



TECHNICAL SERVICE BULLETIN

Classification: EM22-007D	Reference: ITB22-038D	Date: February 4, 2025
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TURBOCHARGER REPLACEMENT PROCEDURE

This bulletin has been amended. See **AMENDMENT HISTORY** on the last page.
Please discard previous versions of this bulletin.

APPLIED VEHICLES: 2016-2024 Q50 (V37)
2017-2022 Q60 (CV37)
APPLIED ENGINES: VR30DDTT

IF YOU CONFIRM

One or both turbochargers require replacement.

ACTION

1. Replace the affected turbocharger(s).
 - Refer to the **SERVICE PROCEDURE** in this bulletin for the updated procedure.

IMPORTANT: You MUST closely follow the entire **SERVICE PROCEDURE** as it contains information that is essential to successfully completing this repair.
2. Refer to step 212 in the **SERVICE PROCEDURE** to confirm if the ECM needs to be reprogrammed.
 - 2016-2024 Q50 and 2017-2021 Q60 will require ECM reprogramming at the end of this **SERVICE PROCEDURE**.
3. If the ECM part number is in **Table A** (page 61 and 63), reprogram the ECM.

IMPORTANT: The purpose of **ACTION** (above) is to give you a quick idea of the work you will be performing. You MUST closely follow the entire **SERVICE PROCEDURE** as it contains information that is essential to successfully completing this repair.

Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **HINT:** If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Infiniti retailer to determine if this applies to your vehicle.

SERVICE PROCEDURE

Remove Driveline

IMPORTANT: The following Figures are of an AWD vehicle; 2WD is similar.

1. Place the vehicle on a lift that will allow the drivetrain to be removed.
2. Remove the Engine Cover.
 - Refer to the ESM: **REPAIR > ENGINE > ENGINE MECHANICAL > REMOVAL AND INSTALLATION > ENGINE COVER**
3. Remove the Cowl Top Cover RH and Cowl Top Cover LH.
 - Refer to the ESM: **REPAIR > BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY > EXTERIOR > REMOVAL AND INSTALLATION > COWL TOP**
4. Disconnect the battery cable from the negative terminal.
5. Remove the cover from the battery positive terminal.
6. Disconnect the battery cable from the positive terminal.
7. Release the fuel pressure.

⚠ WARNING

To avoid the risk of death or severe personal injury, work in a well-ventilated area to prevent gasoline vapors from accumulating and to prevent their possible ignition.

- Refer to the ESM: **DIAGNOSIS > ENGINE > ENGINE CONTROL SYSTEM > BASIC INSPECTION > ENGINE CONTROL SYSTEM > FUEL PRESSURE CHECK**

8. Disconnect the wiring harness connector shown in Figure 1.
9. Roll up the wiring harness dust boot (Figure 1).

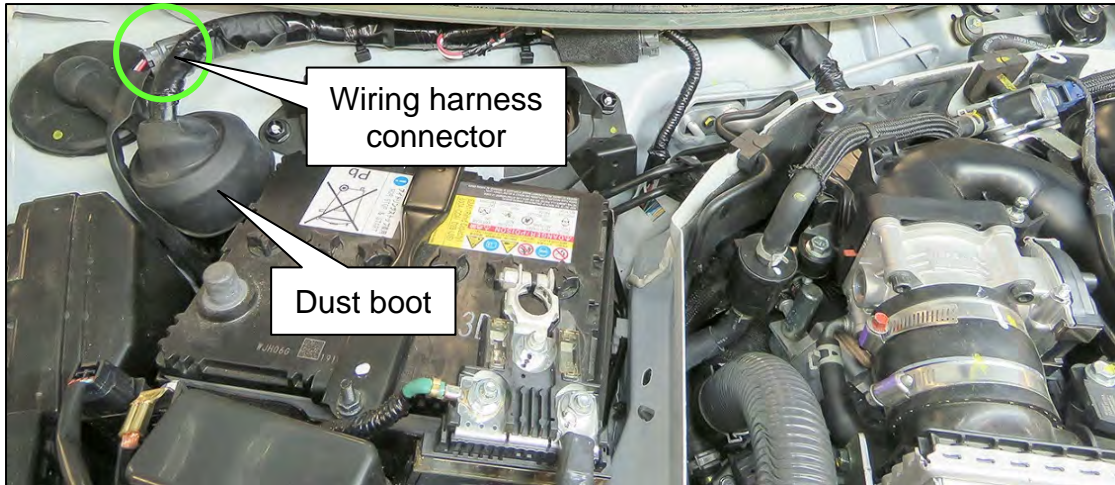


Figure 1

10. Disconnect the Engine Control Harness connector from the Engine Room Harness connector (Figure 2), located under the dust boot.

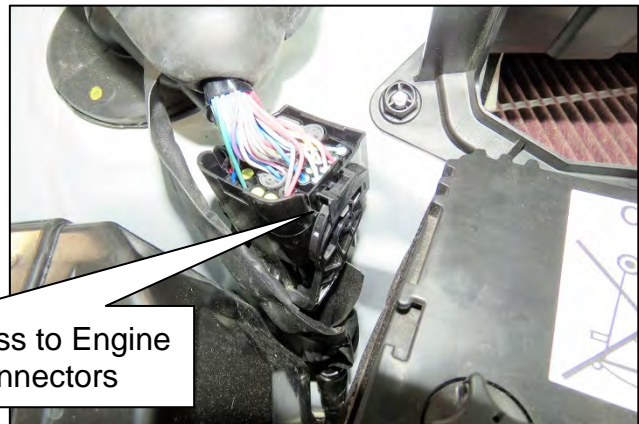


Figure 2

11. Disconnect the wiring harness connector shown in Figure 3.
 - Located directly behind the battery.
12. Detach the two (2) engine control harness mounting clips (Figure 3).

