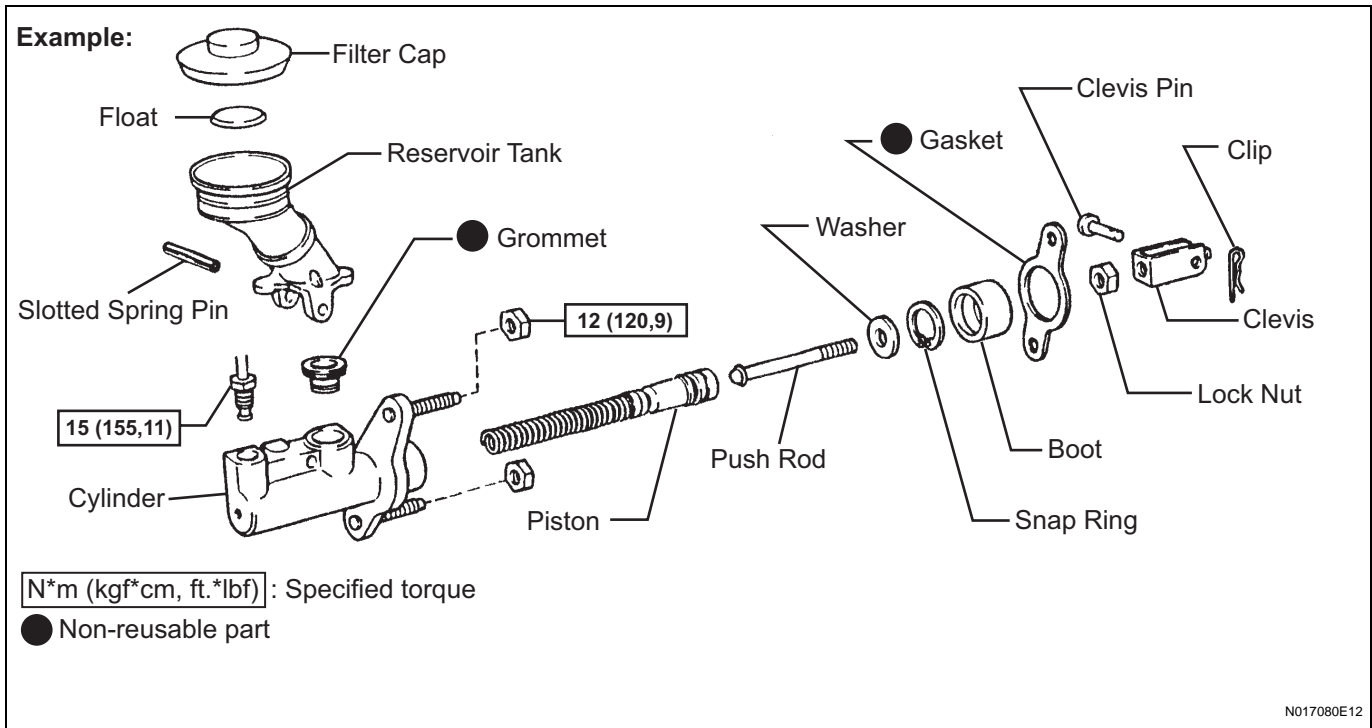


- (b) Non-reusable parts, grease application areas, precoated parts and torque specifications are noted in the component illustrations. Following illustration is example



- (c) Torque specifications, grease application areas and non-reusable parts are emphasized in the procedures.

**HINT:**

There are cases where such information can only be explained by using an illustration. In these cases, torque, oil and other information are described in the illustration.

- (d) Only items with key points are described in the text. What to do and other details are explained using illustrations next to the text. Both the text and illustrations are accompanied by standard values and notices.

Illustration	What to do and where to do
Task heading	What work will be performed
Explanation text	How to perform the task Also has information such as specifications and warnings, which are written in boldface text

- (e) Illustrations of similar vehicle models are sometimes used. In these cases, minor details may be different from the actual vehicle.
- (f) Procedures are presented in a step-by-step format.

**5. SERVICE SPECIFICATIONS**

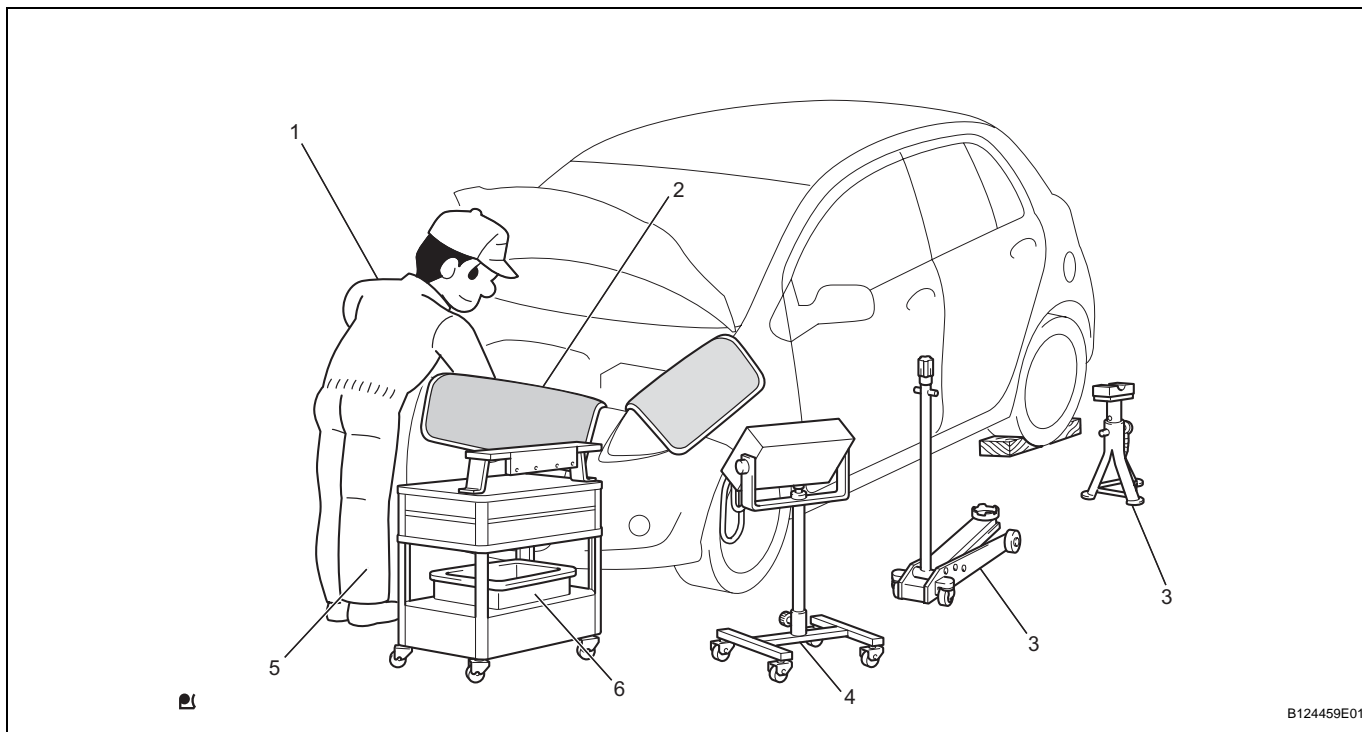
- (a) SPECIFICATIONS are presented in boldface text throughout the manual. The specifications are also found in the "Service Specifications" section for reference.

