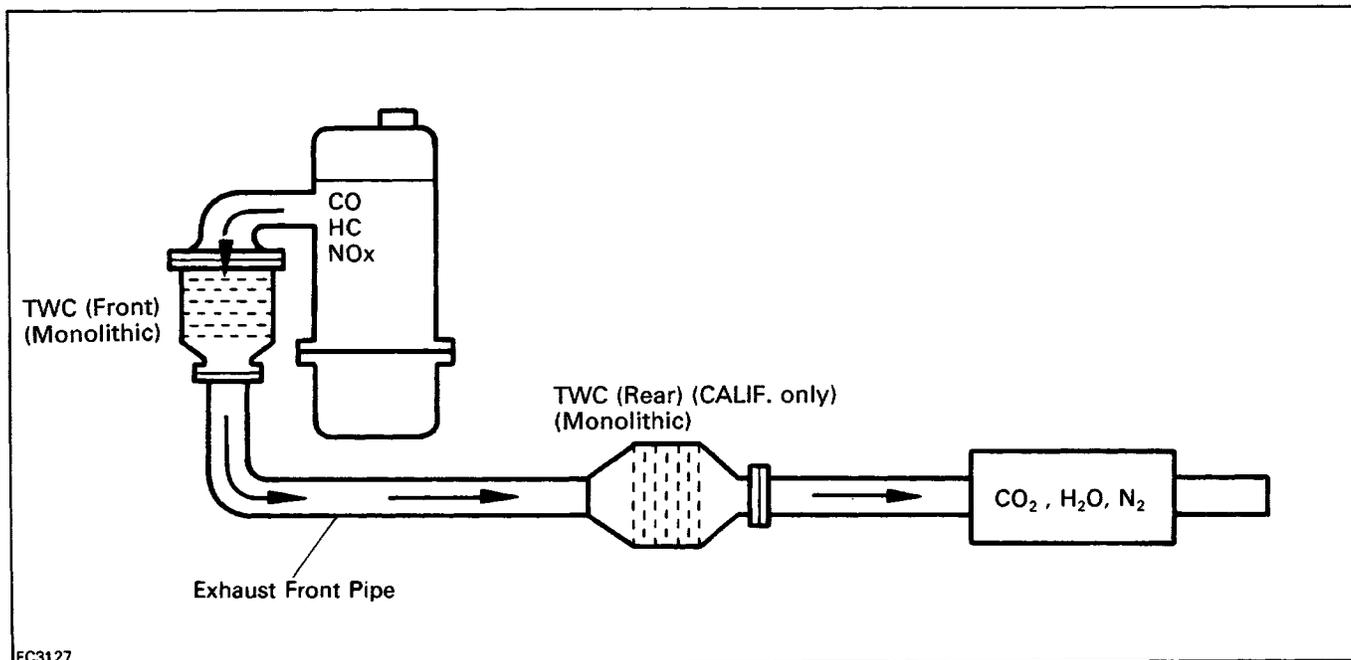


# THREE-WAY CATALYTIC CONVERTER (TWC) SYSTEM

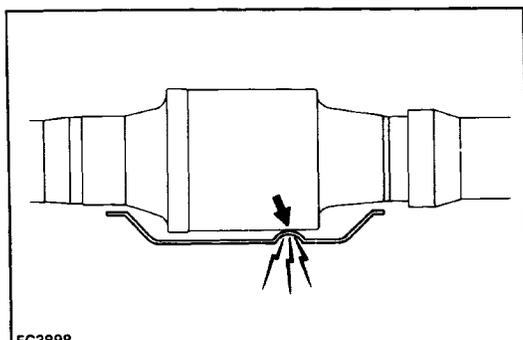


To reduce CO, HC and NOx emissions, they are oxidized, and converted to carbon dioxide (CO<sub>2</sub>), water (H<sub>2</sub>O) and nitrogen (N<sub>2</sub>) by the three-way catalytic converter

Exhaust Port		TWC (Front)		TWC (Rear) (CALIF. only)		Exhaust Gas
CO HC NOx	→	OXIDATION AND REDUCTION	→	OXIDATION AND REDUCTION	→	CO <sub>2</sub> H <sub>2</sub> O N <sub>2</sub>

