RH sides.
- The procedure described below is for the LH side.

1. INSTALL OUTER REAR VIEW MIRROR ASSEMBLY

- Engage the claw to install the outer rear view mirror assembly.
- Install the 3 nuts.

Torque:

8.0 N·m {82 kgf·cm, 71in·lbf}

- Connect the connector.

2. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY [INFO](#)

3. INSTALL FRONT ARMREST BASE UPPER PANEL SUB-ASSEMBLY [INFO](#)

4. INSTALL FRONT DOOR INSIDE HANDLE BEZEL PLUG [INFO](#)

5. INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH [INFO](#)



Last Modified: 11-13-2015	6.6 A	Doc ID: RM000005VGV000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: OUTER REAR VIEW MIRROR: REASSEMBLY; 2016 MY Tacoma [08/2015 -]		

REASSEMBLY

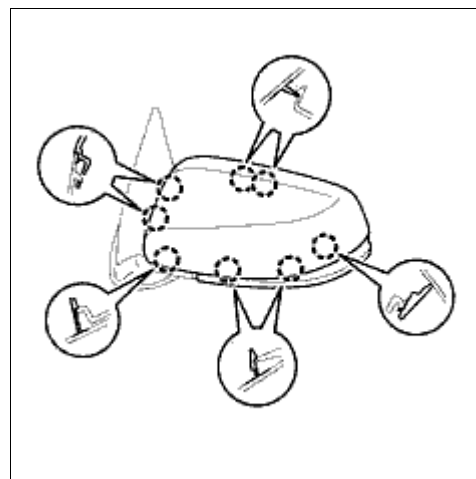
HINT:

- Use the same procedures for both the LH and RH sides.
- The procedure described below is for the LH side.

1. INSTALL SIDE TURN SIGNAL LIGHT ASSEMBLY (w/ Side Turn Signal Light) INFO

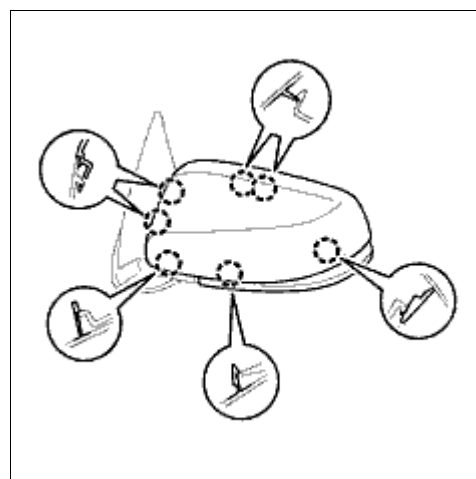
2. INSTALL OUTER MIRROR COVER (w/o Side Turn Signal Light)

(a) Engage the 8 claws to install the outer mirror cover.



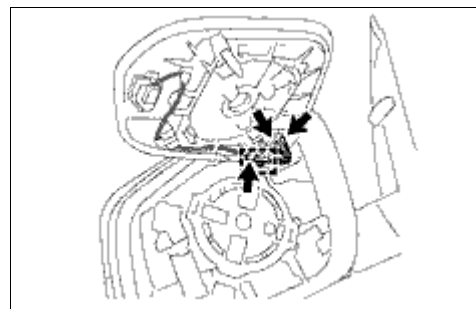
3. INSTALL OUTER MIRROR COVER (w/ Side Turn Signal Light)

(a) Engage the 7 claws to install the outer mirror cover.



4. INSTALL OUTER MIRROR

(a) Connect the 3 connectors.

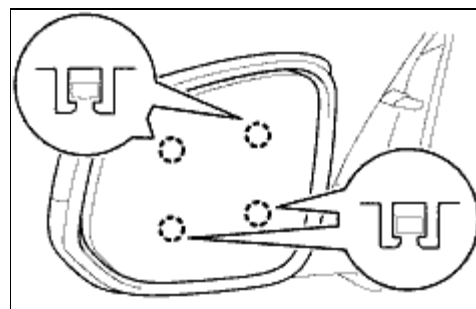


(b) Engage the clamp.

(c) Engage the 4 claws to install the outer mirror.

NOTICE:

Be careful not to press the outer mirror with excessive force to prevent the glass from breaking.



Last Modified: 11-13-2015	6.6 A	Doc ID: RM0000016ZC00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: OUTER REAR VIEW MIRROR: REMOVAL; 2016 MY Tacoma [08/2015 -]		

REMOVAL

HINT:

- Use the same procedures for both the LH and RH sides.
- The procedure described below is for the LH side.

1. REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH [INFO](#)

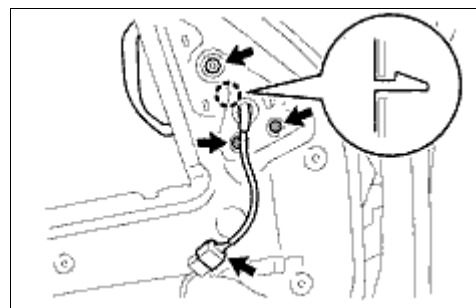
2. REMOVE FRONT DOOR INSIDE HANDLE BEZEL PLUG [INFO](#)

3. REMOVE FRONT ARMREST BASE UPPER PANEL SUB-ASSEMBLY [INFO](#)

4. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY [INFO](#)

5. REMOVE OUTER REAR VIEW MIRROR ASSEMBLY

(a) Disconnect the connector.



(b) Remove the 3 nuts.

(c) Disengage the claw to remove the outer rear view mirror assembly.



Last Modified: 11-13-2015	6.6 U	Doc ID: RM0000011WC04BX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: DATA LIST / ACTIVE TEST; 2016 MY Tacoma [08/2015 -]		

DATA LIST / ACTIVE TEST

1. ACTIVE TEST

HINT:

Using the Techstream to perform Active Tests allows relays, VSVs, actuators and other items to be operated without removing any parts. This non-intrusive functional 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. Data List information can be displayed while performing Active Tests.

- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON.
- Turn the Techstream on.
- Enter the following menus: Body Electrical / Air Conditioner / Active Test.
- Perform the Active Test according to the display on the Techstream.

Air Conditioner

TESTER DISPLAY	TEST PART	CONTROL RANGE	DIAGNOSTIC NOTE
Mirror Heater Relay	Mirror heater operation	ON / OFF	-



Last Modified: 11-13-2015	6.6 D	Doc ID: RM0000011WA05VX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: DIAGNOSIS SYSTEM; 2016 MY Tacoma [08/2015 -]		

DIAGNOSIS SYSTEM

1. CHECK DLC3

(a) Check the DLC3  .

2. 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.



Last Modified: 11-13-2015	6.6 D	Doc ID: RM000000T5K06HX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING; 2016 MY Tacoma [08/2015 -]		

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- Use the following procedure to troubleshoot the power mirror control system.
- *: Use the Techstream.

1.	VEHICLE BROUGHT TO WORKSHOP
-----------	------------------------------------

NEXT



2.	CUSTOMER PROBLEM ANALYSIS
-----------	----------------------------------

HINT:

- In troubleshooting, confirm that the problem symptoms have been accurately identified. Preconceptions should be discarded in order to make an accurate judgment. To clearly understand what the problem symptoms are, it is extremely important to ask the customer about the problem and the conditions at the time the malfunction occurred.
- Gather as much information as possible for reference.

Past problems that seem unrelated may also help in some cases.

- The following 5 items are important points in the problem analysis:

What	Vehicle model, system name
When	Date, time, occurrence frequency
Where	Road conditions
Under what conditions?	Running conditions, driving conditions, weather conditions
How did it happen?	Problem symptoms

NEXT



3.	INSPECT 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.

NEXT



4.	PROBLEM SYMPTOMS TABLE
-----------	-------------------------------

(a) Refer to Problem Symptoms Table [INFO](#) .

Result

RESULT	PROCEED TO
Fault is not listed in Problem Symptoms Table	A
Fault is listed in Problem Symptoms Table	B

B  **Go to step 8**

A



5.	OVERALL ANALYSIS AND TROUBLESHOOTING*
-----------	--

(a) Operation Check [INFO](#)

(b) Data List / Active Test [INFO](#)

(c) Terminals of ECU [INFO](#)

NEXT



6.	REPAIR OR REPLACE
-----------	--------------------------

NEXT



7.	CONFIRMATION TEST
-----------	--------------------------



Last Modified: 11-13-2015	6.6 J	Doc ID: RM000001Z4K075X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: Mirror Heater does not Operate with Rear Defogger Switch; 2016 MY Tacoma [08/2015 -]		

Mirror Heater does not Operate with Rear Defogger Switch

DESCRIPTION

When the mirror heater switch on the air conditioning control assembly is pressed, the operation signal is sent to the air conditioning amplifier assembly. When the air conditioning amplifier assembly receives the signal, it turns on a relay in the air conditioning amplifier assembly to operate the mirror heaters.

WIRING DIAGRAM

See page ([INFO](#)).

INSPECTION PROCEDURE

NOTICE:

Inspect the fuses for circuits related to this system before performing the following procedure.

PROCEDURE

1.	PERFORM ACTIVE TEST USING TECHSTREAM
-----------	---

- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON.
- Turn the Techstream on.
- Enter the following menus: Body Electrical / Air Conditioner / Active Test.
- Perform the Active Test according to the display on the Techstream.

