

Last Modified: 3-10-2010	6.4 L	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001R5U027X
Title: 2AZ-FE BATTERY / CHARGING: CHARGING SYSTEM: PRECAUTION (2010 Corolla)		

PRECAUTION

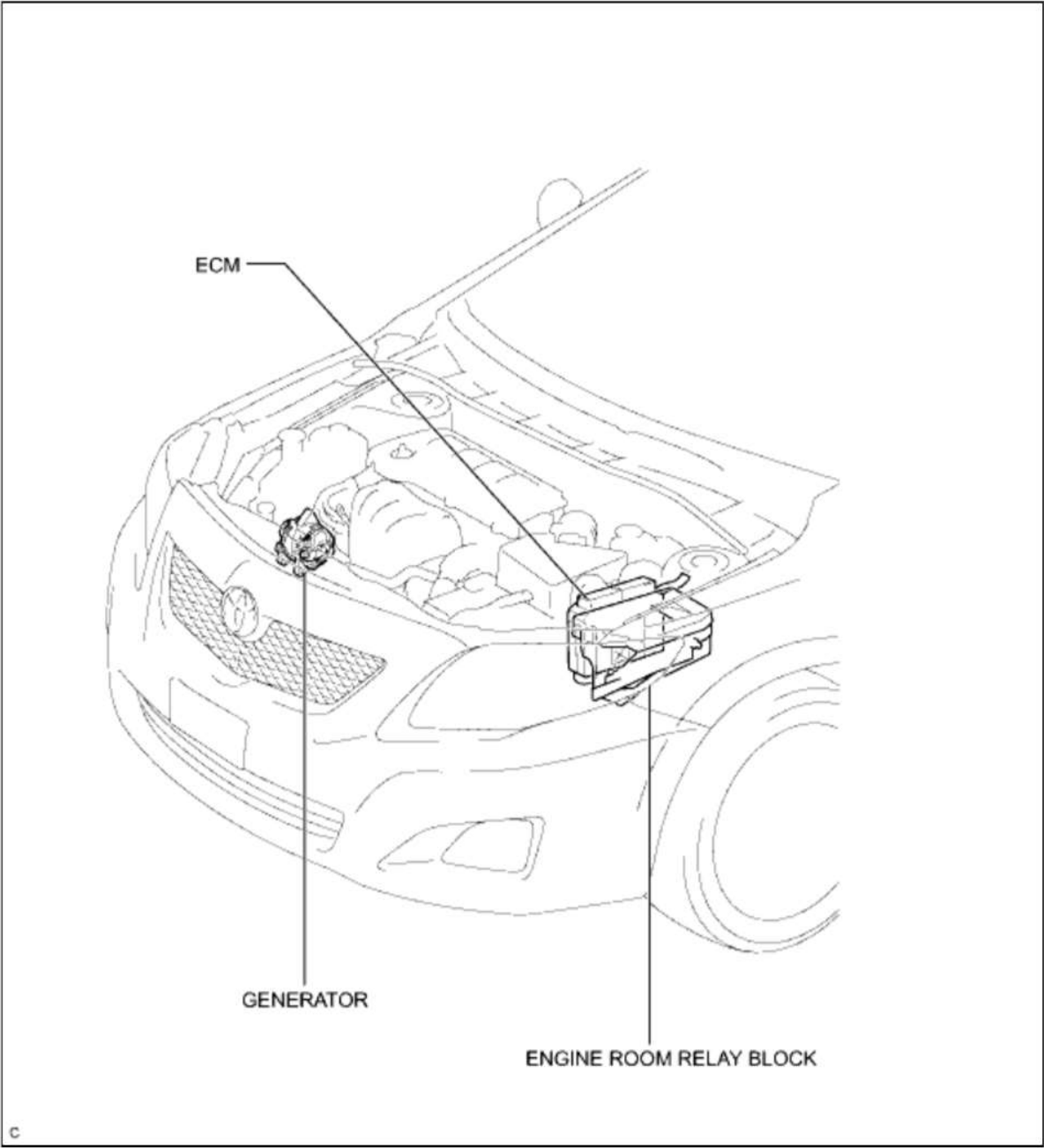
- 1. Check that the battery cables are connected to the correct terminals.**
- 2. Disconnect the battery cables when the battery is given a quick charge.**
- 3. Do not perform tests with a high voltage insulation resistance tester, such as a megohmmeter.**
- 4. Never disconnect the battery while the engine is running.**
- 5. Check that the charging cable nuts are tightened on terminal B of the generator and the engine room relay block.**



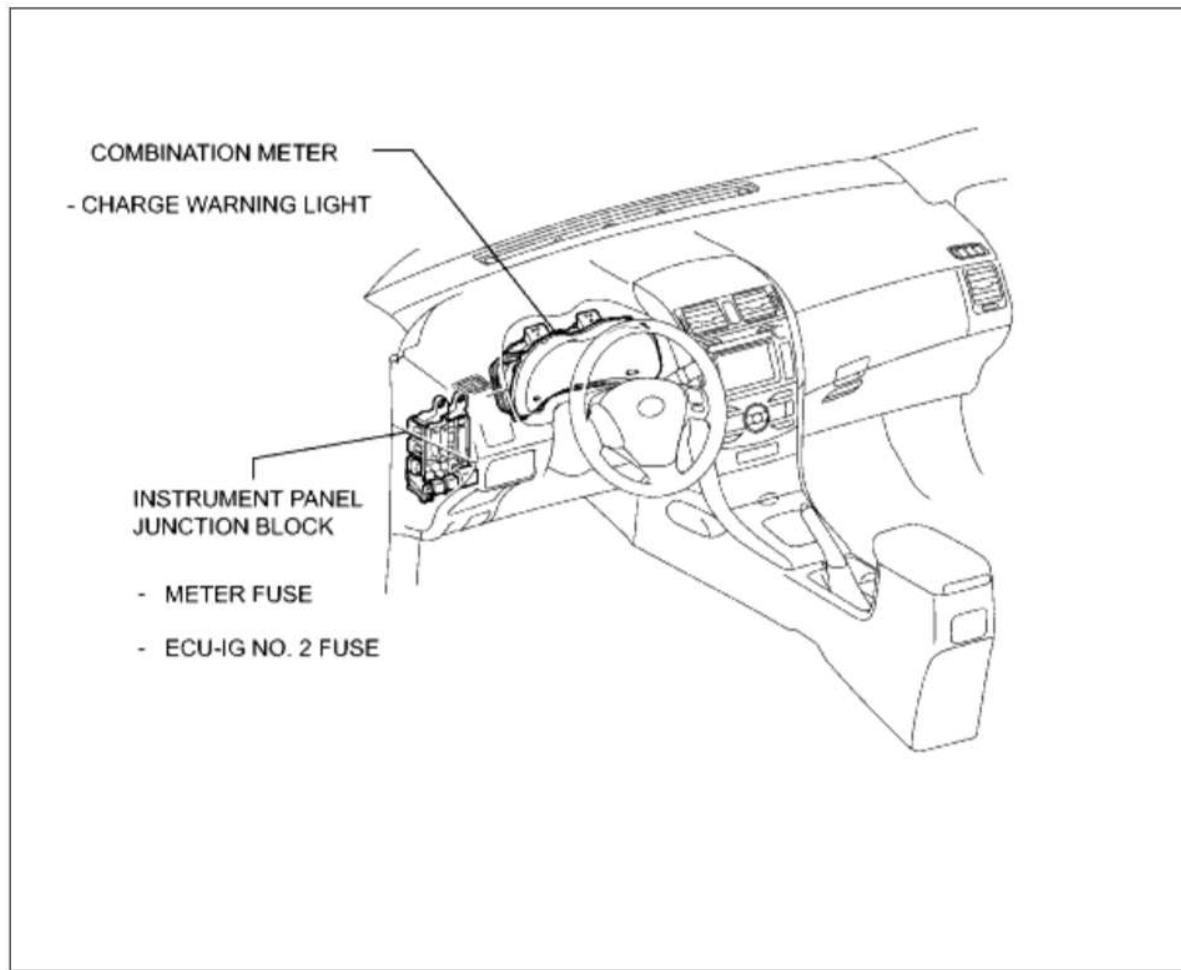
Last Modified: 3-10-2010	6.4 R	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001QPX00QX
Title: 2AZ-FE BATTERY / CHARGING: CHARGING SYSTEM: PARTS LOCATION (2010 Corolla)		

PARTS LOCATION

ILLUSTRATION



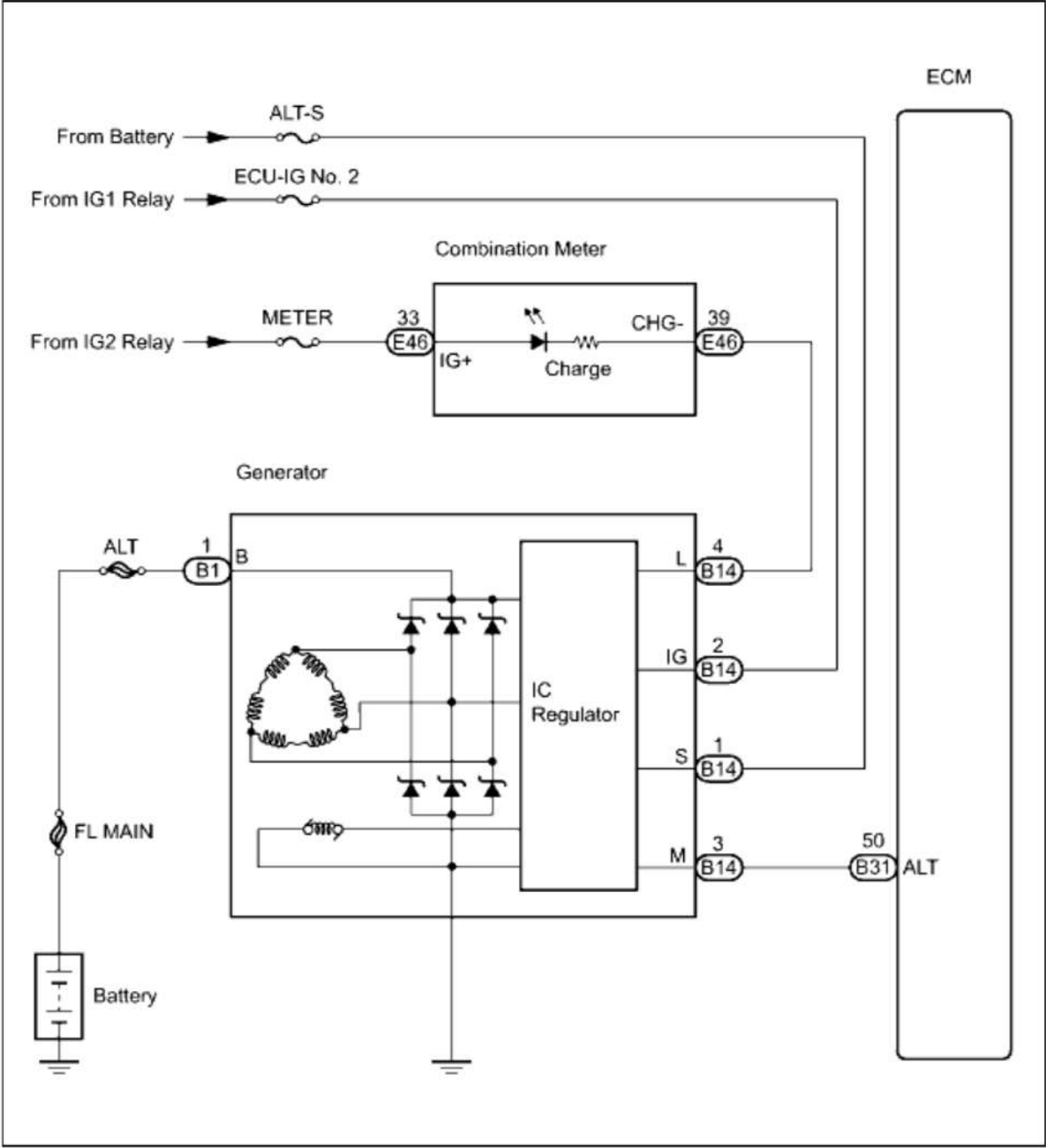
ILLUSTRATION



TOYOTA

Last Modified: 3-10-2010	6.4 U	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001XMI00KX
Title: 2AZ-FE BATTERY / CHARGING: CHARGING SYSTEM: SYSTEM DIAGRAM (2010 Corolla)		

SYSTEM DIAGRAM



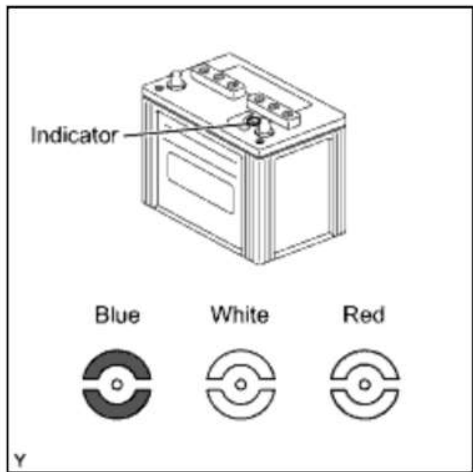
Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001AR903XX
Title: 2AZ-FE BATTERY / CHARGING: CHARGING SYSTEM: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. CHECK BATTERY ELECTROLYTE LEVEL

- (a) Check the electrolyte level.
- (1) If the electrolyte level is low, replace the battery (or add distilled water) and check the charging system.

2. CHECK BATTERY SPECIFIC GRAVITY



- (a) Check the color of the indicator.
- Result:

INDICATOR COLOR	CONDITION
Blue	Good
White	Charging necessary
Red	Replacement necessary

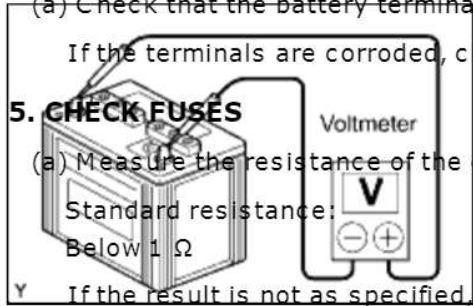
3. CHECK BATTERY VOLTAGE

- (a) Turn the ignition switch off and turn on the headlights for 20 to 30 seconds. This will remove the surface charge from the battery.

4. CHECK BATTERY TERMINAL

- (a) Check that the battery terminals are not loose or corroded.
- If the terminals are corroded, clean them.

5. CHECK FUSES



- (a) Measure the resistance of the charging system fuses.
- Standard resistance:
Below 1 Ω

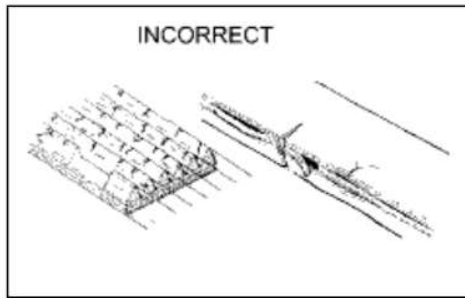
If the result is not as specified, replace the fuses as necessary.

6. CHECK V-RIBBED BELT

- (b) Measure the battery voltage according to the value(s) in the table below.

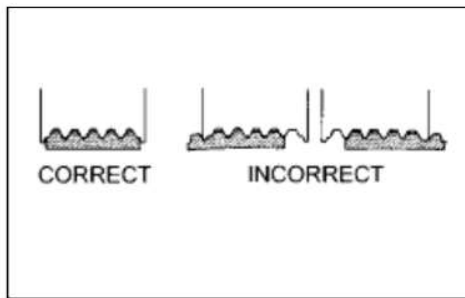
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Battery positive terminal - Battery negative terminal	20°C (68°F)	12.5 to 12.9 V

If the voltage is below the specification, charge the battery.



(a) Check the belt for wear, cracks and other signs of damage.
If any of the following defects is found, replace the V-ribbed belt.

- The belt is cracked.
- The belt is worn out to the extent that the cords are exposed.
- The belt has chunks missing from the ribs.



(b) Check that the belt fits properly in the ribbed grooves.

HINT:

Check with your hand to confirm that the belt has not slipped out of the groove on the bottom to the pulley. If it has slipped out, replace the V-ribbed belt. Install a new V-ribbed belt correctly.

7. VISUALLY CHECK GENERATOR WIRING

(a) Check that the generator wiring is in good condition.

If the condition is not good, repair or replace the generator wire.

8. LISTEN FOR ABNORMAL NOISES FROM GENERATOR

(a) Check that there is no abnormal noise from the generator while the engine is running.

If there is abnormal noise, replace the pulley or generator.

9. CHECK CHARGE WARNING LIGHT CIRCUIT

(a) Turn the ignition switch to ON. Check that the charge warning light comes on.

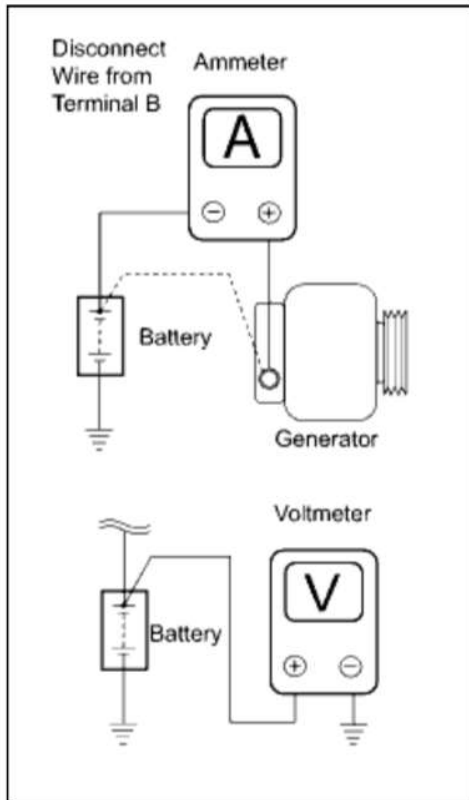
(b) Start the engine and check that the light goes off.

If the light does not operate as specified, troubleshoot the charge warning light circuit.

10. CHECK CHARGING CIRCUIT WITHOUT LOAD

(a) According to the following procedure, connect an ammeter and voltmeter as shown in the illustration.

- (1) Disconnect the wire from terminal B of the generator and connect it to the negative (-) lead of the ammeter.
- (2) Connect the positive (+) lead of the ammeter to terminal B of the generator.
- (3) Connect the positive (+) lead of the voltmeter to the positive (+) terminal of the battery.



(4) Ground the negative (-) lead of the voltmeter.

(b) Check the charging circuit.

(1) While keeping the engine speed at 2000 rpm, check the readings on the ammeter and voltmeter.

Standard current:

10 A or less

Standard voltage:

13.2 to 14.8 V

If the results are not as specified, replace the generator assembly.

HINT:

If the battery is not fully charged, the ammeter reading may be more than the standard current.

