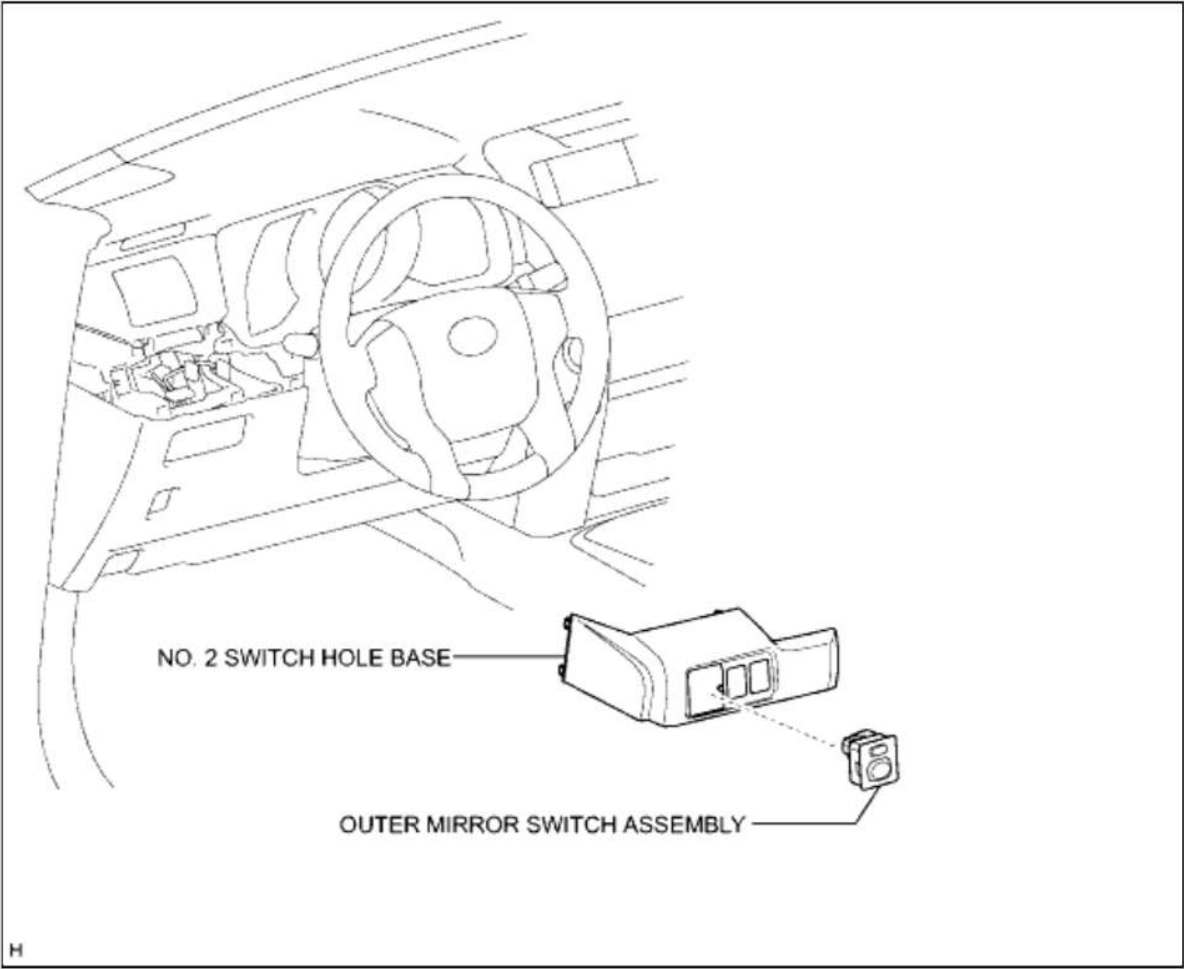


Last Modified: 5-10-2010	6.4 K	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000003TUB003X
Title: MIRROR (EXT): OUTER MIRROR SWITCH: COMPONENTS (2010 4Runner)		

COMPONENTS

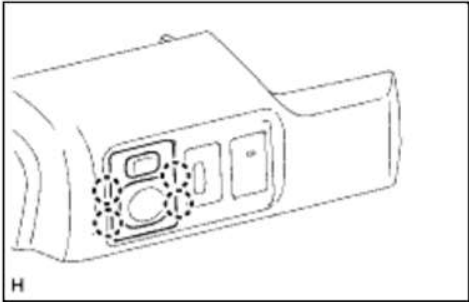
ILLUSTRATION



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000000W1L01SX
Title: MIRROR (EXT): OUTER MIRROR SWITCH: REMOVAL (2010 4Runner)		

REMOVAL

1. REMOVE NO. 2 SWITCH HOLE BASE



2. REMOVE OUTER MIRROR SWITCH ASSEMBLY

(a) Using a screwdriver, detach the 4 claws and remove the switch.

HINT:

Tape the screwdriver tip before use.



Last Modified: 5-10-2010	6.4 G	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000001DHF02KX
Title: MIRROR (EXT): OUTER MIRROR SWITCH: INSPECTION (2010 4Runner)		

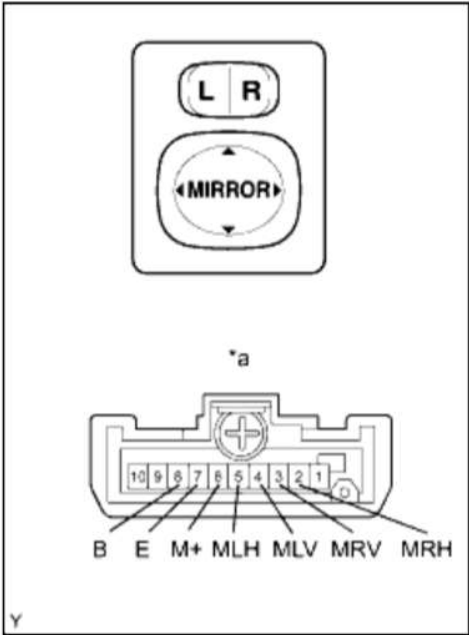
INSPECTION

1. INSPECT OUTER MIRROR SWITCH ASSEMBLY

- (a) Inspect the outer mirror switch assembly.
- (1) Select "L" on the left/right adjustment switch.
- (2) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	SWITCH CONDITION		SPECIFIED CONDITION
4 (MLV) - 8 (B) 6 (M+) - 7 (E)	UP	Pressed	Below 1 Ω
		Not pressed	10 kΩ or higher
4 (MLV) - 7 (E) 6 (M+) - 8 (B)	DOWN	Pressed	Below 1 Ω
		Not pressed	10 kΩ or higher
5 (MLH) - 8 (B) 6 (M+) - 7 (E)	LEFT	Pressed	Below 1 Ω
		Not pressed	10 kΩ or higher
5 (MLH) - 7 (E) 6 (M+) - 8 (B)	RIGHT	Pressed	Below 1 Ω
		Not pressed	10 kΩ or higher



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

- (3) Select "R" on the left/right adjustment switch.
- (4) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	SWITCH CONDITION		SPECIFIED CONDITION
3 (MRV) - 8 (B)	UP	Pressed	Below 1 Ω

6 (M+) - 7 (E)		Not pressed	10 k Ω or higher
3 (MRV) - 7 (E) 6 (M+) - 8 (B)	DOWN	Pressed	Below 1 Ω
		Not pressed	10 k Ω or higher
2 (MRH) - 8 (B) 6 (M+) - 7 (E)	LEFT	Pressed	Below 1 Ω
		Not pressed	10 k Ω or higher
2 (MRH) - 7 (E) 6 (M+) - 8 (B)	RIGHT	Pressed	Below 1 Ω
		Not pressed	10 k Ω or higher

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

Text in Illustration

*a	Component without harness connected (Outer Mirror Switch Assembly)
----	---



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000000W1J01UX
Title: MIRROR (EXT): OUTER MIRROR SWITCH: INSTALLATION (2010 4Runner)		

INSTALLATION

1. INSTALL OUTER MIRROR SWITCH ASSEMBLY

(a) Attach the 2 claws to install the switch.