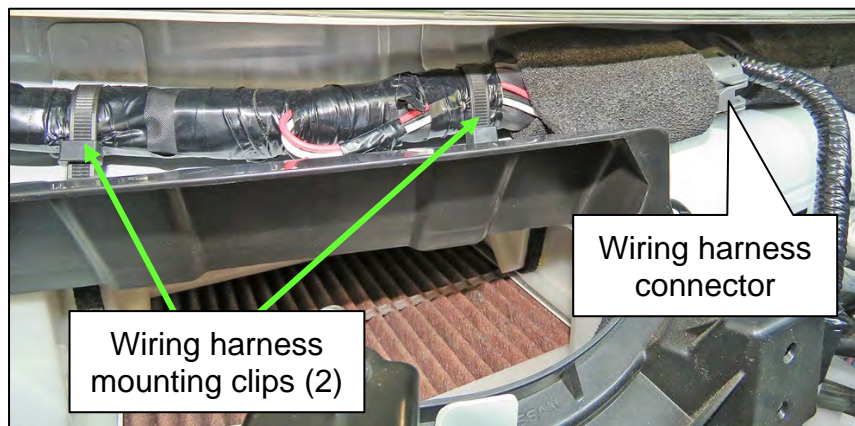


Figure 3

13. Detach the Engine Control Harness grommet from the bulkhead.

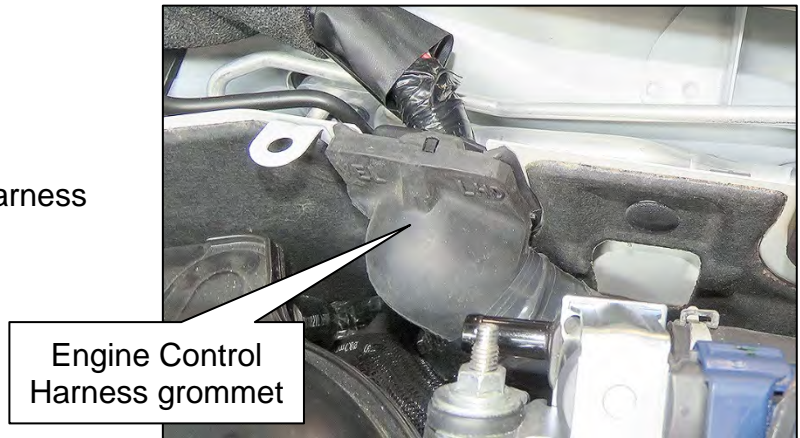


Figure 4

14. Disconnect Vacuum Hose 1 from the vacuum piping (Figure 5), and then detach its grommet from the bulkhead.

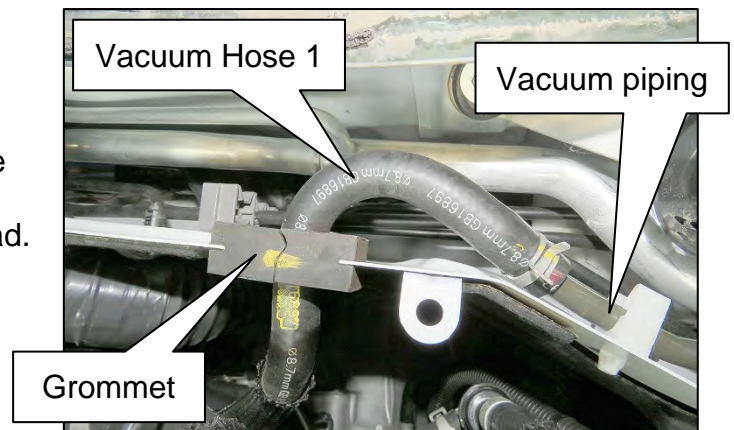


Figure 5

15. Disconnect the three (3) ECM wiring harness connectors.

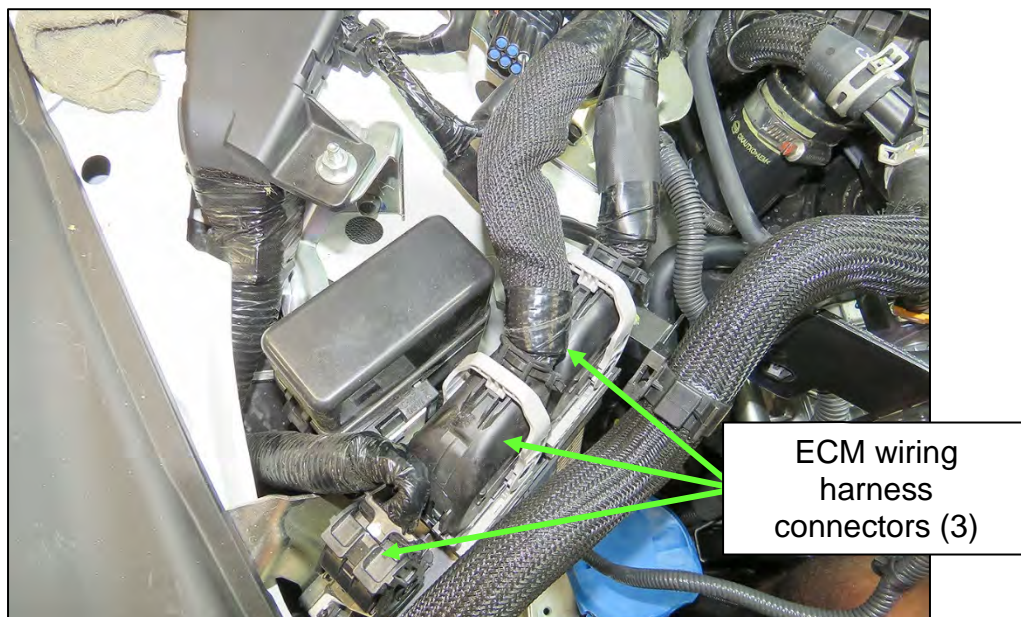


Figure 6

16. Disconnect the three (3) wiring harness connectors shown in Figure 7.

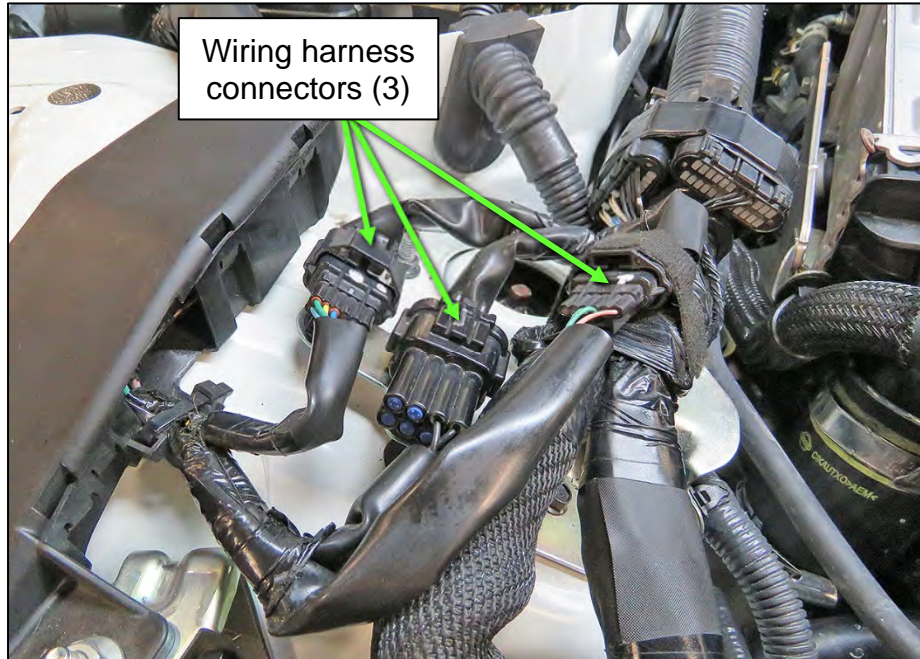


Figure 7

17. Remove the positive battery cable nut, and then remove the positive battery cable from the battery terminal with fusible link.

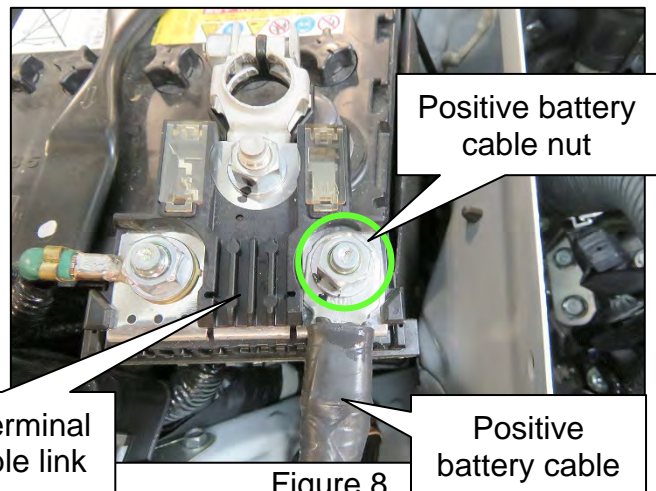


Figure 8

18. Disconnect the engine wiring harness from its mounting bracket.
19. Detach the positive battery cable grommet from the vehicle.

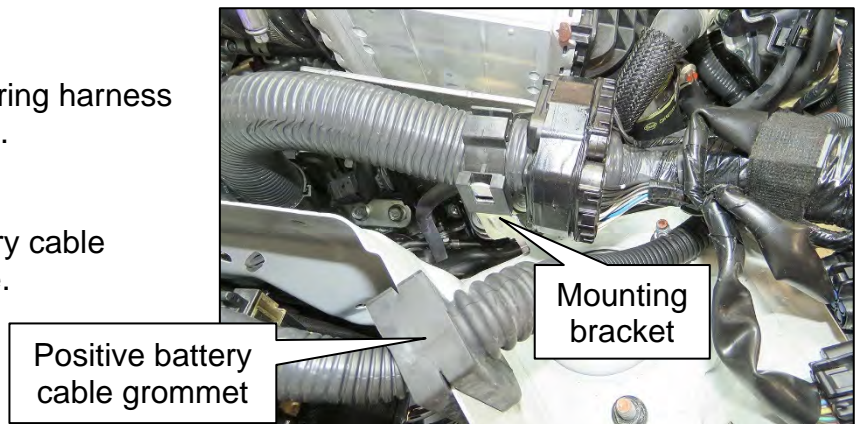


Figure 9

20. Detach the body ground cable (Figure 10) and the engine ground cable (Figure 11).
- The body ground cable is located on the driver (LH) side of the engine room inner fender.
 - The engine ground cable is located on the front of the timing cover.