# REPAIR INSTRUCTION

## PRECAUTION

### 1. BASIC REPAIR HINT

#### (a) HINTS ON OPERATIONS



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1	Attire	<ul style="list-style-type: none"> <li>Always wear a clean uniform.</li> <li>Hat and safety shoes must be worn.</li> </ul>
2	Vehicle protection	Prepare a grille cover, fender cover, seat cover and floor mat before starting the operation.
3	Safe operation	<ul style="list-style-type: none"> <li>When working with 2 or more persons, be sure to check safety for one another.</li> <li>When working with the engine running, make sure to provide ventilation for exhaust fumes in the workshop.</li> <li>If working on high temperature, high pressure, rotating, moving, or vibrating parts, wear appropriate safety equipment and take extra care not to injure yourself or others.</li> <li>When jacking up the vehicle, be sure to support the specified location with a safety stand.</li> <li>When lifting up the vehicle, use appropriate safety equipment.</li> </ul>
4	Preparation of tools and measuring gauge	Before starting operation, prepare a tool stand, SST, gauge, oil and parts for replacement.
5	Removal and installation, disassembly and assembly operations	<ul style="list-style-type: none"> <li>Diagnose with a thorough understanding of proper procedures and of the reported problem.</li> <li>Before removing the parts, check the general condition of the assembly and for deformation and damage.</li> <li>When the assembly is complicated, take notes. For example, note the total number of electrical connections, bolts, or hoses removed. Add matchmarks to insure reassembly of components in the original positions. Temporarily mark hoses and their fittings if needed.</li> <li>Clean and wash the removed parts if necessary and assemble them after a thorough check.</li> </ul>
6	Removed parts	<ul style="list-style-type: none"> <li>Place the removed parts in a separate box to avoid mixing them up with the new parts or contaminating the new parts.</li> <li>For non-reusable parts such as gaskets, O-rings, and self-locking nuts, replace them with new ones as instructed in this manual.</li> <li>Retain the removed parts for customer inspection, if requested.</li> </ul>

## HOW TO PROCEED WITH TROUBLESHOOTING

### HINT:

In accordance with the following procedures, troubleshoot the audio and visual system.

### 1 VEHICLE BROUGHT TO WORKSHOP

NEXT

### 2 INSPECT BATTERY VOLTAGE

**Standard voltage:  
11 to 14 V**

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

NEXT

### 3 BASIC INSPECTION

- (a) Turn the ignition switch to ACC.
- (b) Check whether the display appears on the radio receiver.

Result	Proceed to
Display appears	A
Display does not appear	B

B

**PROCEED TO PROBLEM SYMPTOMS TABLE**

A

### 4 PROBLEM SYMPTOMS TABLE

Result	Proceed to
Fault not listed in problem symptoms table	A
Fault listed in problem symptoms table	B

B

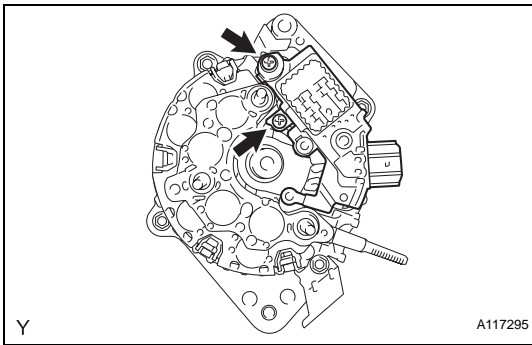
**Go to step 6**

A

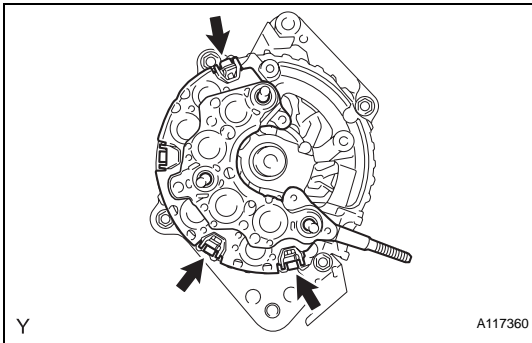
### 5 OVERALL ANALYSIS AND TROUBLESHOOTING

- (a) Terminals of ECU (See page [AV-14](#))
- (b) Inspection (See page [AV-159](#), [AV-172](#))

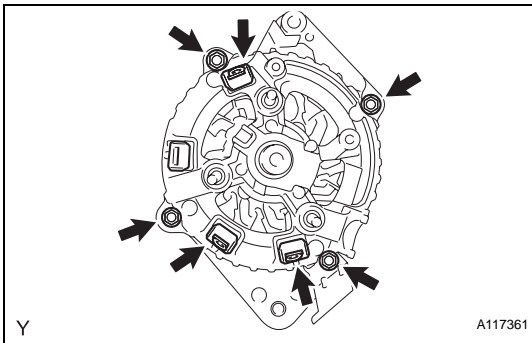
NEXT



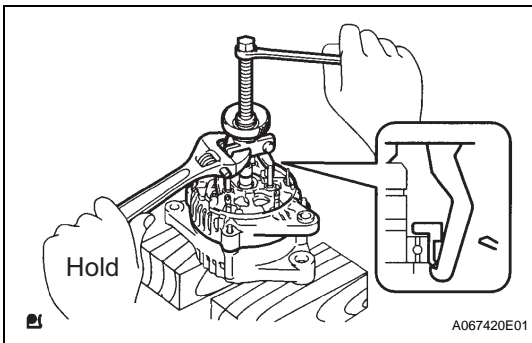
- 3. REMOVE GENERATOR REGULATOR ASSEMBLY**  
 (a) Remove the 2 screws and the generator regulator assembly.



- 4. REMOVE GENERATOR HOLDER WITH RECTIFIER**  
 (a) Remove the 3 screws and the generator holder with rectifier.