2. INSTALL NO. 2 SWITCH HOLE BASE INFO

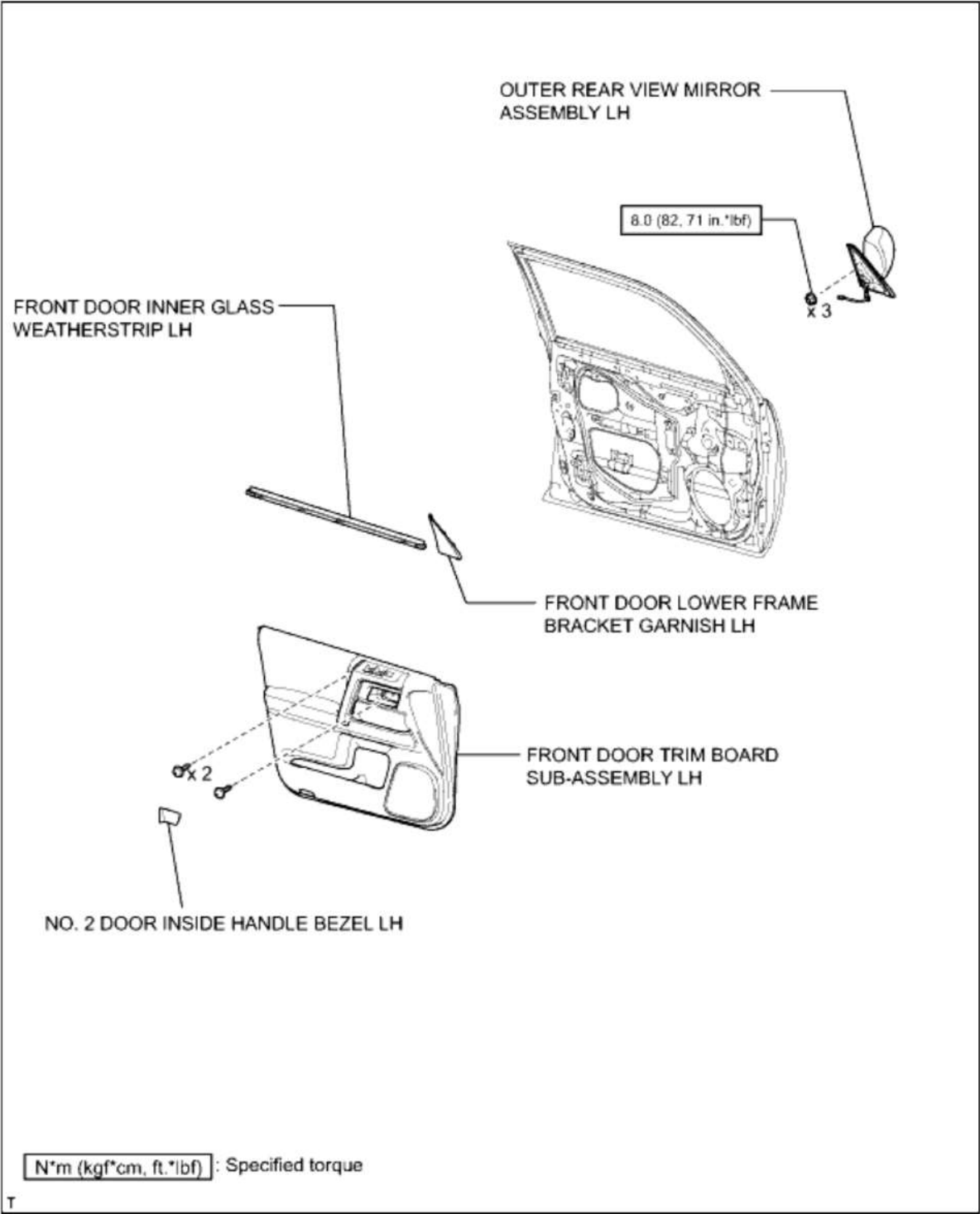


cardiagn.com

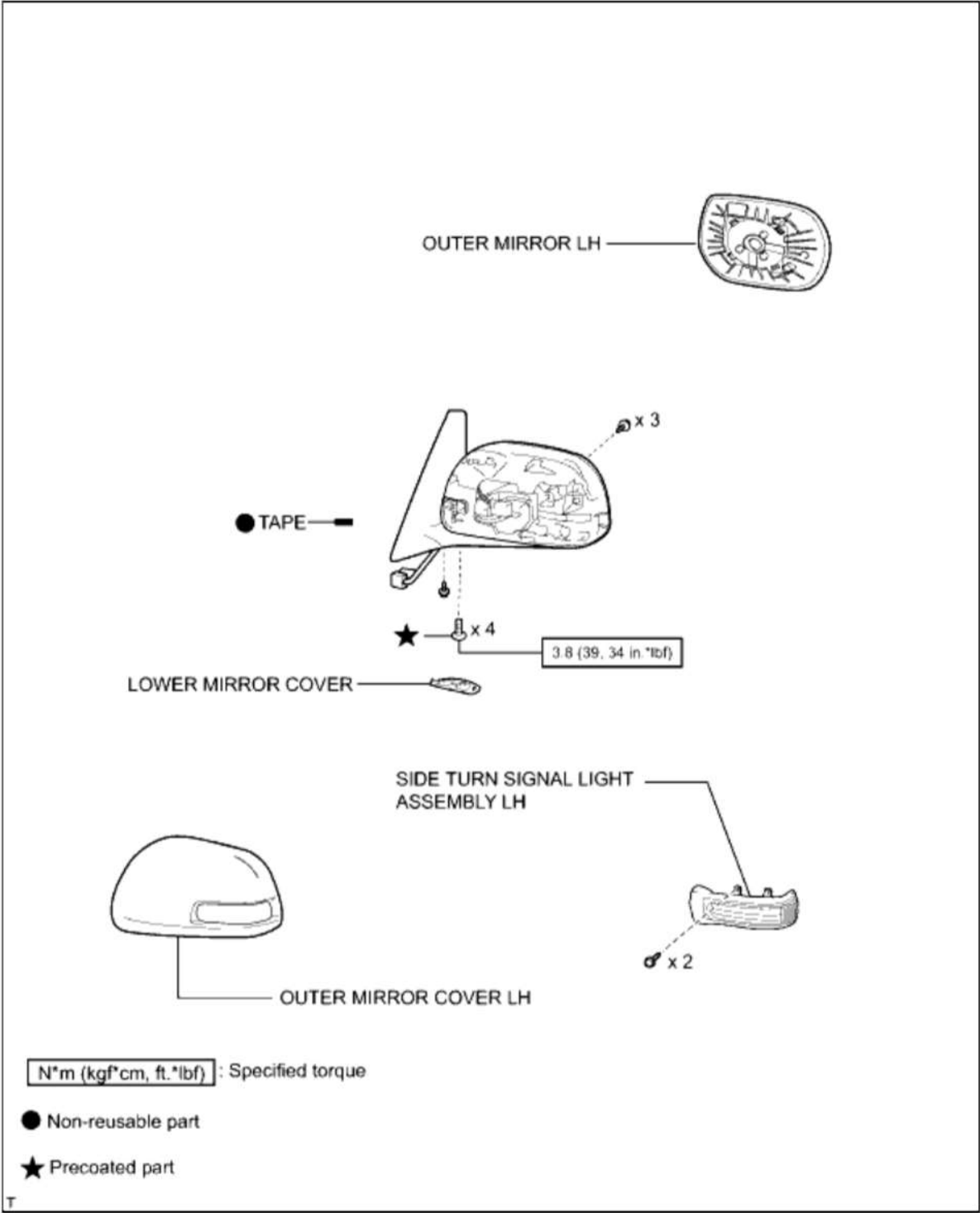
Last Modified: 5-10-2010	6.4 K	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000002MG200IX
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: COMPONENTS (2010 4Runner)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION