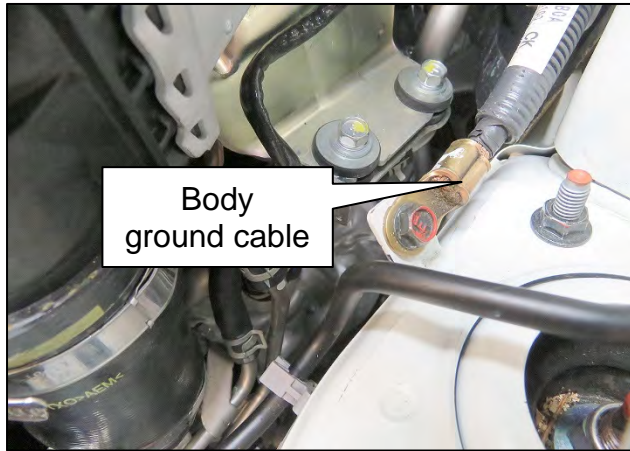


Figure 10

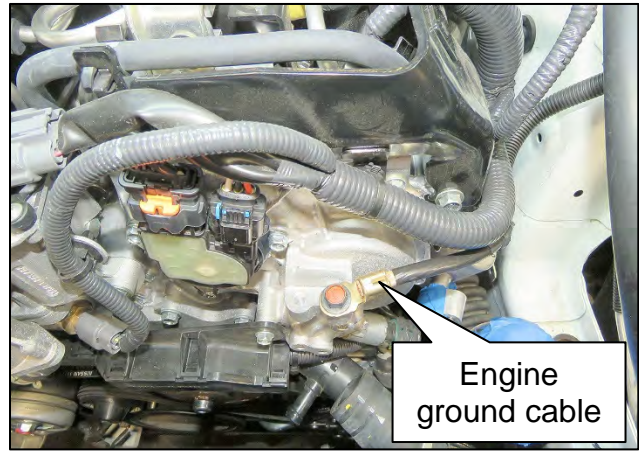


Figure 11

21. Remove all vehicle Under Covers.
22. Drain the coolant from the radiator.
23. Remove the two (2) bolts retaining the engine room wiring harness bracket shown in Figure 12.
24. Disconnect both the passenger (RH) side and the driver (LH) side heater hoses from the engine.

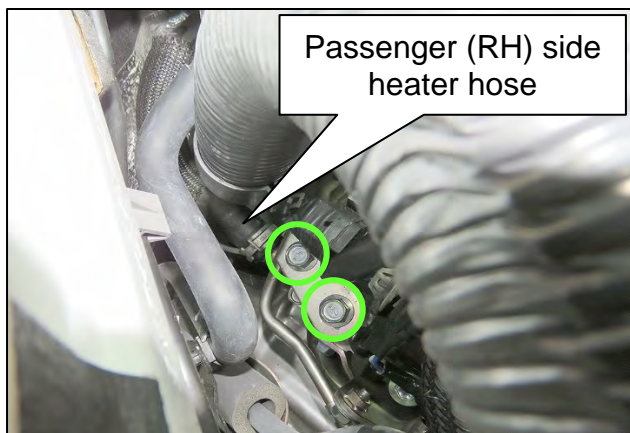


Figure 12



Figure 13

25. Detach Fuel Feed Hose 2.

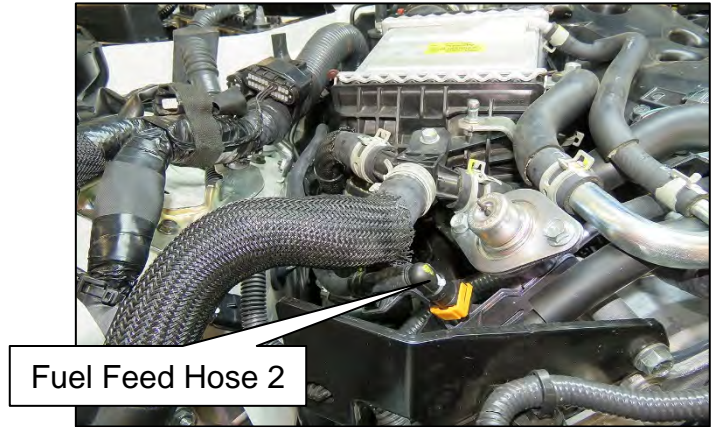


Figure 14

26. Disconnect Water Hose 1 from Connector Pipe 3.

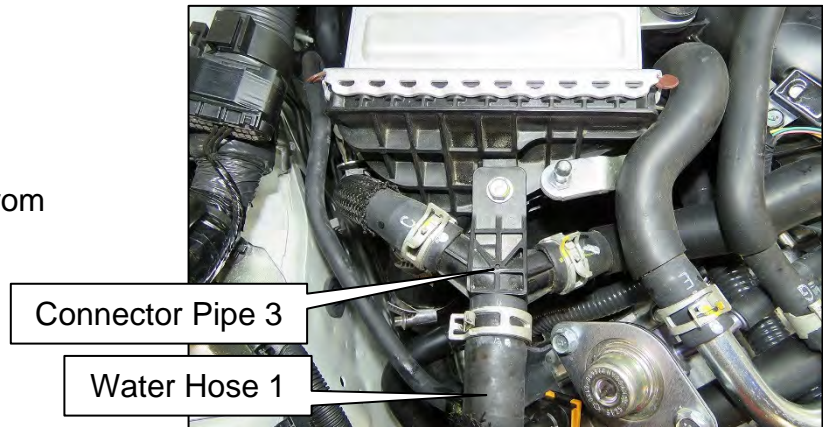


Figure 15

27. Disconnect Water Hose 9 from Water Pipe 3.

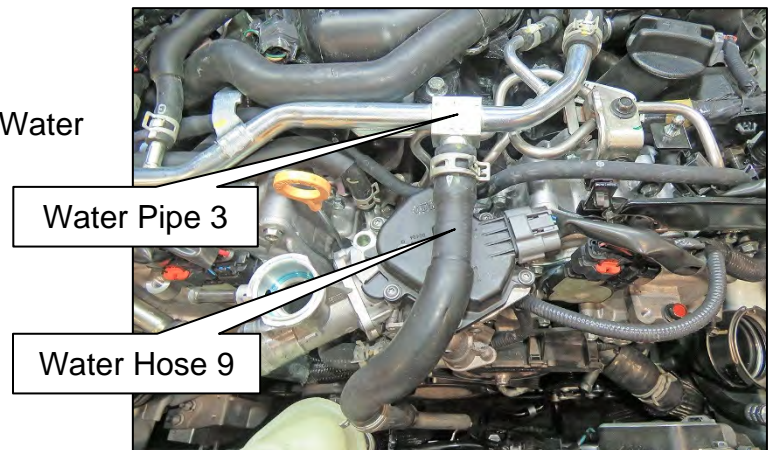


Figure 16

28. Remove the Air Duct (inlet), shown in Figure 17.

- Eight (8) clips.

