## THREE–WAY CATALYST (TWC) SYSTEM



and nitrogen (N2) by the catalyst.						
Exhaust Port		TWC (Main)		Sub-TWC (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>

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### EXHAUST PIPE ASSEMBLY INSPECTION

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



# SUB-TWC INSPECTION (CALIF. only)

**INSPECT FOR DENTS OR DAMAGE** 

If any part of protector is damaged or dented to the extent that it contacts the sub-TWC, repair or replace it.



SUB-TWC HEAT INSULATOR INSPECTION (CALIF. only) 1. INSPECT HEAT INSULATOR FOR DAMAGE 2. INSPECT FOR ADEQUATE CLEARANCE BETWEEN CATALYTIC CONVERTER AND HEAT INSULATOR

### COMPONENTS FOR TWC (MAIN) REMOVAL AND INSTALLATION

EG06H-02









### **TWC (MAIN) REPLACEMENT**

(See Components for Main (TWC) Removal and Installation)

CAUTION: Check that the TWC Is cool.

1. DISCONNECT CABLE FROM NEGATIVE TERMINAL OF BATTERY

CAUTION: Turn the ignition switch to "LOCK". Disconnect the negative terminal from the battery. Wait at least 20 seconds before proceeding with work.

- 2. REMOVE ENGINE UNDER COVERS
- 3. REMOVE FRONT EXHAUST PIPE
  - (a) (CALIF. only)

Remove the two bolts and damper.



- (b) Remove the two bolts holding the front exhaust pipe to the tailpipe bracket.
- (c) Remove the two bolts holding the front exhaust pipe to the tailpipe.
- (d) Using a 14 mm deep socket wrench, remove the three nuts.
- (e) Remove the front exhaust pipe and two gaskets.

#### 4. REMOVE TWC

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- (a) Remove the oxygen sensor and sub-oxygen sensor (CALIF. only) from the TWC.
- (b) Remove the two bolts, two nuts and TWC stay.

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(d) Remove the eight bolts and two heat insulators from the TWC.



- **5. REINSTALL TWC** 
  - (a) Install the two heat insulators to a new TWC with the eight bolts.

(c) Remove the three bolts, two nuts, TWC, gasket, retainer and cushion.



(b) Place the cushion, retainer and a new gasket on the TWC.

(c) Install the TWC with the three bolts and two nuts. Torque: 29 N-m (300 kgf-cm. 21 ft-lbf)

- (d) Install the TWC stay with the two bolts and two new nuts.
- Torque: 42 N-m (425 kgf-cm, 31 ft-lbf)
- (e) Install the oxygen sensor and sub–oxygen sensor (CALIF. only) to the TWC.

#### 6. REINSTALL FRONT EXHAUST PIPE

- (a) Place two new gaskets to the front and rear of the front exhaust pipe.
- (b) Using a 14 mm deep socket wrench, install the front exhaust pipe with three new nuts.
- Torque: 62 N-m (630 kgf-cm, 46 ft-lbf)
- (c) Install the two bolts holding the front exhaust pipe to the tailpipe.
- Torque: 43 N-m (440 kgf-cm, 32 ft-lbf)
- (d) Install the two bolts holding the front exhaust pipe bracket to the tailpipe bracket.
- Torque: 19 N-m (190 kgf-cm, 14 ft-lbf)
- (e) Install the damper with the two bolts.
- Torque: 21 N-m (210 kgf-cm, 15 ft-lbf)
- 7. REINSTALL ENGINE UNDER COVERS

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8. RECONNECT CABLE TO NEGATIVE TERMINAL OF BATTERY

### COMPONENTS FOR SUB-TWC REMOVAL AND INSTALLATION (CALIF. only)







#### SUB-TWC REPLACEMENT (CALIF. only) (See Components for Sub-TWC Removal and Installation (CALIF. only))

CAUTION: Check that the sub–TWC is cool. 1. REMOVE FRONT EXHAUST PIPE (SUB–TWC)

- (a) (CALIF. only) Remove the two bolts and damper.
- (b) Remove the two bolts holding the front exhaust pipe to the tailpipe bracket.
- (c) Remove the two bolts holding the front exhaust pipe to the tailpipe.
- (d) Using a 14 mm deep socket wrench, remove the three nuts.
- (e) Remove the front exhaust pipe and two gaskets.



#### 2. REINSTALL FRONT EXHAUST PIPE (SUB-TWC)

- (a) Place two new gaskets to the front and rear of the front exhaust pipe.
- (b) Using a 14 mm deep socket wrench, install the front exhaust pipe with three new nuts.
- Torque: 62 N-m (630 kgf-cm, 46 ft-lbf)
- (c) Install the two bolts holding the front exhaust pipe to the tailpipe.

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

(d) Install the two bolts holding the front exhaust pipe bracket to the tailpipe bracket.

#### Torque: 19 N-m (190 kgf-cm, 14 ft-lbf)



(e) (CALIF. only) Install the damper with the two bolts.

Torque: 21 N-m (210 kgf-cm, 15 ft-lbf)