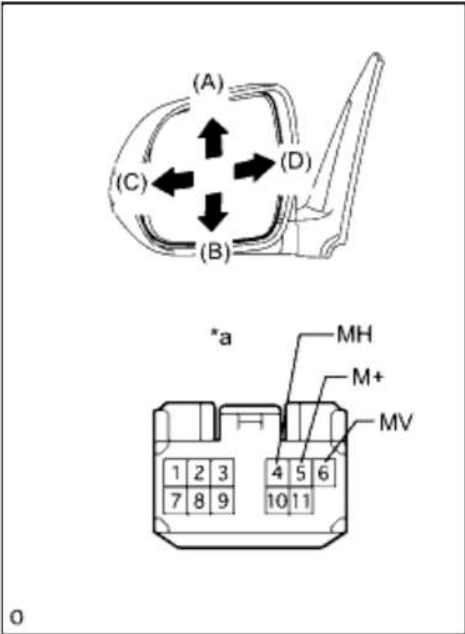


cardiagn.com

Last Modified: 5-10-2010	6.4 G	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000000W1N01BX
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: INSPECTION (2010 4Runner)		

INSPECTION

1. INSPECT OUTER REAR VIEW MIRROR ASSEMBLY LH (w/ Side Turn Signal Light)



(a) 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 (A)
Battery negative (-) → Terminal 6 (MV) Battery positive (+) → Terminal 5 (M+)	Turns downward (B)
Battery positive (+) → Terminal 4 (MH) Battery negative (-) → Terminal 5 (M+)	Turns left (C)
Battery negative (-) → Terminal 4 (MH) Battery positive (+) → Terminal 5 (M+)	Turns right (D)

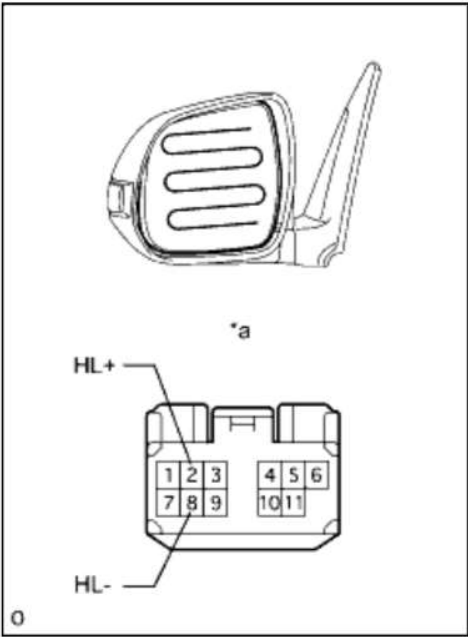
If the result is not as specified, replace the outer rear view mirror assembly LH.

Text in Illustration

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

- (b) Check the mirror heater.
- (1) Measure the resistance according to the value(s) in the table below.
- Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Terminal 2 (HL+) - Terminal 8 (HL-)	25°C (77°F)	5.3 to 7.9 Ω



- If the result is not as specified, replace the outer rear view mirror assembly LH.
- (2) Apply battery voltage and check the operation of the mirror heater.
- OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 2 (HL+) Battery negative (-) → Terminal 8 (HL-)	Mirror becomes warm

HINT:
It will take a short amount of time for the mirror to become warm.

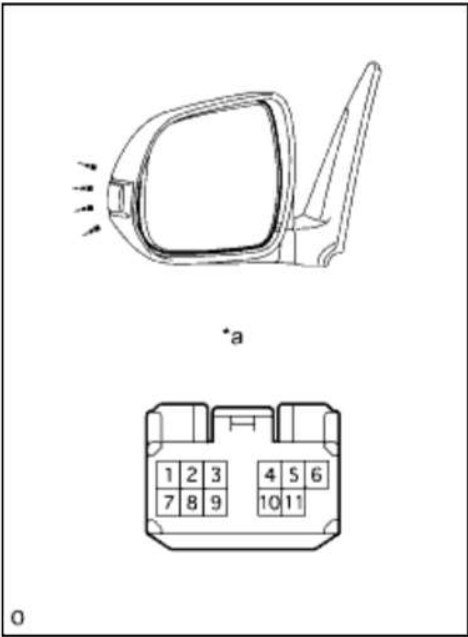
If the result is not as specified, replace the outer rear view mirror assembly LH.

Text in Illustration

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

- (c) Apply battery voltage to the connector and check the LED illumination condition.
- OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 10	LED illuminates



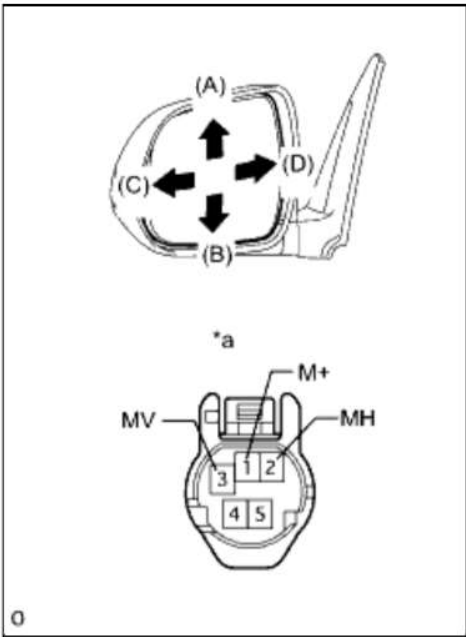
Battery negative (-) → Terminal 11

If the result is not as specified, check the side turn signal light assembly LH INFO.

Text in Illustration

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

2. INSPECT OUTER REAR VIEW MIRROR ASSEMBLY LH (w/o Side Turn Signal Light)



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

OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 3 (MV) Battery negative (-) → Terminal 1 (M+)	Turns upward (A)

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery negative (-) → Terminal 3 (MV) Battery positive (+) → Terminal 1 (M+)	Turns downward (B)
Battery positive (+) → Terminal 2 (MH) Battery negative (-) → Terminal 1 (M+)	Turns left (C)
Battery negative (-) → Terminal 2 (MH) Battery positive (+) → Terminal 1 (M+)	Turns right (D)

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

Text in Illustration

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

- (b) Check the mirror heater.
- (1) Measure the resistance according to the value(s) in the table below.
- Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Terminal 4 (HL+) - Terminal 5 (HL-)	25°C (77°F)	5.3 to 7.9 Ω

- If the result is not as specified, replace the outer rear view mirror assembly LH.
- (2) Apply battery voltage and check the operation of the mirror heater.

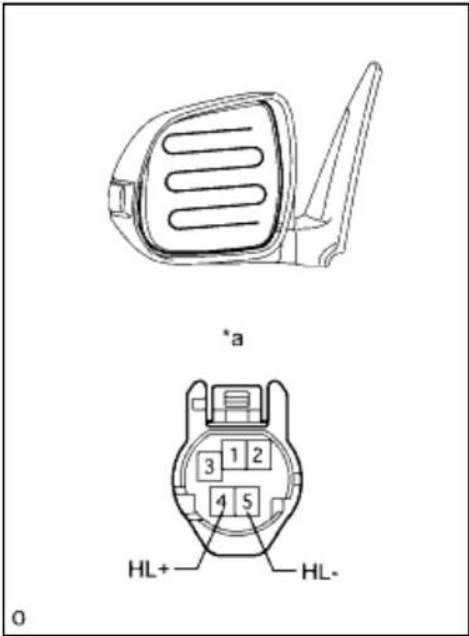
OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 4 (HL+) Battery negative (-) → Terminal 5 (HL-)	Mirror becomes warm

HINT:

It will take a short amount of time for the mirror to become warm.