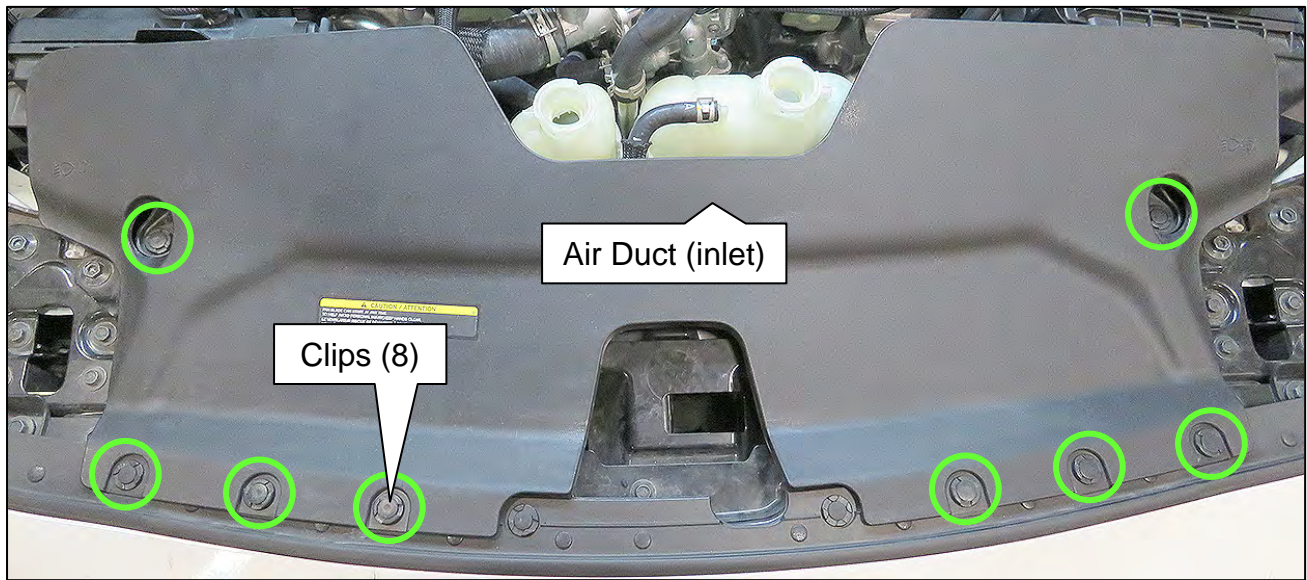


Figure 17

29. Disconnect the Radiator Hose (Upper) and the Reservoir Tank Hose from the Multi-way Control Valve.

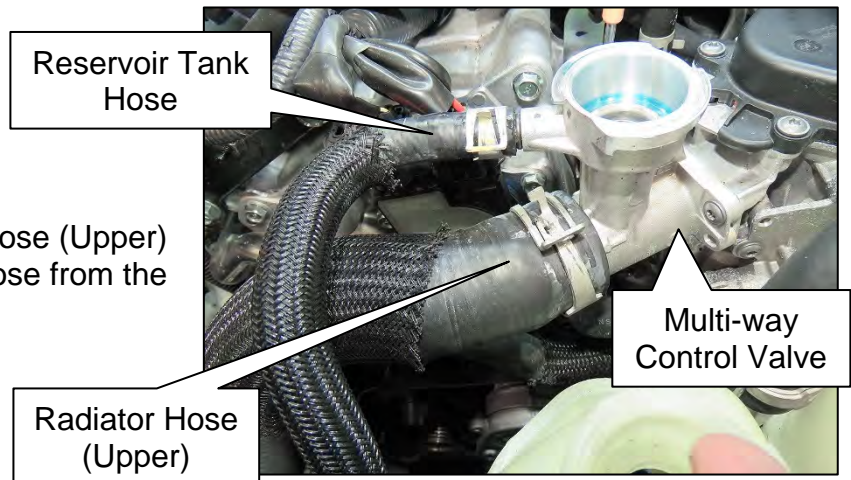


Figure 18

30. Disconnect the Radiator Hose (Upper) from the radiator.

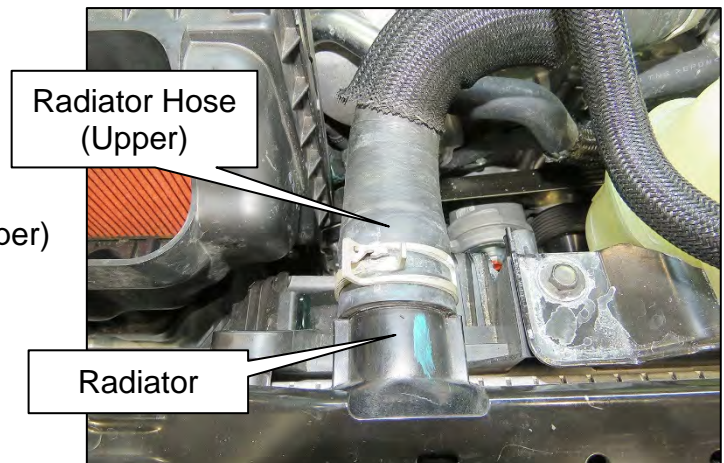


Figure 19

31. Unclip the first clip of the passenger (RH) side and the driver (LH) side Hood Side Seal Assemblies, to allow access to the Air Cleaner Body (bank 1) and Air Cleaner Body (bank 2) mounting bolts (Figure 20).

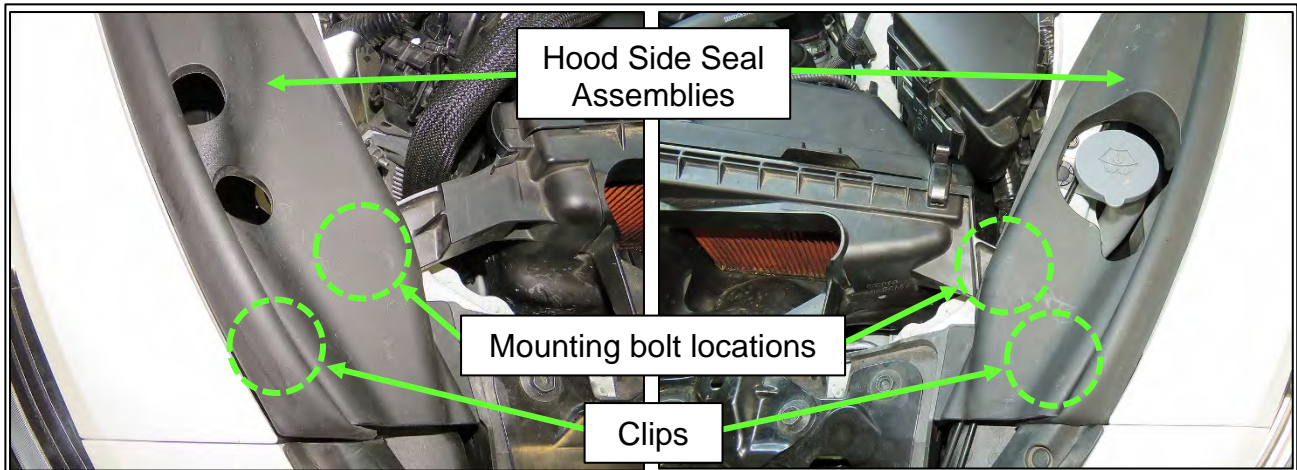


Figure 20

32. Disconnect both MAF sensor wiring harness connectors from the MAF sensors (Figure 21), located on the Air Cleaner Body (bank 1) and Air Cleaner Body (bank 2).
33. Unclip the MAF sensor wiring harnesses from Air Cleaner Body (bank 1) and Air Cleaner Body (bank 2).
34. Unbolt both Air Cleaner Body (bank 1) and Air Cleaner Body (bank 2); two (2) bolts each where shown in Figure 21.
35. Detach both Air Cleaner Body (bank 1) and Air Cleaner Body (bank 2) from Air Duct (bank 1) and Air Duct (bank 2), and then remove them from the vehicle.
 - Air Duct (bank 1) and Air Duct (bank 2) are located beneath Air Cleaner Body (bank 1) and Air Cleaner Body (bank 2).

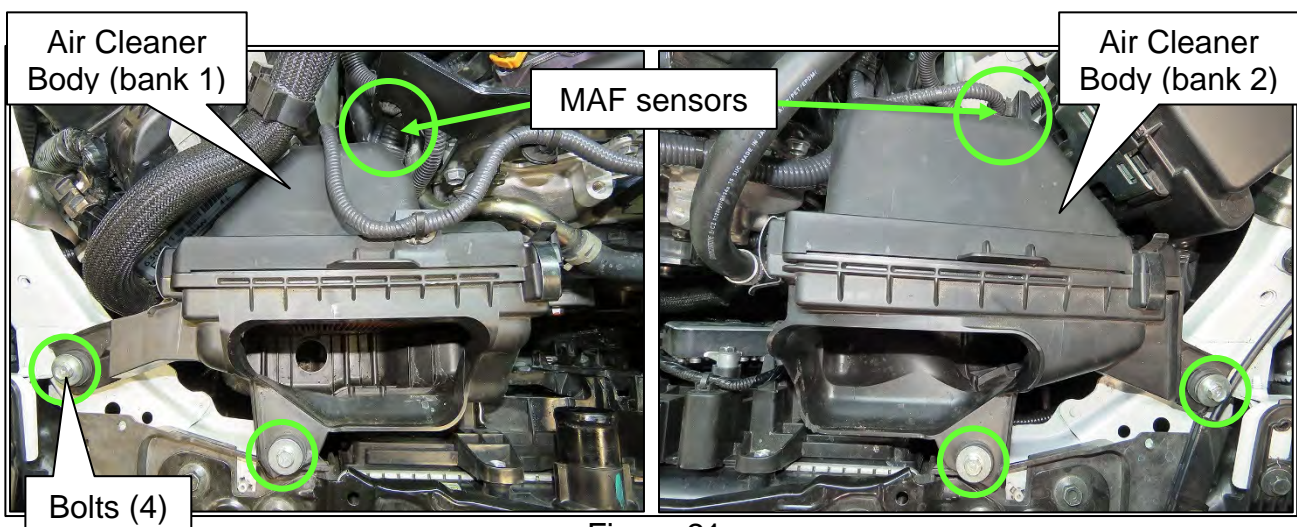


Figure 21

36. Place tape over Air Duct (bank 1) and Air Duct (bank 2) inlets, to prevent foreign objects from entering the ducts.

NOTICE

To prevent engine damage, tape must be placed over both duct inlets. If foreign debris enter either duct inlet, turbocharger damage and possibly engine damage may occur.

