



**IMPORTANT SERVICE  
INFORMATION FOR:**

- ✓ SERVICE MANAGER
- ✓ SERVICE ADVISOR
- ✓ TECHNICIAN
- ✓ PARTS DEPARTMENT
- ✓ WARRANTY PERSONNEL

BULLETIN NUMBER:  
**SB20-J-001**

ISSUE DATE:  
**JULY 2020**

GROUP:  
**ENGINE**

## EGR EXHAUST GAS LEAK AND/OR DTC P0402 AND/OR P2457

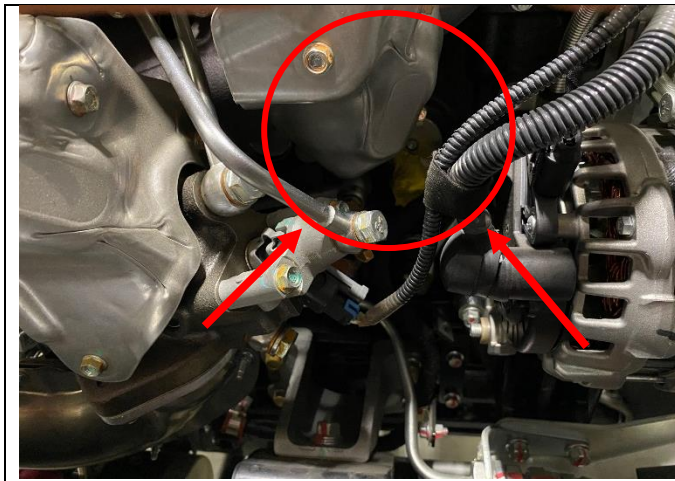
### AFFECTED VEHICLES

- 2018 – 2020MY Isuzu FTR

### CONDITION

Some customers may experience a whistling or whining noise coming from the engine in the area of the exhaust manifold. Additionally, a check engine light with DTC's P0402 Exhaust Gas Recirculation (EGR) Flow Excessive and/or P2457 EGR Cooling System Performance may be set.

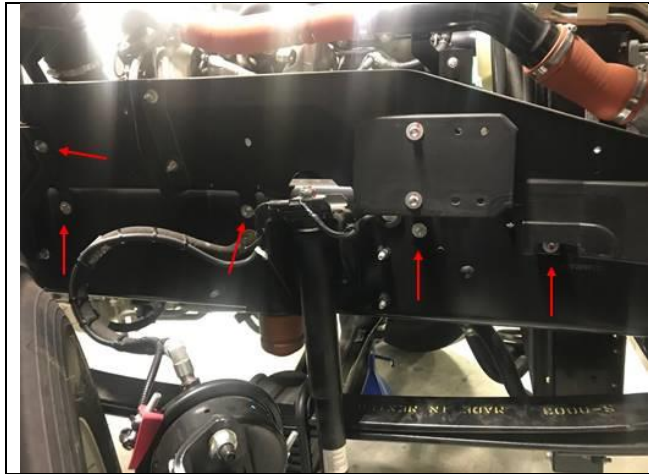
If you determine that an exhaust leak exists at the EGR duct flange where it attaches to the exhaust manifold (See Figure 1) perform the following service procedure.



**Figure 1**

### SERVICE PROCEDURE

1. Turn the key off, set the parking brake, block the rear wheels.
2. Per the instructions in the applicable Work Shop Manual (WSM), safely tilt the cab and install the safety lock pin.
3. Disconnect the negative battery cable.
4. Remove the right side noise cover from the frame by removing the five (5) bolts. (See Figure 2.) Set the bolts aside for reuse later.



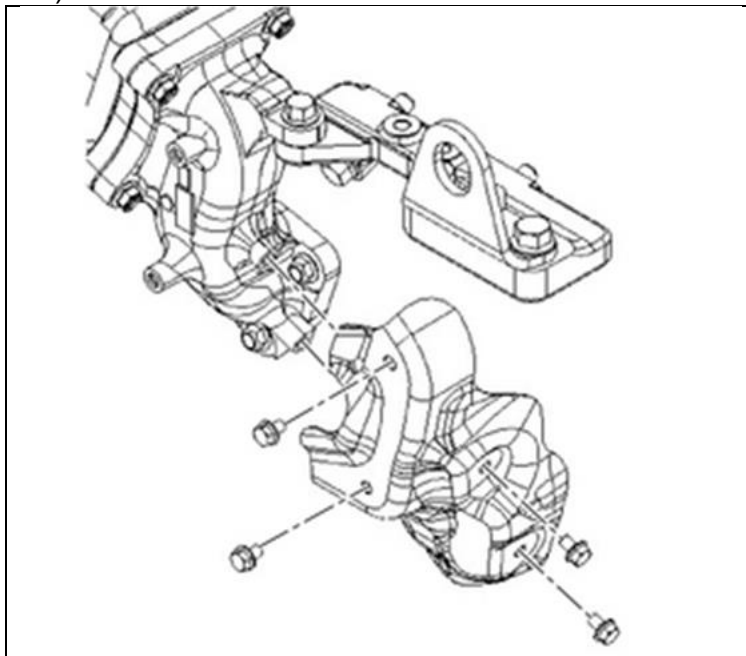
**Figure 2**

5. Remove the air intake pipe assembly from the turbocharger outlet and the air intake hose to the air charge cooler. (See Figure 3.)