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

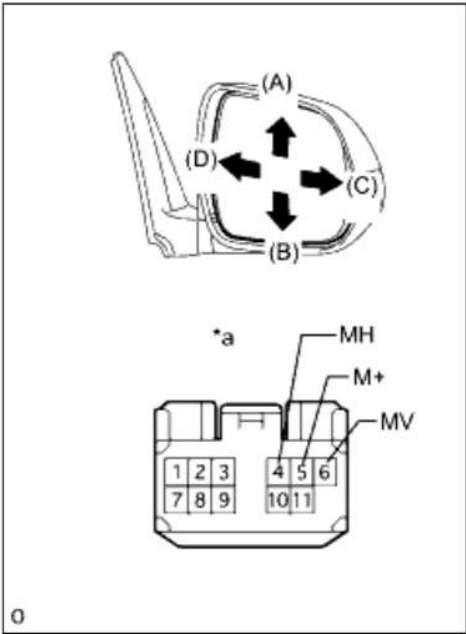


view mirror assembly LH.

Text in Illustration

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

3. INSPECT OUTER REAR VIEW MIRROR ASSEMBLY RH (w/ Side Turn Signal Light)



(a) 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 (A)
Battery negative (-) → Terminal 6 (MV) Battery positive (+) → Terminal 5 (M+)	Turns downward (B)
Battery positive (+) → Terminal 4 (MH) Battery negative (-) → Terminal 5 (M+)	Turns left (C)
Battery negative (-) → Terminal 4 (MH) Battery positive (+) → Terminal 5 (M+)	Turns right (D)

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

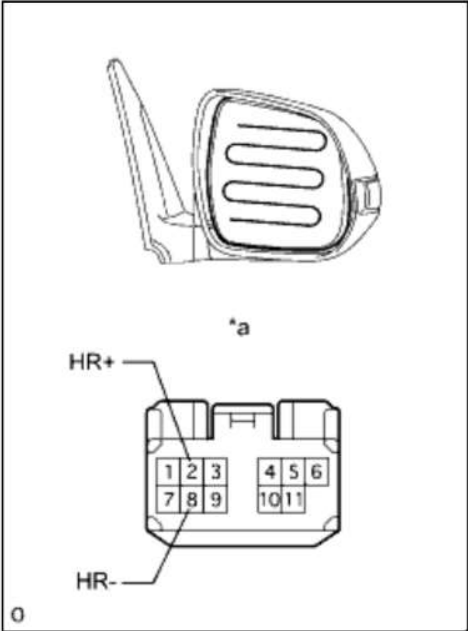
Text in Illustration

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

- (b) Check the mirror heater.
- (1) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Terminal 2 (HR+) - Terminal 8 (HR-)	25°C (77°F)	5.3 to 7.9 Ω



- If the result is not as specified, replace the outer rear view mirror assembly RH.
- (2) Apply battery voltage and check the operation of the mirror heater.

OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 2 (HR+) Battery negative (-) → Terminal 8 (HR-)	Mirror becomes warm

HINT:

It will take a short amount of time for the mirror to become warm.

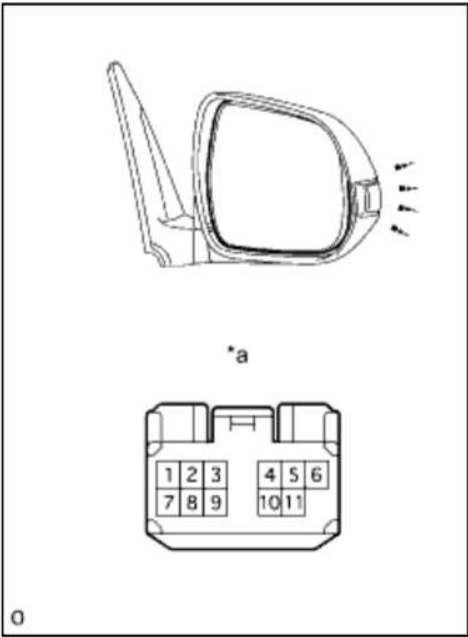
If the result is not as specified, replace the outer rear view mirror assembly RH.

Text in Illustration

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

- (c) Apply battery voltage to the connector and check the LED illumination condition.

OK:



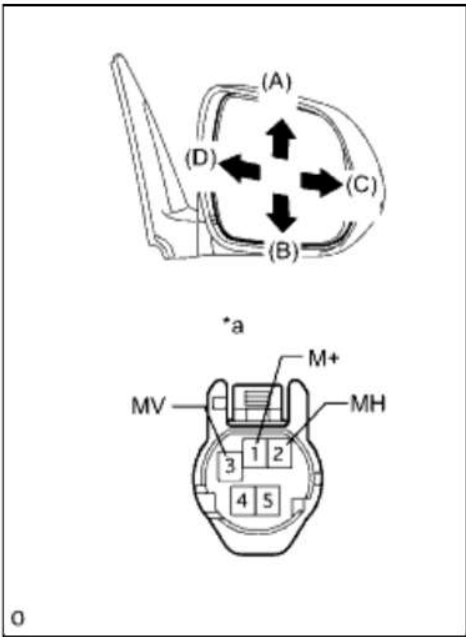
MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 10 Battery negative (-) → Terminal 11	LED illuminates

If the result is not as specified, check the side turn signal light assembly RH [INFO](#) .

Text in Illustration

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

4. INSPECT OUTER REAR VIEW MIRROR ASSEMBLY RH (w/o Side Turn Signal Light)



- (a) Apply battery voltage and check the operation of the mirror.
- OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 3 (MV) Battery negative (-) → Terminal 1 (M+)	Turns upward (A)

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery negative (-) → Terminal 3 (MV) Battery positive (+) → Terminal 1 (M+)	Turns downward (B)
Battery positive (+) → Terminal 2 (MH) Battery negative (-) → Terminal 1 (M+)	Turns left (C)
Battery negative (-) → Terminal 2 (MH) Battery positive (+) → Terminal 1 (M+)	Turns right (D)

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

Text in Illustration

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

(b) Check the mirror heater.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Terminal 4 (HR+) - Terminal 5 (HR-)	25°C (77°F)	5.3 to 7.9 Ω

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

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

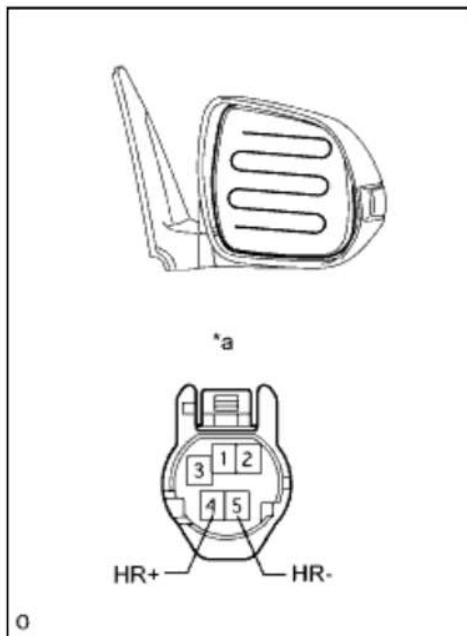
OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 4 (HR+) Battery negative (-) → Terminal 5 (HR-)	Mirror becomes warm

HINT:

It will take a short amount of time for the mirror to become warm.

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



view mirror assembly RH.