37. For vehicles that have an oil cooler, remove the two (2) bolts retaining Oil Cooler Pipe 1 bracket to the vehicle (Figure 22 and Figure 23), located under the Air Cleaner Body (bank 1).

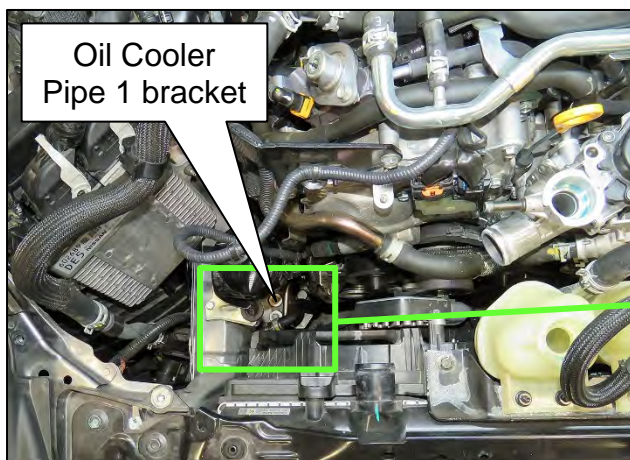


Figure 22

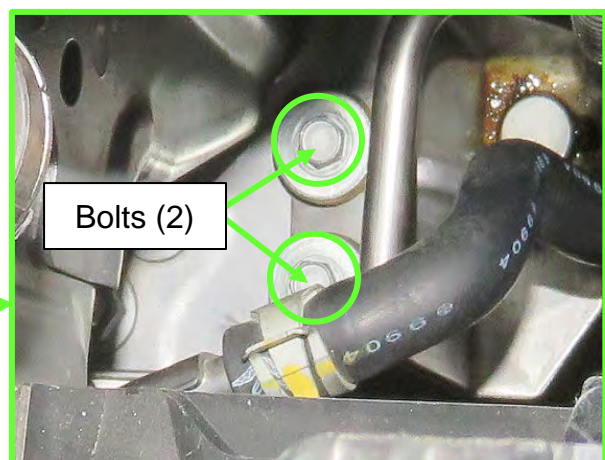


Figure 23

38. Recover the A/C refrigerant using approved equipment.

39. Disconnect the High-Pressure Flexible Hose from the condenser.

- One (1) bolt.

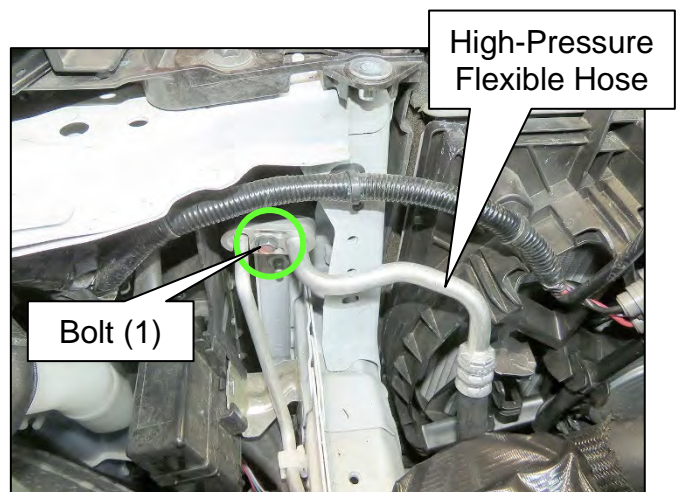


Figure 24

40. Disconnect the Low-Pressure Flexible Hose from the Internal Heat Exchanger Pipe.
- One (1) bolt.

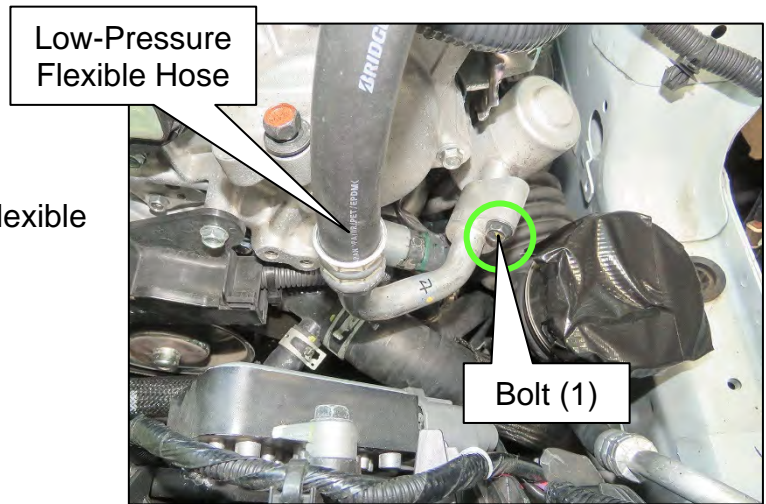


Figure 25

41. Detach the Radiator Hose (lower) and the Reservoir Tank Hose from the Multi-way Control Valve.

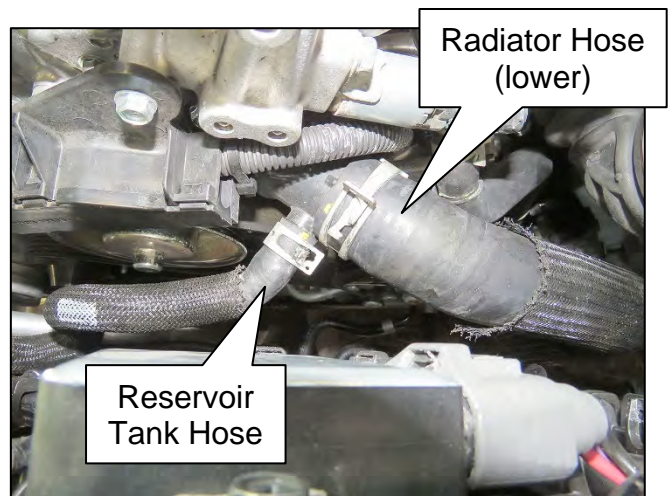


Figure 26

The following Figures are of the passenger (RH) side AWD; driver (LH) side is similar.
HINT: 2WD is similar for steps 42-47.

42. Raise the vehicle to a comfortable height, and then remove both front wheel assemblies.

The following steps will be performed on both passenger (RH) side and the driver (LH) side.

43. Remove both front brake caliper assemblies and rotors.
 - Do not disconnect hydraulic hoses.

HINT: Two (2) piston caliper shown in Figure 27. Four (4) piston removal is similar.