**Figure 3**

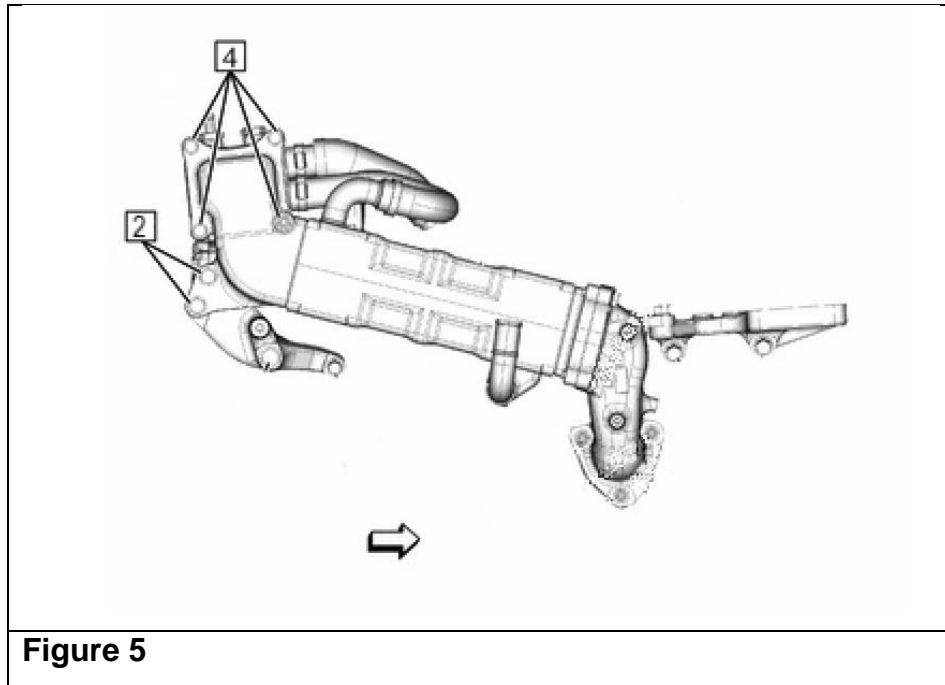
6. Remove the heat shield from the EGR cooler duct by removing the four (4) bolts. (See Figure 4.) Set the bolts aside for reuse later.



**Figure 4**

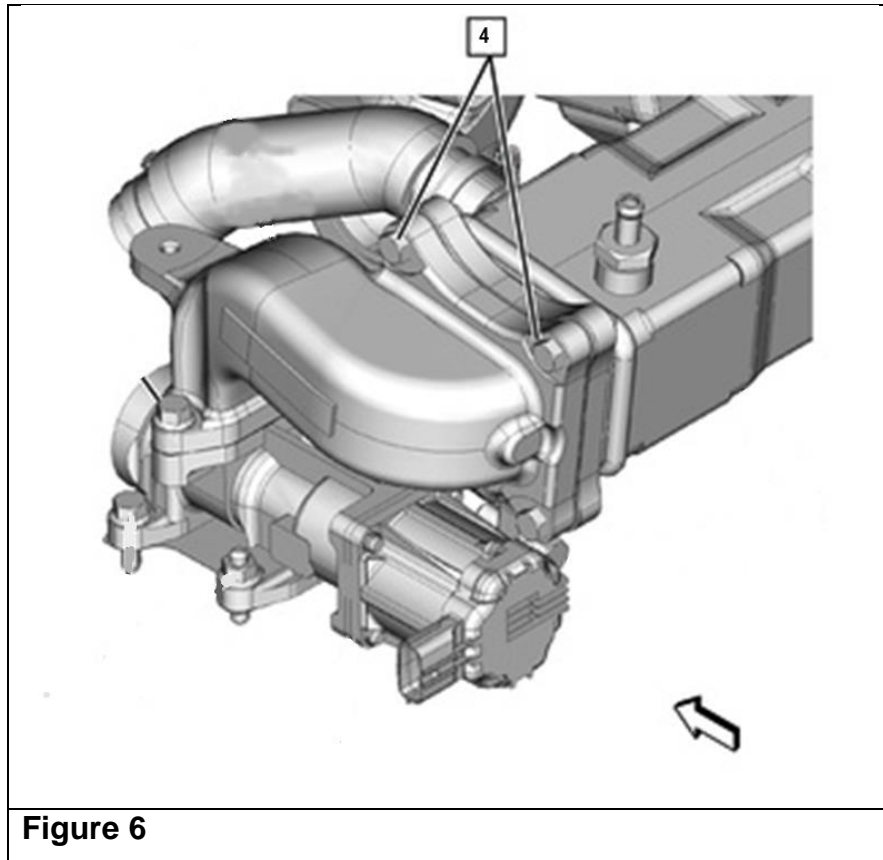
7. Loosen, but do not remove, the six (6) bolts attaching the Number 1 (Right Hand) EGR Cooler. (See Figure 5.)