11. CHECK CHARGING CIRCUIT WITH LOAD

(a) Keep the engine speed at 2000 rpm, turn on the high beam headlights, and turn the heater blower switch to the "HI" position.

(b) Check the reading on the ammeter.

Standard current:

30 A or more

If the ammeter reading is less than the standard current, replace the generator assembly.

HINT:

If the battery is fully charged, the ammeter reading may be less than the standard current. In this case, increase electrical load by operating devices such as the wiper motor and rear window defogger. Then, recheck the reading on the ammeter.



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Last Modified: 3-10-2010	6.4 T	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001J3Y02MX
Title: 2AZ-FE BATTERY / CHARGING: CHARGING SYSTEM: PROBLEM SYMPTOMS TABLE (2010 Corolla)		

PROBLEM SYMPTOMS TABLE

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.

Charging System

SYMPTOM	SUSPECTED AREA	SEE PAGE
Charge Warning Light Comes ON while Driving	1. Clutch pulley	INFO
	2. Generator assembly	-
Noise Occurs from Generator while Engine is Running	1. V-ribbed belt	INFO
	2. Clutch pulley	-
	3. Generator assembly	-



TOYOTA

Last Modified: 3-10-2010	6.4 J	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001J2J037X
Title: 2AZ-FE BATTERY / CHARGING: CHARGING SYSTEM: Charge Warning Light Comes ON while Driving (2010 Corolla)		

Charge Warning Light Comes ON while Driving

INSPECTION PROCEDURE

PROCEDURE

1. CHECK LOCK FUNCTION OF CLUTCH PULLEY

(a) Check the lock function with the pulley installed in the vehicle.

(1) Visually check that the rotor in the generator operates with the engine running.

(b) Check the lock function with the pulley removed from the vehicle.

(1) Remove the generator pulley cap. Using SST, hold the generator rotor.



SST: 09820-63021

(2) Turn the clutch pulley clockwise and check that the outer ring locks.

OK:

The outer ring locks.

NG ► REPLACE GENERATOR CLUTCH PULLEY

OK



2. CHECK LOCK OF CLUTCH PULLEY

(a) Start the engine and visually check for looseness of the clutch pulley.

OK:

The clutch pulley is not loose.

NG ► **TIGHTEN CLUTCH PULLEY TO THE SPECIFIED TORQUE**

OK ► **REPLACE GENERATOR ASSEMBLY**



Last Modified: 3-10-2010	6.4 J	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001J2K037X
Title: 2AZ-FE BATTERY / CHARGING: CHARGING SYSTEM: Noise Occurs from Generator while Engine is Running (2010 Corolla)		

Noise Occurs from Generator while Engine is Running

INSPECTION PROCEDURE

PROCEDURE

1. CHECK LOOSENESS OF V-RIBBED BELT

(a) Check the tension of the belt by pushing it down with a finger.

OK:

The tension of the belt is enough.

NG ► REPLACE V-RIBBED BELT TENSIONER ASSEMBLY

OK



2. CHECK V-RIBBED BELT FOR WEAR

(a) Check the V-ribbed belt for wear.

OK:

The V-ribbed belt is not worn.

NG ► REPLACE V-RIBBED BELT

OK



3. CHECK CLUTCH PULLEY FOR WEAR

(a) Check the clutch pulley groove for wear or other defects.

OK:

The clutch pulley groove is not damaged.

NG ► **REPLACE CLUTCH PULLEY**

OK

4. CHECK FOR NOISE WHILE CLUTCH PULLEY IS OPERATING

(a) Perform a driving test and check if noise occurs when decelerating.

OK:

Noise does not occur.

NG ► **REPLACE CLUTCH PULLEY**

OK ► **REPLACE GENERATOR ASSEMBLY**



TOYOTA

Last Modified: 3-10-2010	6.4 L	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001AR601OX
Title: 2ZR-FE BATTERY / CHARGING: CHARGING SYSTEM: PRECAUTION (2010 Corolla)		

PRECAUTION

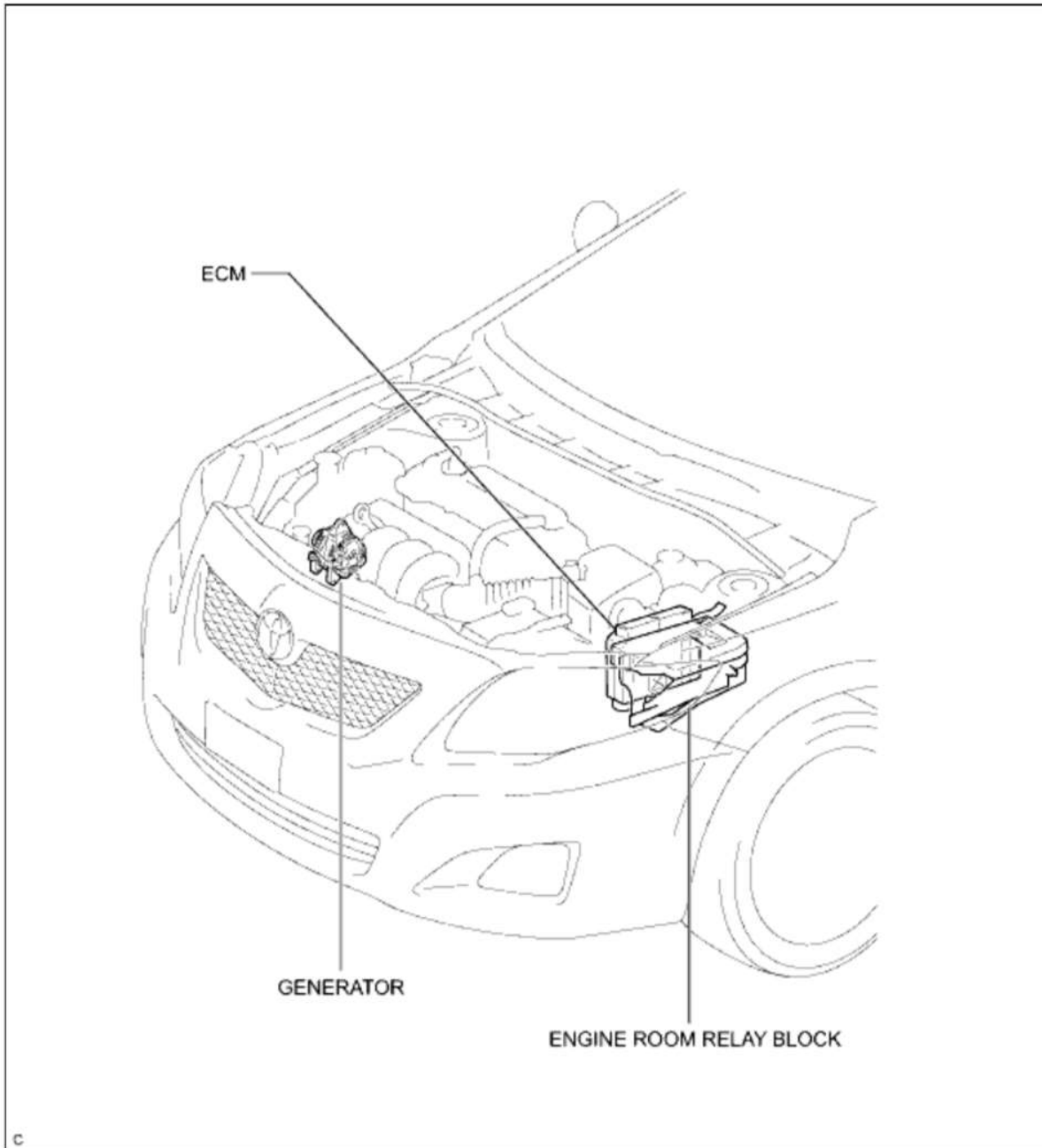
- 1. Check that the battery cables are connected to the correct terminals.**
- 2. Disconnect the battery cables when the battery is given a quick charge.**
- 3. Do not perform tests with a high voltage insulation resistance tester, such as a megohmmeter.**
- 4. Never disconnect the battery while the engine is running.**
- 5. Check that the charging cable nuts are tightened on terminal B of the generator and the engine room relay block.**



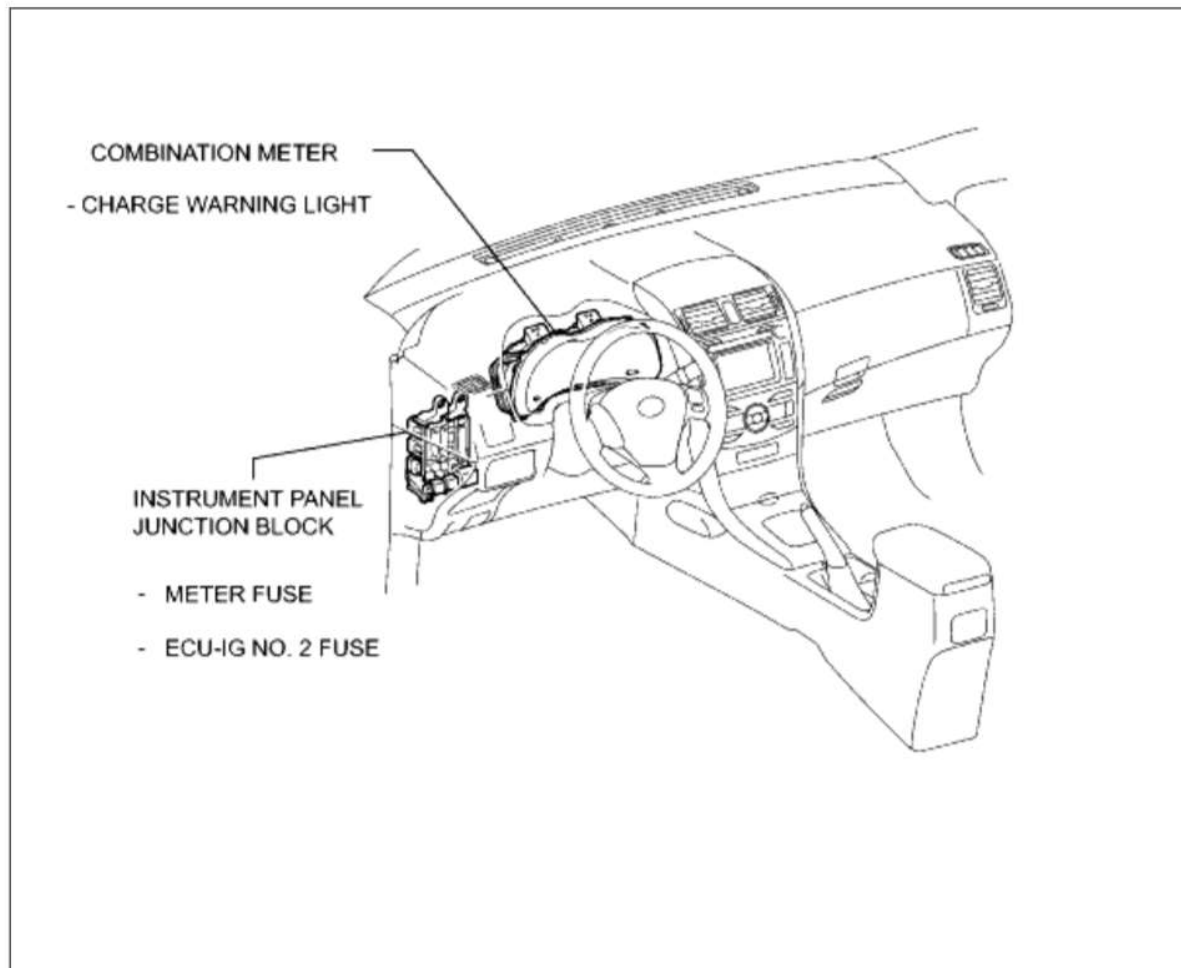
Last Modified: 3-10-2010	6.4 R	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM00000275X013X
Title: 2ZR-FE BATTERY / CHARGING: CHARGING SYSTEM: PARTS LOCATION (2010 Corolla)		

PARTS LOCATION

ILLUSTRATION



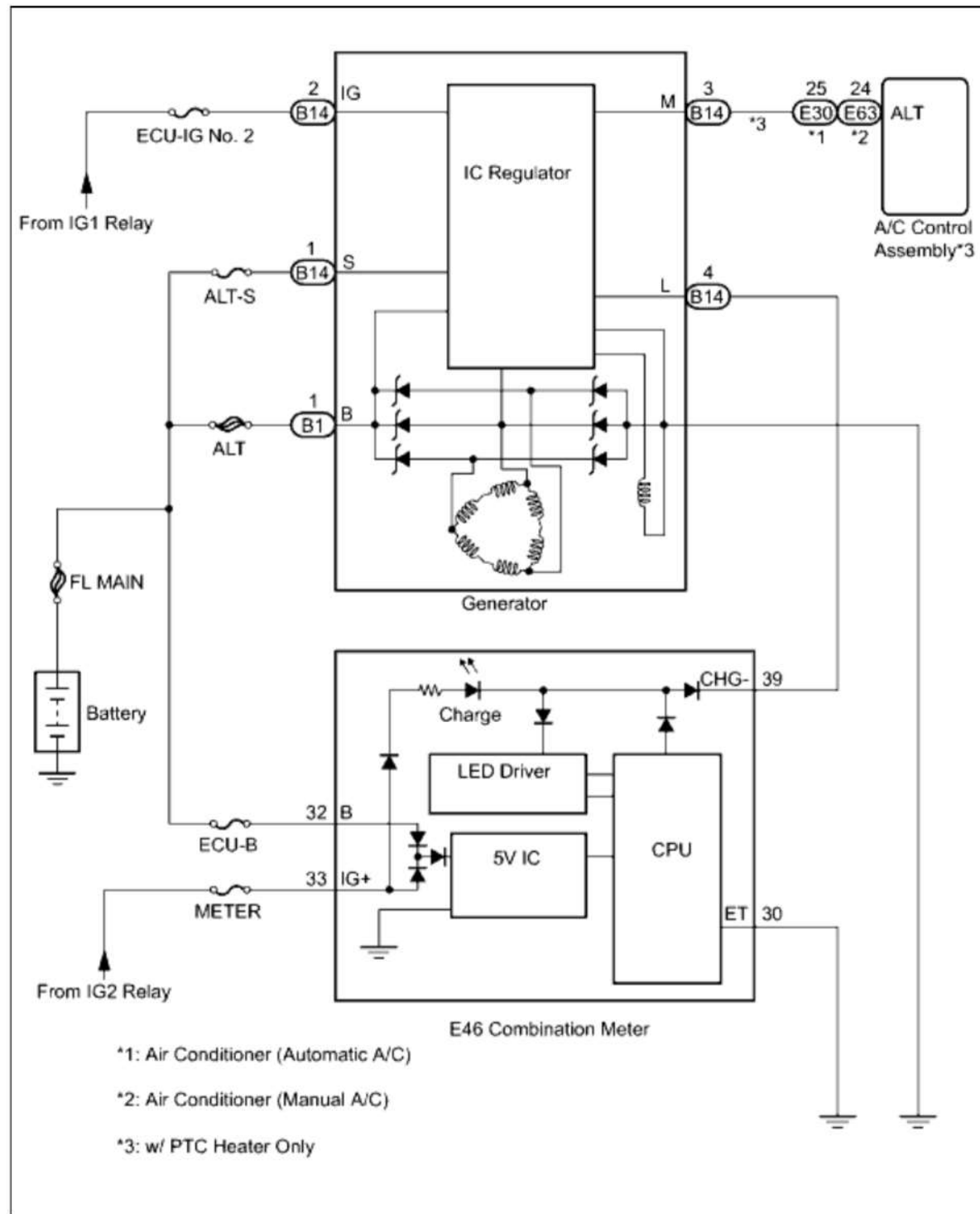
ILLUSTRATION



TOYOTA

Last Modified: 3-10-2010	6.4 U	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM00000275Y013X
Title: 2ZR-FE BATTERY / CHARGING: CHARGING SYSTEM: SYSTEM DIAGRAM (2010 Corolla)		

SYSTEM DIAGRAM



Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001AR903WX
Title: 2ZR-FE BATTERY / CHARGING: CHARGING SYSTEM: ON-VEHICLE INSPECTION (2010 Corolla)		

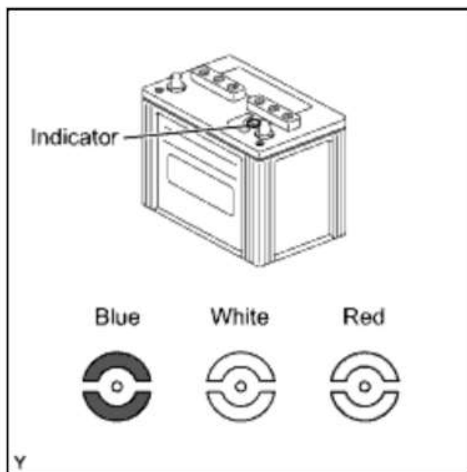
ON-VEHICLE INSPECTION

1. CHECK BATTERY ELECTROLYTE LEVEL

(a) Check the electrolyte level.

(1) If the electrolyte level is low, replace the battery (or add distilled water) and check the charging system.

2. CHECK BATTERY SPECIFIC GRAVITY



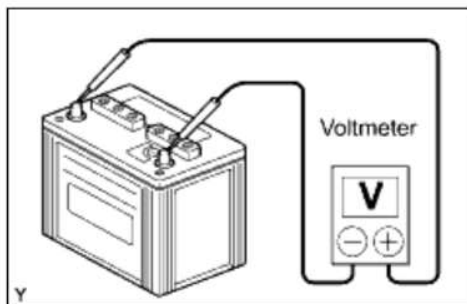
(a) Check the color of the indicator.

Result:

INDICATOR COLOR	CONDITION
Blue	Good
White	Charging necessary
Red	Replacement necessary

3. CHECK BATTERY VOLTAGE

(a) Turn the ignition switch off and turn on the headlights for 20 to 30 seconds. This will remove the surface charge from the battery.



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

Standard Voltage:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Battery positive terminal - Battery negative terminal	20°C (68°F)	12.5 to 12.9 V

If the voltage is below the specification, charge the battery.

4. CHECK BATTERY TERMINAL

- (a) Check that the battery terminals are not loose or corroded.

If the terminals are corroded, clean them.

5. CHECK FUSES

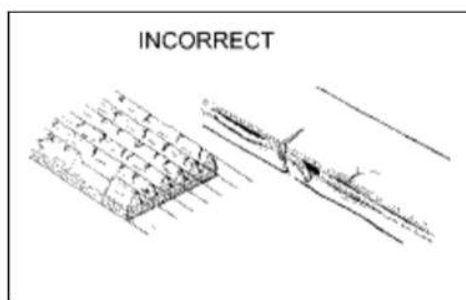
- (a) Measure the resistance of the charging system fuses.

Standard resistance:

Below 1 Ω

If the result is not as specified, replace the fuses as necessary.