Air Conditioner

TESTER DISPLAY	MEASUREMENT ITEM	CONTROL RANGE	DIAGNOSTIC NOTE
Defogger Relay (Rear)	Mirror heater operation	OFF or ON	-

Result

RESULT	PROCEED TO
Mirror heater operation on both mirrors is not normal	A
Mirror heater operation on RH side mirror is not normal	B
Mirror heater operation on LH side mirror is not normal	C

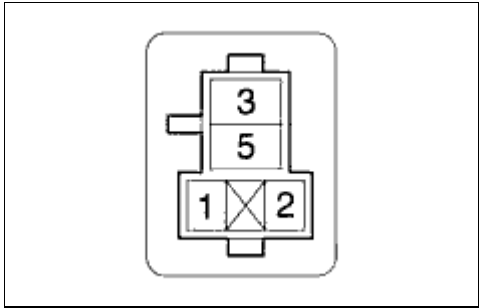
B ► **GO TO STEP 7**

C ► **GO TO STEP 9**

A
▼

2.	INSPECT MIR HTR RELAY
-----------	------------------------------

(a) Remove the MIR HTR relay from the instrument panel relay block.



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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
3 - 5	Battery voltage applied to terminals 1 and 2	Below 1 Ω
3 - 5	Battery voltage not applied between terminals	10 kΩ or higher

NG ► **REPLACE MIR HTR RELAY**

OK
▼

3.	CHECK HARNESS AND CONNECTOR (MIR HTR RELAY - AIR CONDITIONING AMPLIFIER ASSEMBLY)
-----------	--

(a) for Automatic Air Conditioning

- (1) Disconnect the A35 air conditioning amplifier assembly connector.
- (2) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MHR HTR relay terminal 1 - A35-9 (MHTR)	Always	Below 1 Ω
MHR HTR relay terminal 1 or A35-9 (MHTR) - Body ground	Always	10 k Ω or higher

(b) for Manual Air Conditioning

- (1) Disconnect the A14 air conditioning amplifier assembly connector.
- (2) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MHR HTR relay terminal 1 - A14-17 (MHTR)	Always	Below 1 Ω
MHR HTR relay terminal 1 or A14 -17 (MHTR) - Body ground	Always	10 k Ω or higher

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK



4.	CHECK HARNESS AND CONNECTOR (AIR CONDITIONING AMPLIFIER ASSEMBLY - AIR CONDITIONING CONTROL ASSEMBLY)
-----------	--

(a) for Automatic Air Conditioning

- (1) Disconnect the A36 air conditioning amplifier assembly connector.
- (2) Disconnect the A33 air conditioning control assembly connector.
- (3) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A33-10(E) - A36-5 (RDSW)	Always	Below 1 Ω
A33-10(E) or A36-5 (RDSW) - Body ground	Always	10 k Ω or higher

(b) for Manual Air Conditioning

- (1) Disconnect the A14 air conditioning amplifier assembly connector.
- (2) Disconnect the A33 air conditioning control assembly connector.
- (3) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A33-15(E) - A14-29 (RDSW)	Always	Below 1 Ω
A33-15(E) or A14-29 (RDSW) - Body ground	Always	10 k Ω or higher

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK



5.	REPLACE AIR CONDITIONING CONTROL ASSEMBLY
-----------	--

(a) Replace the air conditioning control assembly.

- for Automatic Air Conditioning 
- for Manual Air Conditioning 

NEXT



6.	CHECK MIRROR HEATER OPERATION
-----------	--------------------------------------

(a) Check the mirror heater operation.



NG  **REPLACE AIR CONDITIONING AMPLIFIER ASSEMBLY**

OK  **END (AIR CONDITIONING CONTROL ASSEMBLY WAS DEFECTIVE)**

7.	CHECK HARNESS AND CONNECTOR (MIR HTR RELAY - OUTER REAR VIEW MIRROR ASSEMBLY RH - BODY GROUND)
-----------	---

(a) Remove the MIR HTR relay from the instrument panel relay block.

(b) Disconnect the O3 outer rear view mirror assembly RH connector.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MIR HTR relay terminal 3 - O3-2 (+)	Always	Below 1 Ω
O3-8 (-) - Body Ground	Always	Below 1 Ω
MIR HTR relay terminal 3 or O3-2 (+) - Body Ground	Always	10 k Ω or higher

Result

PROCEED TO
OK
NG

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK



8.	INSPECT OUTER MIRROR COVER RH (MIRROR HEATER)
-----------	--

(a) Remove the outer mirror RH.

INFO

(b) Inspect the outer mirror RH.

INFO

OK:

Outer mirror RH is normal.

Result

PROCEED TO
OK
NG

NG  **REPLACE OUTER MIRROR RH**

OK  **REPLACE OUTER REAR VIEW MIRROR ASSEMBLY RH**

9.	CHECK HARNESS AND CONNECTOR (MIR HTR RELAY - OUTER REAR VIEW MIRROR ASSEMBLY LH - BODY GROUND)
-----------	---

- (a) Remove the MIR HTR relay from the instrument panel relay block.
- (b) Disconnect the O2 outer rear view mirror assembly LH connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MIR HTR relay terminal 3 - O2-2 (+)	Always	Below 1 Ω
O2-8 (-) - Body Ground	Always	Below 1 Ω
MIR HTR relay terminal 3 or O2-2 (+) - Body Ground	Always	10 k Ω or higher

Result

PROCEED TO
OK
NG

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK



10.	INSPECT OUTER MIRROR COVER LH (MIRROR HEATER)
------------	--

- (a) Remove the outer mirror LH.