- 5. REMOVE GENERATOR ROTOR ASSEMBLY**  
 (a) Remove the 3 terminal insulators from the generator rectifier end frame.  
 (b) Remove the 4 nuts and the cord clip.



- (c) Using SST, remove the generator rectifier end frame.  
**SST 09286-46011**  
 (d) Remove the plate retainer.  
 (e) Remove the generator rotor assembly from the generator drive end frame.

**NOTICE:**

**Do not drop the generator rotor assembly.**

**HINT:**

If the generator rotor is engaged too firmly, gently tap the generator rotor shaft to remove it using a plastic hammer.

## MONITOR DESCRIPTION

The ECM illuminates the MIL and sets a DTC when either of the following conditions, which could cause emission deterioration, is detected (2 trip detection logic).

- Within the first 1,000 crankshaft revolutions of the engine starting, an excessive misfiring rate (approximately 20 to 50 misfires per 1,000 crankshaft revolutions) occurs once.
- After the first 1,000 crankshaft revolutions, an excessive misfiring rate (approximately 20 to 50 misfires per 1,000 crankshaft revolutions) occurs 4 times in sequential crankshaft revolutions.

The ECM flashes the MIL and sets a DTC when either of the following conditions, which could cause Three-Way Catalytic Converter (TWC) damage, is detected (2 trip detection logic).

- In every 200 crankshaft revolutions at a high engine rpm, the threshold misfiring percentage is recorded once.
- In every 200 crankshaft revolutions at a normal engine rpm, the threshold misfiring percentage is recorded 3 times.

ES

## MONITOR STRATEGY

Related DTCs	P0300: Multiple cylinder misfire P0301: Cylinder 1 misfire P0302: Cylinder 2 misfire P0303: Cylinder 3 misfire P0304: Cylinder 4 misfire
Required Sensors/Components (Main)	Crankshaft position sensor and Camshaft position sensor
Required Sensors/Components (Related)	Engine coolant temperature and intake air temperature sensors and Mass air flow meter
Frequency of Operation	Continuous
Duration	1,000 to 4,000 crankshaft revolutions: Emission related misfire 200 to 600 crankshaft revolutions: Catalyst damaged misfire
MIL Operation	2 driving cycles: Emission related misfire MIL flashes immediately: Catalyst damaged misfire
Sequence of Operation	None

## TYPICAL ENABLING CONDITIONS

### Misfire:

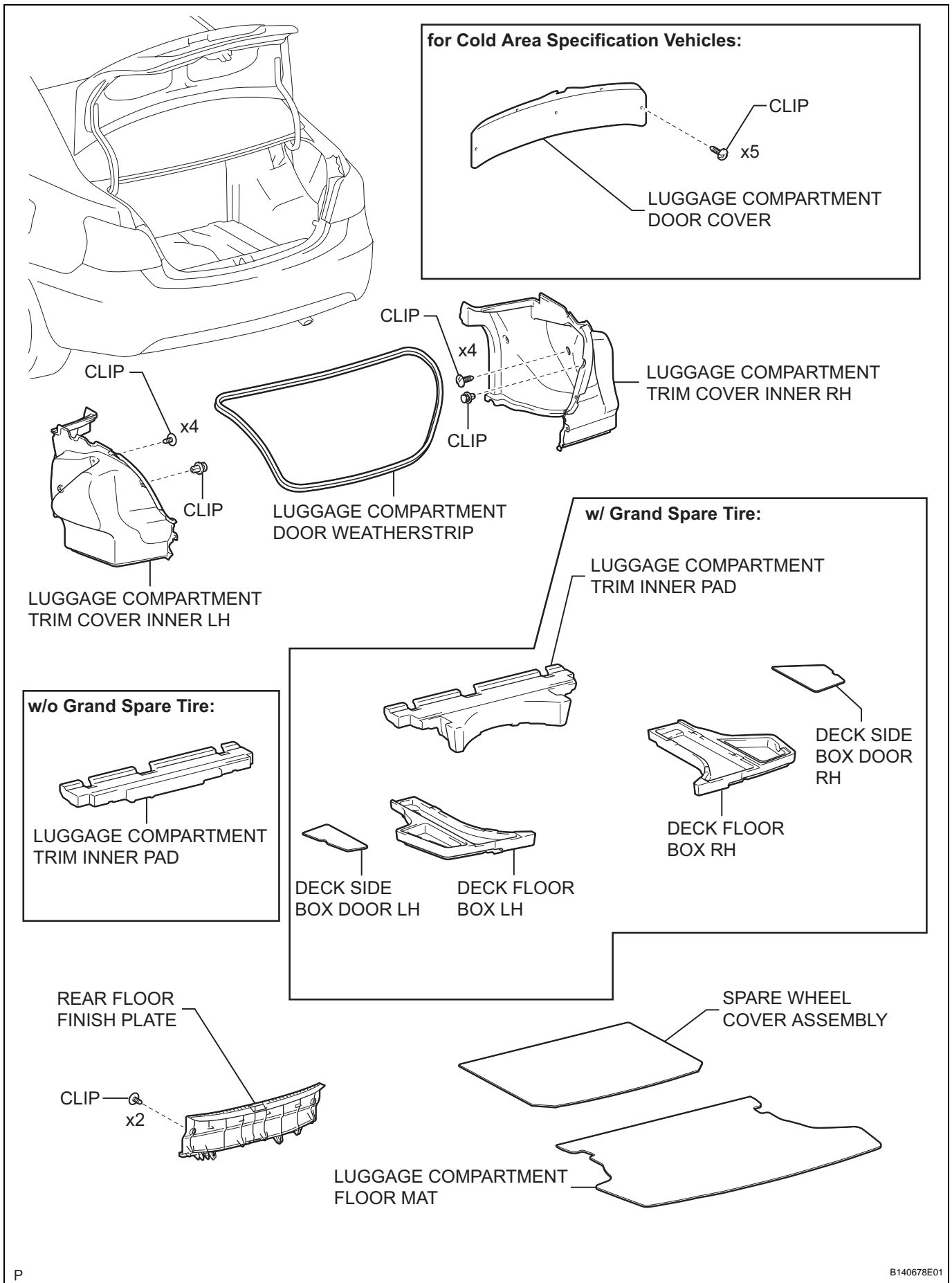
Monitor runs whenever following DTCs not present	P0100 - P0103 (MAF meter) P0110 - P0113 (IAT sensor) P0115 - P0118 (ECT sensor) P0120 - P0223, P2135 (TP sensor) P0125 (Insufficient ECT for Closed Loop) P0327, P0328 (Knock sensor) P0335 (CKP sensor) P0340 (CMP sensor) P0500 (VSS)
Battery voltage	8 V or more
VVT system	Not operated by scan tool
Engine RPM	450 to 6,600 rpm
Either of following conditions (a) or (b) met	-
(a) ECT at engine start	More than -7°C (19°F)
(b) ECT	More than 20°C (68°F)
Fuel cut	OFF