**NOTE: The Coolant does not need to be drained and all cooling hoses should remain attached.**

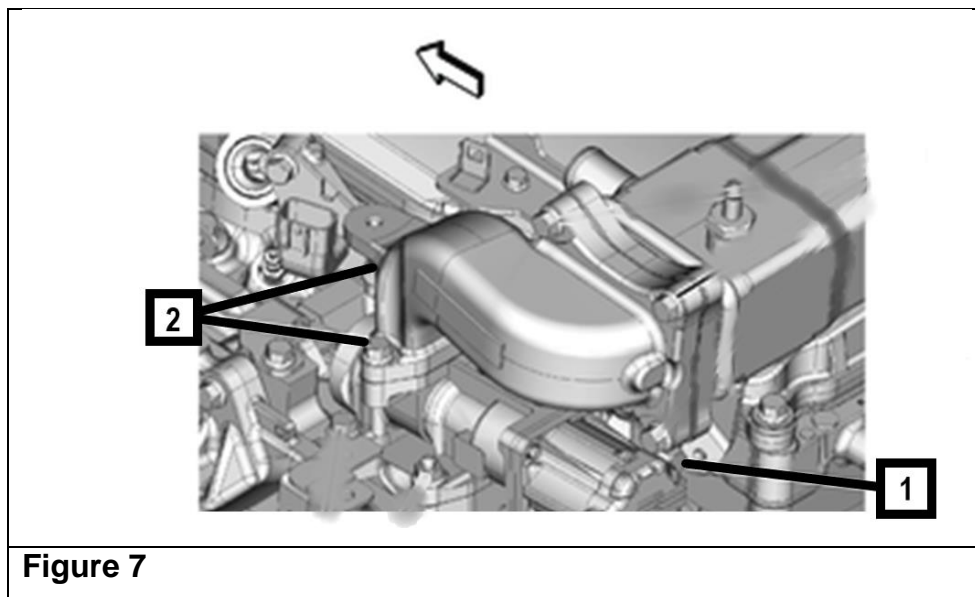


**Figure 5**

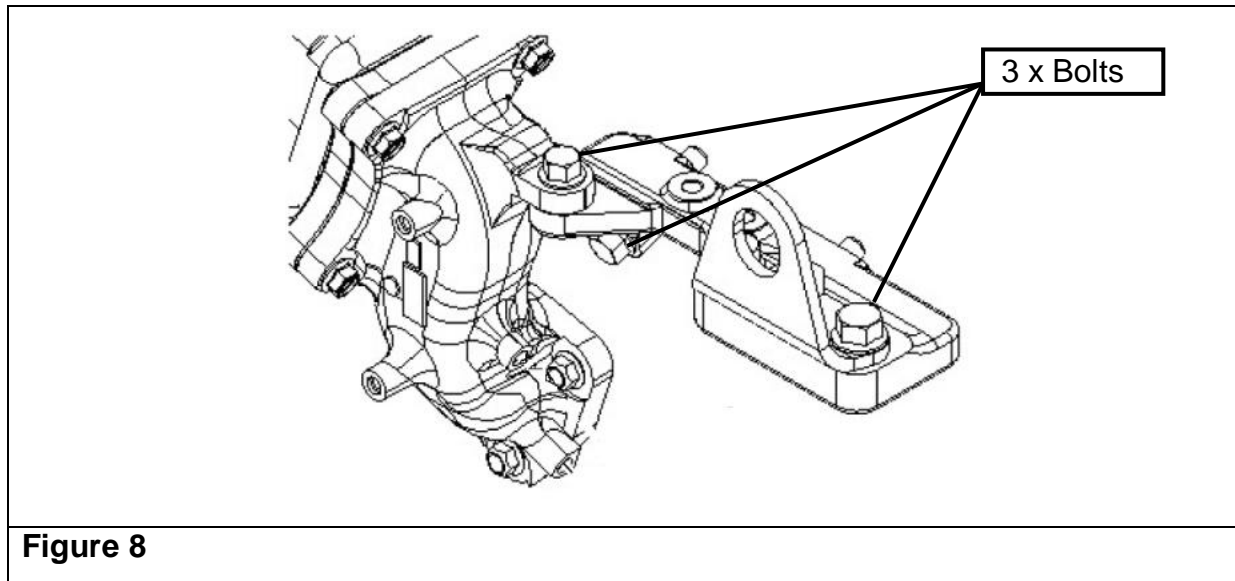
8. Loosen, but do not remove the four (4) bolts attaching the Left Side EGR Duct to the Number 2 EGR Cooler. (See Figure 6.)



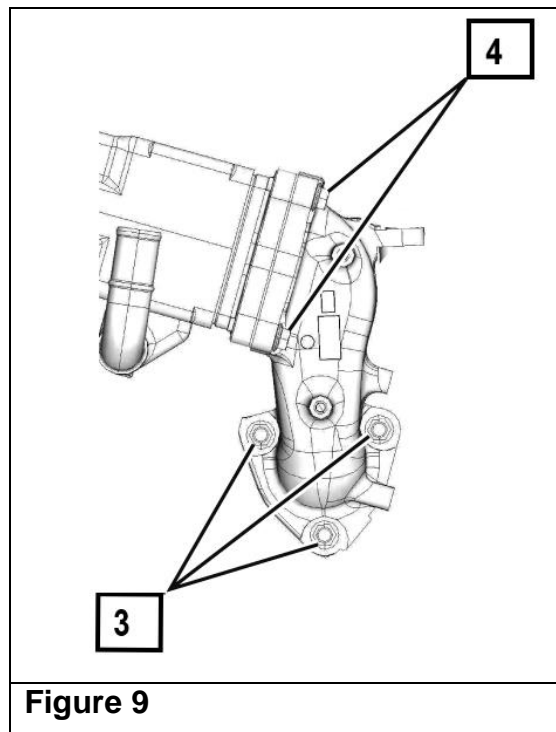
9. Loosen, but do not remove, the three (3) bolts attaching the EGR Duct to the EGR Valve and Cylinder Head. (See Figure 7.)



10. Remove the three (3) bolts attaching the Number 1 (Right Hand) EGR Cooler Duct Bracket and remove the Bracket from the Cylinder Head. (See Figure 8.)