INFO

- (b) Inspect the outer mirror LH.

INFO

OK:

Outer mirror LH is normal.

Result

PROCEED TO
OK
NG

NG  **REPLACE OUTER MIRROR LH**

OK  **REPLACE OUTER REAR VIEW MIRROR ASSEMBLY LH**



Last Modified: 11-13-2015	6.6 D	Doc ID: RM000002AYD040X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: OPERATION CHECK; 2016 MY Tacoma [08/2015 -]		

OPERATION CHECK

1. CHECK REMOTE CONTROL MIRROR FUNCTION

- (a) Turn the ignition switch to ON.
- (b) With L on the mirror select switch selected, check that the outer rear view mirror assembly LH surface moves up, down, left and right normally.
- (c) With R on the mirror select switch selected, check that the outer rear view mirror assembly RH surface moves up, down, left and right normally.

2. CHECK MIRROR HEATER FUNCTION

- (a) Turn the ignition switch to ON.
- (b) Check that pressing the mirror heater switch illuminates the indicator and warms the mirror surfaces.
- (c) Check that after approximately 15 minutes, the indicator light turns off and the mirror heater deactivates.

HINT:

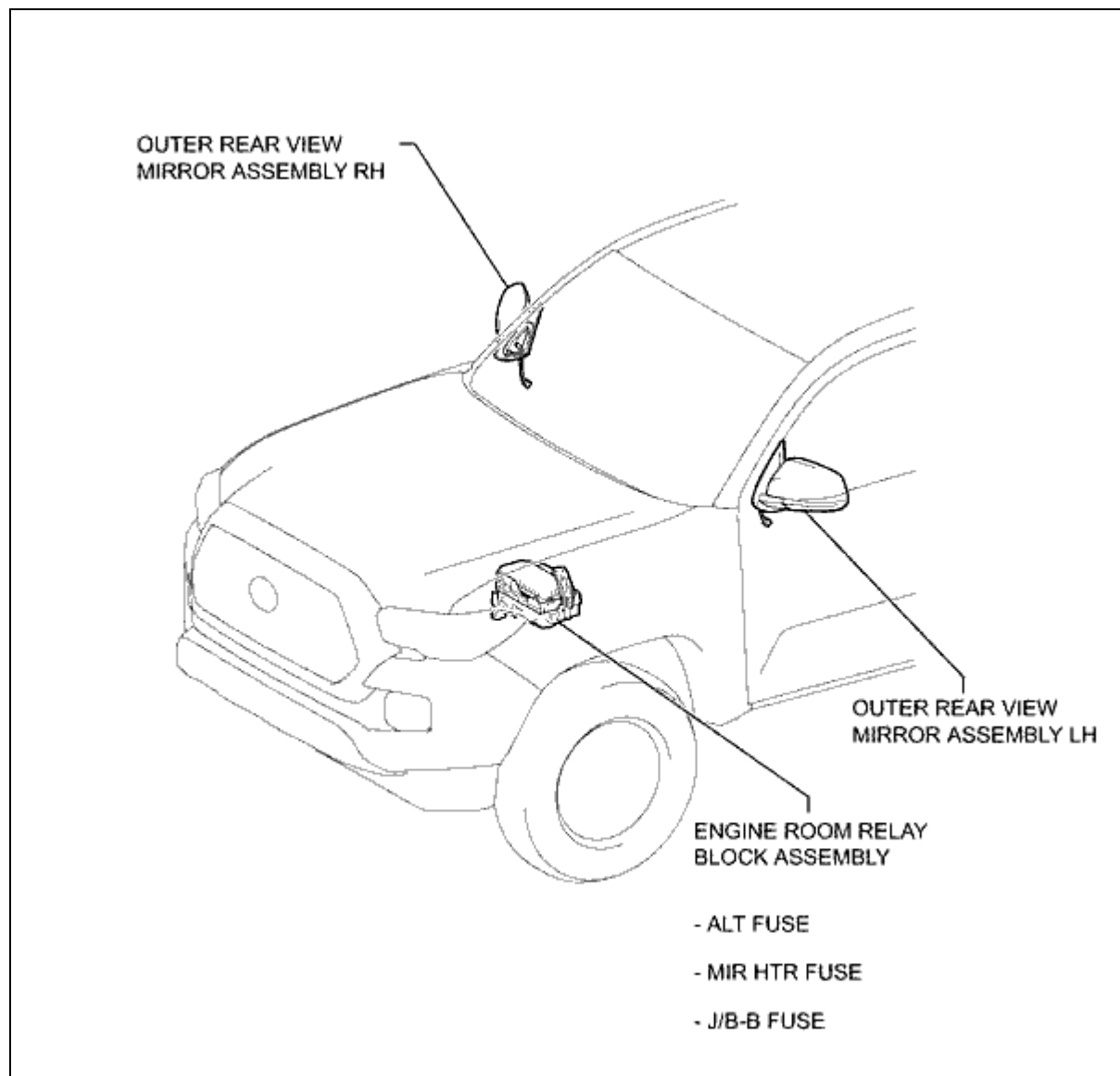
There is a timer extension function which can operate the mirror heater system for up to an additional 45 minutes.