Text in Illustration

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



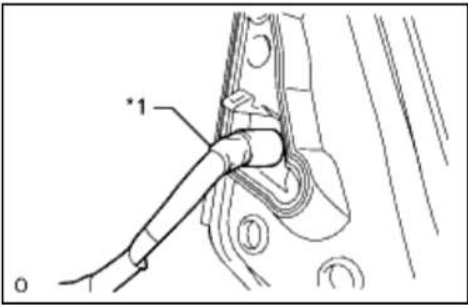
Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000003A0M00AX
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: DISASSEMBLY (2010 4Runner)		

DISASSEMBLY

1. REMOVE OUTER MIRROR LH



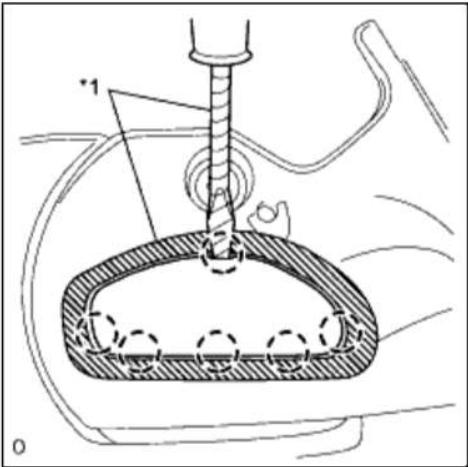
2. REMOVE OUTER MIRROR COVER LH



(a) Remove the tape.

Text in Illustration

*1	Tape
----	------



(b) Put protective tape around the lower mirror cover.

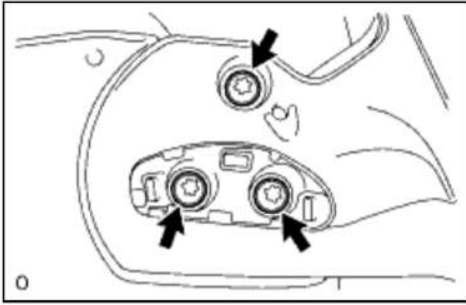
(c) Using a screwdriver, detach the 6 claws and remove the lower mirror cover.

HINT:

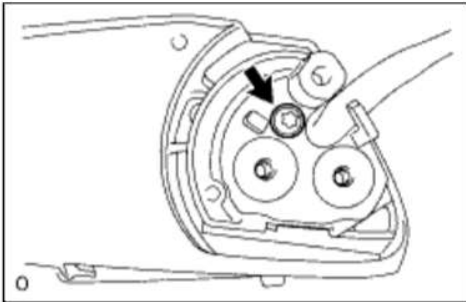
- Tape the screwdriver tip before use.
- Apply protective tape to the mirror body

Text in Illustration

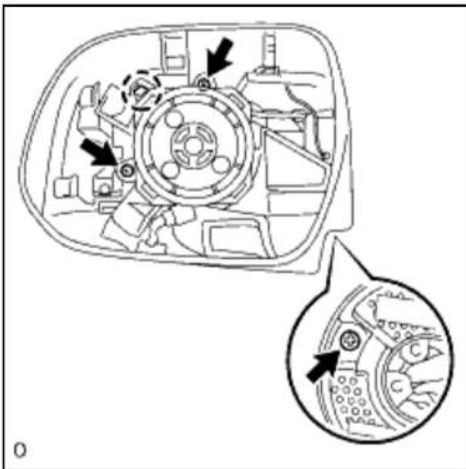
*1	Protective Tape
----	-----------------



(d) Using a T25 "TORX" socket wrench, remove the 3 screws.



(e) Using a T25 "TORX" socket wrench, remove the screw.

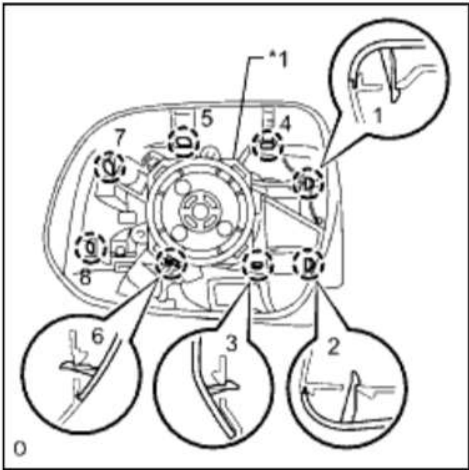


(f) Detach the claw and remove the 3 screws.

(g) Pull out the mirror actuator in order to detach the claws blocked by the mirror actuator shown in the parts of the illustration labeled 1, 2, 3 and 6.

NOTICE:

Be sure not to pull out the mirror actuator too far.



(h) Using a screwdriver, detach the 8 claws in the order shown in the illustration and remove the mirror cover.

NOTICE:
When removing the cover, be careful not to damage the side turn signal light or cover.

Text in Illustration

* 1	Mirror Actuator
-----	-----------------

3. REMOVE SIDE TURN SIGNAL LIGHT ASSEMBLY LH INFO

Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000000W1P01AX
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: REMOVAL (2010 4Runner)		

REMOVAL

HINT:

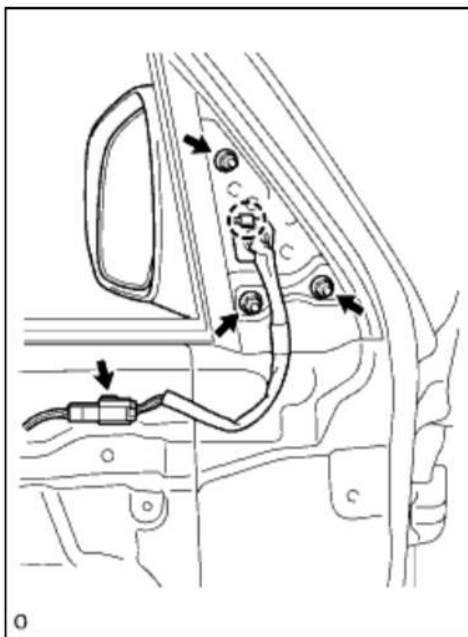
- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

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

2. REMOVE NO. 2 DOOR INSIDE HANDLE BEZEL LH [INFO](#)

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

4. REMOVE FRONT DOOR INNER GLASS WEATHERSTRIP LH [INFO](#)



5. REMOVE OUTER REAR VIEW MIRROR ASSEMBLY LH

- (a) Disconnect the connector.
- (b) Remove the 3 nuts, detach the claw and remove the outer rear view mirror.

Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000003A0N00AX
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: REASSEMBLY (2010 4Runner)		

REASSEMBLY

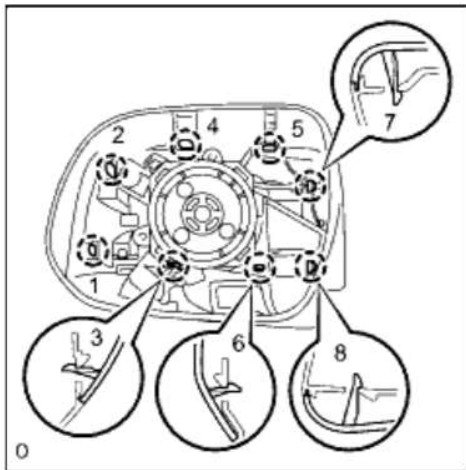
HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

1. INSTALL SIDE TURN SIGNAL LIGHT ASSEMBLY LH



2. INSTALL OUTER MIRROR COVER LH



(a) Attach the 8 claws in the order shown in the illustration to install the mirror cover.

NOTICE:

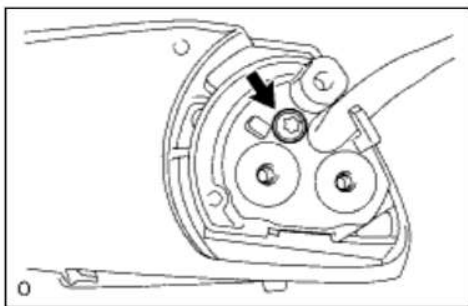
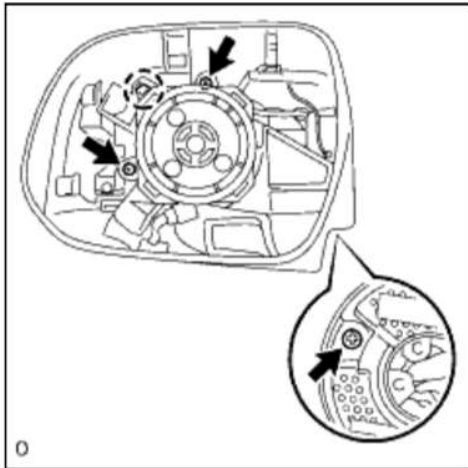
When installing the cover, be careful not to damage the side turn signal light or cover.