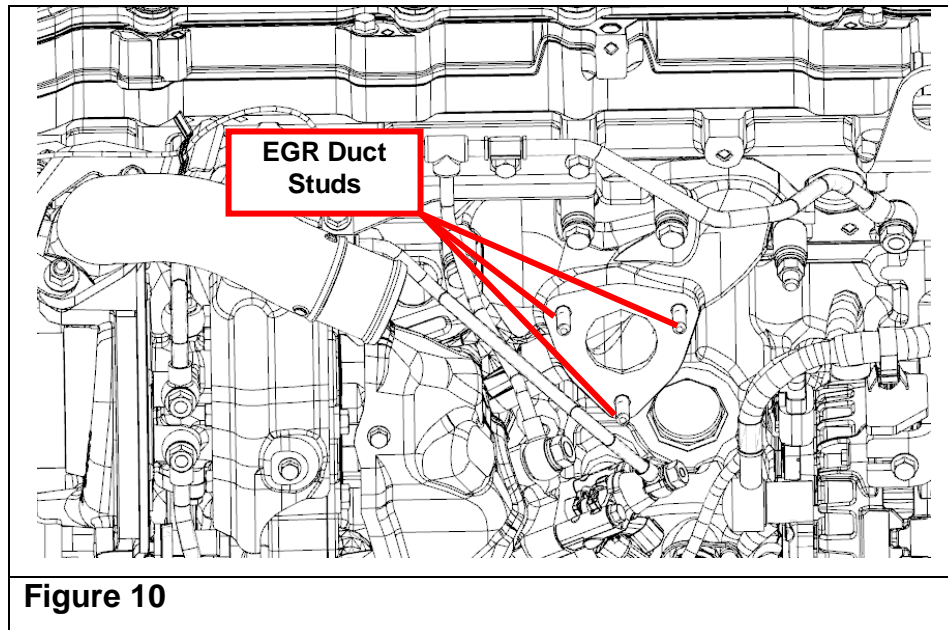
11. Remove the four (4) EGR Duct to EGR Cooler bolts and the three (3) EGR Duct to Exhaust Manifold Nuts. (See Figure 9.) Remove the EGR Duct and set aside for reuse later. Remove and discard both of the EGR Duct gaskets.



12. Use a stud removal tool to remove the three (3) EGR Duct studs from the exhaust manifold. (See Figure 10.)

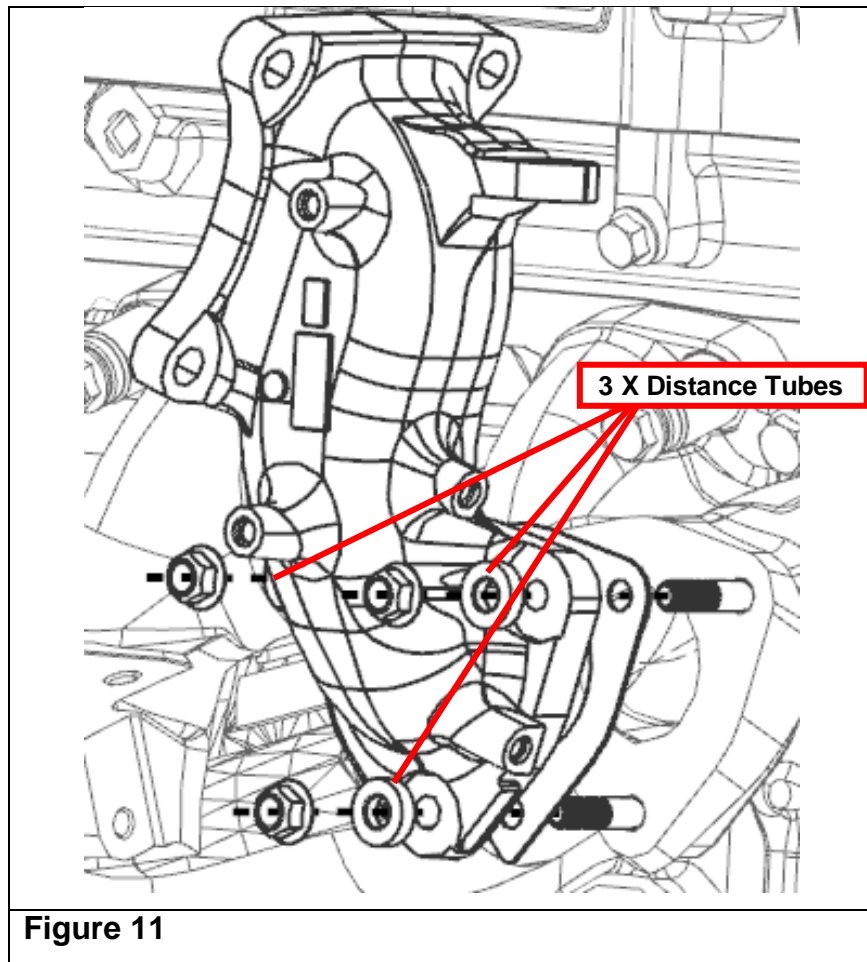
**NOTE: Use penetrating lubricant oil on the EGR Duct studs to assist in removal.**