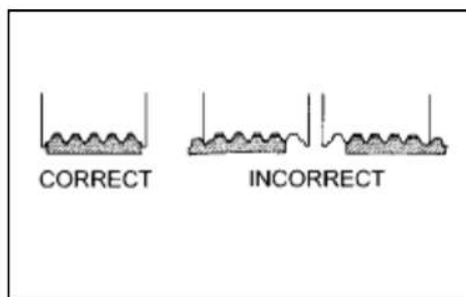
6. CHECK V-RIBBED BELT



- (a) Check the belt for wear, cracks and other signs of damage.

If any of the following defects is found, replace the V-ribbed belt.

- The belt is cracked.
- The belt is worn out to the extent that the cords are exposed.
- The belt has chunks missing from the ribs.



- (b) Check that the belt fits properly in the ribbed grooves.

HINT:

Check with your hand to confirm that the belt has not slipped out of the groove on the bottom to the pulley. If it has slipped out, replace the V-ribbed belt. Install a new V-ribbed belt correctly.

7. VISUALLY CHECK GENERATOR WIRING

- (a) Check that the generator wiring is in good condition.

If the condition is not good, repair or replace the generator wire.

8. LISTEN FOR ABNORMAL NOISES FROM GENERATOR

- (a) Check that there is no abnormal noise from the generator while the engine is running.

If there is abnormal noise, replace the pulley or generator.

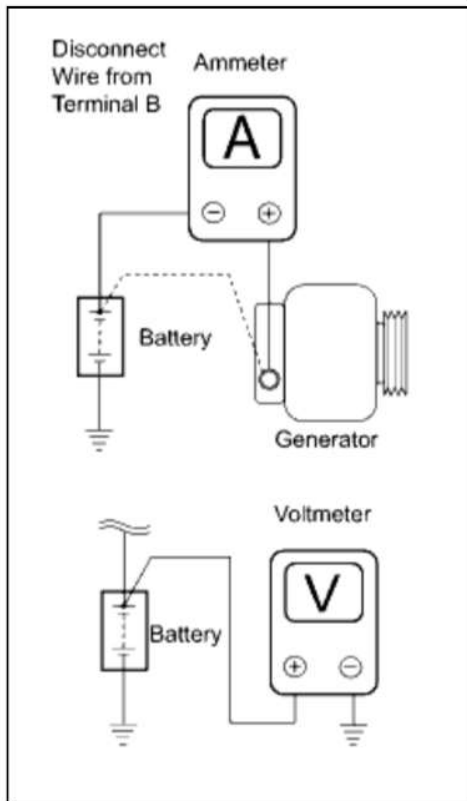
9. CHECK CHARGE WARNING LIGHT CIRCUIT

- (a) Turn the ignition switch to ON. Check that the charge warning light comes on.

- (b) Start the engine and check that the light goes off.

If the light does not operate as specified, troubleshoot the charge warning light circuit.

10. CHECK CHARGING CIRCUIT WITHOUT LOAD



(a) According to the following procedure, connect an ammeter and voltmeter as shown in the illustration.

- (1) Disconnect the wire from terminal B of the generator and connect it to the negative (-) lead of the ammeter.
- (2) Connect the positive (+) lead of the ammeter to terminal B of the generator.
- (3) Connect the positive (+) lead of the voltmeter to the positive (+) terminal of the battery.
- (4) Ground the negative (-) lead of the voltmeter.

(b) Check the charging circuit.

- (1) While keeping the engine speed at 2000 rpm, check the readings on the ammeter and voltmeter.

Standard current:

10 A or less

Standard voltage:

13.2 to 14.8 V

If the results are not as specified, replace the generator assembly.

HINT:

If the battery is not fully charged, the ammeter reading may be more than the standard current.

11. CHECK CHARGING CIRCUIT WITH LOAD

- (a) Keep the engine speed at 2000 rpm, turn on the high beam headlights, and turn the heater blower switch to the "HI" position.

(b) Check the reading on the ammeter.

Standard current:

30 A or more

If the ammeter reading is less than the standard current, replace the generator assembly.

HINT:

If the battery is fully charged, the ammeter reading may be less than the standard current. In this case, increase electrical load by operating devices such as the wiper motor and rear window defogger. Then, recheck the reading on the ammeter.



Last Modified: 3-10-2010	6.4 T	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001J3Y02LX
Title: 2ZR-FE BATTERY / CHARGING: CHARGING SYSTEM: PROBLEM SYMPTOMS TABLE (2010 Corolla)		

PROBLEM SYMPTOMS TABLE

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.

Charging System

SYMPTOM	SUSPECTED AREA	SEE PAGE
Charge Warning Light Comes ON while Driving	Clutch pulley	INFO
	Generator assembly	INFO
Noise Occurs from Generator while Engine is Running	V-ribbed belt	INFO
	Clutch pulley	INFO
	Generator assembly	INFO



TOYOTA

Last Modified: 3-10-2010	6.4 J	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001J2J036X
Title: 2ZR-FE BATTERY / CHARGING: CHARGING SYSTEM: Charge Warning Light Comes ON while Driving (2010 Corolla)		

Charge Warning Light Comes ON while Driving

INSPECTION PROCEDURE

PROCEDURE

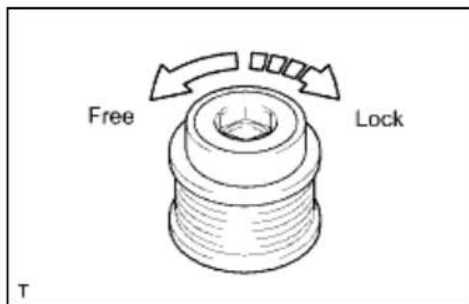
1. CHECK LOCK FUNCTION OF GENERATOR CLUTCH PULLEY

(a) Check the lock function with the pulley installed in the vehicle.

(1) Visually check that the rotor in the generator operates with the engine running.

(b) Check the lock function with the pulley removed from the vehicle.

(1) Remove the generator pulley cap. Using SST, hold the generator rotor.



SST: 09820-63021

(2) Turn the clutch pulley clockwise and check that the outer ring locks.

OK:

The outer ring locks.

NG ► REPLACE GENERATOR CLUTCH PULLEY

OK



2. CHECK LOCK OF GENERATOR CLUTCH PULLEY

(a) Start the engine and visually check the clutch pulley for looseness.

OK:

The clutch pulley is not loose.

NG ► **TIGHTEN GENERATOR CLUTCH PULLEY TO THE SPECIFIED TORQUE**

OK ► **REPLACE GENERATOR ASSEMBLY**



Last Modified: 3-10-2010	6.4 J	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001J2K036X
Title: 2ZR-FE BATTERY / CHARGING: CHARGING SYSTEM: Noise Occurs from Generator while Engine is Running (2010 Corolla)		

Noise Occurs from Generator while Engine is Running

INSPECTION PROCEDURE

PROCEDURE

1. CHECK LOOSENESS OF V-RIBBED BELT

(a) Check the tension of the belt by pushing it down with a finger.

OK:

The tension of the belt is enough.

NG ► **ADJUST V-RIBBED BELT**

OK



2. CHECK V-RIBBED BELT FOR WEAR

(a) Check the V-ribbed belt for wear.

OK:

The V-ribbed belt is not worn.

NG ► **REPLACE V-RIBBED BELT**

OK



3. CHECK GENERATOR CLUTCH PULLEY FOR WEAR

(a) Check the clutch pulley grooves for wear or other defects.

OK:

The clutch pulley grooves are not damaged.

NG ► **REPLACE GENERATOR CLUTCH PULLEY**

OK

4. CHECK FOR NOISE WHILE GENERATOR CLUTCH PULLEY IS OPERATING

(a) Perform a driving test and check if noise occurs when decelerating.

OK:

Noise does not occur.

NG ► **REPLACE GENERATOR CLUTCH PULLEY**

OK ► **REPLACE GENERATOR ASSEMBLY**

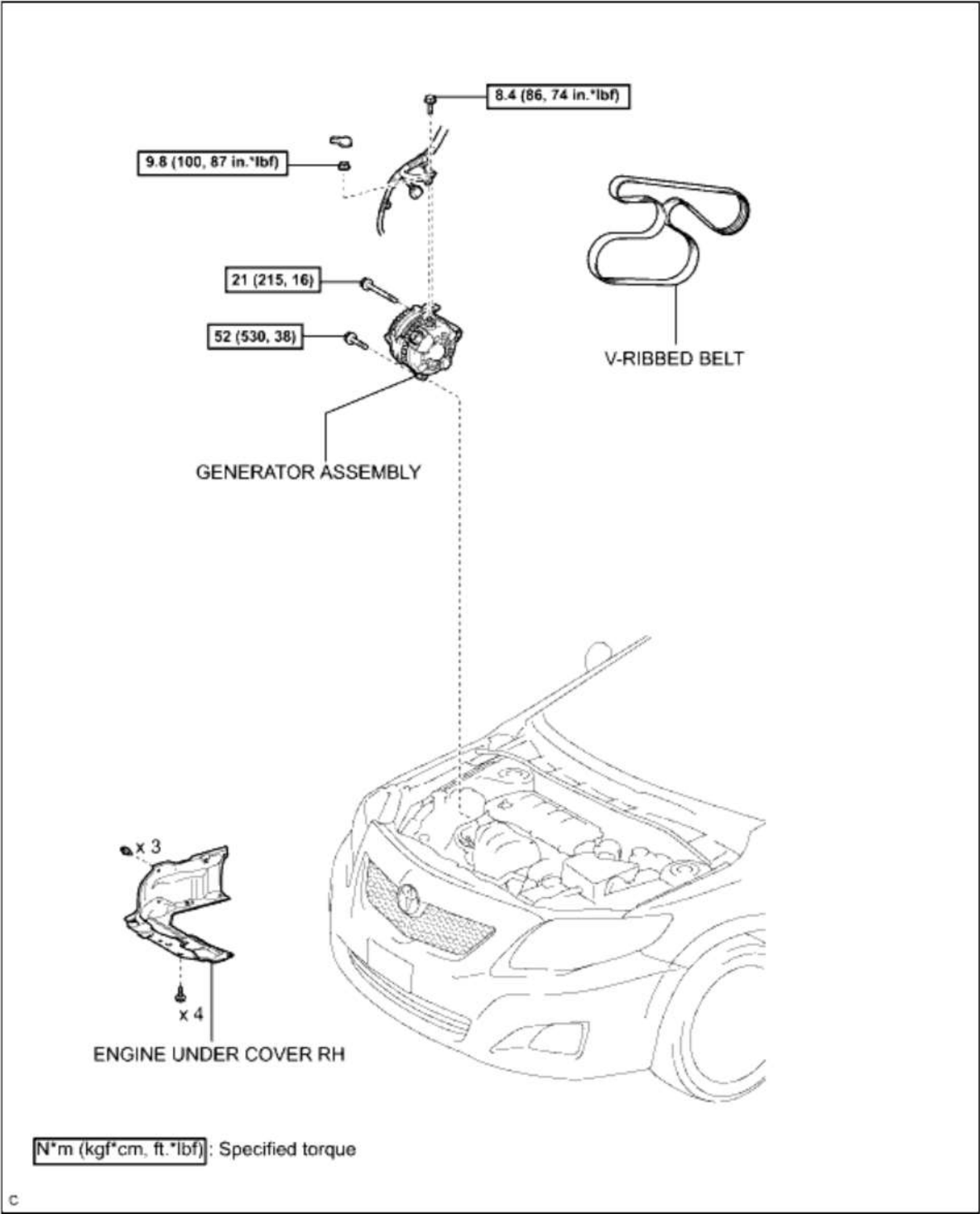


TOYOTA

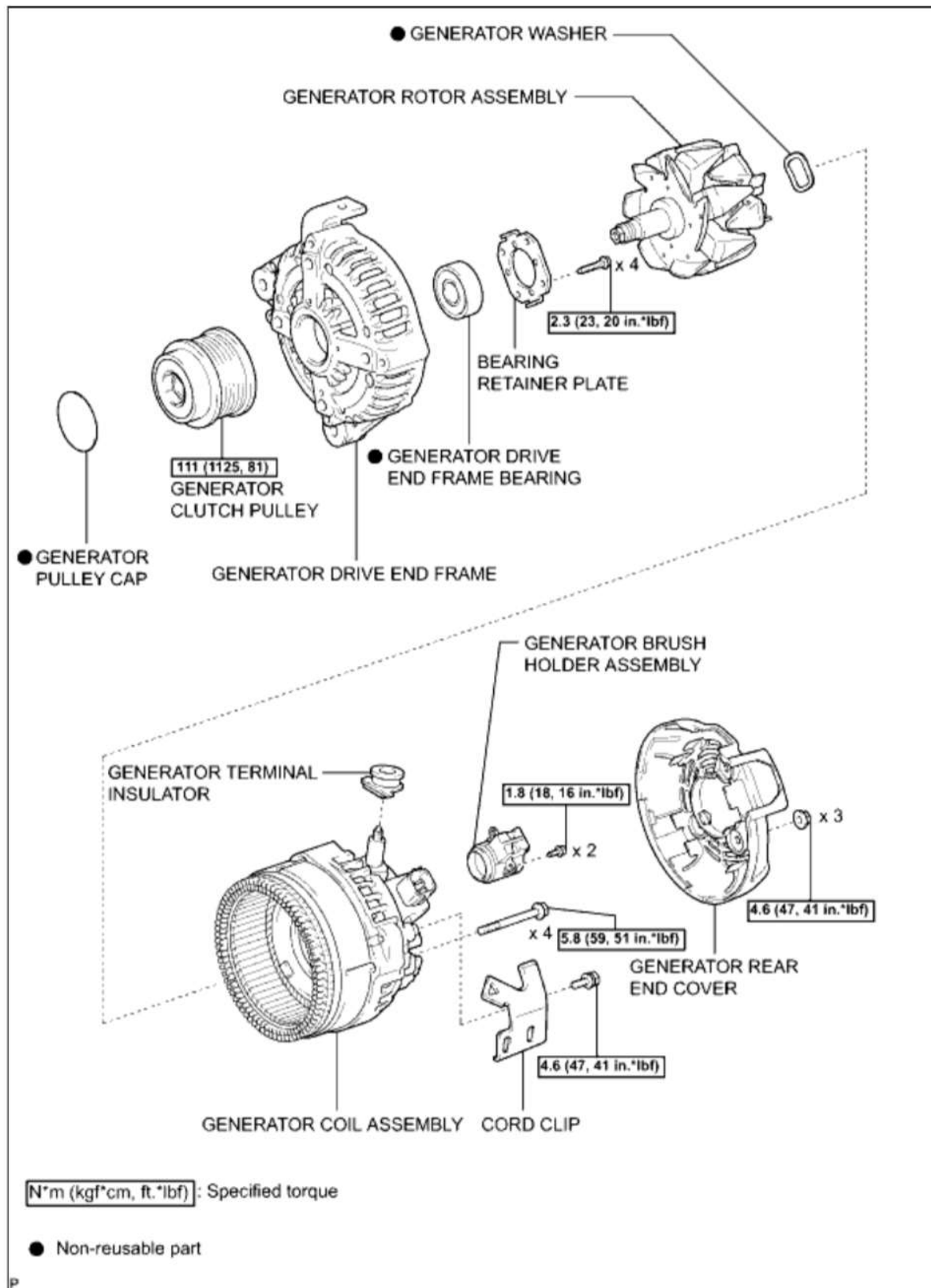
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000026ZC00HX
Title: 2AZ-FE BATTERY / CHARGING: GENERATOR: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



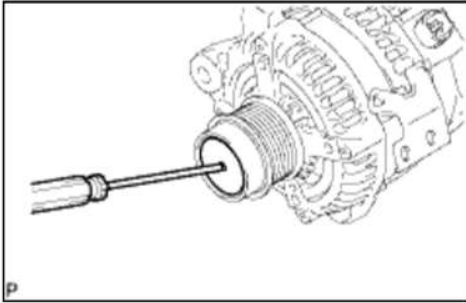
ILLUSTRATION



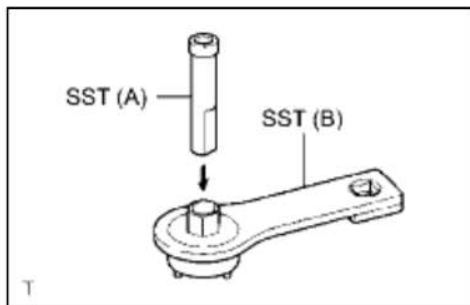
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000017VK01CX
Title: 2AZ-FE BATTERY / CHARGING: GENERATOR: DISASSEMBLY (2010 Corolla)		

DISASSEMBLY

1. REMOVE GENERATOR CLUTCH PULLEY

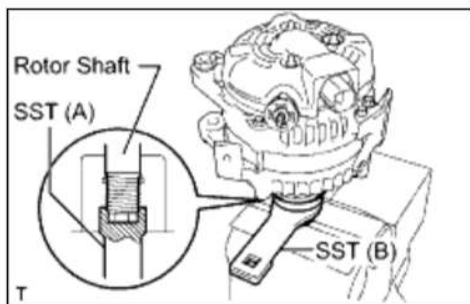


(a) Using a screwdriver, puncture the center of the generator pulley cap and pry it off.



(b) Set SST (A) and (B).

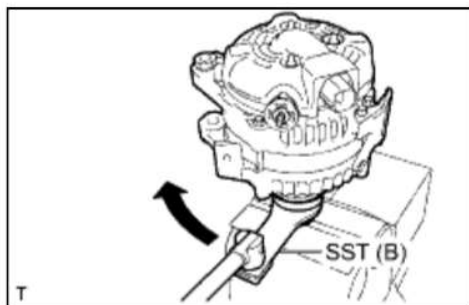
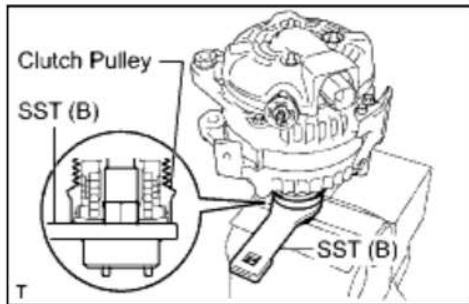
SST: 09820-63021



(c) Clamp SST (A) in a vise.

(d) Place the rotor shaft end into SST (A).

(e) Fit SST (B) to the clutch pulley.

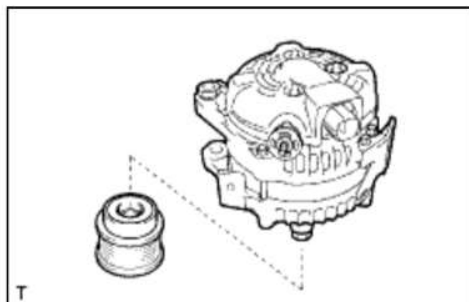


(f) Loosen the pulley by turning SST (B) in the direction shown in the illustration.