(b) Check that there is no gap between the cover and mirror body.

HINT:

If there is a gap between the cover and body, noise will occur while driving.

(c) Attach the claw and install the 3 screws.



(d) Using a T25 "TORX" socket wrench, install the screw.

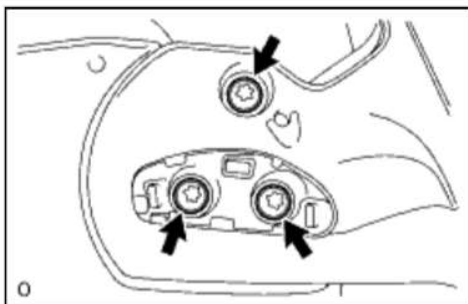
Torque: 3.8 N·m (39 kgf·cm, 34in·lbf)

HINT:

- Clean the threads of the screw with non-residue solvent.
- Apply adhesive to the threads of the screw.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent



(e) Using a T25 "TORX" socket wrench, install the 3 screws.

Torque: 3.8 N·m (39 kgf·cm, 34in·lbf)

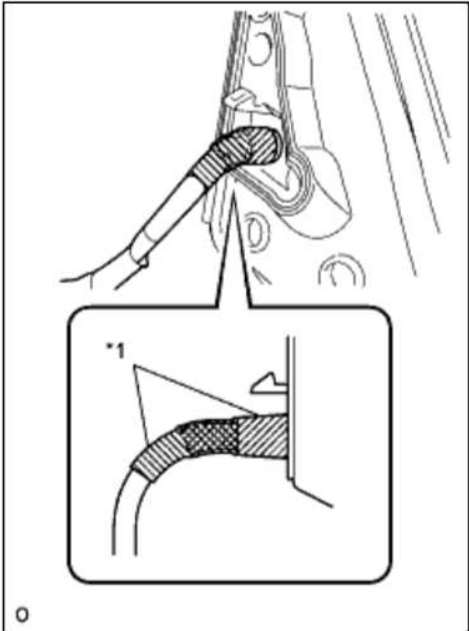
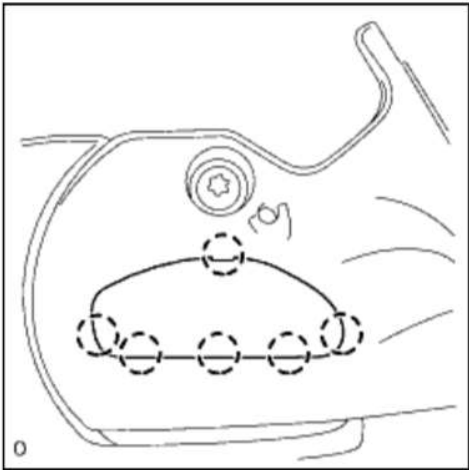
HINT:

- Clean the threads of the screws with non-residue solvent.
- Apply adhesive to the threads of the screw.

Adhesive:

Toyota Genuine Adhesive 1324, Three Bond 1324 or equivalent

(f) Attach the 6 claws to install the cover.



(g) Apply 2 new pieces of tape so that they overlap as shown in the illustration.

NOTICE:
Make sure the tape is securely attached so that there are no gaps between the tape and the cable.

Text in Illustration

*1	Tape
----	------

3. INSTALL OUTER MIRROR LH INFO

Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000000W1M01CX
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: INSTALLATION (2010 4Runner)		

INSTALLATION

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.
- A bolt without a torque specification is shown in the standard bolt chart  .

1. INSTALL OUTER REAR VIEW MIRROR ASSEMBLY LH

(a) Attach the claw to install the outer rear view mirror, and then install the 3 nuts.

Torque: 8.0 N·m (82 kgf·cm, 71in·lbf)

(b) Connect the connector.

2. INSTALL FRONT DOOR GLASS WEATHERSTRIP INNER LH

3. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH

4. INSTALL NO. 2 DOOR INSIDE HANDLE BEZEL LH

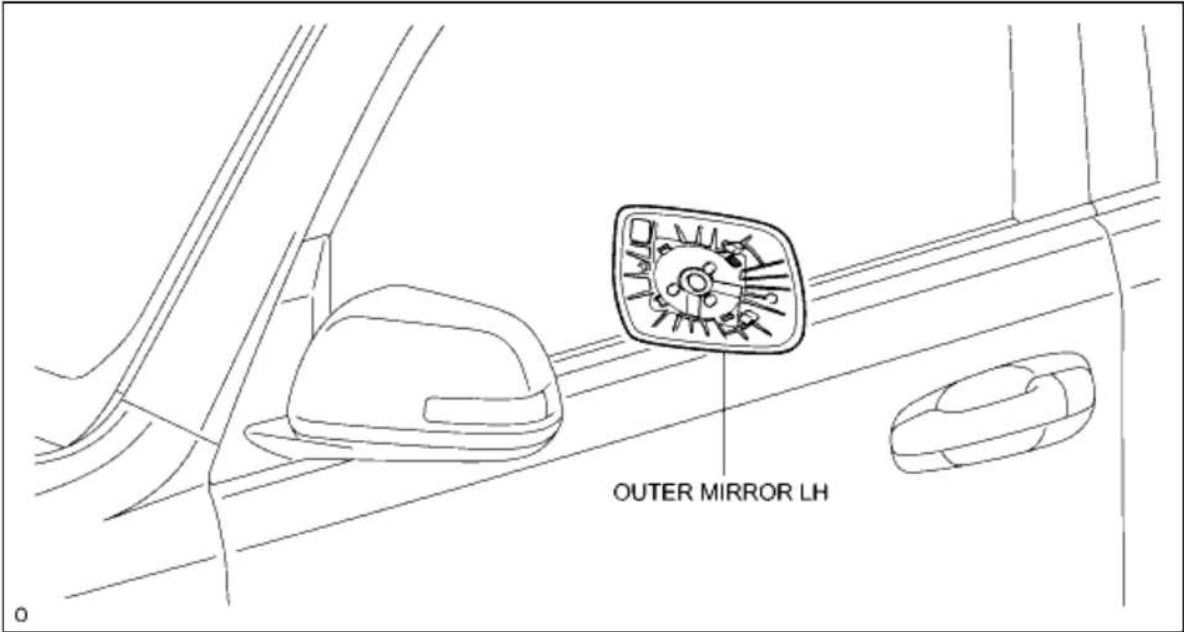
5. INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH LH



Last Modified: 5-10-2010	6.4 K	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000002N9F00JX
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR GLASS: COMPONENTS (2010 4Runner)		

COMPONENTS

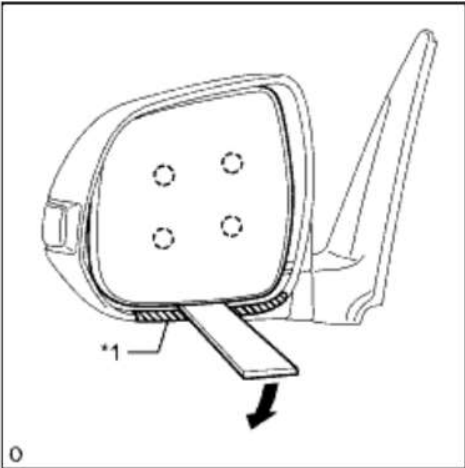
ILLUSTRATION



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000002N9G00TX
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR GLASS: REMOVAL (2010 4Runner)		

REMOVAL

1. REMOVE OUTER MIRROR LH



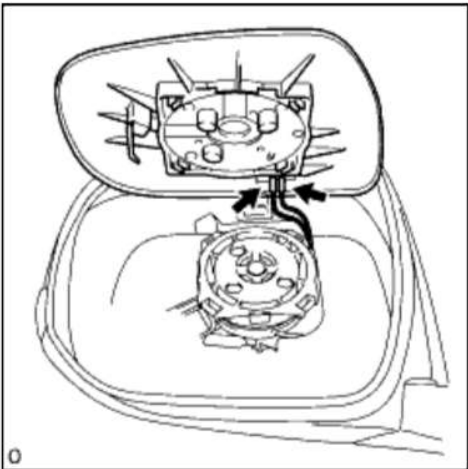
(a) Using a moulding remover, detach the 4 claws and remove the mirror.