**NOTE: If any of the three (3) EGR Duct studs break or strip, replace the exhaust manifold.**



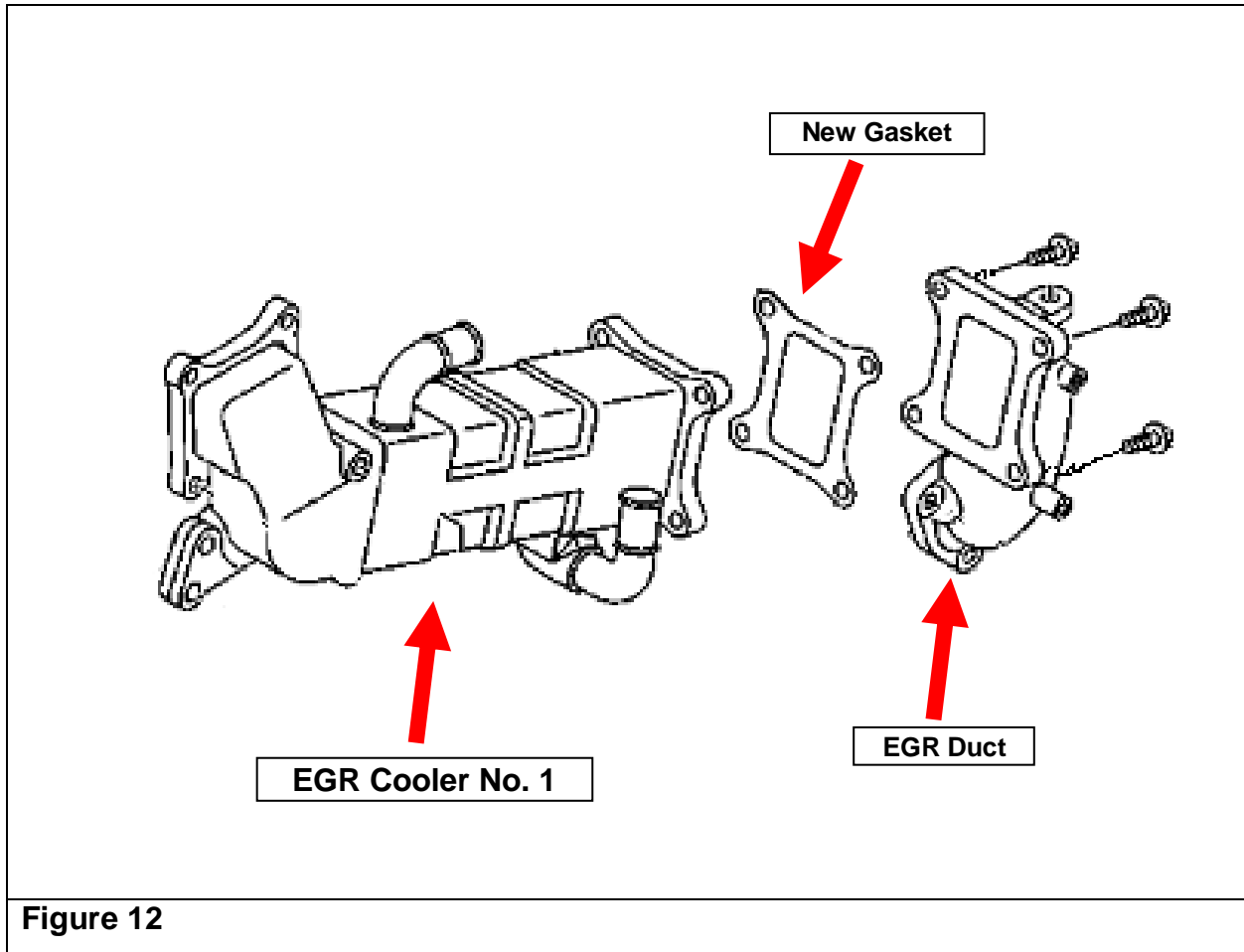
13. Use a stud installation tool to install the three (3) new and longer EGR Duct exhaust studs onto the exhaust manifold. (See Figure 10.)
14. Place a new EGR Duct to Exhaust Manifold gasket on the studs installed in Step 13. Put the EGR Duct back in place between the exhaust manifold and the Number 1 EGR Cooler. Install a distance tube, then a new nut on each of the three (3) EGR Duct studs. (See Figure 11.) Turn each nut by hand only a few turns so that the EGR Duct remains loose.