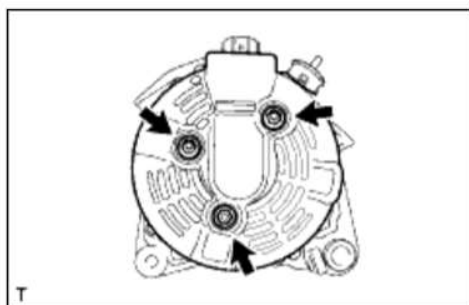
(g) Remove the generator assembly from SST.

(h) Remove the clutch pulley from the rotor shaft.

2. REMOVE GENERATOR BRUSH HOLDER ASSEMBLY

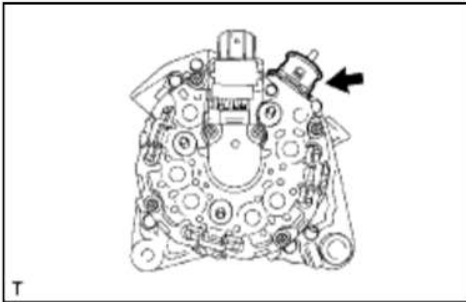


(a) Place the generator assembly on the clutch pulley.



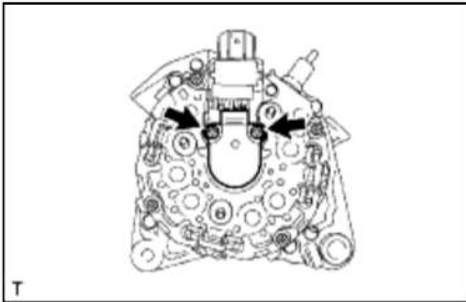
(b) Remove the 3 nuts and generator rear end cover.

3. REMOVE GENERATOR TERMINAL INSULATOR



(a) Remove the terminal insulator.

4. REMOVE GENERATOR BRUSH HOLDER ASSEMBLY



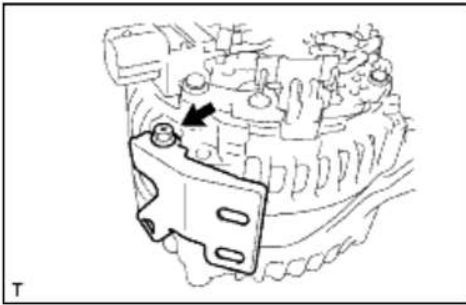
(a) Remove the 2 screws and generator brush holder.

5. REMOVE GENERATOR ROTOR ASSEMBLY



(a) Remove the 4 bolts.

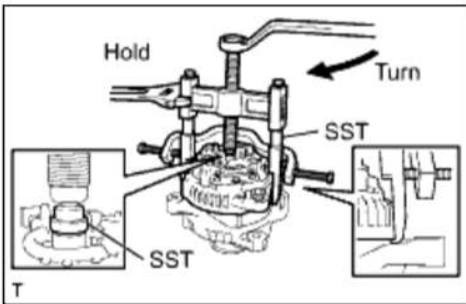
(b) Remove the bolt and cord clip.



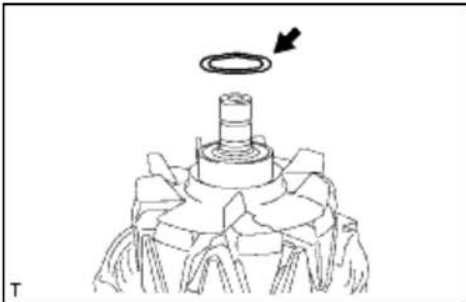
(c) Using SST, remove the coil.

SST: 09950-40011

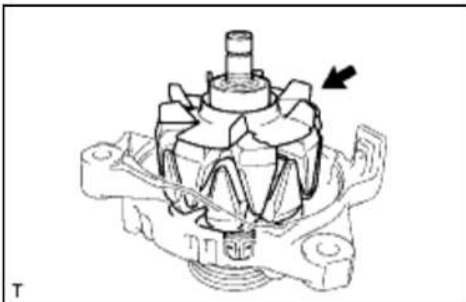
09951-04020
09952-04010
09953-04020
09954-04010
09955-04071
09957-04010
09958-04011



6. REMOVE GENERATOR ROTOR ASSEMBLY

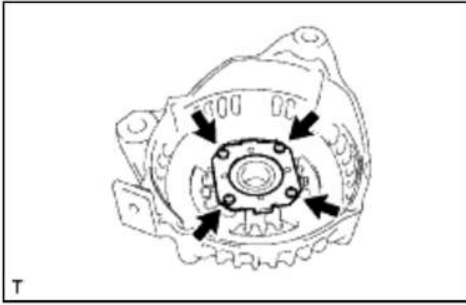


(a) Remove the washer.

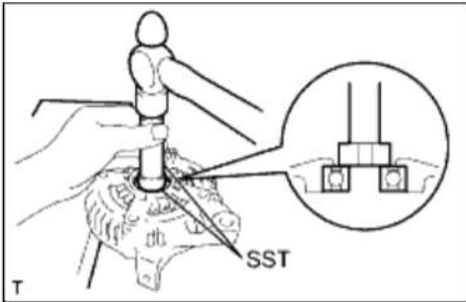


(b) Remove the generator rotor.

7. REMOVE GENERATOR DRIVE END FRAME BEARING



(a) Remove the 4 screws and bearing retainer.



(b) Using SST and a hammer, tap out the bearing.

SST: 09950-60010

09951-00250

SST: 09950-70010

09951-07100



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000026ZD00MX
Title: 2AZ-FE BATTERY / CHARGING: GENERATOR: REMOVAL (2010 Corolla)		

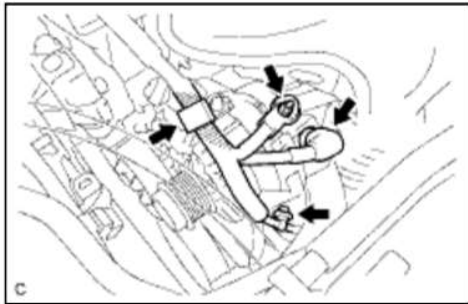
REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE ENGINE UNDER COVER RH

3. REMOVE V-RIBBED BELT 

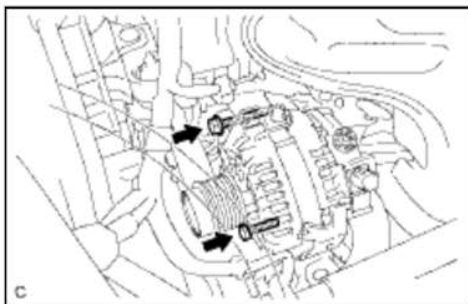
4. REMOVE GENERATOR ASSEMBLY



(a) Disconnect the generator connector.

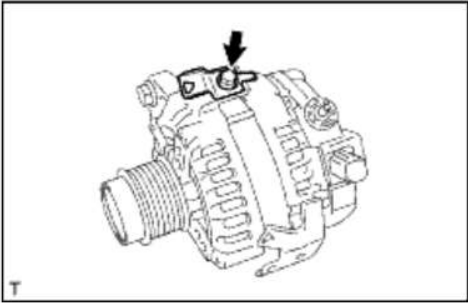
(b) Remove the nut and disconnect the wire harness from terminal B.

(c) Separate the 2 wire harness clamps.



(d) Remove the 2 bolts and generator assembly.

(e) Remove the bolt and wire harness clamp bracket.

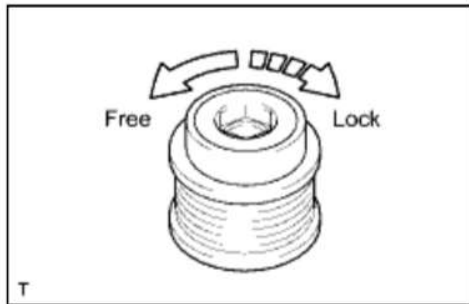


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Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000017VH019X
Title: 2AZ-FE BATTERY / CHARGING: GENERATOR: INSPECTION (2010 Corolla)		

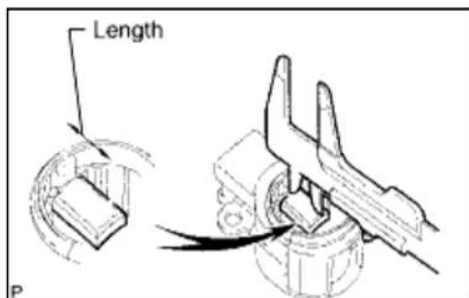
INSPECTION

1. INSPECT GENERATOR CLUTCH PULLEY



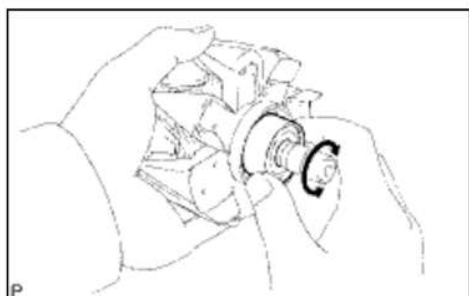
- (a) Hold the center of the pulley, and confirm that the outer ring turns counterclockwise and does not turn clockwise.
If the result is not as specified, replace the generator clutch pulley.

2. INSPECT GENERATOR BRUSH HOLDER ASSEMBLY



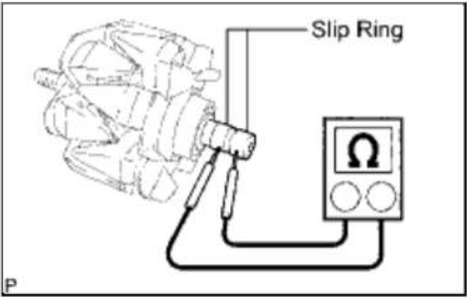
- (a) Using a vernier caliper, measure the brush length.
Standard length:
9.5 to 11.5 mm (0.374 to 0.453 in.)
Minimum length:
4.5 mm (0.177 in.)
If the brush length is less than the minimum, replace the generator brush holder assembly.

3. INSPECT GENERATOR ROTOR ASSEMBLY



- (a) Check the appearance.
(1) Check that the bearing is not rough or worn.
OK:
The bearing rotates smoothly.
If the result is not as specified, replace the generator rotor assembly.

- (b) Check the resistance.

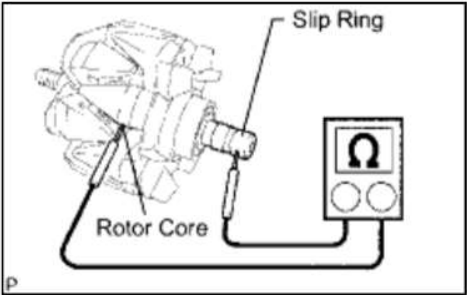


(1) Measure the resistance between the slip rings.

Standard Resistance:

CONDITION	SPECIFIED CONDITION
Approx. 20°C (68°F)	2.3 to 2.7 Ω

If the result is not as specified, replace the generator rotor assembly.

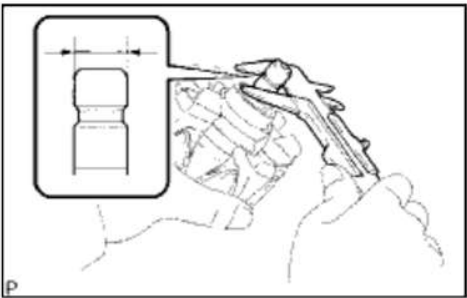


(2) Measure the resistance between the slip ring and rotor core.

Standard Resistance:

TESTER CONNECTION	SPECIFIED CONDITION
Slip ring - Rotor core	1 MΩ or higher

If the result is not as specified, replace the generator rotor assembly.



(c) Check the slip ring diameter.

(1) Using a vernier caliper, measure the slip ring diameter.

Standard diameter:

14.2 to 14.4 mm (0.559 to 0.567 in.)

Minimum diameter:

14 mm (0.551 in.)

If the diameter is less than the minimum, replace the generator rotor assembly.

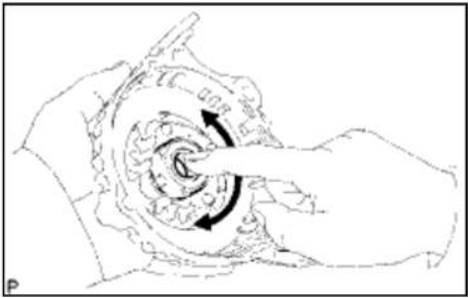
4. INSPECT GENERATOR DRIVE END FRAME BEARING

(a) Check that the bearing is not rough or worn.

OK:

The bearing rotates smoothly.

If the bearing does not rotate smoothly, replace the



bearing.

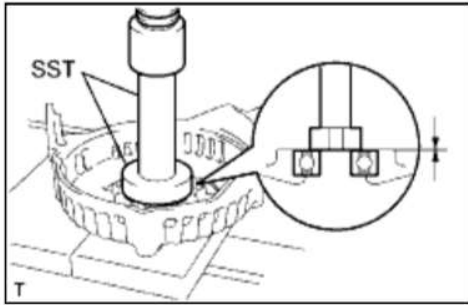


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Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000017VL01DX
Title: 2AZ-FE BATTERY / CHARGING: GENERATOR: REASSEMBLY (2010 Corolla)		

REASSEMBLY

1. INSTALL GENERATOR DRIVE END FRAME BEARING



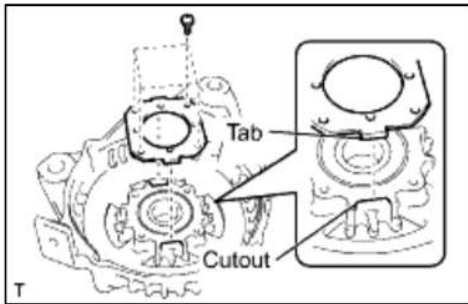
(a) Using SST and a press, press in a new generator drive end frame bearing.

SST: 09950-60010

09951-00250

SST: 09950-70010

09951-07100



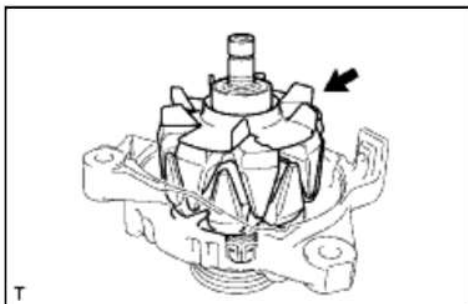
(b) Fit the tabs on the retainer plate into the cutouts on the drive end frame to install the retainer plate.

(c) Install the 4 screws.

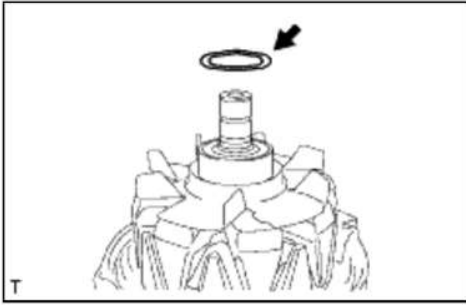
Torque: 2.3 N·m (23 kgf·cm, 20in·lbf)

2. INSTALL GENERATOR ROTOR ASSEMBLY

(a) Place the drive end frame on the clutch pulley.

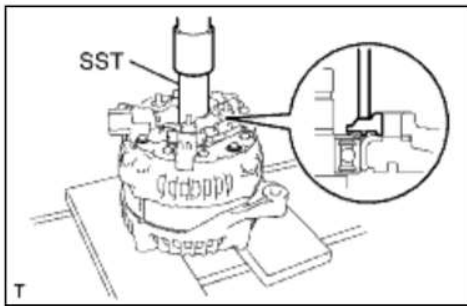


(b) Install the generator rotor onto the generator rectifier end frame.



(c) Place a new generator washer on the generator rotor.

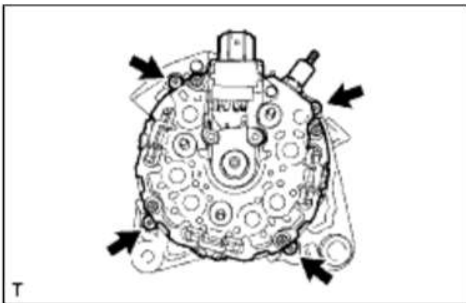
3. INSTALL GENERATOR COIL ASSEMBLY



(a) Using SST and a press, press in the generator coil assembly to the drive end frame.

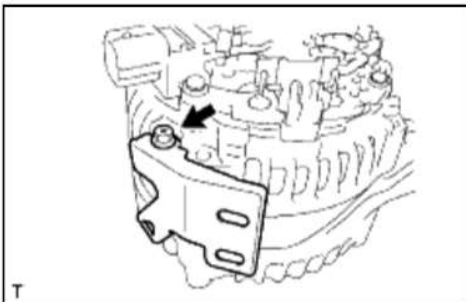
SST: 09612-70100

09612-07240



(b) Tighten the 4 bolts.

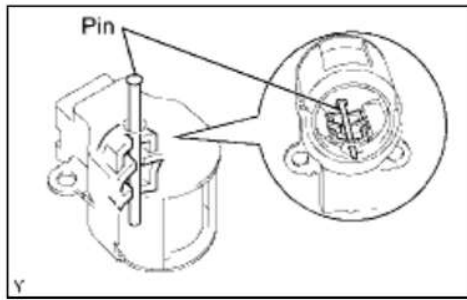
Torque: 5.8 N·m (59 kgf·cm, 51in·lbf)



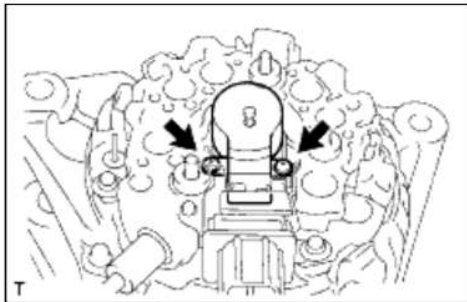
(c) Install the cord clip with the bolt.

Torque: 4.6 N·m (47 kgf·cm, 41in·lbf)

4. INSTALL GENERATOR BRUSH HOLDER ASSEMBLY

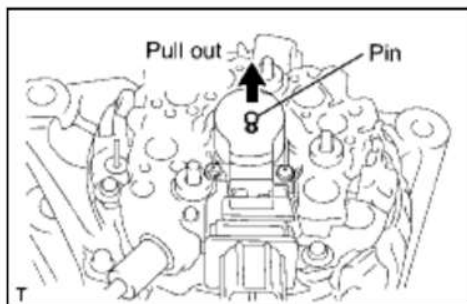


- (a) While pushing the 2 brushes into the generator brush holder, insert a $\phi 1.0$ mm (0.0394 in.) pin into the generator brush holder.