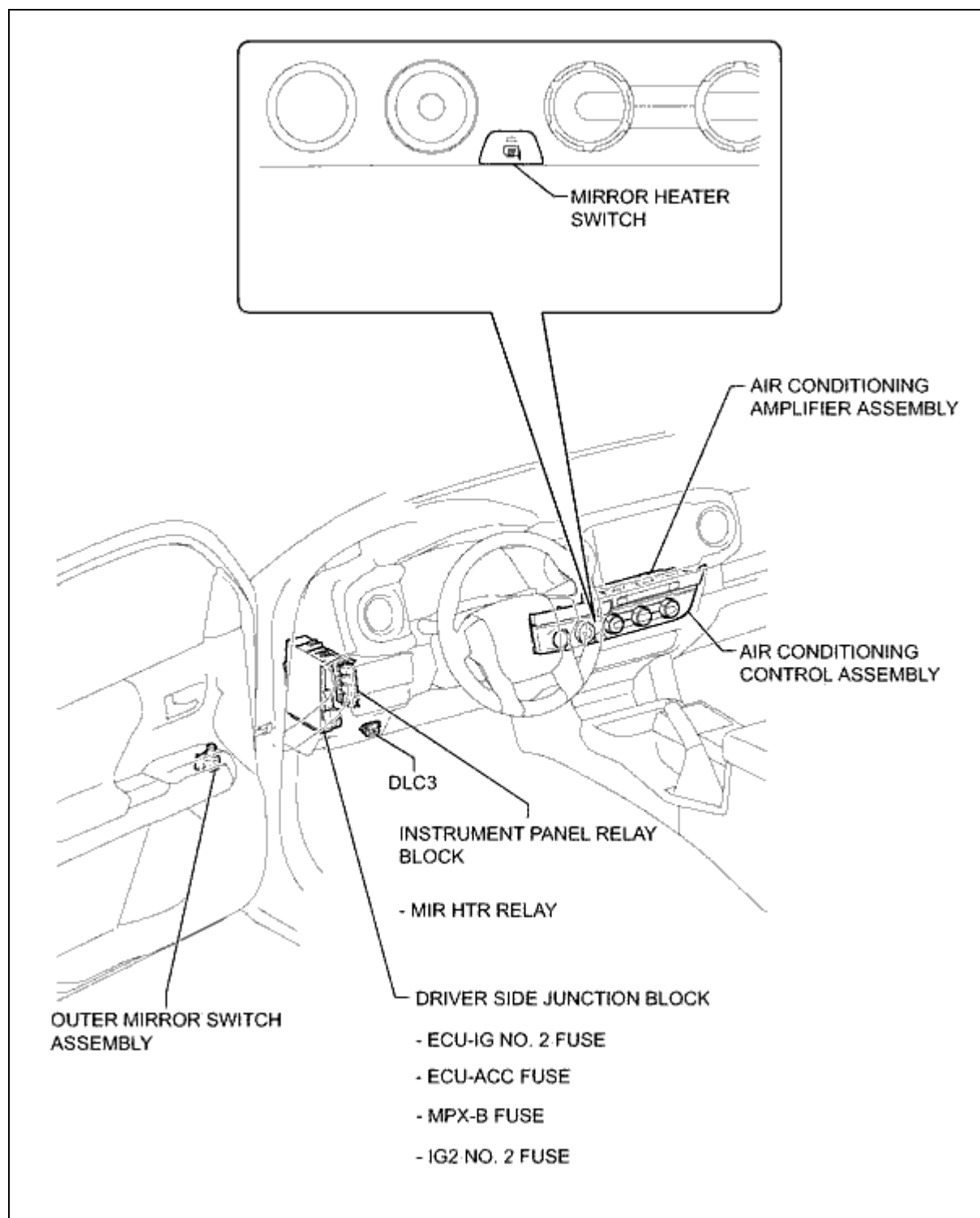
Last Modified: 11-13-2015	6.6 R	Doc ID: RM0000017EF00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: PARTS LOCATION; 2016 MY Tacoma [08/2015 -]		

PARTS LOCATION

ILLUSTRATION



ILLUSTRATION



Last Modified: 11-13-2015	6.6 L	Doc ID: RM000003X02019X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: PRECAUTION; 2016 MY Tacoma [08/2015 -]		

PRECAUTION

1. IGNITION SWITCH EXPRESSIONS

(a) 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 section.

EXPRESSION	IGNITION SWITCH (POSITION)	ENGINE SWITCH (CONDITION)
Ignition switch off	LOCK	Off
Ignition switch ACC	ACC	On (ACC)
Ignition switch ON	ON	On (IG)
Engine start	START	Start



Last Modified: 11-13-2015	6.6 T	Doc ID: RM0000030W8021X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: PROBLEM SYMPTOMS TABLE; 2016 MY Tacoma [08/2015 -]		

PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.