### Monitor period of emission-related-misfire:

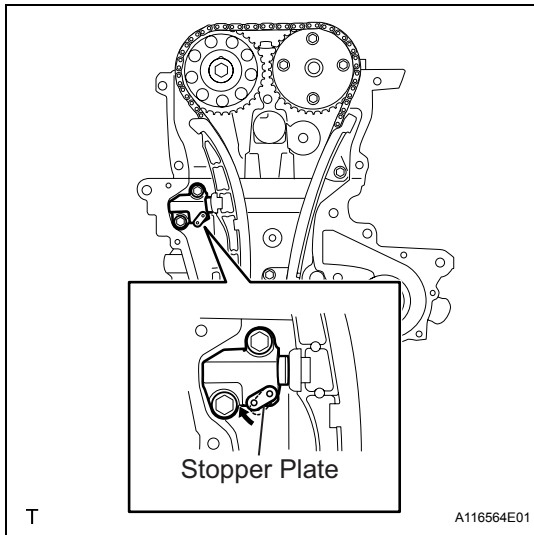
First 1,000 revolutions after engine start, or Check Mode	Crankshaft 1,000 revolutions
Except above	Crankshaft 1,000 revolutions x 4

### Monitor period of catalyst-damaged-misfire (MIL blinks):

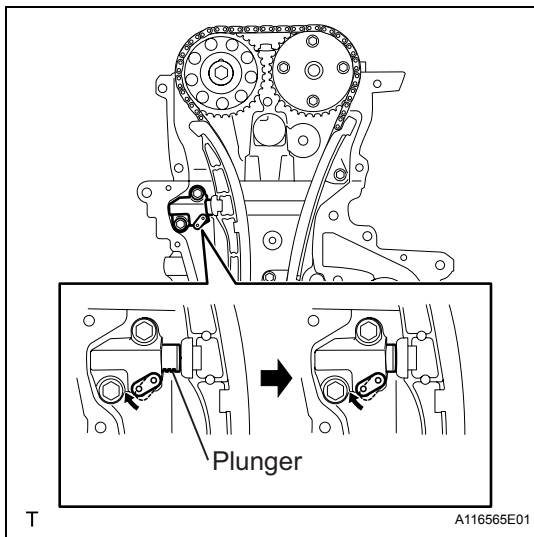
All of following conditions 1, 2 and 3 met	Crankshaft 200 revolutions x 3
1. Driving cycles	1st



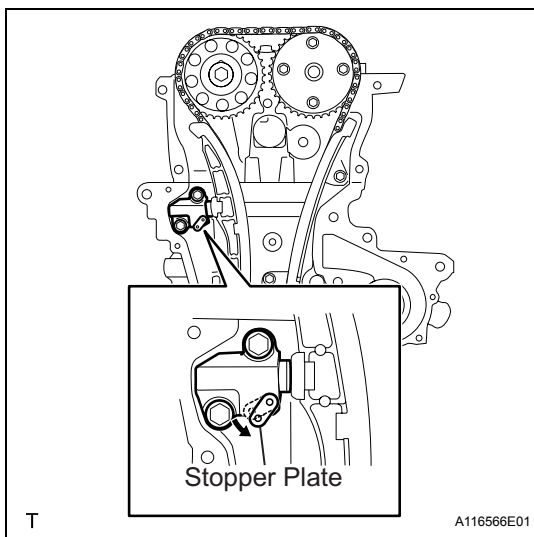
ED



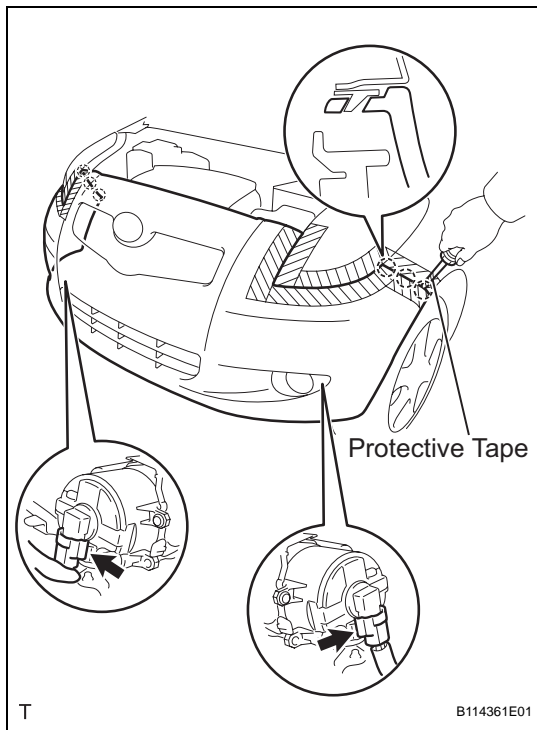
- (a) Pull up the stopper plate and hold it with its lock released.



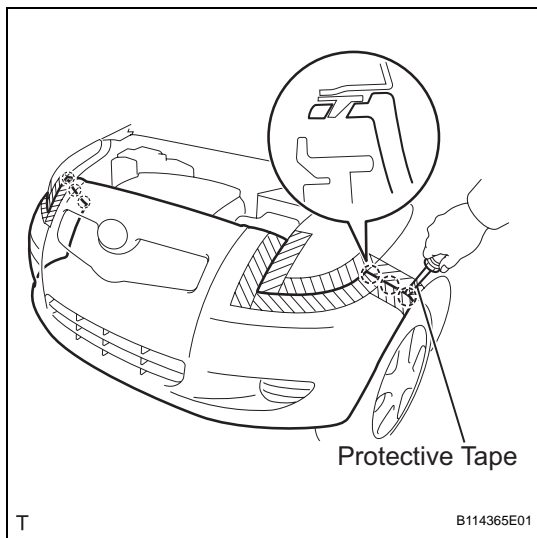
- (b) Unlock the plunger of the tensioner and push it in to the end.