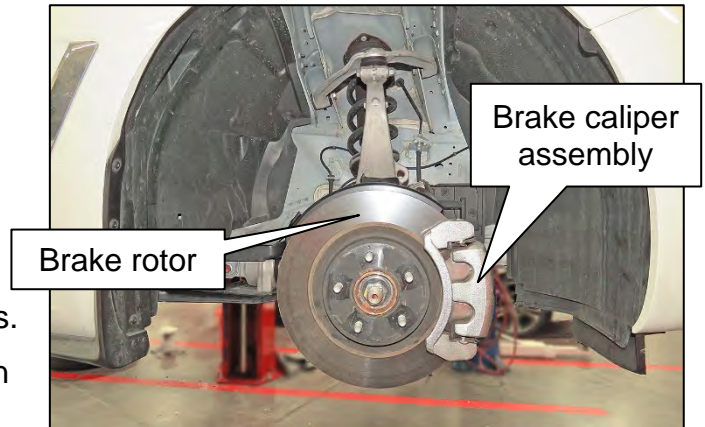


Figure 27

44. Remove the brake hose locator clips.

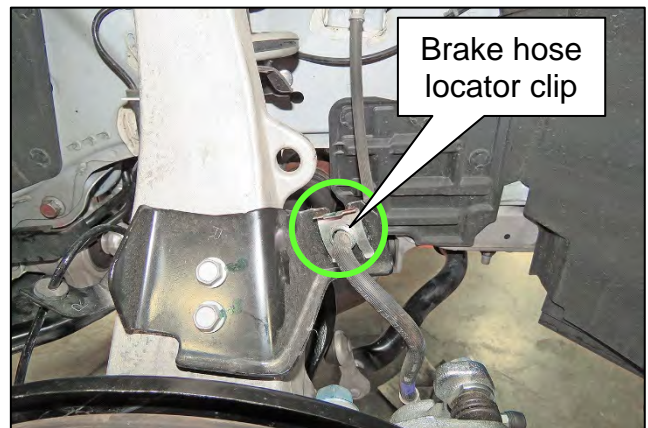


Figure 28

45. Remove the wheel sensors from both front Steering Knuckles.

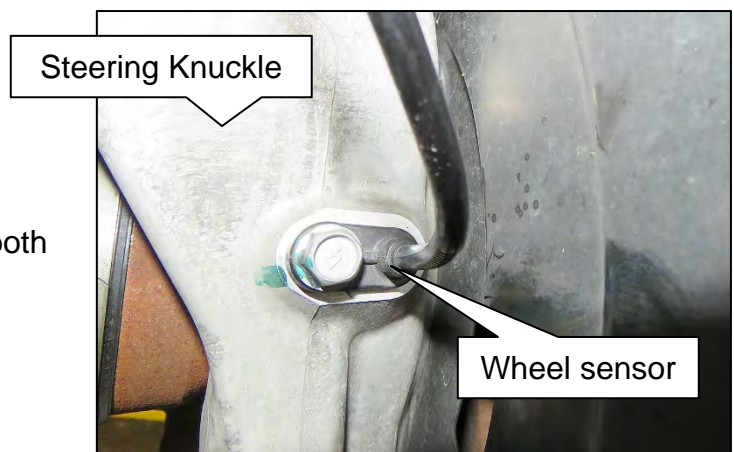


Figure 29

46. Detach the wheel sensor harnesses from the two (2) locations they are attached to on each steering knuckle bracket (Figure 30).

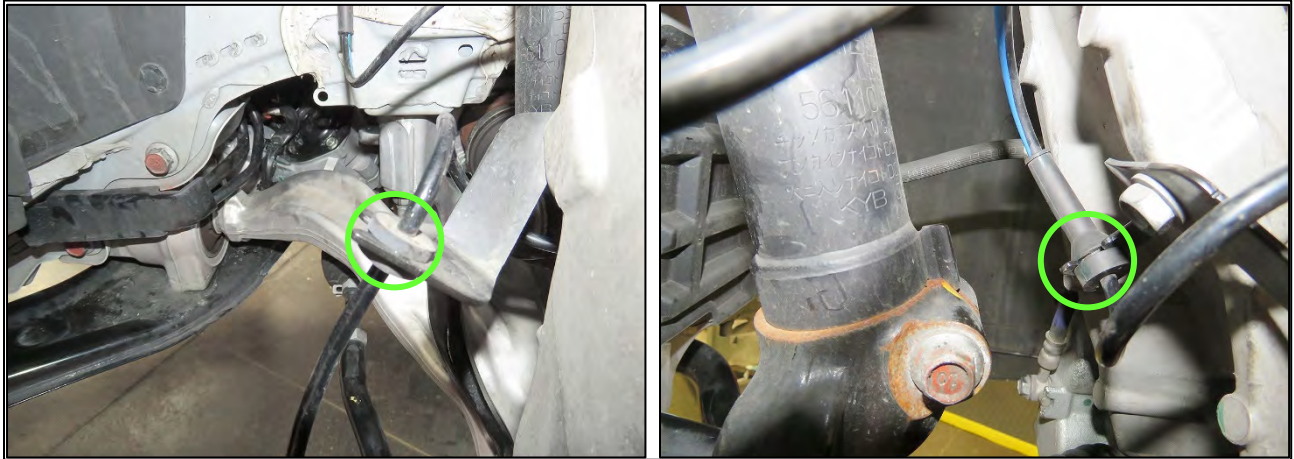


Figure 30

47. Remove the top steering knuckle nuts and remove both bolts.

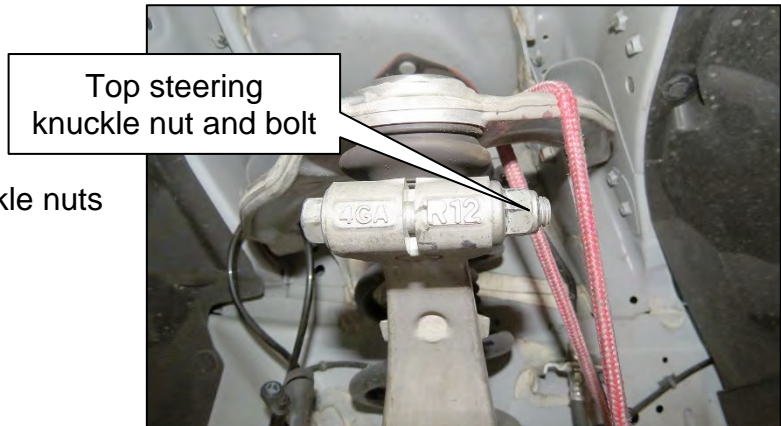


Figure 31

48. Remove the Shock Absorber Arm to the Transverse Link nuts and both bolts.

- AWD shown in Figure 32. The 2WD bolt is in the same location.

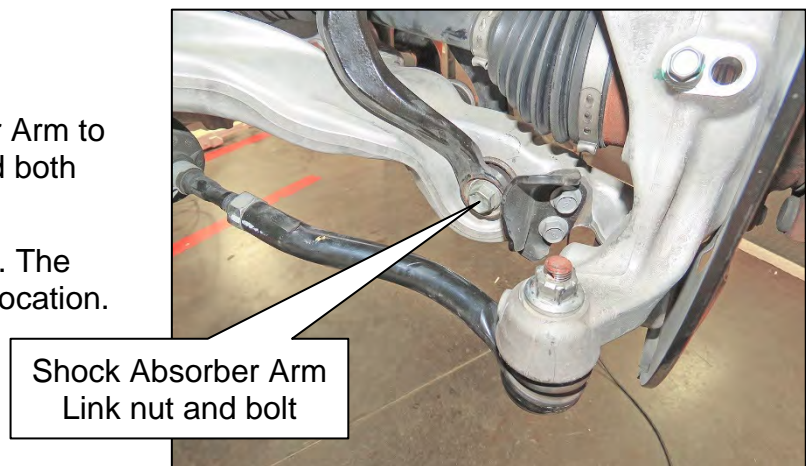


Figure 32

49. Raise the vehicle to a comfortable height to disconnect the undercarriage components.

50. Remove the two (2) nuts and bolts that connect the Exhaust Front Tube to the Center Muffler, where shown in Figure 33.

- For AWD vehicles, the Center Muffler will remain attached to the vehicle.

51. For 2WD only, remove the complete propeller shaft from the vehicle.

- Refer to the ESM: **REPAIR > TRANSMISSION & DRIVELINE > DRIVELINE > REMOVAL AND INSTALLATION > REAR PROPELLER SHAFT**

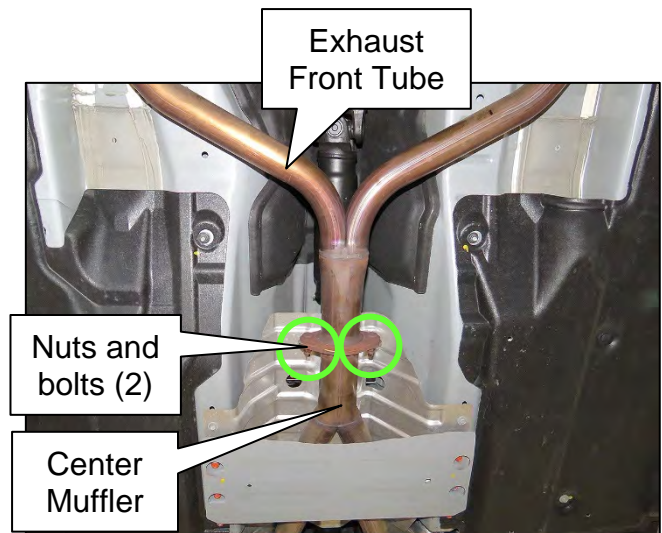


Figure 33

52. For AWD vehicles, remove the four (4) nuts and bolts that connect the propeller shaft to the transmission, and then disconnect the propeller shaft from transmission.