Power Mirror Control System

SYMPTOM	SUSPECTED AREA	SEE PAGE
Driver Side Power Mirror cannot be Adjusted with Power Mirror Switch	Outer mirror switch assembly	INFO
	Outer rear view mirror assembly LH	INFO
	Outer rear view mirror assembly RH	INFO
	Wire harness or connector	-
Mirror Heater does not operate with Mirror Heater Switch	Proceed to "Mirror Heater does not Operate with Rear Defogger Switch"	INFO



Last Modified: 11-13-2015	6.6 D	Doc ID: RM000002Y3Y07HX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: SYSTEM DESCRIPTION; 2016 MY Tacoma [08/2015 -]		

SYSTEM DESCRIPTION

1. FUNCTION OF MAIN COMPONENTS

COMPONENT	FUNCTION
Vertical mirror motor	Moves the mirror surface vertically in accordance with the vertical mirror motor outer mirror switch assembly operation.
Horizontal mirror motor	Moves the mirror surface horizontally in accordance with the horizontal mirror motor outer mirror switch assembly operation.
Mirror heater	When the rear defogger switch on the air conditioning control assembly is operated, the A/C amplifier detects the switch operation via LIN communication. The A/C amplifier operates the integration relay and mirror heater in accordance with the switch operation.
Mirror select switch	Consists of R and L switches. One must be chosen to operate the outer mirror switch assembly.
Mirror adjust switch	After selecting the R or L switch, the right, left, up and down control switches can be operated to change the angle of the mirror.

2. SYSTEM OPERATION

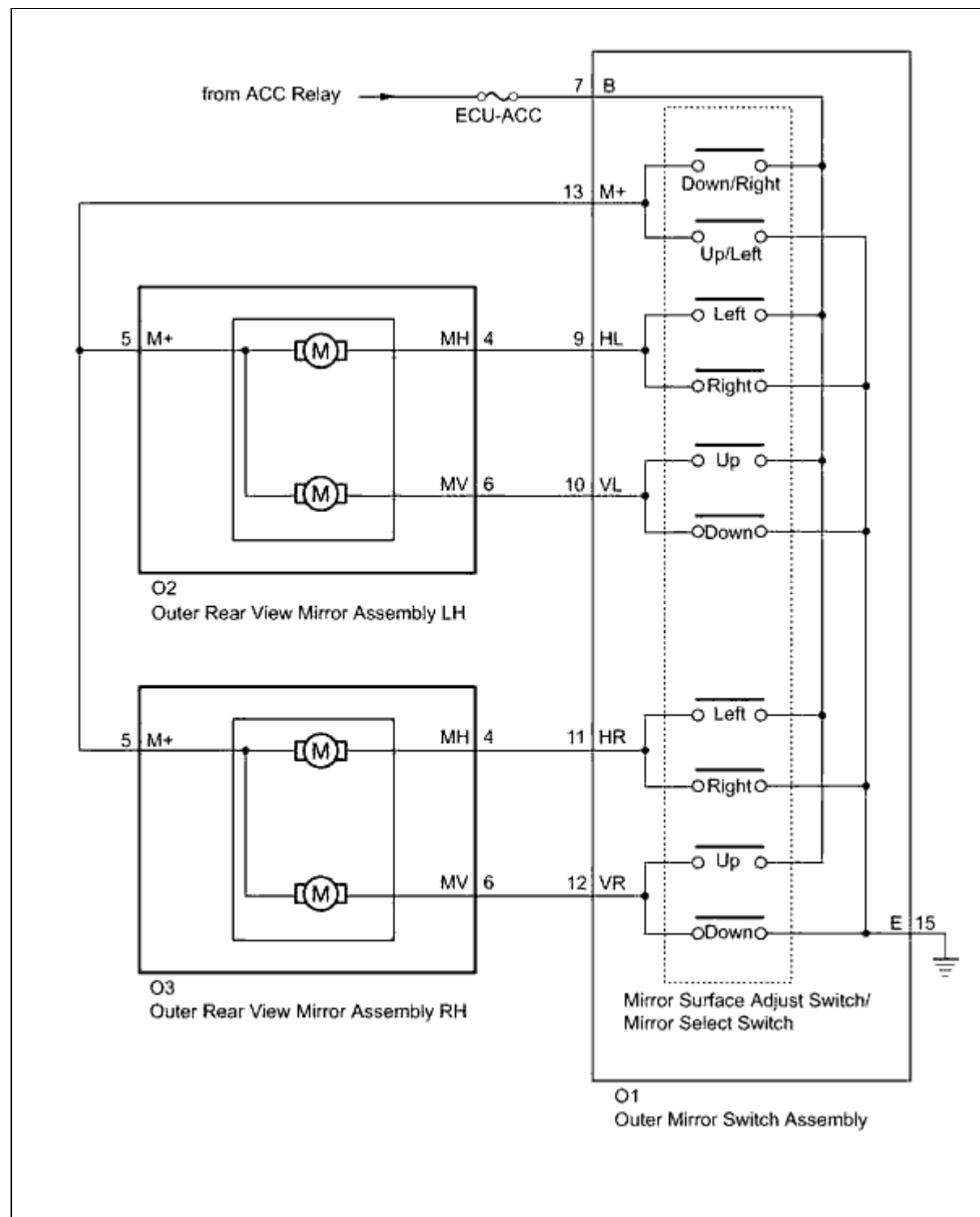
(a) The remote control mirror has the following features:

FUNCTION	OUTLINE
Electrical remote control mirror function	When the outer mirror switch assembly is operated, this function moves the mirror surface vertically or horizontally to enable the driver to attain an optimal mirror angle. Setting the mirror select switch to the R position operates the right mirror, and setting it to the L position operates the left mirror.
Mirror heater function	Turns on the mirror heaters when the rear window defogger is turned on. The rear window defogger and mirror heaters automatically turn off after 15 min.

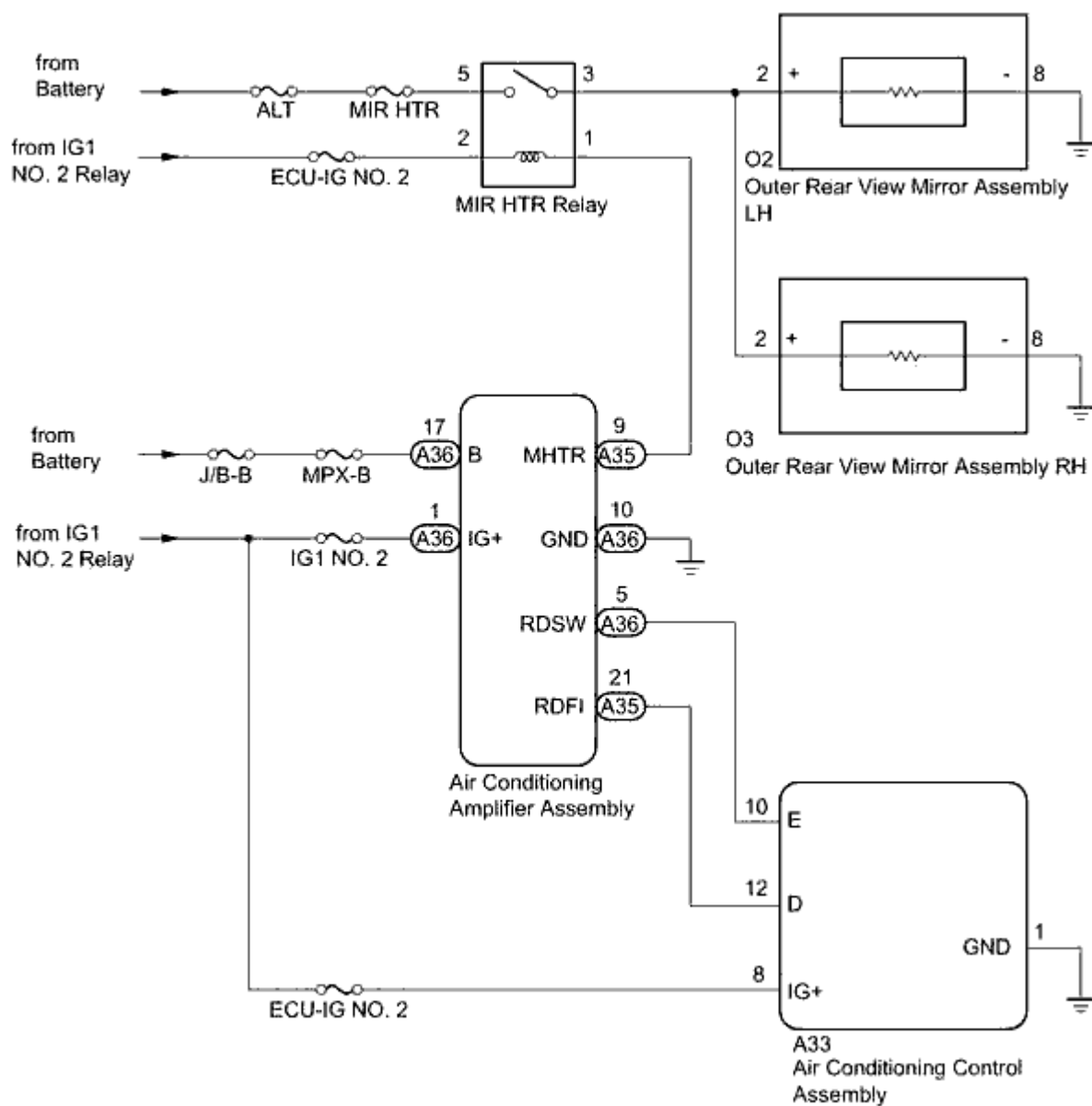


Last Modified: 11-13-2015	6.6 U	Doc ID: RM0000030WA02MX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: SYSTEM DIAGRAM; 2016 MY Tacoma [08/2015 -]		