HINT:

Apply protective tape to the mirror body.

Text in Illustration

*1	Protective Tape
----	-----------------



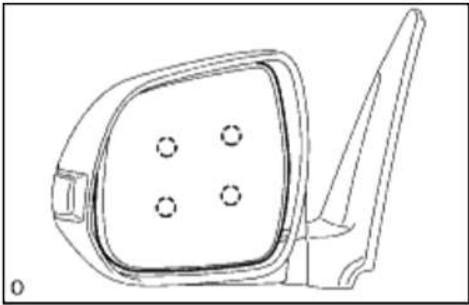
(b) Disconnect the 2 connectors.

Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000002N9E00TX
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR GLASS: INSTALLATION (2010 4Runner)		

INSTALLATION

1. INSTALL OUTER MIRROR LH

(a) Connect the 2 connectors.



(b) Attach the 4 claws to install the outer mirror.

Last Modified: 5-10-2010	6.4 L	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000003PSH00GX
Title: MIRROR (EXT): POWER MIRROR CONTROL SYSTEM: PRECAUTION (2010 4Runner)		

PRECAUTION

1. IGNITION SWITCH EXPRESSION

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 section.

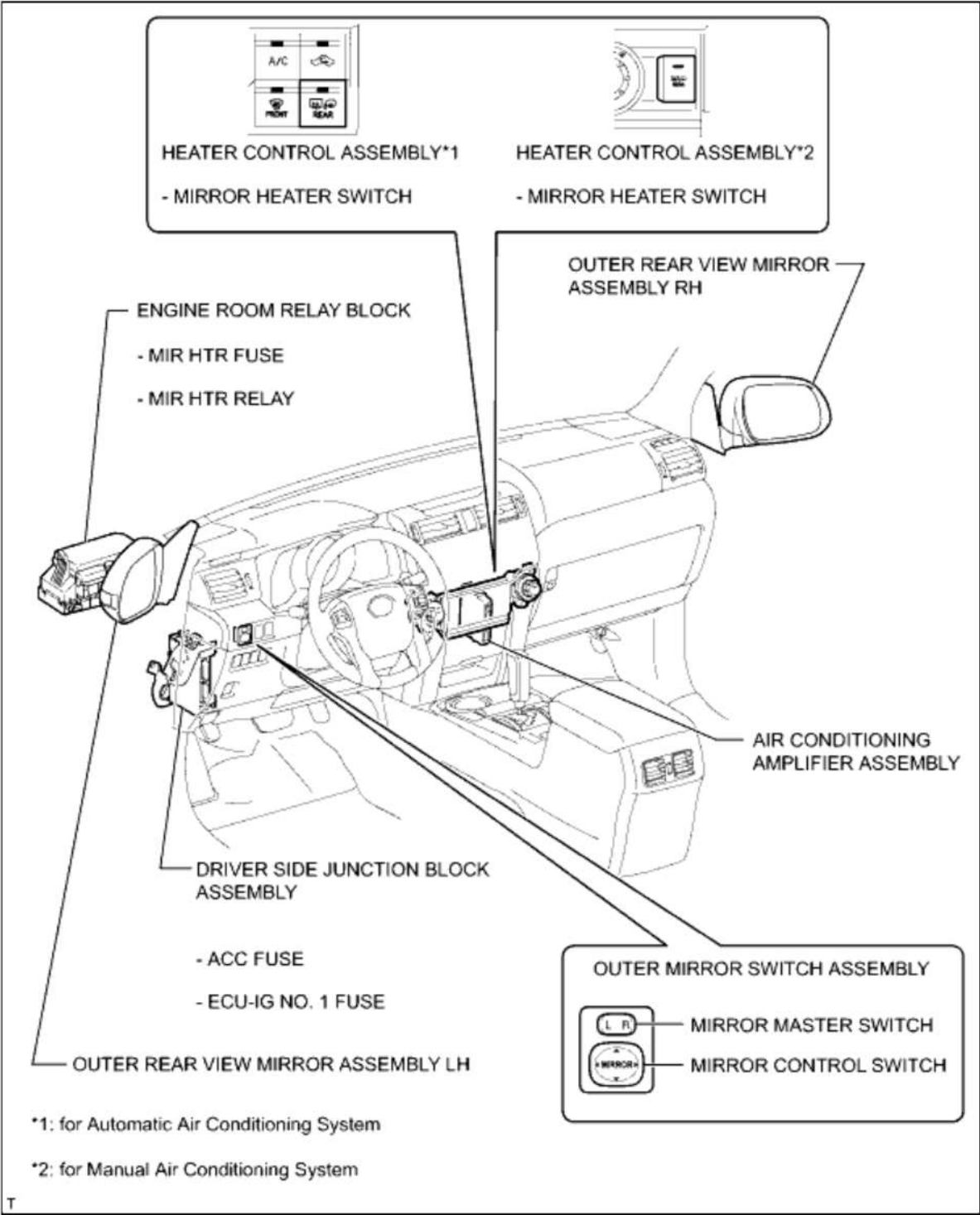
EXPRESSION	IGNITION SWITCH (POSITION)	ENGINE SWITCH (CONDITION)
Ignition Switch off	Off	Off
Ignition Switch ON	ON	On (IG)
Ignition Switch ACC	ACC	On (ACC)
Engine Start	START	Start



Last Modified: 5-10-2010	6.4 R	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000030W700DX
Title: MIRROR (EXT): POWER MIRROR CONTROL SYSTEM: PARTS LOCATION (2010 4Runner)		