## INSPECTION OF EXHAUST PIPE ASSEMBLY

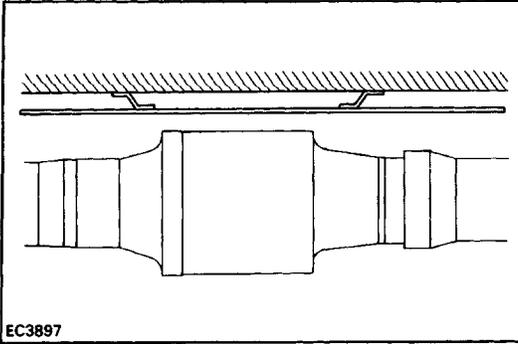
1. INSPECT CONNECTIONS FOR LOOSENESS OR DAMAGE
2. INSPECT CLAMPS FOR WEAKNESS, CRACKS OR DAMAGE



## INSPECTION OF THREE-WAY CATALYTIC CONVERTER (Three-Way Catalytic Converter-Rear (CALIF. only))

**INSPECT FOR DENTS OR DAMAGE**

If any part of protector is damaged or dented to the extent that it contacts the three-way catalytic converter, repair or replace it.



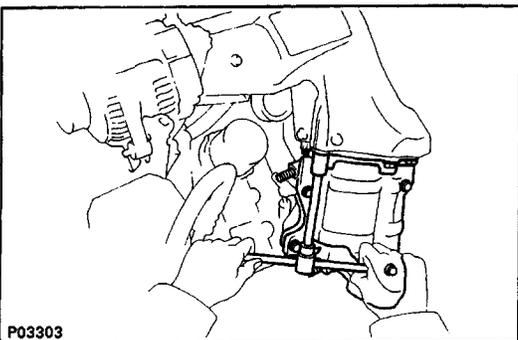
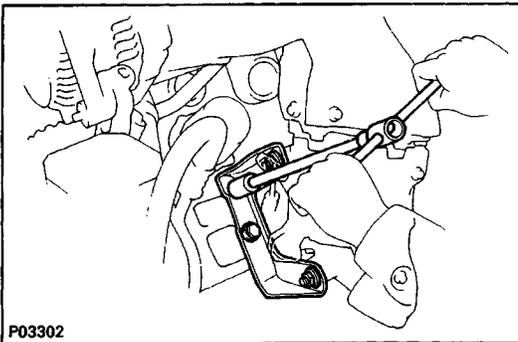
## INSPECTION OF HEAT INSULATOR (Three-Way Catalytic Converter-Rear (CALIF. only))

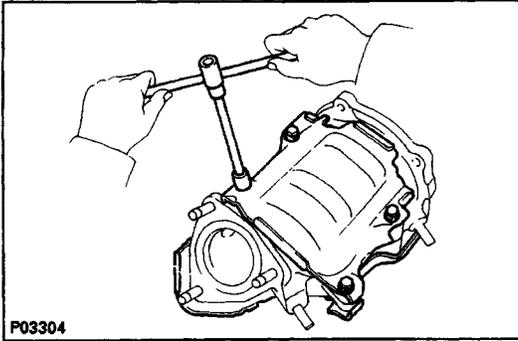
1. INSPECT HEAT INSULATOR FOR DAMAGE
2. INSPECT FOR ADEQUATE CLEARANCE BETWEEN THREE-WAY CATALYTIC CONVERTER AND HEAT INSULATOR

## REPLACEMENT OF THREE-WAY CATALYTIC CONVERTER

### (Three-Way Catalytic Converter (Front))

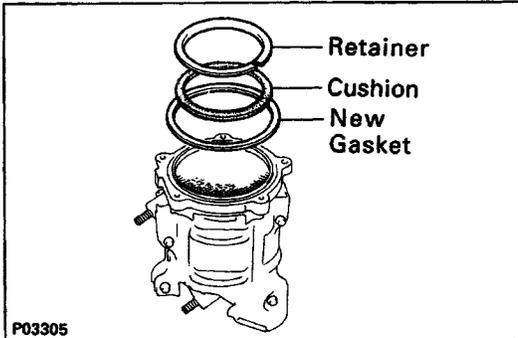
1. DISCONNECT CABLE FROM NEGATIVE TERMINAL OF BATTERY  
CAUTION: Work must be started after approx. 20 seconds or longer from the time the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.
2. REMOVE RH ENGINE UNDER COVER
3. REMOVE FRONT EXHAUST PIPE  
(See step 2 on page [EC-45](#))
4. REMOVE THREE-WAY CATALYTIC CONVERTER (FRONT)
  - (a) Check that the three-way catalytic converter is cool
  - (b) Disconnect the main oxygen sensor connector.
  - (c) (CALIF. only)  
Disconnect the sub-oxygen sensor connector.
  - (d) Remove the two bolts, two nuts and three-way catalytic converter stay.
  - (e) Remove the three bolts, two nuts, three-way catalytic converter, gasket, retainer and cushion.
  - (f) Remove the eight bolts and two heat insulators from the three-way catalytic converter.