**NOTE: Before installing any new gaskets, make sure that all the mating surfaces are clean and clear of any debris.**



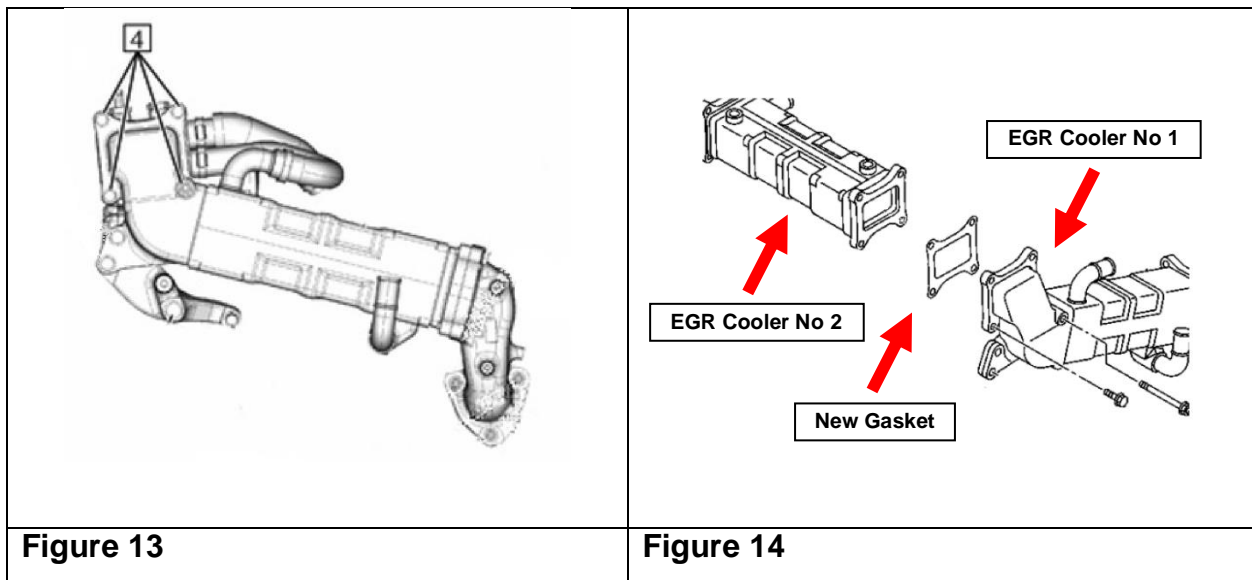
**Figure 11**

15. Slide a new gasket between the EGR Duct and the Number 1 EGR Cooler and loosely thread all four (4) bolts by hand. (See Figure 12.)



**Figure 12**

16. Remove the four (4) loose bolts attaching EGR Cooler Number 1 to EGR Cooler Number 2. (See Figure 13.) Slide out the old gasket between EGR Coolers Number 1 and Number 2 and replace with a new gasket. Loosely install all four bolts attaching EGR Coolers Numbers 1 and 2. (See Figure 14.)



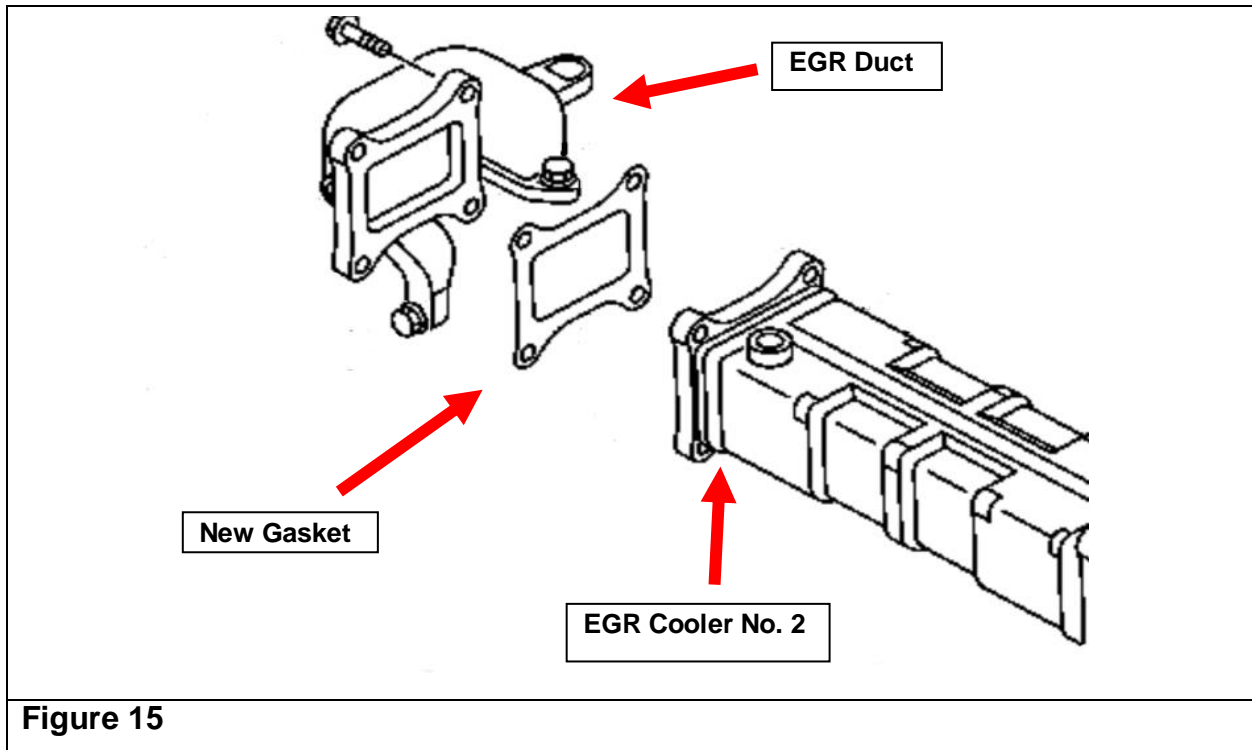
**Figure 13**

**Figure 14**

17. Remove the four (4) loosened right side EGR Duct to EGR Cooler Number 2 bolts. Slide out the old gasket between the EGR Duct and the Number 2 and