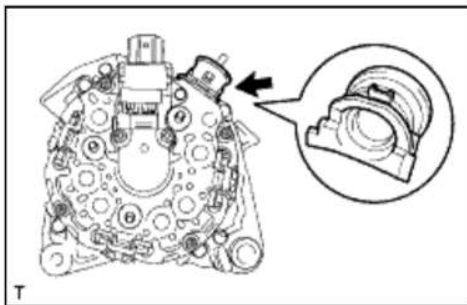
- (b) Install the generator brush holder with the 2 screws.

Torque: 1.8 N·m (18 kgf·cm, 16in·lbf)



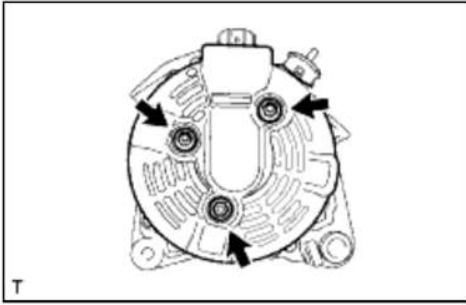
- (c) Pull the pin out of the generator brush holder.

5. INSTALL GENERATOR TERMINAL INSULATOR



- (a) Install the terminal insulator onto the generator rectifier end frame.

6. INSTALL GENERATOR REAR END COVER

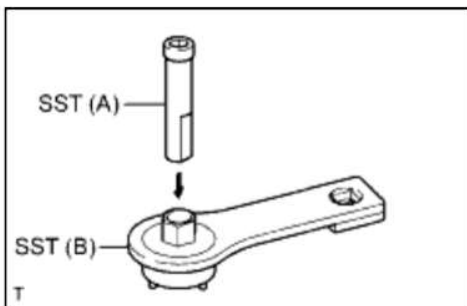


(a) Install the generator rear end cover with the 3 nuts.

Torque: 4.6 N·m (47 kgf·cm, 41in·lbf)

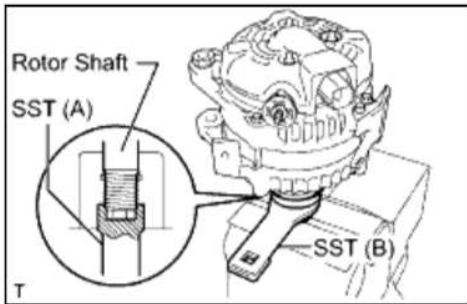
7. INSTALL GENERATOR CLUTCH PULLEY

(a) Temporarily install the clutch pulley onto the rotor shaft.



(b) Set SST (A) and (B).

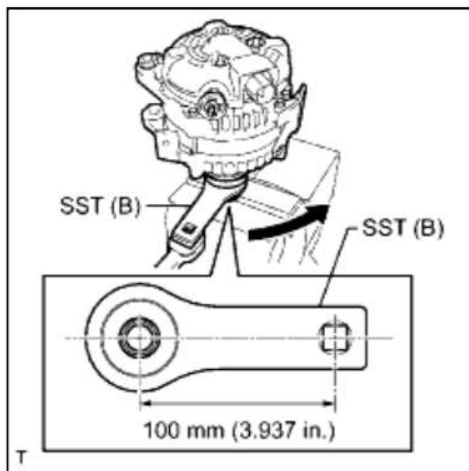
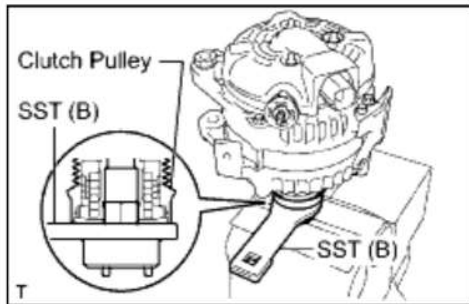
SST: 09820-63021



(c) Clamp SST (A) in a vise.

(d) Place the rotor shaft end into SST (A).

(e) Fit SST (B) to the clutch pulley.



(f) Tighten the pulley by turning SST (B) in the direction indicated by the arrow shown in the illustration.

Without SST - Torque: 111 N·m (1127 kgf·cm, 82ft·lbf)

With SST - Torque: 84 N·m (857 kgf·cm, 62ft·lbf)

NOTICE:

- Use a torque wrench with a fulcrum length of 318 mm (12.52 in.).
- This torque value is effective when SST is parallel to the torque wrench.

(g) Remove the generator assembly from SST.

(h) Check that the clutch pulley rotates smoothly.

(i) Install a new clutch pulley cap to the clutch pulley.

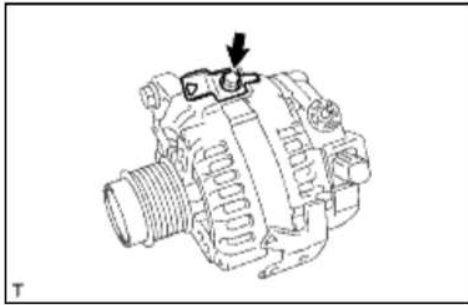


TOYOTA

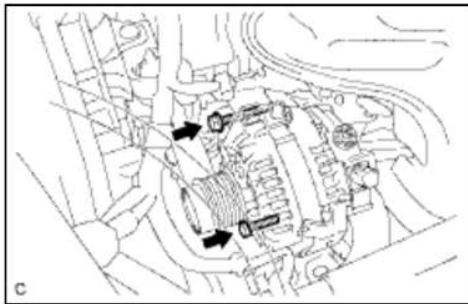
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000026ZB00VX
Title: 2AZ-FE BATTERY / CHARGING: GENERATOR: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL GENERATOR ASSEMBLY



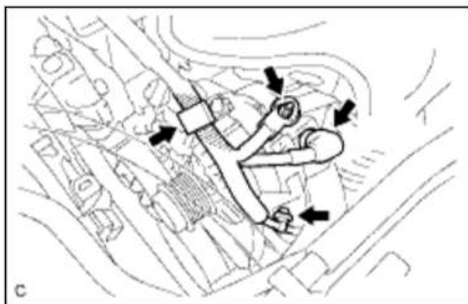
(a) Install the wire harness clamp bracket with the bolt.



(b) Install the generator assembly with the 2 bolts.

Bolt A - Torque: 21 N·m (215 kgf·cm, 16ft·lbf)

Bolt B - Torque: 52 N·m (530 kgf·cm, 38ft·lbf)



(c) Install the generator wire to terminal B with the nut.

Torque: 9.8 N·m (100 kgf·cm, 87in·lbf)

(d) Attach the clamp and connect the generator connector to the generator.

(e) Install the 2 wire harness clamps.

2. INSTALL V-RIBBED BELT

3. INSTALL ENGINE UNDER COVER RH

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

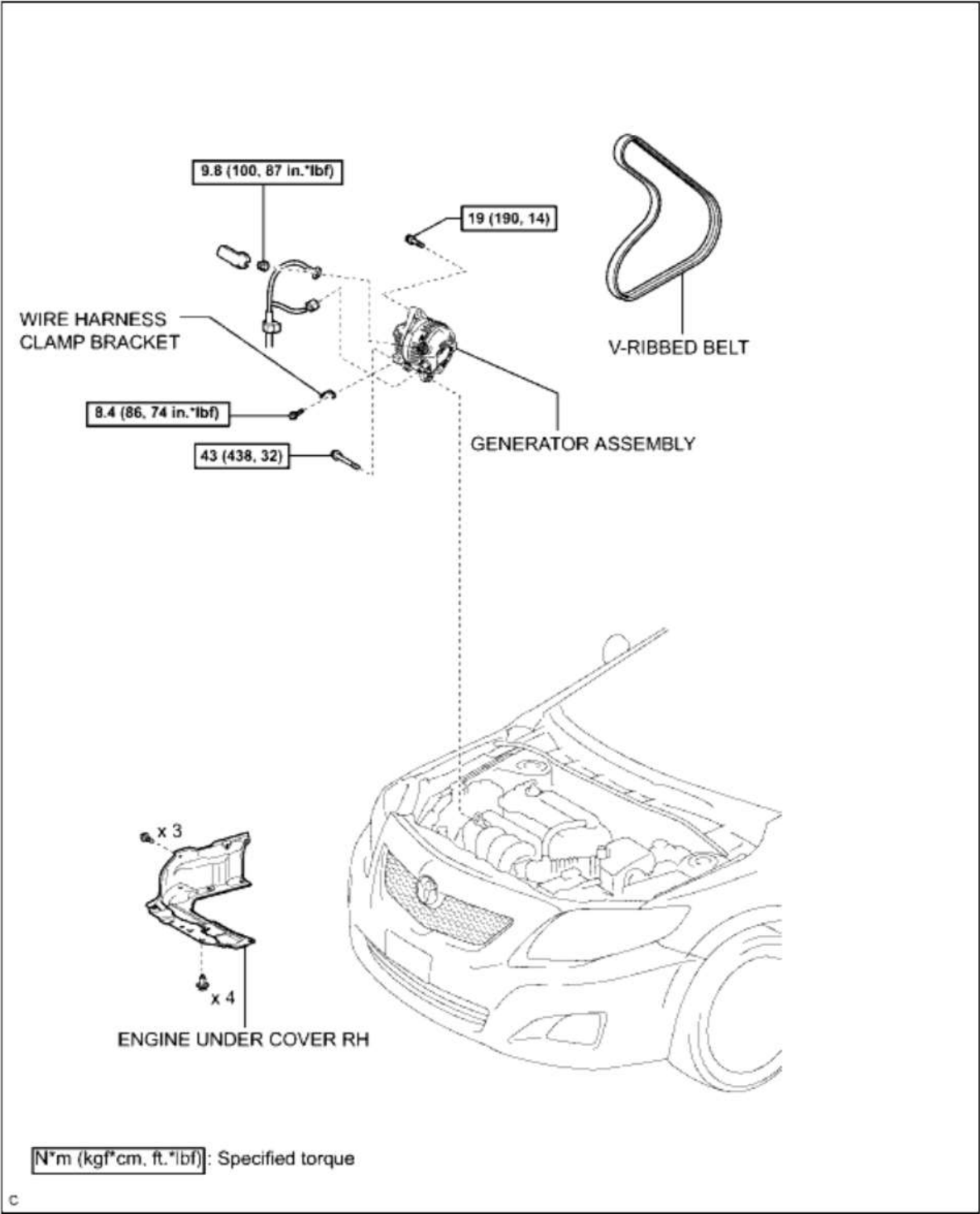
HINT:  .



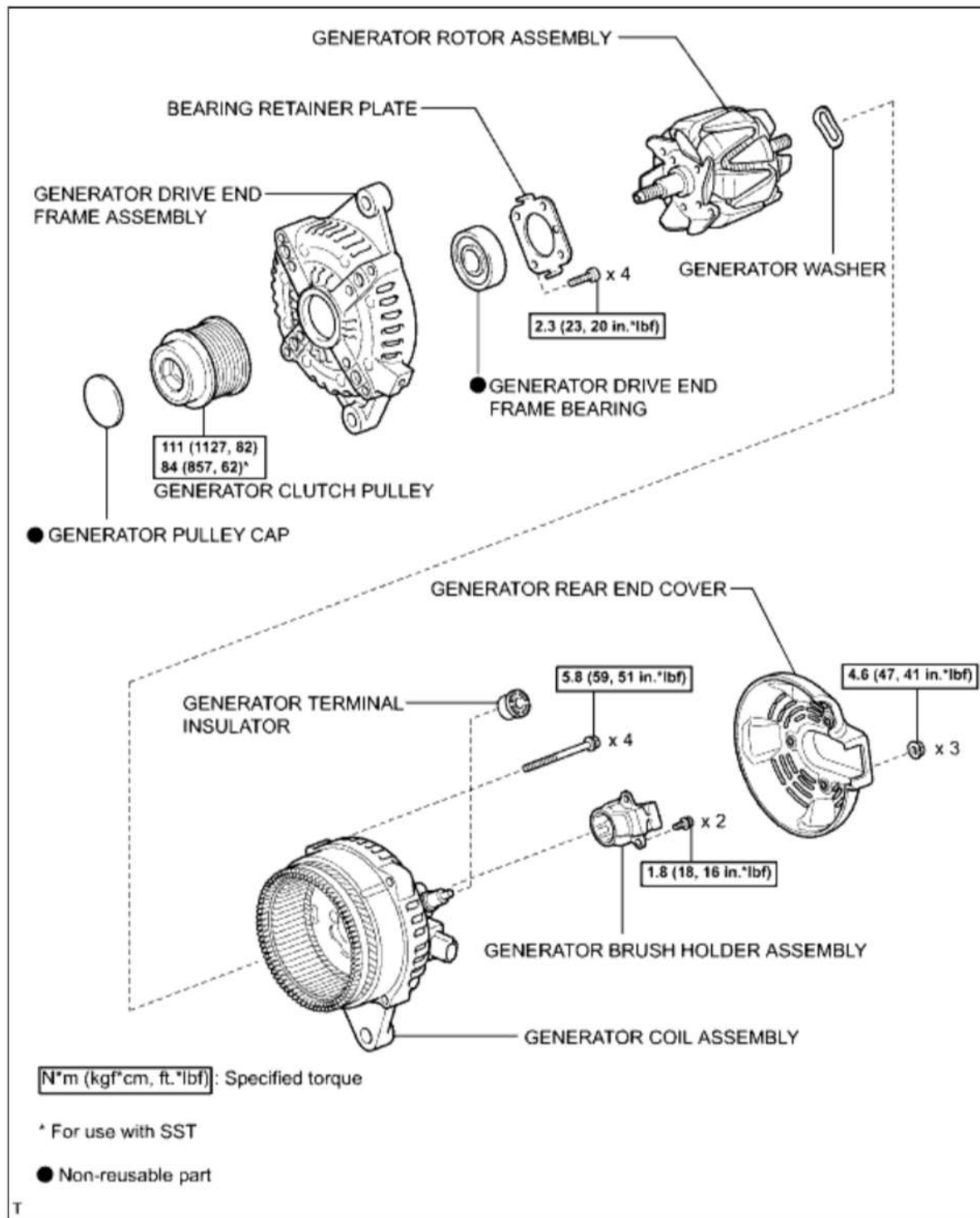
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002196006X
Title: 2ZR-FE BATTERY / CHARGING: GENERATOR: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



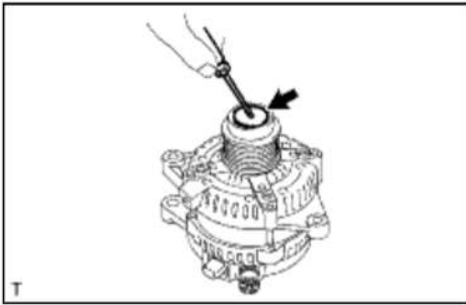
ILLUSTRATION



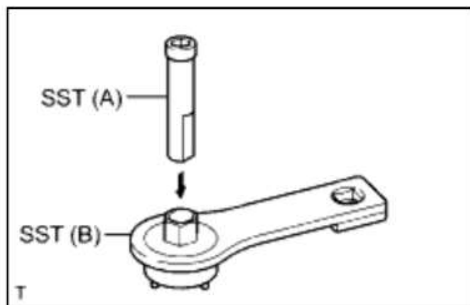
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001ONQ023X
Title: 2ZR-FE BATTERY / CHARGING: GENERATOR: DISASSEMBLY (2010 Corolla)		

DISASSEMBLY

1. REMOVE GENERATOR CLUTCH PULLEY

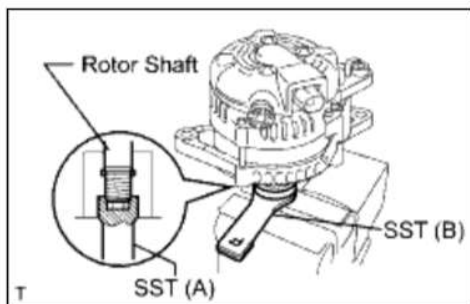


(a) Using a screwdriver, remove the generator pulley cap.



(b) Set SST (A) and (B).

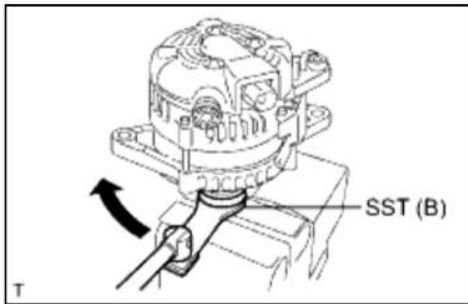
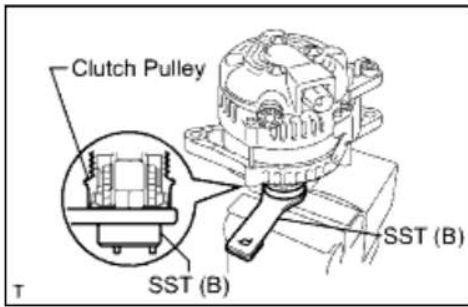
SST: 09820-63021



(c) Clamp SST (A) in a vise.

(d) Place the rotor shaft end into SST (A).

(e) Fit SST (B) to the clutch pulley.

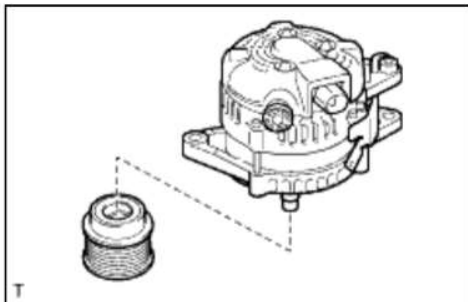


(f) Loosen the pulley by turning SST (B) in the direction shown in the illustration.

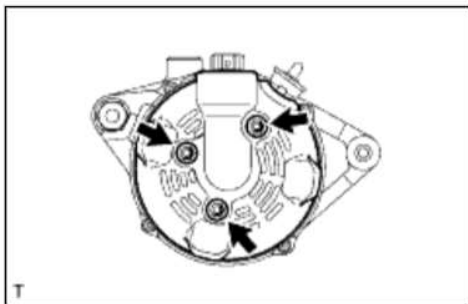
(g) Remove the generator assembly from SST.

(h) Remove the clutch pulley from the rotor shaft.

2. REMOVE GENERATOR REAR END COVER

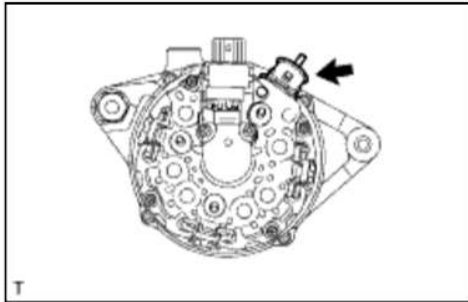


(a) Place the generator assembly on the clutch pulley.



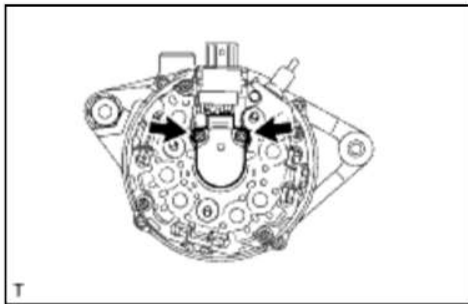
(b) Remove the 3 nuts and generator rear end cover.