PARTS LOCATION

ILLUSTRATION

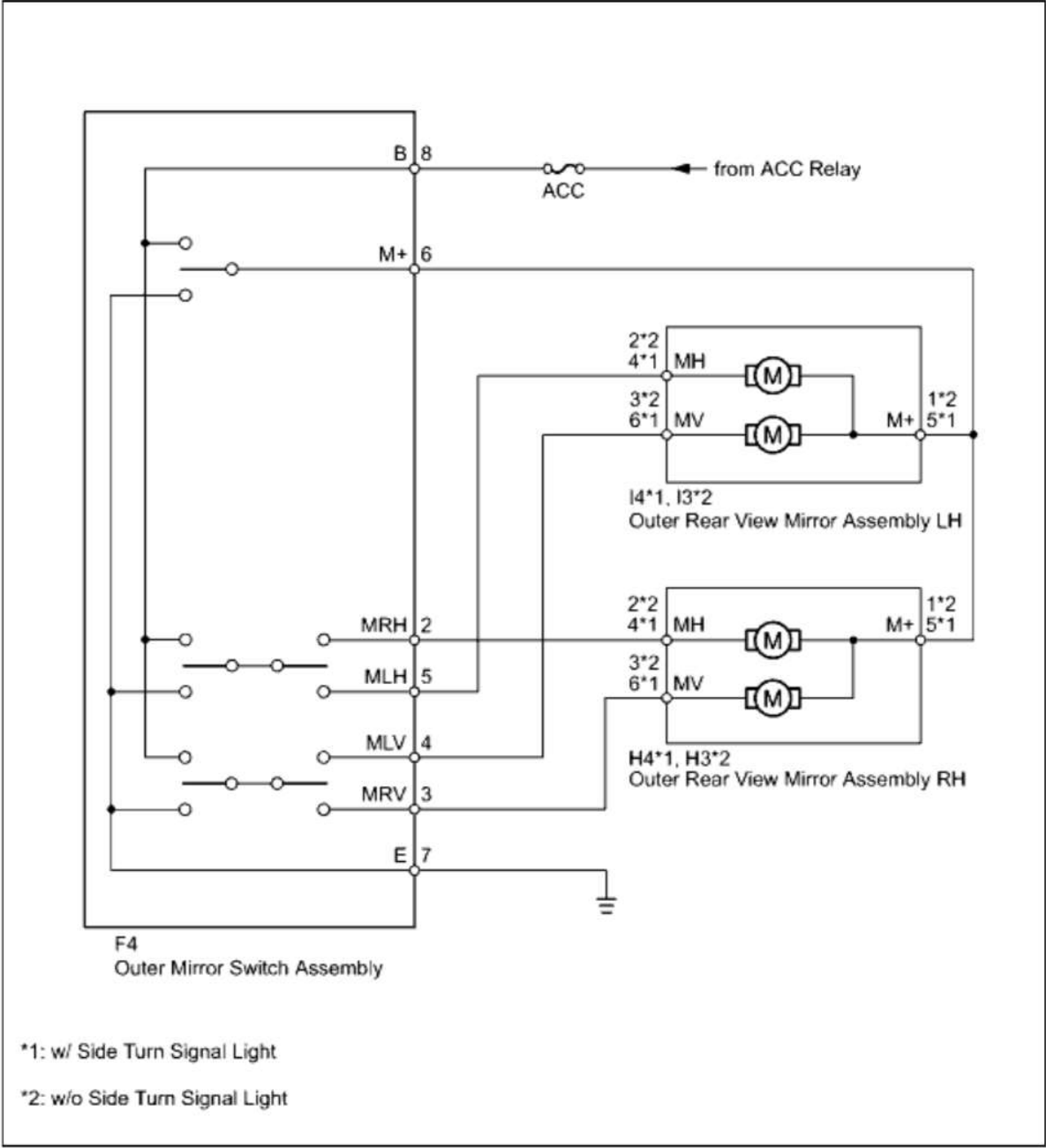


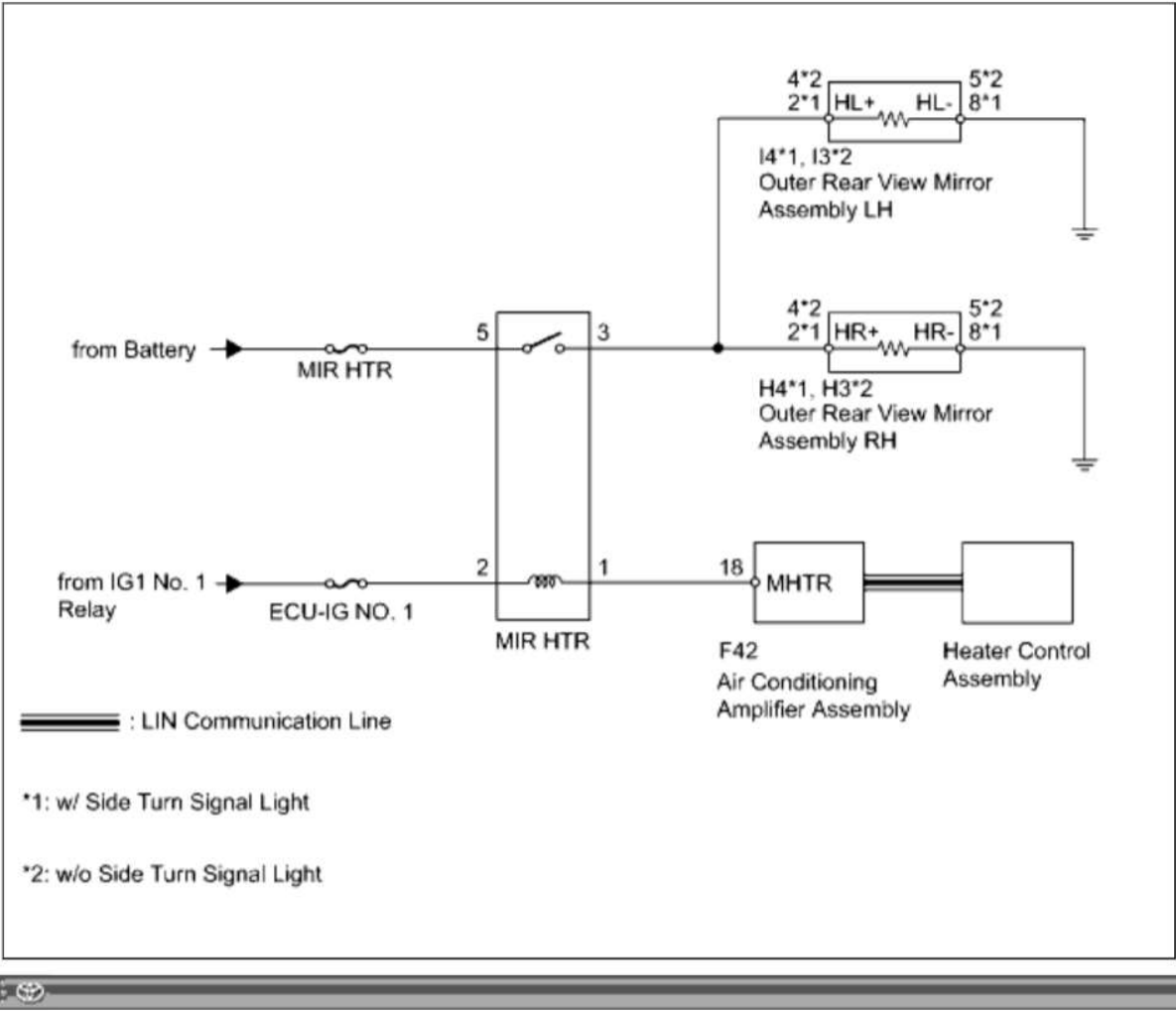


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Last Modified: 5-10-2010	6.4 U	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000030WA00DX
Title: MIRROR (EXT): POWER MIRROR CONTROL SYSTEM: SYSTEM DIAGRAM (2010 4Runner)		

SYSTEM DIAGRAM





Last Modified: 5-10-2010	6.4 D	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000030W900EX
Title: MIRROR (EXT): POWER MIRROR CONTROL SYSTEM: OPERATION CHECK (2010 4Runner)		

OPERATION CHECK

1. CHECK OUTER MIRROR SWITCH OPERATION

- (a) Turn the ignition switch to ACC.
- (b) With the mirror master switch set to L, check that the mirror surface moves up, down, left and right normally.
- (c) With the mirror master switch set to R, check that the mirror surface moves up, down, left and right normally.

2. CHECK MIRROR HEATER

NOTICE:

The mirror heater does not operate when the back door window is open.

- (a) Turn the ignition switch to ON.
- (b) With the back door window closed, check that pressing the mirror heater switch illuminates the indicator and warms the mirror surface.
- (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 255 minutes.



Last Modified: 5-10-2010	6.4 T	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000003XND003X
Title: MIRROR (EXT): POWER MIRROR CONTROL SYSTEM: PROBLEM SYMPTOMS TABLE (2010 4Runner)		

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
	Harness or connector	-
Front Passenger Side Power Mirror cannot be Adjusted with Power Mirror Switch	Outer mirror switch assembly	INFO
	Outer rear view mirror assembly RH	INFO
	Harness or connector	-
Mirror Heater does not Operate with Mirror Heater Switch	Window defogger system	INFO
	Outer rear view mirror assembly LH	INFO
	Outer rear view mirror assembly RH	INFO
	Air conditioning amplifier assembly	INFO
	Harness or connector	-