- The propeller shaft will remain attached to the final drive.
- One (1) hidden nut/bolt in Figure 34.



Figure 34

53. Disconnect the transmission's Control Rod.

- Remove the Snap Pin to separate the Control Rod.

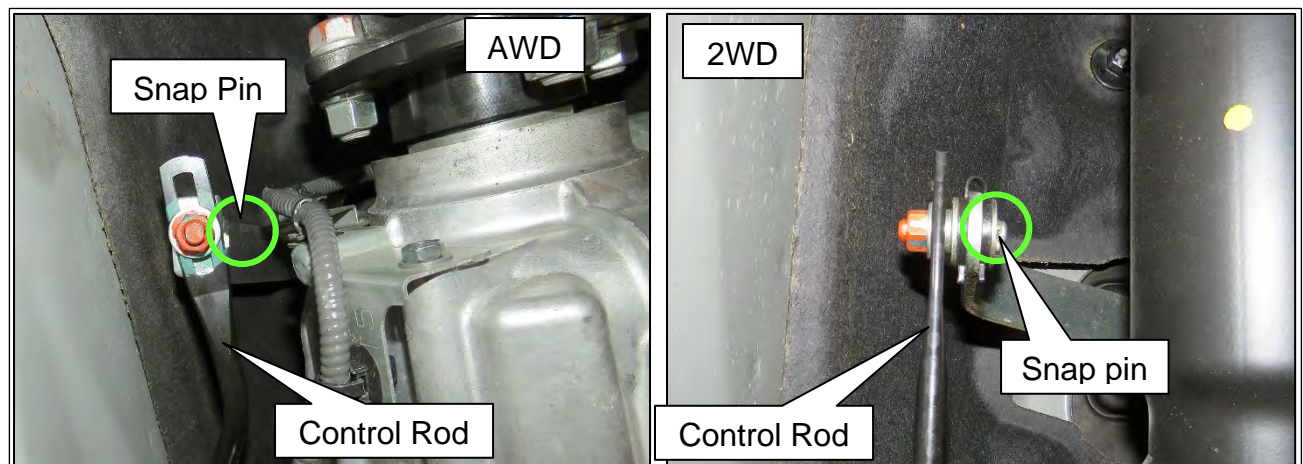


Figure 35

54. Secure the steering wheel, so that it cannot rotate.
55. Remove one (1) bolt, and then disconnect the steering shaft from the steering rack.

HINT: The bolt location and component view may differ based on the type of steering system.

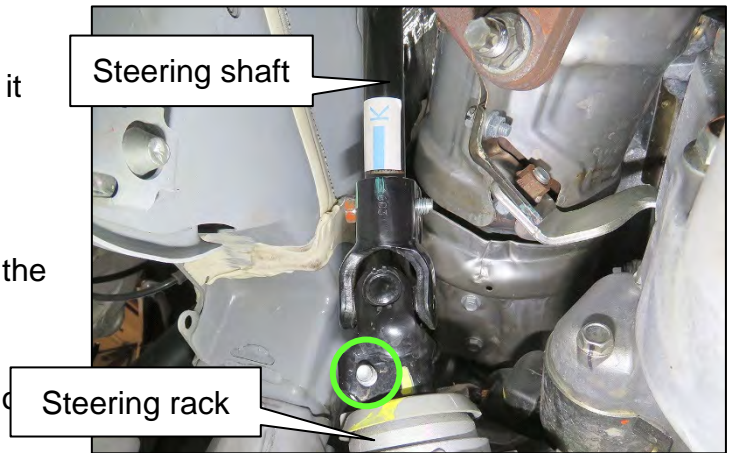


Figure 36

56. Disconnect the power steering wiring harness connector, if present.
 - Electric power steering type shown in Figure 37.
 - Located on either the driver (LH) side or passenger (RH) side of the front corner of the front suspension member.