3. REMOVE GENERATOR TERMINAL INSULATOR



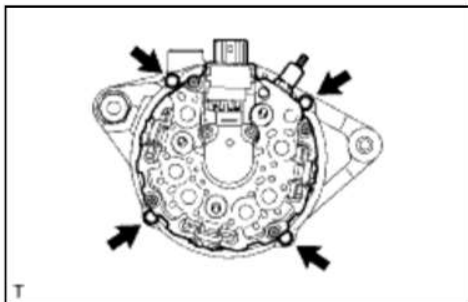
(a) Remove the terminal insulator from the generator coil.

4. REMOVE GENERATOR BRUSH HOLDER ASSEMBLY



(a) Remove the 2 screws and brush holder from the generator coil.

5. REMOVE GENERATOR COIL ASSEMBLY



(a) Remove the 4 bolts.

(b) Using SST, remove the generator coil assembly.

SST: 09950-40011

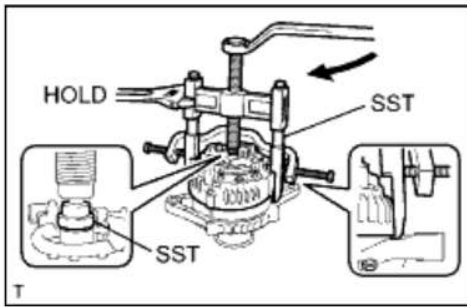
09951-04020

09952-04010

09953-04020

09954-04010

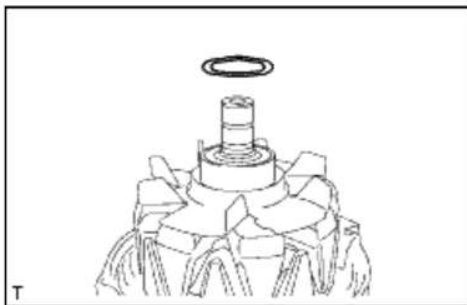
09955-04071



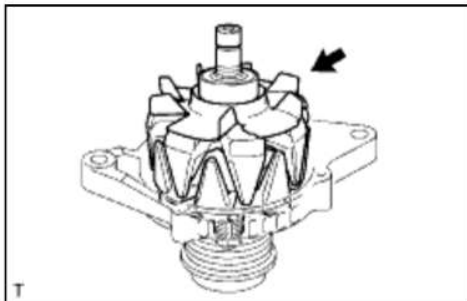
09957-04010

09958-04011

6. REMOVE GENERATOR ROTOR ASSEMBLY

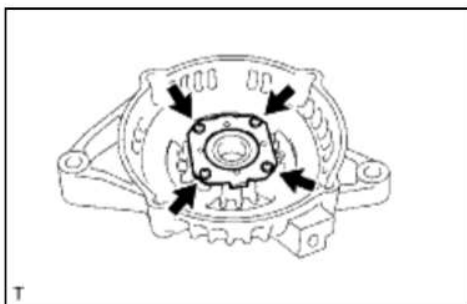


(a) Remove the generator washer.

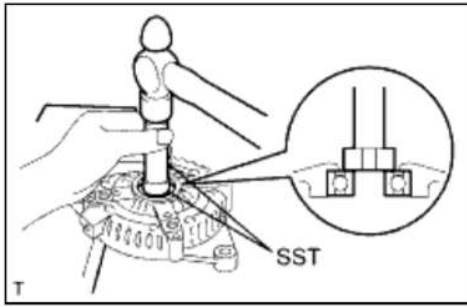


(b) Remove the generator rotor assembly.

7. REMOVE GENERATOR DRIVE END FRAME BEARING



(a) Remove the 4 screws and retainer plate from the drive end frame.



(b) Using SST and a hammer, tap out the drive end frame bearing from the drive end frame.

SST: 09950-60010

09951-00250

SST: 09950-70010

09951-07100



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002197006X
Title: 2ZR-FE BATTERY / CHARGING: GENERATOR: REMOVAL (2010 Corolla)		

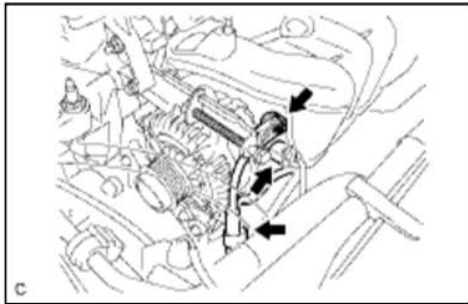
REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE ENGINE UNDER COVER RH

3. REMOVE V-RIBBED BELT 

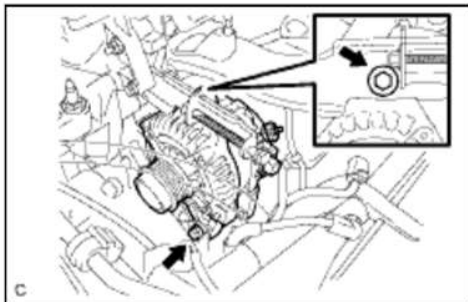
4. REMOVE GENERATOR ASSEMBLY



(a) Remove the terminal cap.

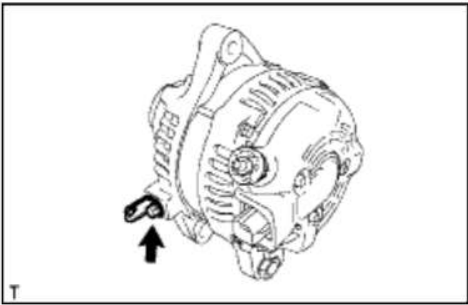
(b) Remove the nut and disconnect the wire harness from terminal B.

(c) Disconnect the connector and harness clamp.



(d) Remove the 2 bolts and generator assembly.

(e) Remove the bolt and wire harness clamp bracket.

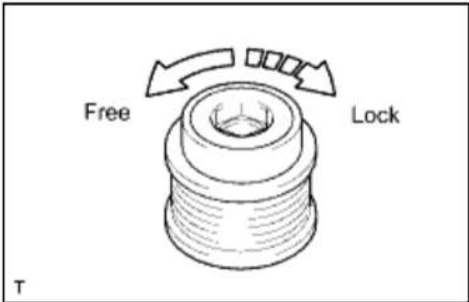


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Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001ONN022X
Title: 2ZR-FE BATTERY / CHARGING: GENERATOR: INSPECTION (2010 Corolla)		

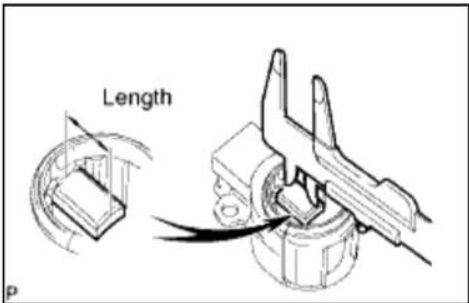
INSPECTION

1. INSPECT GENERATOR CLUTCH PULLEY



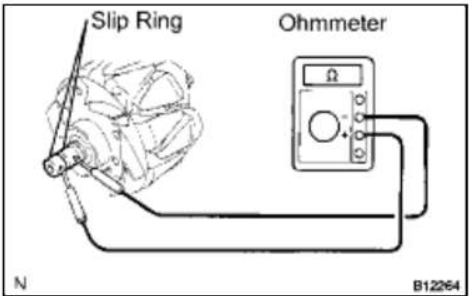
- (a) Hold the center of the pulley, and confirm that the outer ring turns counterclockwise and does not turn clockwise.
If the result is not as specified, replace the clutch pulley.

2. INSPECT GENERATOR BRUSH HOLDER ASSEMBLY



- (a) Using a vernier caliper, measure the length of the exposed brushes.
Standard exposed length:
9.5 to 11.5 mm (0.374 to 0.453 in.)
Minimum exposed length:
4.5 mm (0.177 in.)
If the exposed length is less than the minimum, replace the brush holder assembly.

3. INSPECT GENERATOR ROTOR ASSEMBLY



- (a) Check the generator rotor for an open circuit.
(1) Using an ohmmeter, measure the resistance between the slip rings.
Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Slip ring - Slip ring	Approx. 20°C (68°F)	2.3 to 2.7 Ω

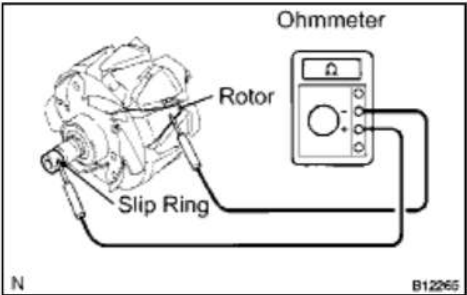
If the result is not as specified, replace the generator

rotor assembly.

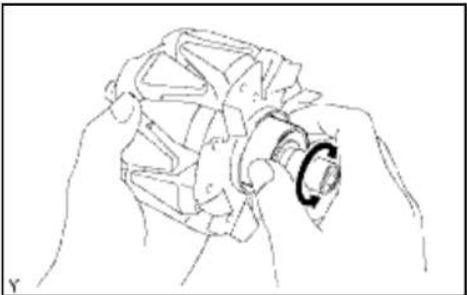
- (b) Check the rotor for a short to ground.
(1) Using an ohmmeter, measure the resistance between one of the slip rings and the rotor.

Standard Resistance:

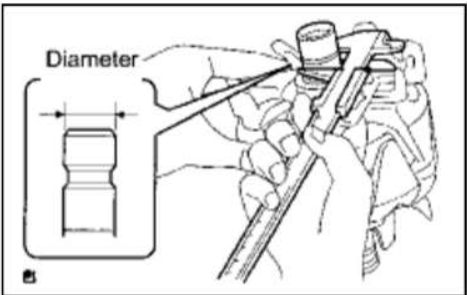
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Slip ring - Rotor	-	1 MΩ or higher



If the result is not as specified, replace the generator rotor assembly.



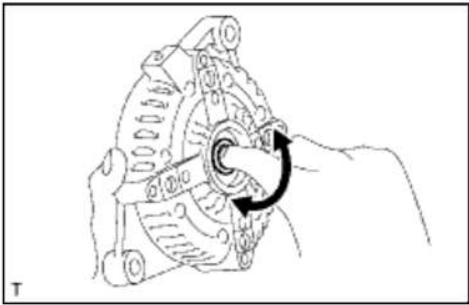
- (c) Check that the generator rotor bearing is not rough or worn.
If necessary, replace the generator rotor assembly.



- (d) Using a vernier caliper, measure the slip ring diameter.
Standard diameter:
14.2 to 14.4 mm (0.559 to 0.567 in.)
Minimum diameter:
14.0 mm (0.551 in.)
If the diameter is less than the minimum, replace the generator rotor assembly.

4. INSPECT GENERATOR DRIVE END FRAME BEARING

- (a) Check that the bearing is not rough or worn.
If necessary, replace the generator drive end frame bearing.

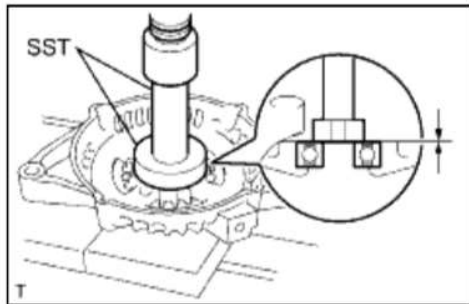


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Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001ONR026X
Title: 2ZR-FE BATTERY / CHARGING: GENERATOR: REASSEMBLY (2010 Corolla)		

REASSEMBLY

1. INSTALL GENERATOR DRIVE END FRAME BEARING



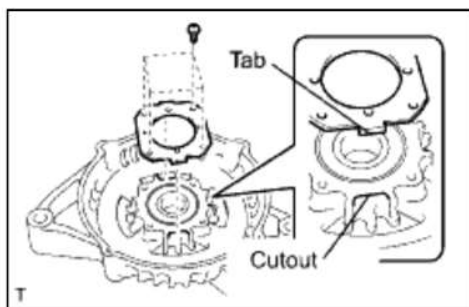
(a) Using SST and a press, press in a new generator drive end frame bearing.

SST: 09950-60010

09951-00470

SST: 09950-70010

09951-07100



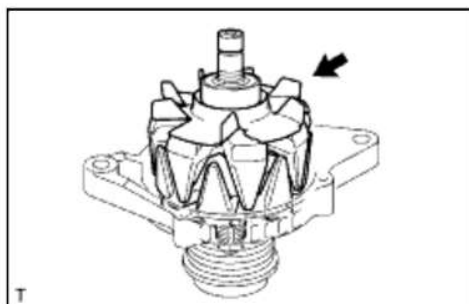
(b) Fit the tabs of the retainer plate into the cutouts on the drive end frame to install the retainer plate.

(c) Install the 4 screws.

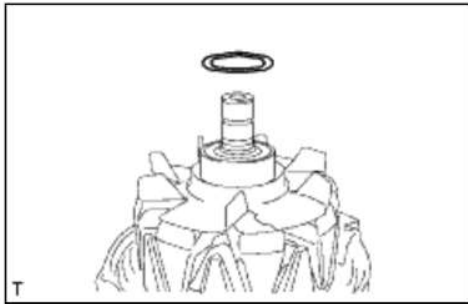
Torque: 2.3 N·m (23 kgf·cm, 20in·lbf)

2. INSTALL GENERATOR ROTOR ASSEMBLY

(a) Place the drive end frame on the clutch pulley.

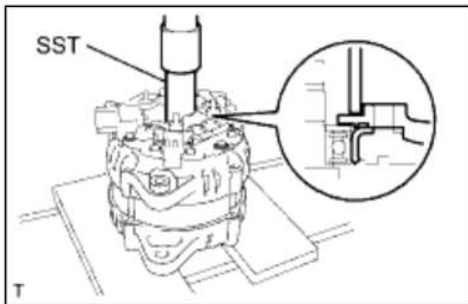


(b) Install the generator rotor assembly to the drive end frame.



(c) Place the generator washer on the generator rotor.

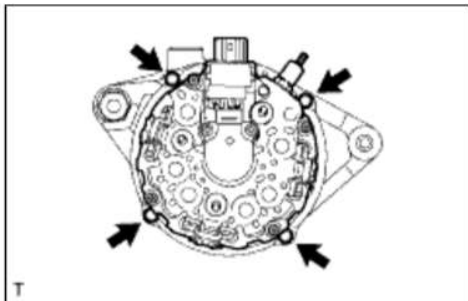
3. INSTALL GENERATOR COIL ASSEMBLY



(a) Using SST and a press, slowly press in the generator coil assembly.

SST: 09612-70100

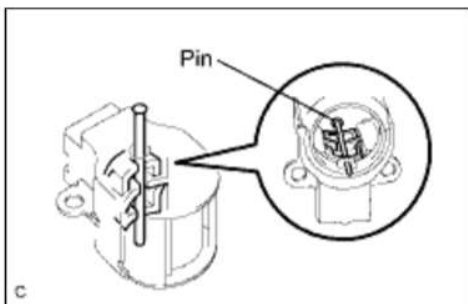
09612-07240



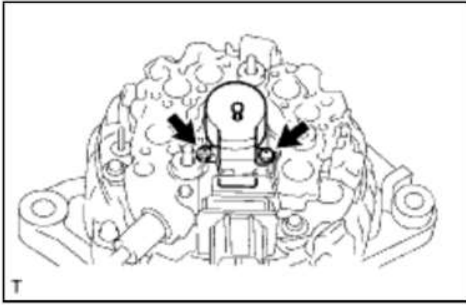
(b) Install the 4 bolts.

Torque: 5.8 N·m (59 kgf·cm, 51in·lbf)

4. INSTALL GENERATOR BRUSH HOLDER ASSEMBLY

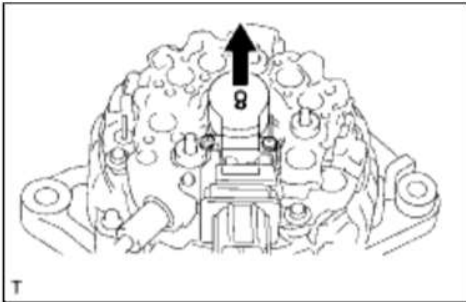


(a) While pushing the 2 brushes into the generator brush holder assembly, insert a $\phi 1.0$ mm (0.0394 in.) pin into the brush holder hole.



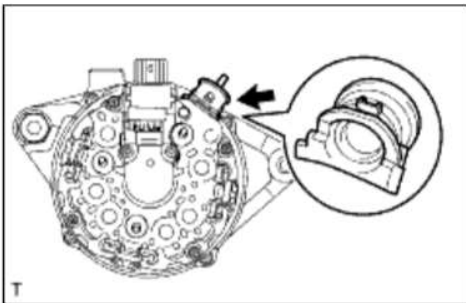
(b) Install the brush holder assembly to the generator coil with the 2 screws.

Torque: 1.8 N·m (18 kgf·cm, 16in·lbf)



(c) Pull out the pin from the generator brush holder.

5. INSTALL GENERATOR TERMINAL INSULATOR

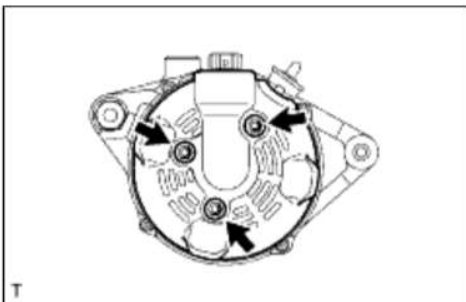


(a) Install the terminal insulator to the generator coil.

NOTICE:

Pay attention to the installation direction of the terminal insulator as shown in the illustration.

6. INSTALL GENERATOR REAR END COVER

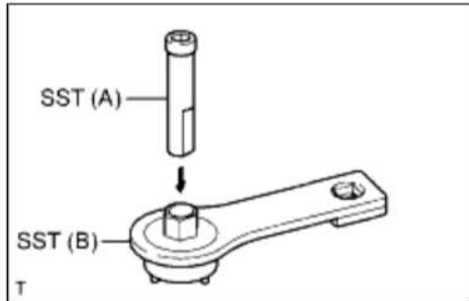


(a) Install the generator rear end cover to the generator coil with the 3 nuts.

Torque: 4.6 N·m (47 kgf·cm, 41in·lbf)

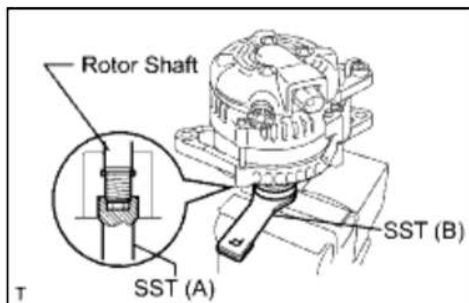
7. INSTALL GENERATOR CLUTCH PULLEY

(a) Temporarily install the clutch pulley onto the rotor shaft.