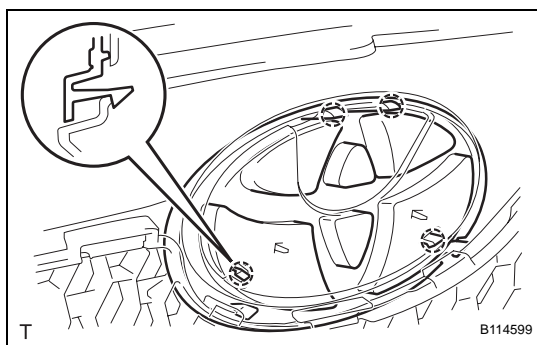
- (c) Pull down the stopper plate with the plunger pushed to the end and lock the plunger.



- (e) w/ Fog Light:
- (1) Using a screwdriver with its tip wrapped in protective tape, disengage the 6 claws.
  - (2) Disconnect the 2 fog light connectors and remove the front bumper.



- (f) w/o Fog Light:
- (1) Using a screwdriver with its tip wrapped in protective tape, disengage the 6 claws and remove the front bumper.

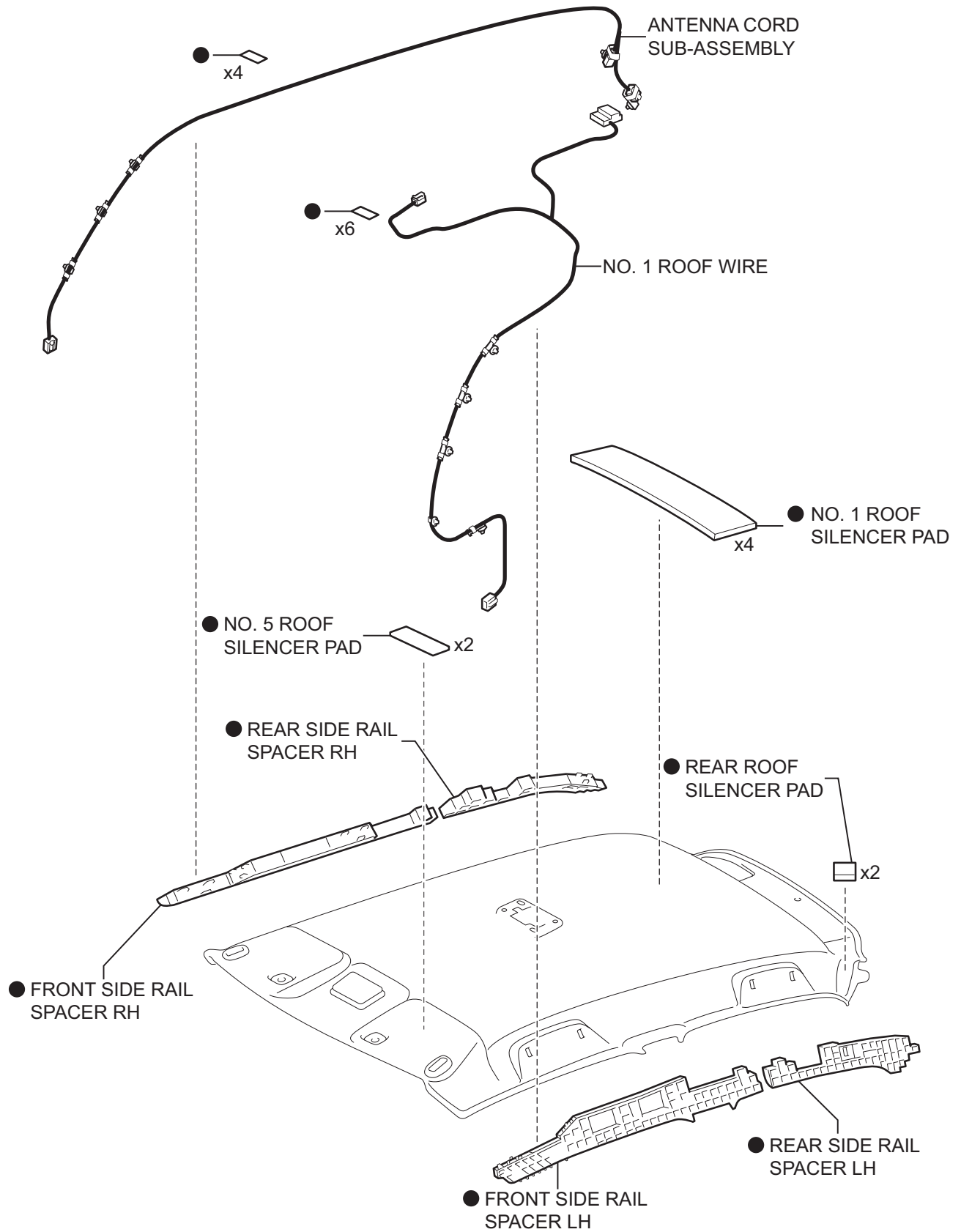


### 3. REMOVE RADIATOR GRILLE EMBLEM

- (a) Disengage the 4 claws and remove the radiator grille emblem.



w/o Curtain Shield Airbag:



● Non-reusable part

IR

## ADJUSTMENT

### 1. PREPARE VEHICLE FOR FOG LIGHT AIMING ADJUSTMENT

- (a) Prepare the vehicle:
- Ensure that there is no damage or deformation of the body around the fog lights.
  - Fill the fuel tank.
  - Fill the oil to the specified level.
  - Fill the coolant to the specified level.
  - Inflate the tires to the appropriate pressure.
  - Place the spare tire, tools and jack in their original positions.
  - Unload the trunk.
  - Sit a person of average weight (68 kg, 150 lb) in the driver seat.

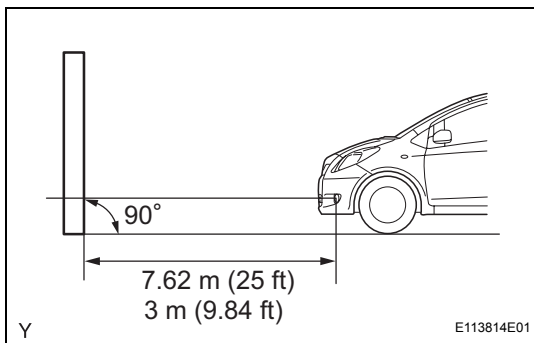
### 2. PREPARE FOR FOG LIGHT AIMING

- (a) Prepare the vehicle in accordance with the following conditions:
- Place the vehicle in a location that is dark enough to clearly observe the cutoff line. The cutoff line is a distinct line, below which light from the fog lights can be observed and above which it cannot.
  - Place the vehicle at a 90° angle to the wall.
  - Keep a 7.62 m (25 ft) distance between the center of the fog light bulb and the wall.
  - Place the vehicle on a level surface.
  - Bounce the vehicle up and down to settle the suspension.