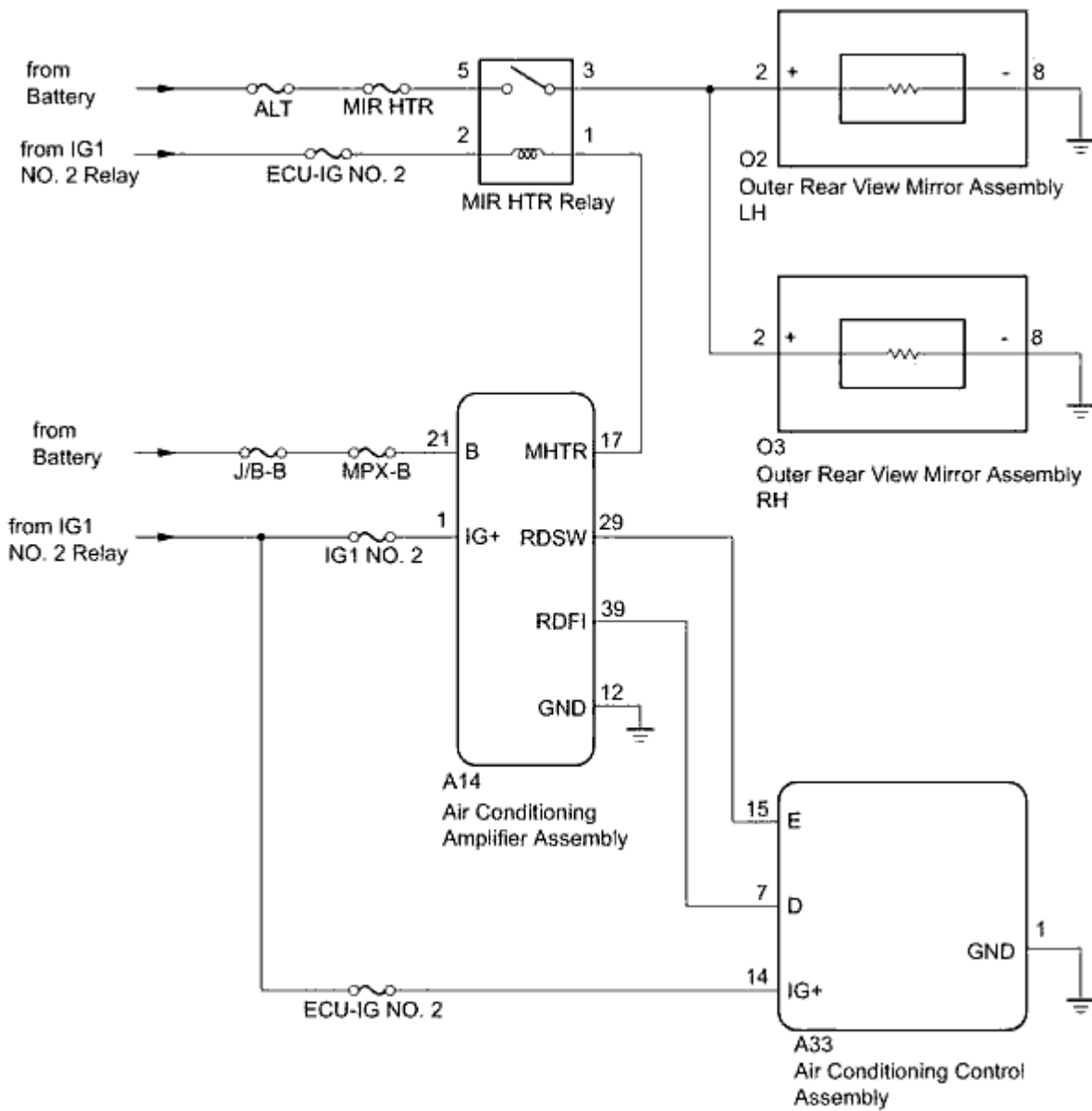
SYSTEM DIAGRAM



for Automatic Air Conditioning



for Manual Air Conditioning



Last Modified: 11-13-2015	6.6 U	Doc ID: RM0000011W40APX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: MIRROR: POWER MIRROR CONTROL SYSTEM: TERMINALS OF ECU; 2016 MY Tacoma [08/2015 -]		

TERMINALS OF ECU

1. CHECK AIR CONDITIONING AMPLIFIER ASSEMBLY (for Automatic Air Conditioning)

INFO

2. CHECK AIR CONDITIONING AMPLIFIER ASSEMBLY (for Manual Air Conditioning)

INFO

3. CHECK AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning)

INFO

4. CHECK AIR CONDITIONING CONTROL ASSEMBLY (for Manual Air Conditioning)

INFO