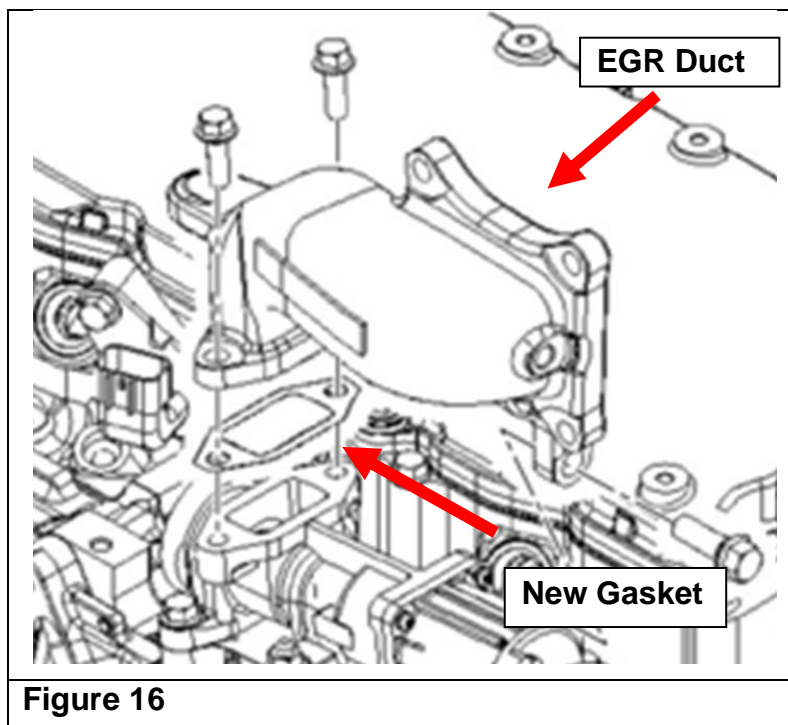


replace with a new gasket. Loosely install all four bolts attaching the EGR Duct to the Number 2 EGR Cooler. (See Figure 15.)



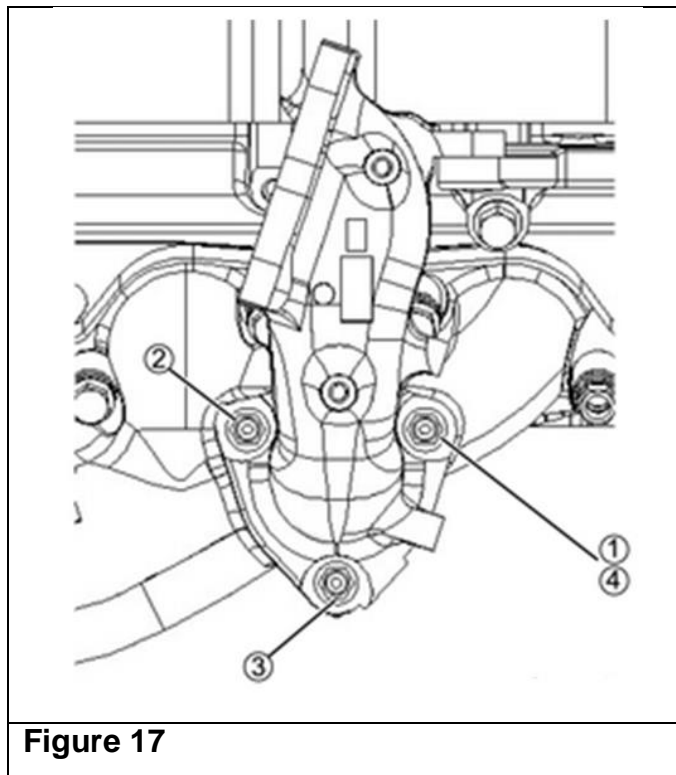
**Figure 15**

18. Remove the two (2) loosened right side EGR Duct to EGR Valve bolts. Slide out the old gasket between the EGR Duct and the EGR Valve and replace with a new gasket. Loosely install the (2) bolts attaching the EGR Duct to the EGR Valve. (See Figure 16.)