#### NOTICE:

**A distance of 7.62 m (25 ft) between the vehicle (center of the fog light bulb) and the wall is necessary for proper aim adjustment. If unable to secure a distance of 7.62 m (25 ft), secure a distance of exactly 3 m (9.84 ft) to check and adjust the fog light aim. (Since the target zone will change with the distance, follow the instructions shown in the illustration.)**

- (b) Prepare a piece of thick white paper (approximately 2 m (6.6 ft) (height) x 4 m (13.1 ft) (width)) to use as a screen.
- (c) Draw a vertical line down the center of the screen (V line).



# OUTSIDE VEHICLE

## GENERAL MAINTENANCE

Performing the following maintenance checks on the vehicle is the owner's responsibility. The owner may perform the maintenance or take the vehicle to a service center. Check the parts of the vehicle described below on a daily basis. In most cases, special tools are not required. It is recommended that the owner performs these checks. The procedures for general maintenance are as follows.

### 1. GENERAL NOTES

- Maintenance requirements vary depending on the country.
- Check the maintenance schedule in the owner's manual supplement.
- Following the maintenance schedule is mandatory.
- Determine the appropriate time to service the vehicle using either miles driven or months elapsed, whichever reaches the specification first.
- Maintain similar intervals between periodic maintenance, unless otherwise noted.
- Failing to check each vehicle part could lead to poor engine performance and increase exhaust emissions.

### 2. TIRES

- (a) Check the tire inflation pressure with a gauge. Make adjustments if necessary.
- (b) Check the surfaces of the tires for cuts, damage or excessive wear.

### 3. WHEEL NUTS

- (a) Check for nuts that are loose or missing. Tighten them if necessary.

### 4. TIRE ROTATION (See page [TW-2](#))

### 5. WINDSHIELD WIPER BLADES

- (a) Check the blades for wear or cracks whenever they are unable to wipe the windshield clean. Replace them if necessary.

### 6. FLUID LEAKS

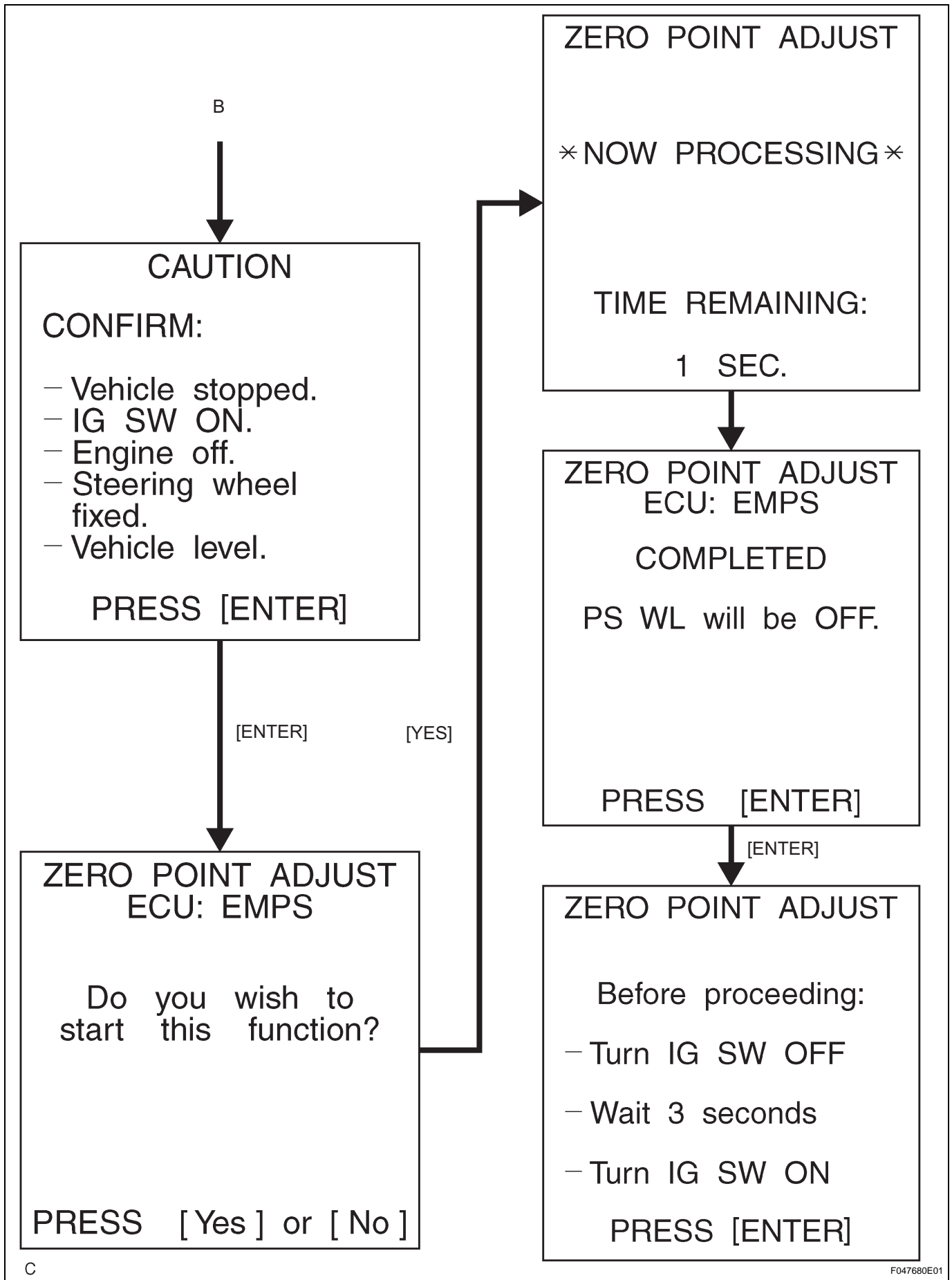
- (a) Check under the vehicle for leaking fuel, oil, water and other fluids.

**NOTICE:**

**If you smell gasoline fumes or notice any leaks, locate the cause and correct it.**

### 7. DOORS AND ENGINE HOOD

- (a) Check that all of the doors and the hood operate smoothly and that all the latches lock securely.
- (b) When the primary latch is released, check that the engine hood secondary latch prevents the hood from opening.