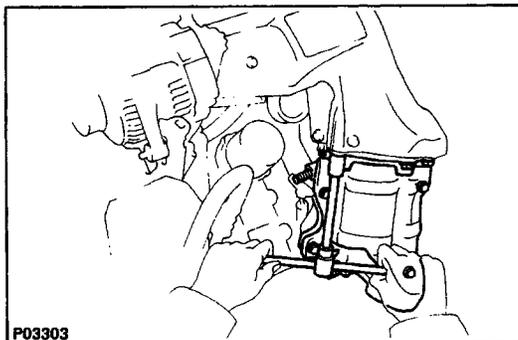


## 5. REINSTALL THREE-WAY CATALYTIC CONVERTER (FRONT)

- (a) Install the two heat insulators to a new three-way catalytic converter with the eight bolts.

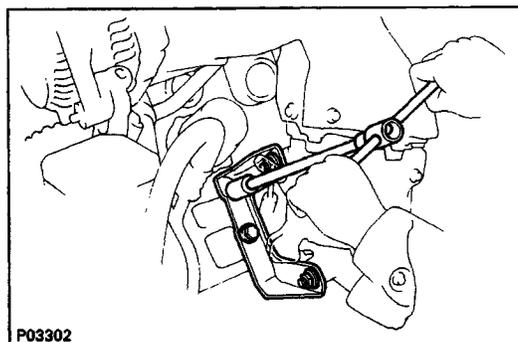


- (b) Place the cushion, retainer and a new gasket on the three-way catalytic converter.



- (c) Install the three-way catalytic converter with the three bolts and two new nuts.

**Torque: 29 N-m (300 kgf-cm, 21 ft-lbf)**



- (d) Install the three-way catalytic converter stay with the two bolts and two nuts.

**Torque: 42 N-m (425 kgf-cm, 31 ft-lbf)**

- (e) Connect the main oxygen sensor connector.

- (f) (CALIF. only)

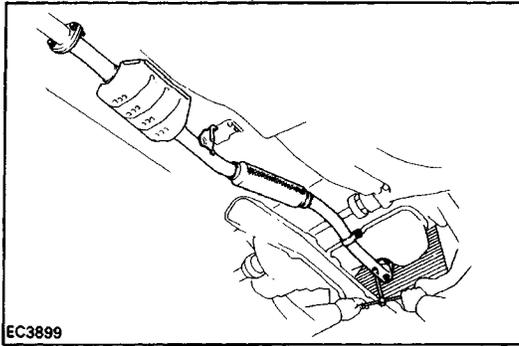
Connect the sub-oxygen sensor connector.

## 6. REINSTALL FRONT EXHAUST PIPE

(See step 3 on page [EC-45](#))

## 7. REINSTALL RH ENGINE UNDER COVER

## 8. CONNECT CABLE TO NEGATIVE TERMINAL OF BATTERY



## (Three-Way Catalytic Converter-Rear (CALIF. only))

### 1. REMOVE RH ENGINE UNDER COVER

### 2. REMOVE FRONT EXHAUST PIPE (THREE-WAY CATALYTIC CONVERTER-REAR)

- (a) Loosen the bolt, and disconnect the clamp from the bracket.
- (b) Remove the two bolts and nuts holding the front exhaust pipe to the center exhaust pipe.
- (c) Using a 14 mm deep socket wrench, remove the three nuts holding the front exhaust pipe to the three-way catalytic converter (front).
- (d) Disconnect the support hook on the front exhaust pipe from the support bracket, and remove the front exhaust pipe and two gaskets.

### 3. REINSTALL FRONT EXHAUST PIPE (THREE-WAY CATALYTIC CONVERTER-REAR)

- (a) Install the support hook on the front exhaust pipe to the support bracket.
- (b) Place two new gaskets on the front and rear of the front exhaust pipe.
- (c) Temporarily install the two bolts and two new nuts holding the front exhaust pipe to the center exhaust pipe.
- (d) Using a 14 mm deep socket wrench, install the three new nuts holding the front exhaust pipe to the three-way catalytic converter (front).

**Torque: 62 N-m (630 kgf-cm, 46 ft-lbf)**

- (e) Tighten the two bolts and nuts holding the front exhaust pipe to the center exhaust pipe.

**Torque: 43 N-m (440 kgf-cm, 32 ft-lbf)**

- (f) Install the clamp with the bolt.

### 4. REINSTALL RH ENGINE UNDER COVER