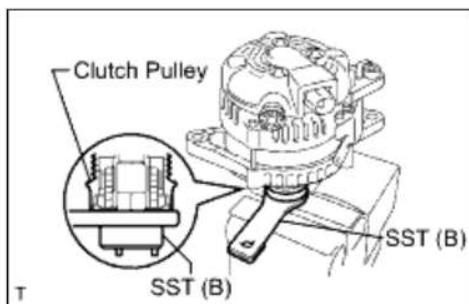
(b) Set SST (A) and (B).

SST: 09820-63021



(c) Clamp SST (A) in a vise.

(d) Place the rotor shaft end into SST (A).



(e) Fit SST (B) to the clutch pulley.

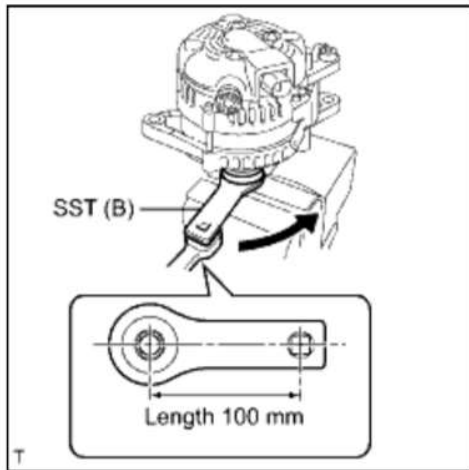
(f) Tighten the pulley by turning SST (B) in the direction shown in the illustration.

without SST - Torque: 111 N·m (1127 kgf·cm, 82ft·lbf)

with SST - Torque: 84 N·m (857 kgf·cm, 62ft·lbf)

NOTICE:

- Use a torque wrench with a fulcrum length of 318 mm (12.52 in.).



- This torque value is effective when SST is parallel to the torque wrench.

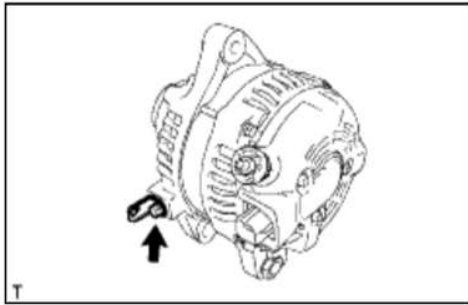
- (g) Remove the generator assembly from SST.
- (h) Check that the clutch pulley rotates smoothly.
- (i) Install a new clutch pulley cap to the clutch pulley.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002194006X
Title: 2ZR-FE BATTERY / CHARGING: GENERATOR: INSTALLATION (2010 Corolla)		

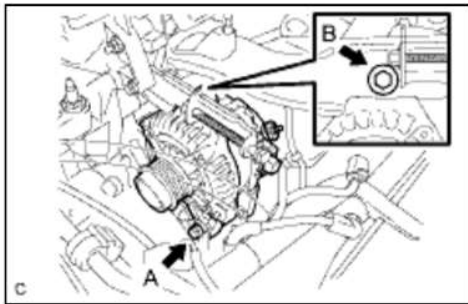
INSTALLATION

1. INSTALL GENERATOR ASSEMBLY



(a) Install the wire harness clamp bracket with the bolt.

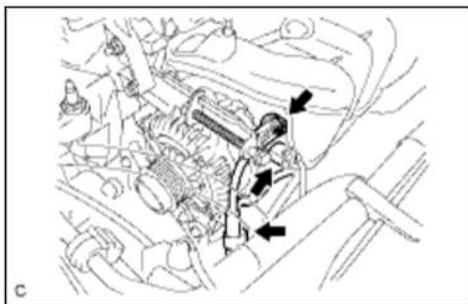
Torque: 8.4 N·m (86 kgf·cm, 74in·lbf)



(b) Temporarily install the generator assembly with the 2 bolts.

Bolt A - Torque: 43 N·m (438 kgf·cm, 32ft·lbf)

Bolt B - Torque: 19 N·m (190 kgf·cm, 14ft·lbf)



(c) Install the connector and wire harness clamp.

(d) Install the wire harness to terminal B with the nut and install the terminal cap.

Torque: 9.8 N·m (100 kgf·cm, 87in·lbf)

2. INSTALL V-RIBBED BELT INFO

3. ADJUST V-RIBBED BELT INFO

4. INSPECT V-RIBBED BELTINFO**5. INSTALL ENGINE UNDER COVER RH**

Torque: 5.0 N·m (51 kgf·cm, 44in·lbf)

6. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**HINT:**INFO

.

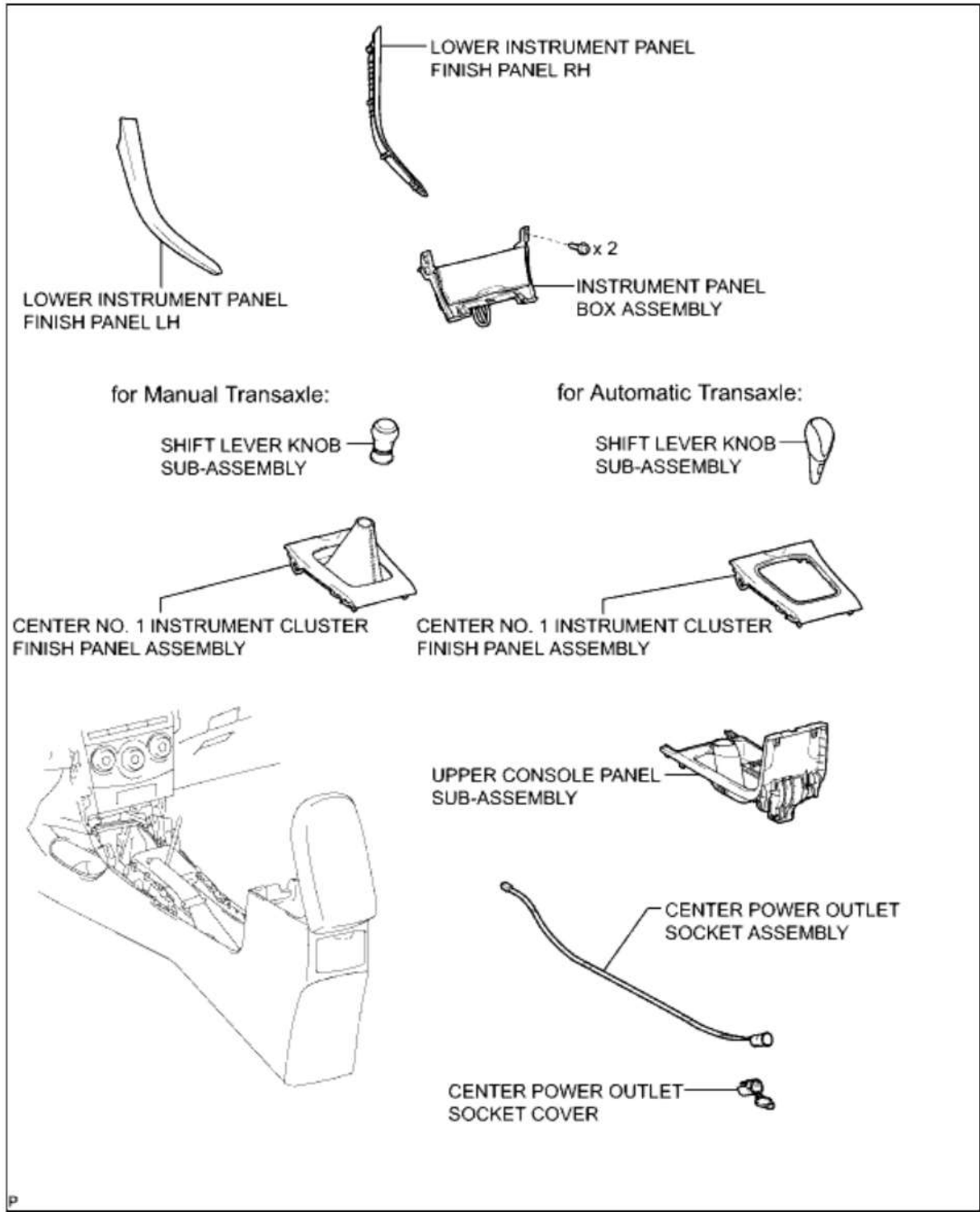


TOYOTA

Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003FWA003X
Title: POWER OUTLETS (INT): CENTER POWER OUTLET SOCKET: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



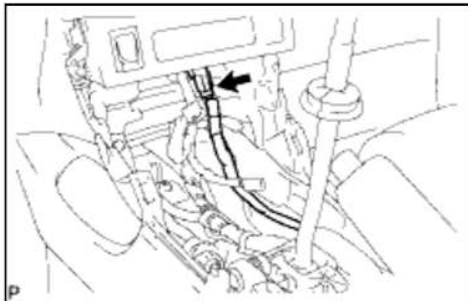


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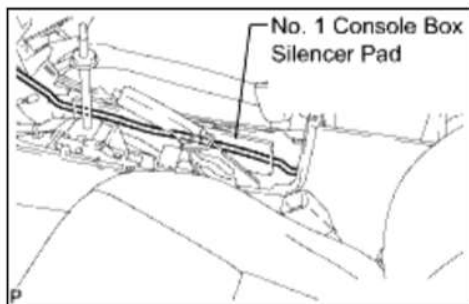
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003FWB003X
Title: POWER OUTLETS (INT): CENTER POWER OUTLET SOCKET: REMOVAL (2010 Corolla)		

REMOVAL

1. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL LH INFO
2. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL RH INFO
3. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) INFO
4. REMOVE CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Manual Transaxle) INFO
5. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) INFO
6. REMOVE CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Automatic Transaxle) INFO
7. REMOVE INSTRUMENT PANEL BOX ASSEMBLY INFO
8. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY INFO
9. REMOVE CENTER POWER OUTLET SOCKET ASSEMBLY



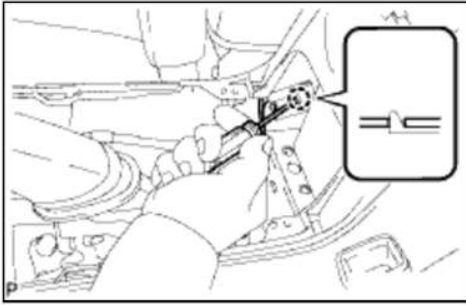
(a) Disconnect the connector.



(b) Separate part of the No. 1 console box silencer pad to allow the wire harness to be removed.

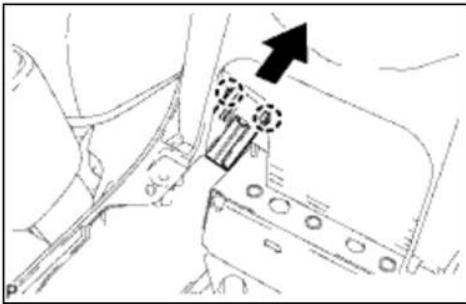
HINT:

The separated part of the No. 1 console box silencer pad will be reattached during installation.



(c) Using a screwdriver, disengage the claw and remove the center power outlet socket assembly.

10. REMOVE CENTER POWER OUTLET SOCKET COVER



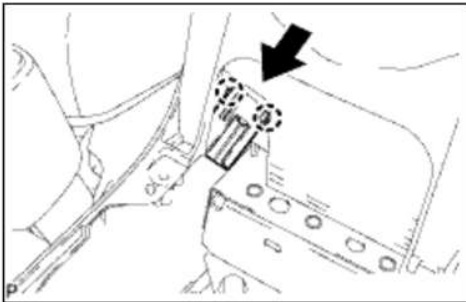
(a) Disengage the 2 claws and remove the center power outlet socket cover.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003FW9003X
Title: POWER OUTLETS (INT): CENTER POWER OUTLET SOCKET: INSTALLATION (2010 Corolla)		

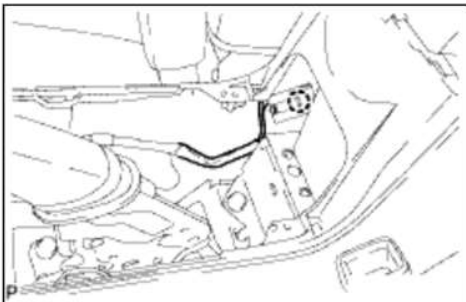
INSTALLATION

1. INSTALL CENTER POWER OUTLET SOCKET COVER

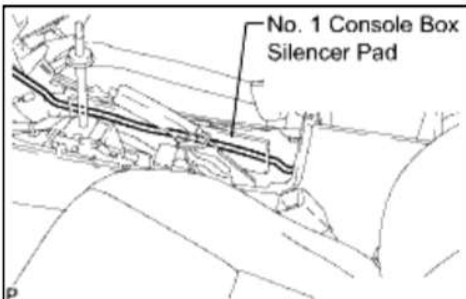


- (a) Engage the 2 claws and install the center power outlet socket cover.

2. INSTALL CENTER POWER OUTLET SOCKET ASSEMBLY

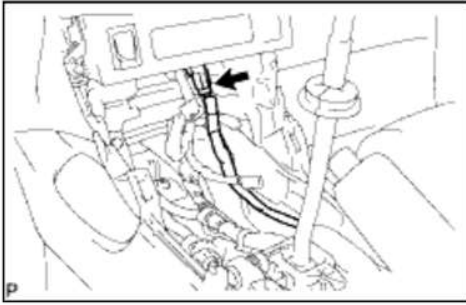


- (a) Engage the claw and install the center power outlet socket assembly.



- (b) Attach the No. 1 console box silencer pad to secure the wire harness.

- (c) Connect the connector.



3. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY

[INFO](#)

4. INSTALL INSTRUMENT PANEL BOX ASSEMBLY

[INFO](#)

5. INSTALL CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Manual Transaxle)

[INFO](#)

6. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle)

[INFO](#)

7. INSTALL CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Automatic Transaxle)

[INFO](#)

8. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle)

[INFO](#)

9. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH

[INFO](#)

10. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL RH

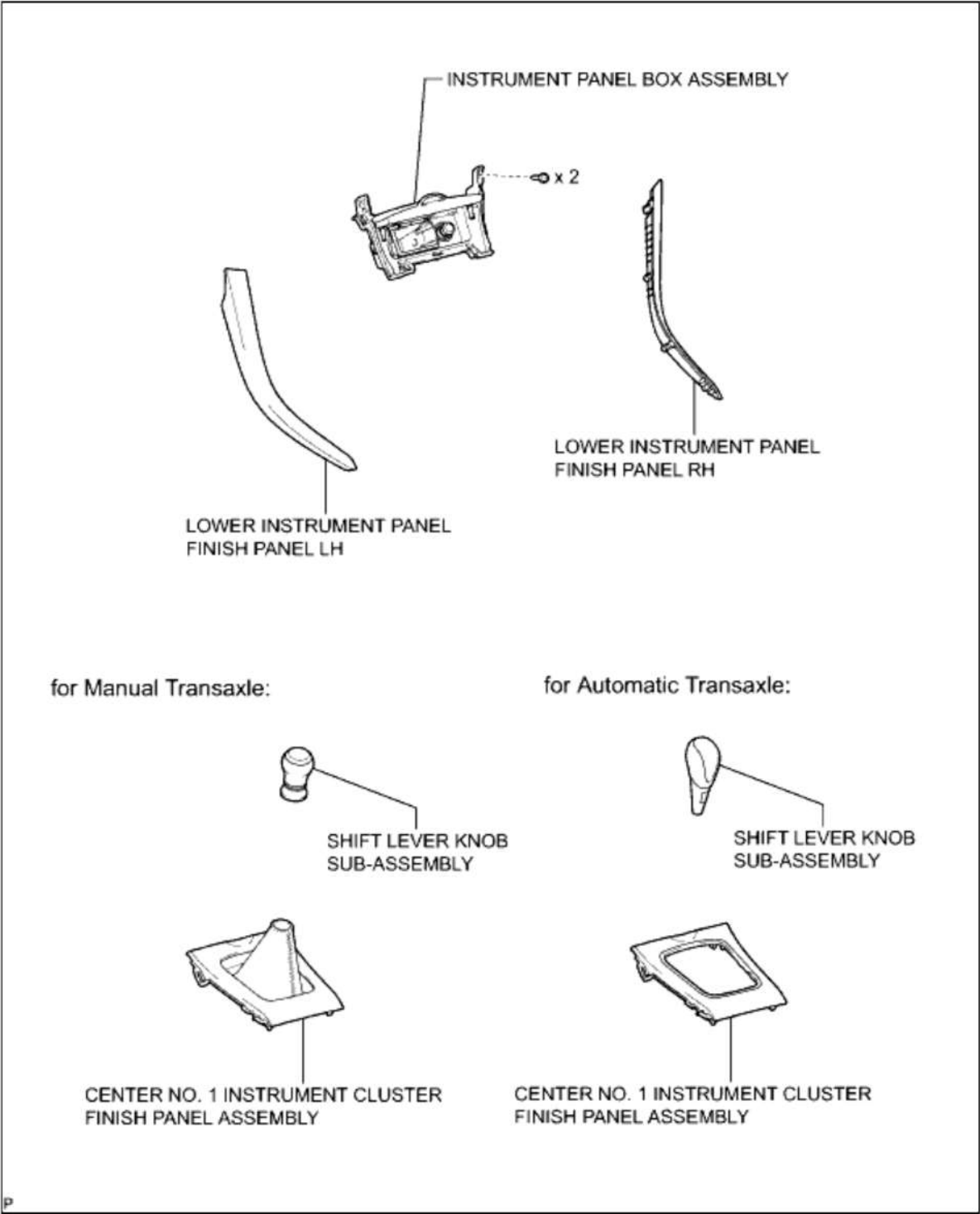
[INFO](#)