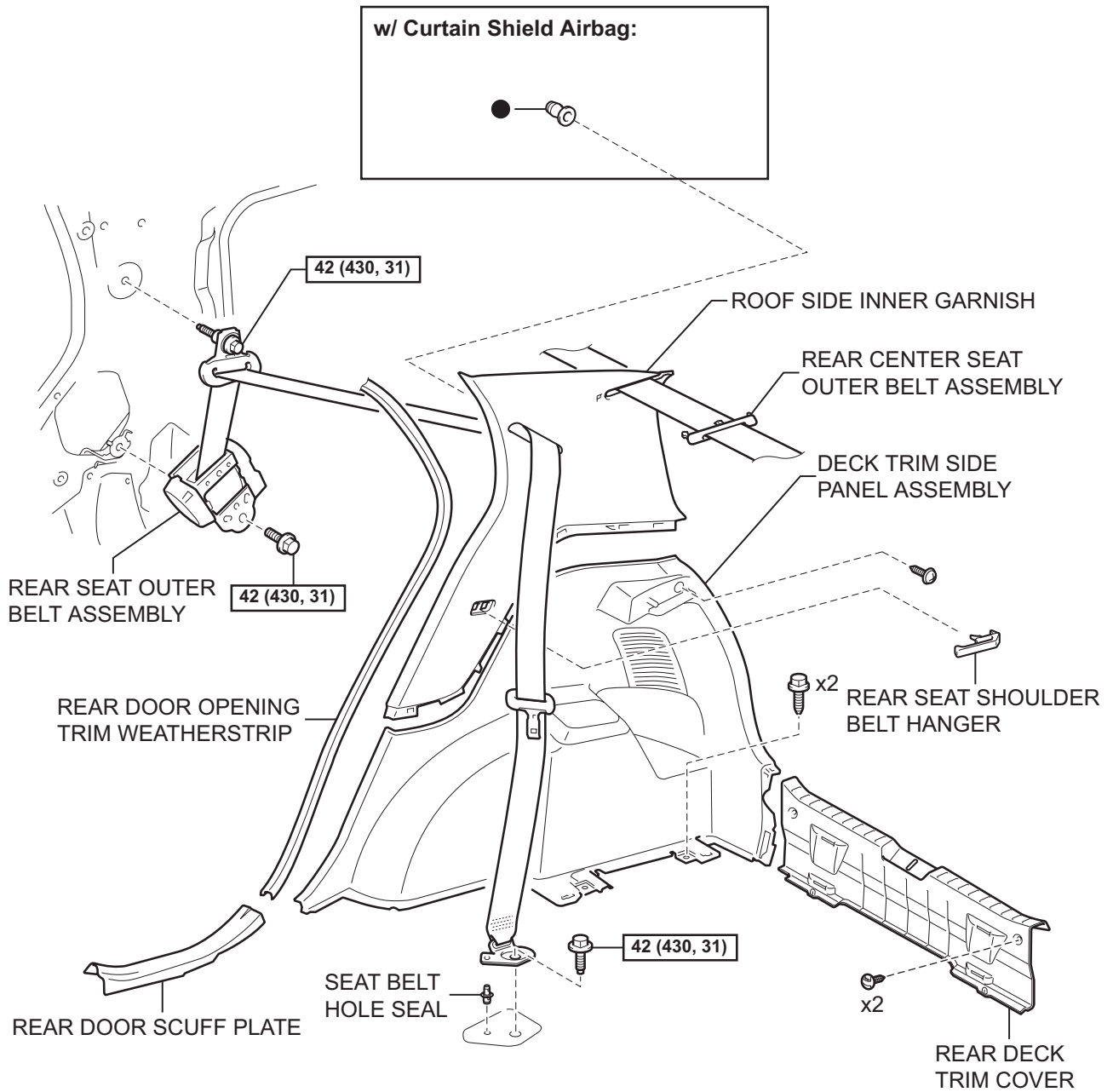


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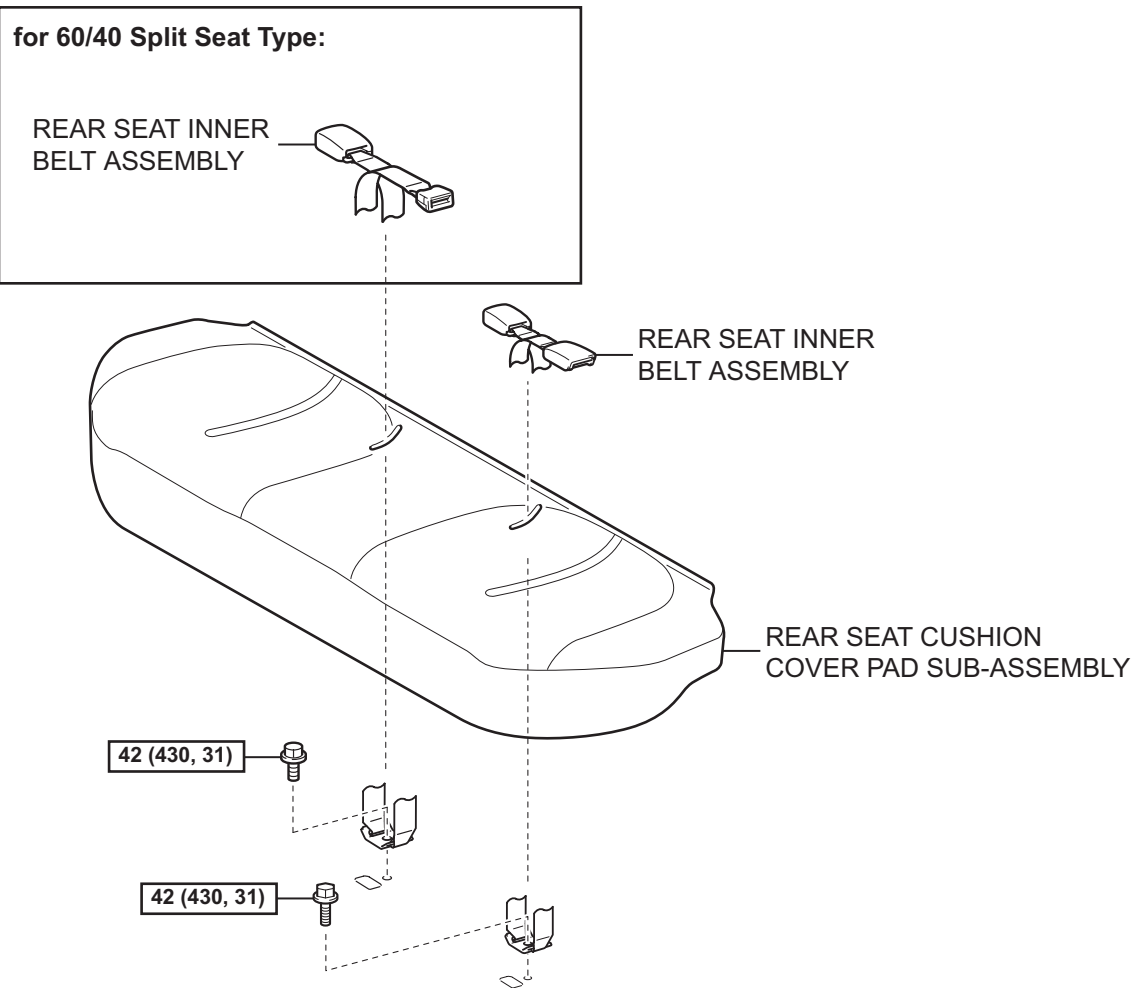
N\*m (kgf\*cm, ft\*lb) : Specified torque