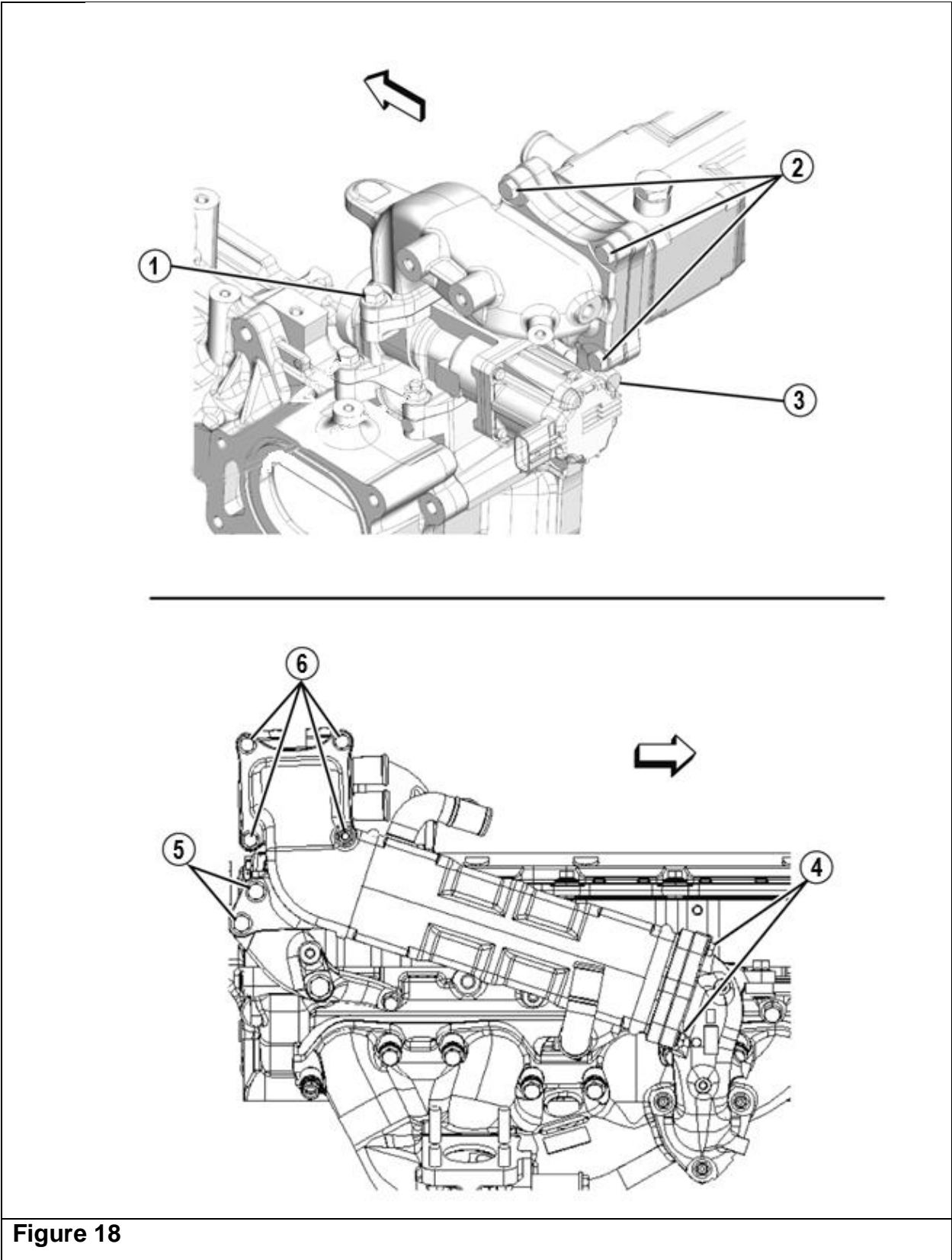
**Figure 16**

19. Tighten the three (3) new EGR Duct nuts in the order shown in Figure 17 to 35 N·m (26 lb·ft).



**Figure 17**

20. Initially tighten all of the loose EGR Cooler and Duct bolts in the order shown in Figure 18. Tighten the bolts to 4 N·m (35 lb·in).



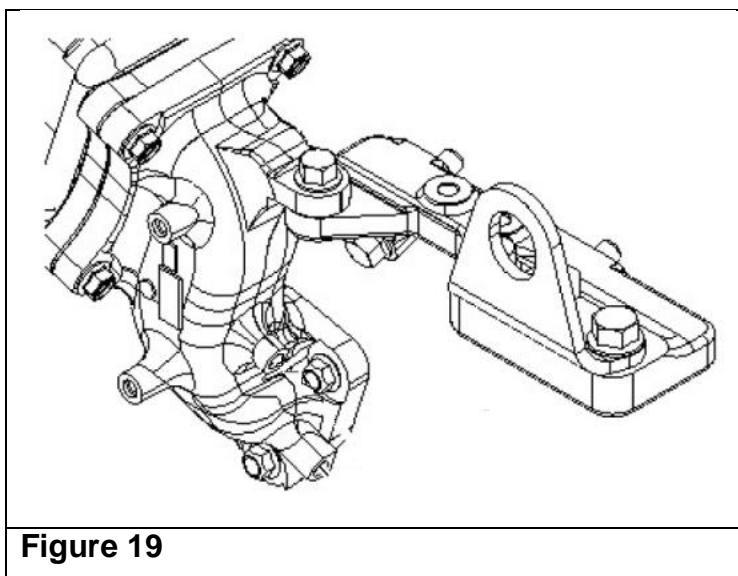
**Figure 18**

21. Final tighten all of the EGR Cooler and Duct bolts in the order shown in Figure 18. Tighten each bolt to the specifications indicated in Chart 1.

**EGR Duct and Cooler Bolts Tightening Specifications**

Bolts (1)	23.5 N·m (17.3 lb·ft)
Bolts (2) (4) (6)	28.4 N·m (21 lb·ft)
Bolts (3) (5)	48 N·m (35 lb·ft)
<b>Chart 1</b>	

22. Install the Number 1 EGR Cooler Duct Bracket. (See Figure 19.) Tighten the three (3) bracket bolts to 48 N·m (35 lb·ft).



**Figure 19**

23. Install the EGR Cooler Duct heat shield with the four (4) bolts removed and set aside in Step 6. (See Figure 4.) Tighten the bolts to 10 N·m (87 lb·in).
24. Install the air intake pipe assembly onto the turbocharger outlet and the air intake hose onto the air charge cooler. (See Figure 3.) Install new hose clamps and tighten them to 6.4 N·m (57 lb·in). Tighten the mounting nut to 8.0 N·m (71 lb·in).
25. Install the right side noise cover onto the frame using the five (5) bolts set aside in Step 4. (See Figure 2.) Tighten the bolts to 20.0 N·m (14 lb·ft).
26. Connect the negative battery cable.
27. Start the engine and confirm that exhaust is no longer leaking at the EGR Cooler Duct.
28. Per the instructions in the applicable WSM, remove and properly stow the safety lock pin and tilt the cab back down. Ensure the cab is locked into place.

## PARTS INFORMATION

The following new parts are available from AIPDN:

Part Number	Description	Qty
8-97378-064-0	STUD;EGR DUCT	3
8-97545-976-0	TUBE;DISTANCE	3
8-97061-401-1	NUT; DUCT, EGR VLV	3
8-98200-753-0	GASKET; COOLER	3

8-98123-166-0	GASKET; EGR PIPE	1
8-98106-025-1	GASKET; EGR VLV	1
8-98133-348-0	CLAMP; RUBBER HOSE	1
1-09707-141-0	CLAMP; RUBBER HOSE	1

### WARRANTY INFORMATION

For most vehicles, the procedures described in this bulletin will be covered under the Warranty Covering Emission Control Systems. For vehicles repaired under warranty, use:

<b>Labor Operation Code</b>	<b>Description</b>	<b>Labor Time</b>
<b>J6273</b>	<b>Replace EGR Cooling Duct Studs</b>	<b>1.1</b>