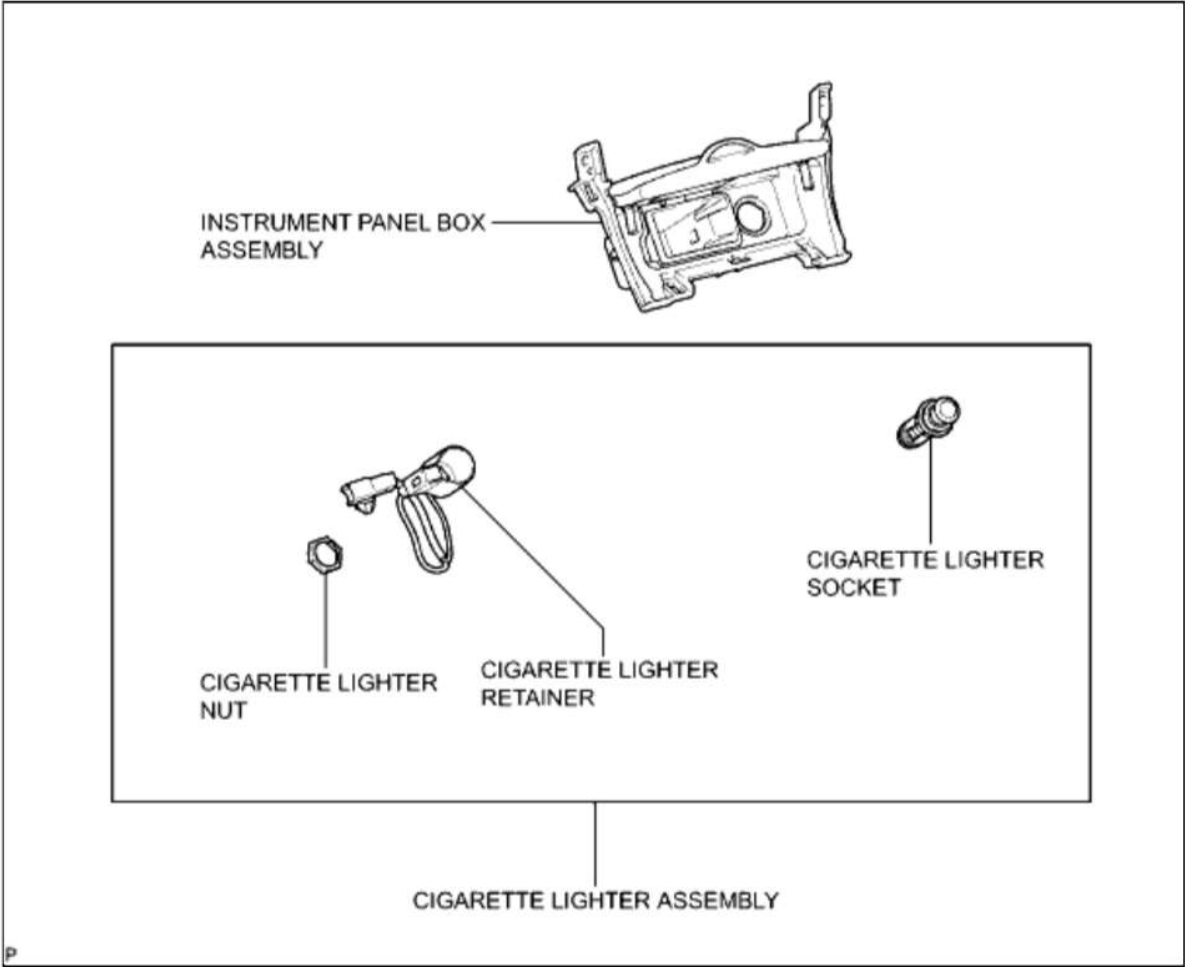
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003FW4001X
Title: POWER OUTLETS (INT): CIGARETTE LIGHTER: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



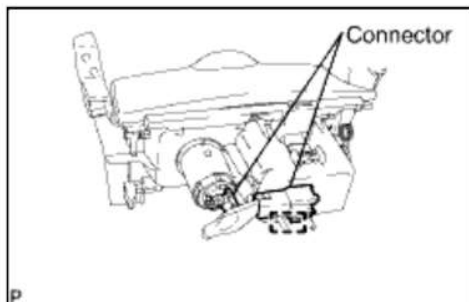
ILLUSTRATION



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003AVG00CX
Title: POWER OUTLETS (INT): CIGARETTE LIGHTER: REMOVAL (2010 Corolla)		

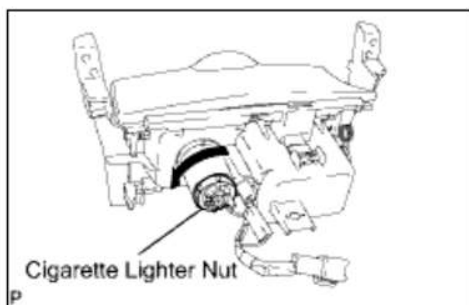
REMOVAL

1. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL LH [INFO](#)
2. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL RH [INFO](#)
3. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) [INFO](#)
4. REMOVE CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Manual Transaxle) [INFO](#)
5. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) [INFO](#)
6. REMOVE CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Automatic Transaxle) [INFO](#)
7. REMOVE INSTRUMENT PANEL BOX ASSEMBLY [INFO](#)
8. REMOVE CIGARETTE LIGHTER ASSEMBLY

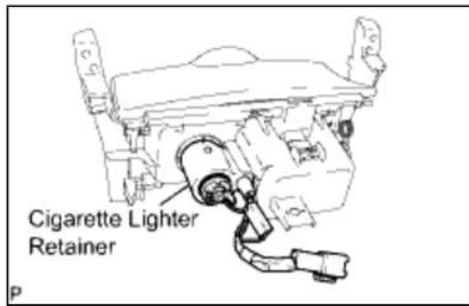


(a) Disconnect the connector.

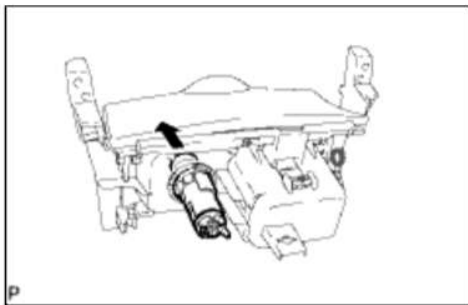
(b) Disengage the clamp and disconnect the connector.



(c) Turn the cigarette lighter nut to remove it.



(d) Remove the cigarette lighter retainer.



(e) Remove the cigarette lighter socket.

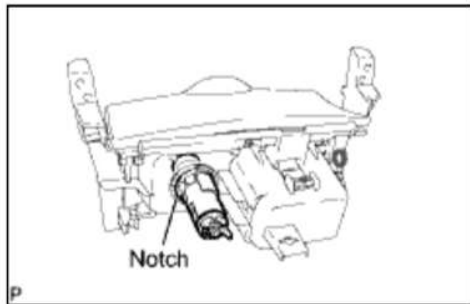


TOYOTA

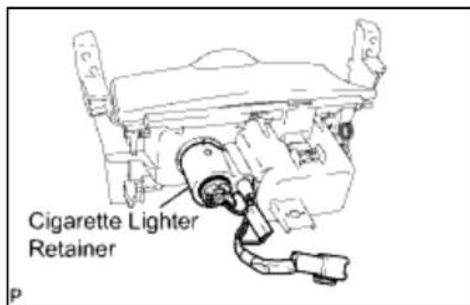
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003AVE00CX
Title: POWER OUTLETS (INT): CIGARETTE LIGHTER: INSTALLATION (2010 Corolla)		

INSTALLATION

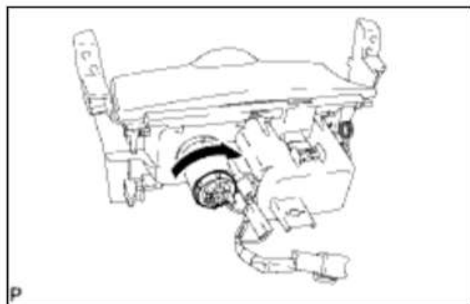
1. INSTALL CIGARETTE LIGHTER ASSEMBLY



(a) Align the cigarette lighter socket with the notch on the instrument panel box assembly, then install it.

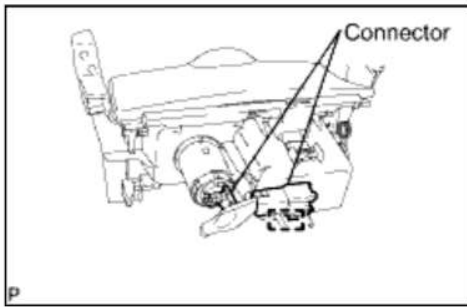


(b) Install the cigarette lighter retainer.



(c) Turn the cigarette lighter nut to install it.

(d) Engage the clamp and connect the connector.



(e) Connect the connector.

2. INSTALL INSTRUMENT PANEL BOX ASSEMBLY

INFO

3. INSTALL CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Manual Transaxle)

INFO

4. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle)

INFO

5. INSTALL CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Automatic Transaxle)

INFO

6. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle)

INFO

7. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH

INFO

8. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL RH

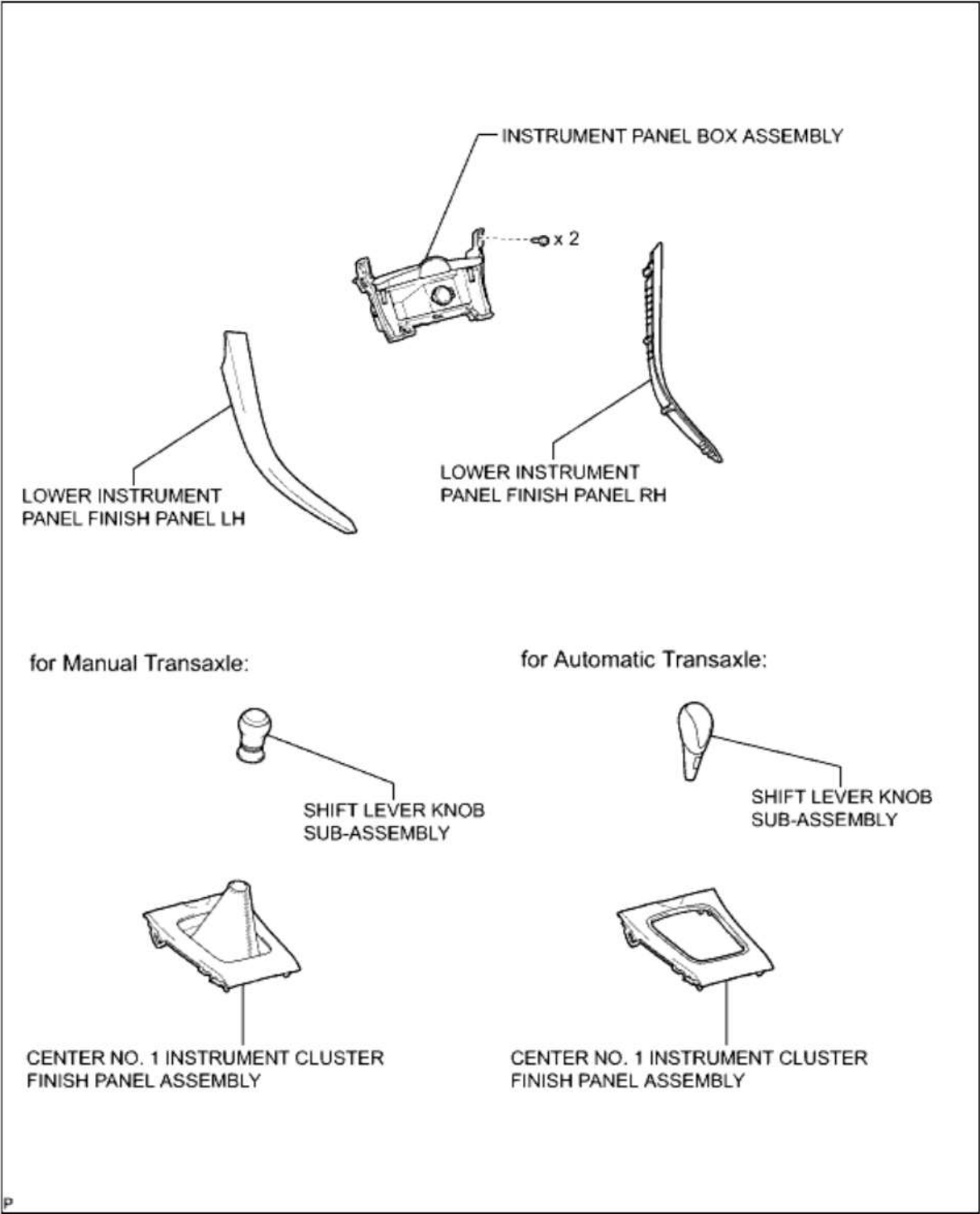
INFO



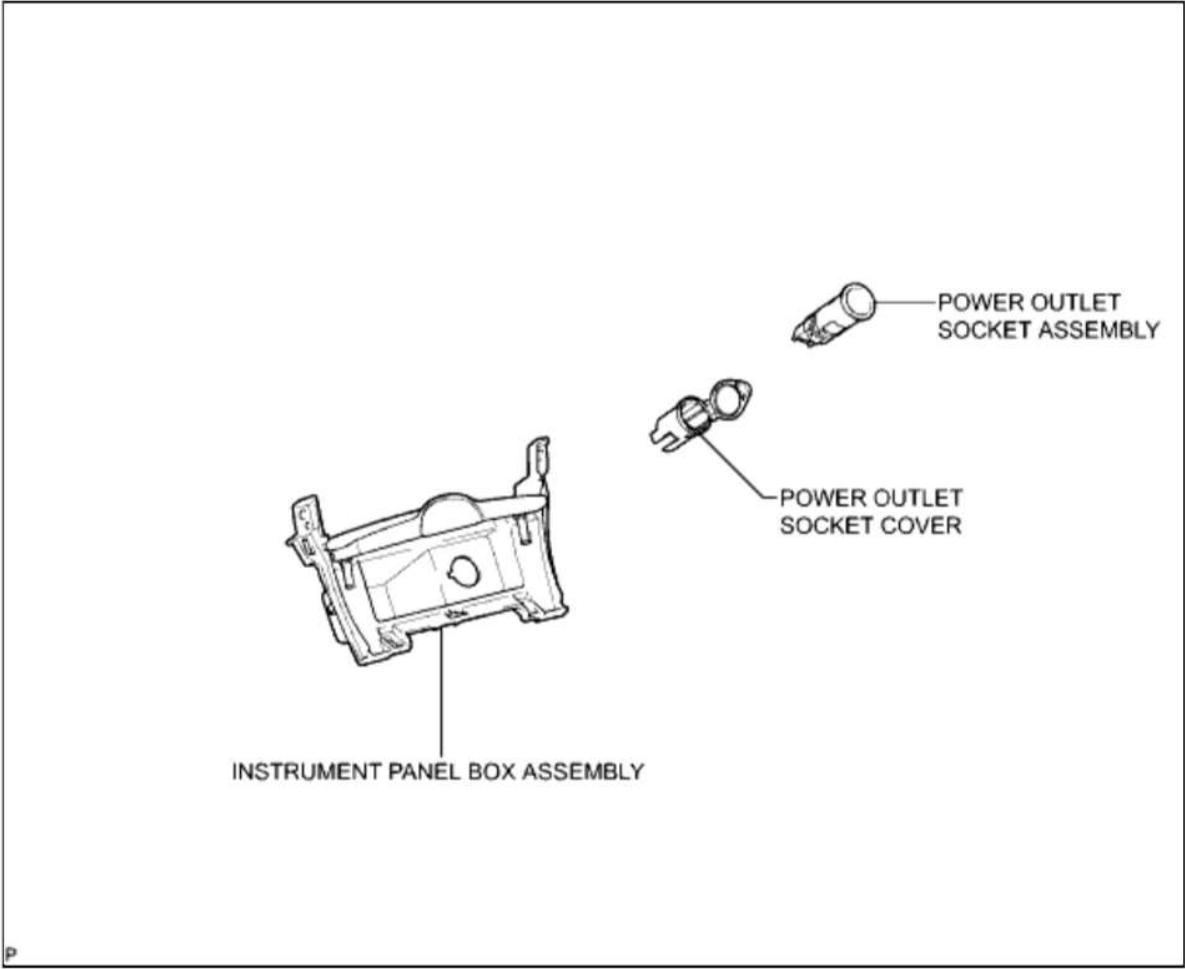
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003FW7002X
Title: POWER OUTLETS (INT): POWER OUTLET SOCKET: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



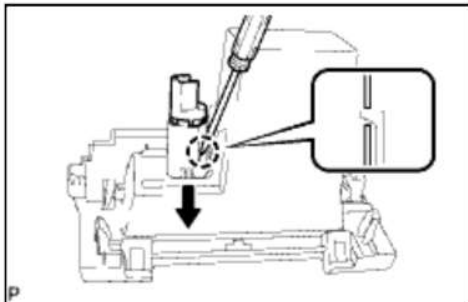
ILLUSTRATION



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003FW8002X
Title: POWER OUTLETS (INT): POWER OUTLET SOCKET: REMOVAL (2010 Corolla)		

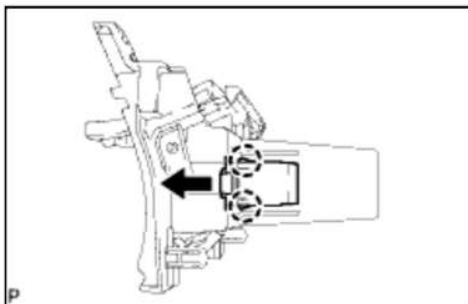
REMOVAL

1. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL LH INFO
2. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL RH INFO
3. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) INFO
4. REMOVE CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Manual Transaxle) INFO
5. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) INFO
6. REMOVE CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Automatic Transaxle) INFO
7. REMOVE INSTRUMENT PANEL BOX ASSEMBLY INFO
8. REMOVE POWER OUTLET SOCKET ASSEMBLY



(a) Using a screwdriver, disengage the claw and remove the power outlet socket assembly.

9. REMOVE POWER OUTLET SOCKET COVER



(a) Disengage the 2 claws and remove the power outlet socket cover.

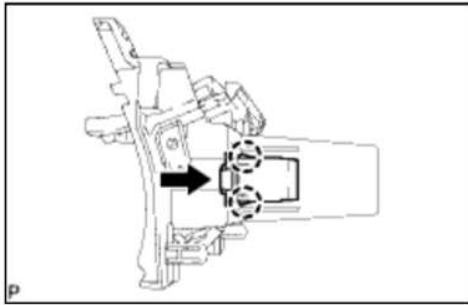


TOYOTA

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003FW6002X
Title: POWER OUTLETS (INT): POWER OUTLET SOCKET: INSTALLATION (2010 Corolla)		

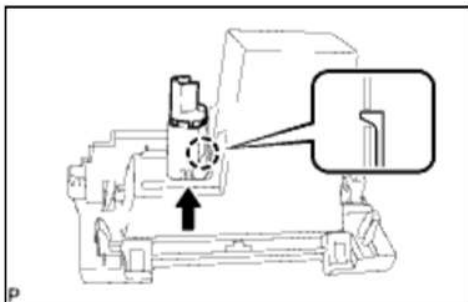
INSTALLATION

1. INSTALL POWER OUTLET SOCKET COVER



(a) Engage the 2 claws and install the power outlet socket cover.

2. INSTALL POWER OUTLET SOCKET ASSEMBLY



(a) Engage the claw and install the power outlet socket assembly.

3. INSTALL INSTRUMENT PANEL BOX ASSEMBLY [INFO](#)

4. INSTALL CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Manual Transaxle) [INFO](#)

5. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) [INFO](#)

6. INSTALL CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Automatic Transaxle) [INFO](#)

7. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) [INFO](#)

8. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH [INFO](#)

9. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL RH [INFO](#)