● Non-reusable part

# REAR SEAT INNER BELT ASSEMBLY (for Sedan)

## COMPONENTS

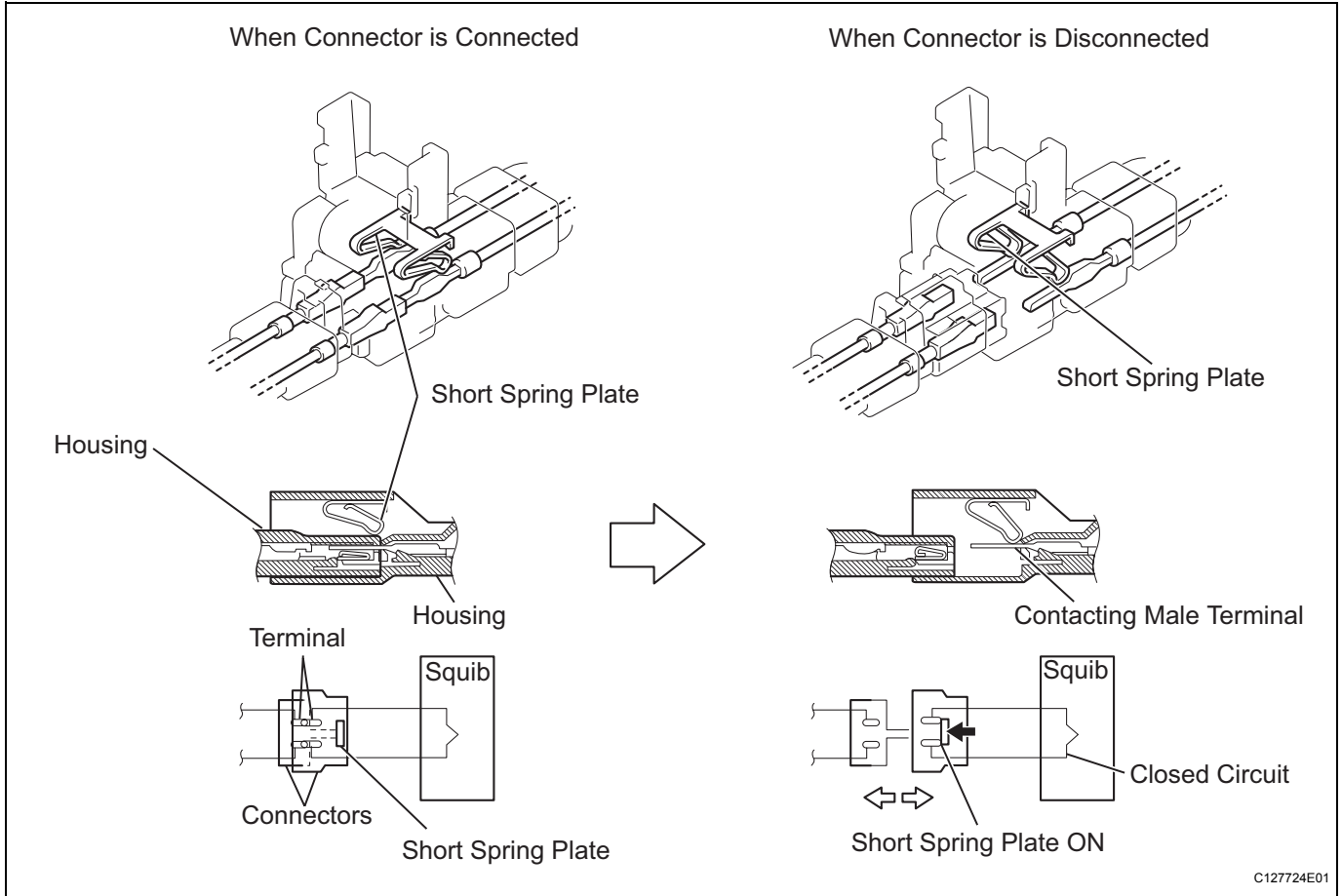
SB



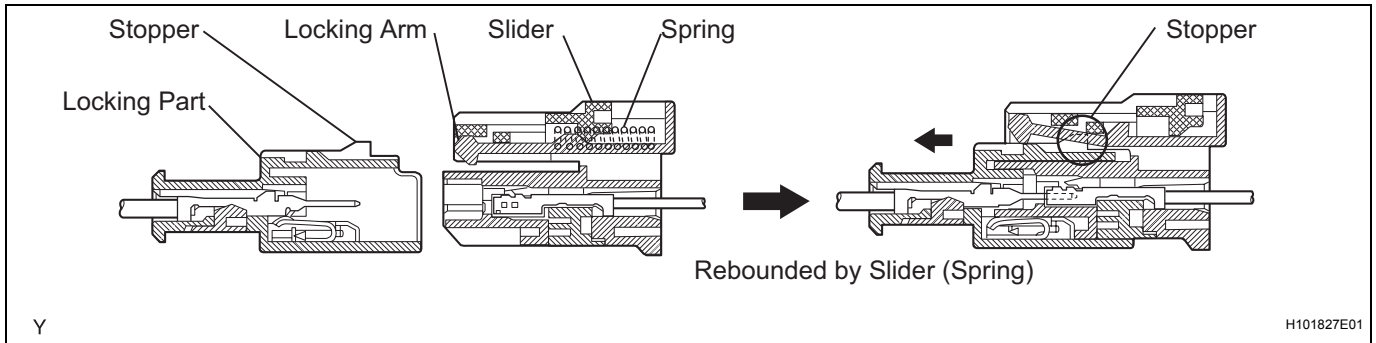
$\boxed{\text{N*m (kgf*cm, ft*lb)}} : \text{Specified torque}$

- (2) Activation prevention mechanism:  
 Each connector contains a short spring plate.  
 When the connector is disconnected, the short spring plate creates a short circuit by automatically connecting the positive (+) and negative (-) terminals of the squib.

RS



- (3) Half connection prevention mechanism:  
 If the connector is not completely connected, the connector is disconnected by the spring operation so that no continuity exists.



Y