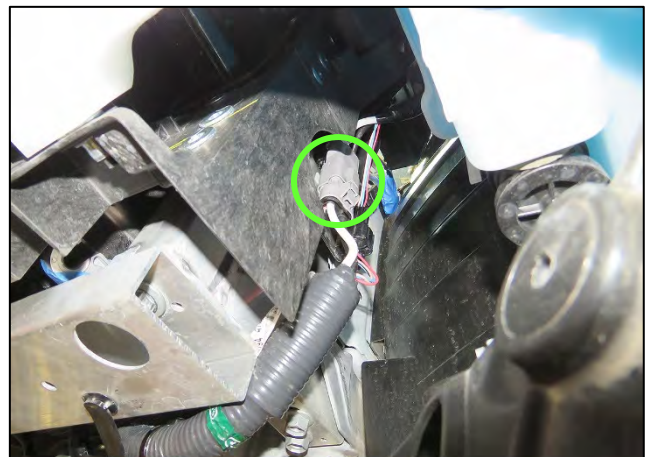


Figure 37

57. Detach the A/T fluid cooler hoses.

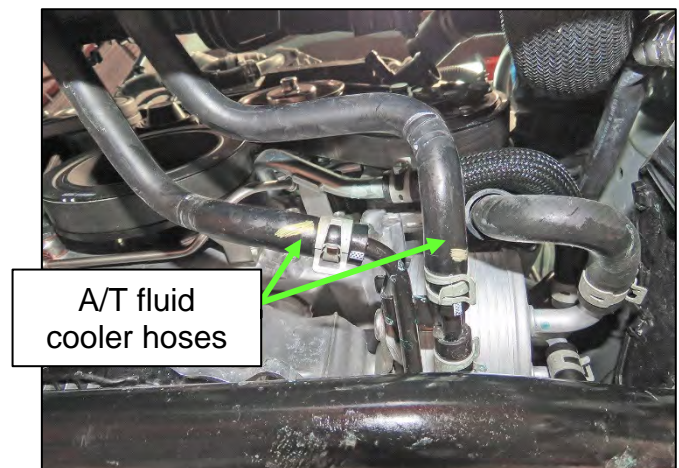


Figure 38

58. If the vehicle has an oil cooler, disconnect Oil Cooler Hose 1 and Oil Cooler Hose 2.

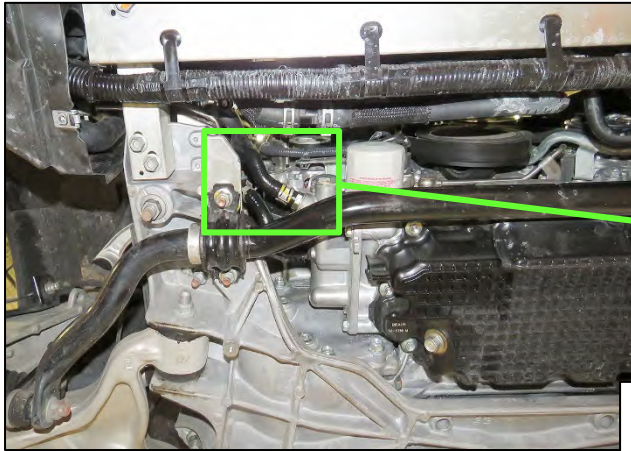


Figure 39

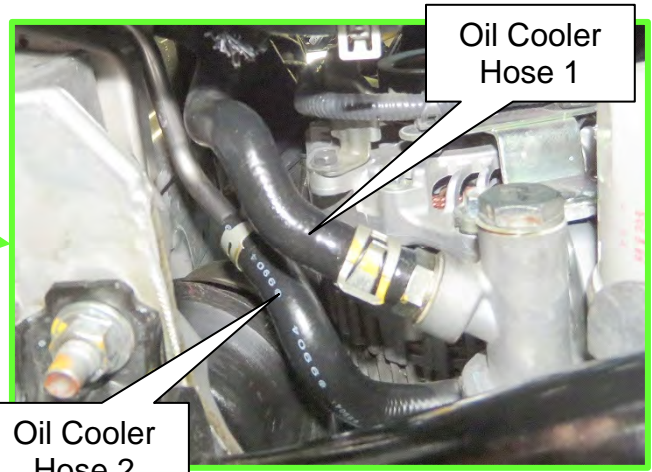


Figure 40

59. Place a driveline support table under the driveline, and raise to support the driveline.

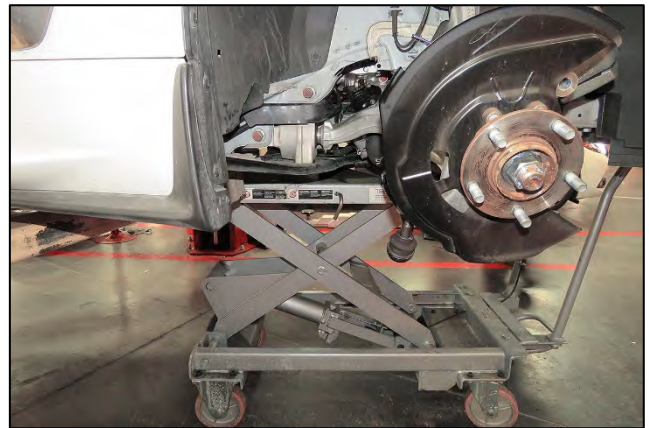


Figure 41

60. Remove the four (4) rear engine mounting member bolts (Figure 42).
61. Remove the front suspension member nuts and bolts indicated in Figure 42.
- AWD has a total of four (4) front suspension member nuts.
 - 2WD has two (2) front suspension member nuts.
 - Two (2) front suspension member bolts (both AWD and 2WD).
 - AWD only: Two (2) front cross bar bolts.

HINT: Figure 42 is of an AWD vehicle. Nut and bolt locations are similar for 2WD.

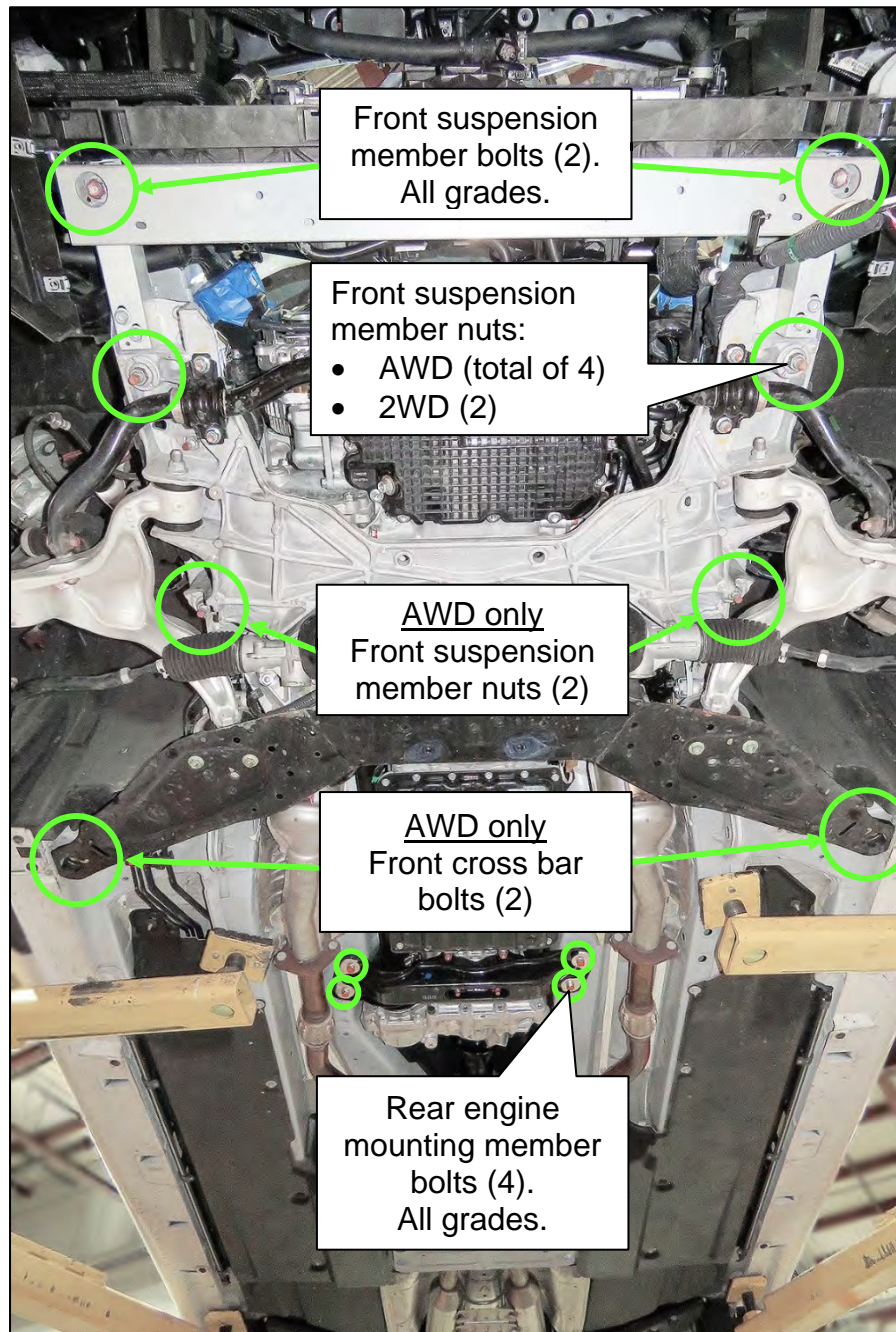


Figure 42

62. For AWD vehicles, remove the four (4) transverse link bolts; two (2) per side.

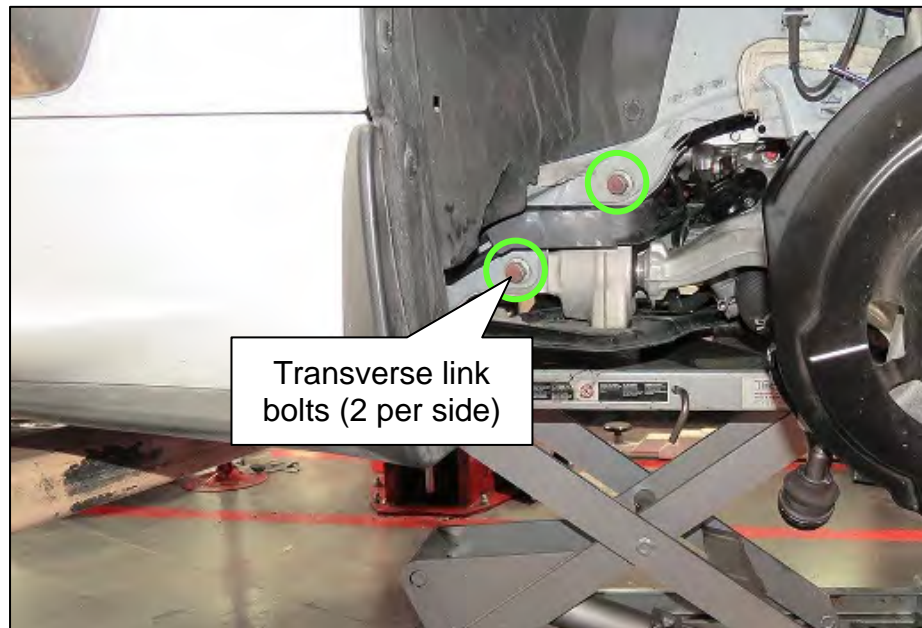


Figure 43

63. Carefully lower the complete driveline away from the vehicle.

Remove the Passenger (RH) Side Turbocharger

64. Loosen the Air Inlet Hose clamp shown in Figure 44. This hose will be detached in step 81 on page 24.
65. Release the spring clamps and disconnect the two (2) associated hoses, shown in Figure 44.
66. Disconnect the wiring harness connector shown in Figure 44.

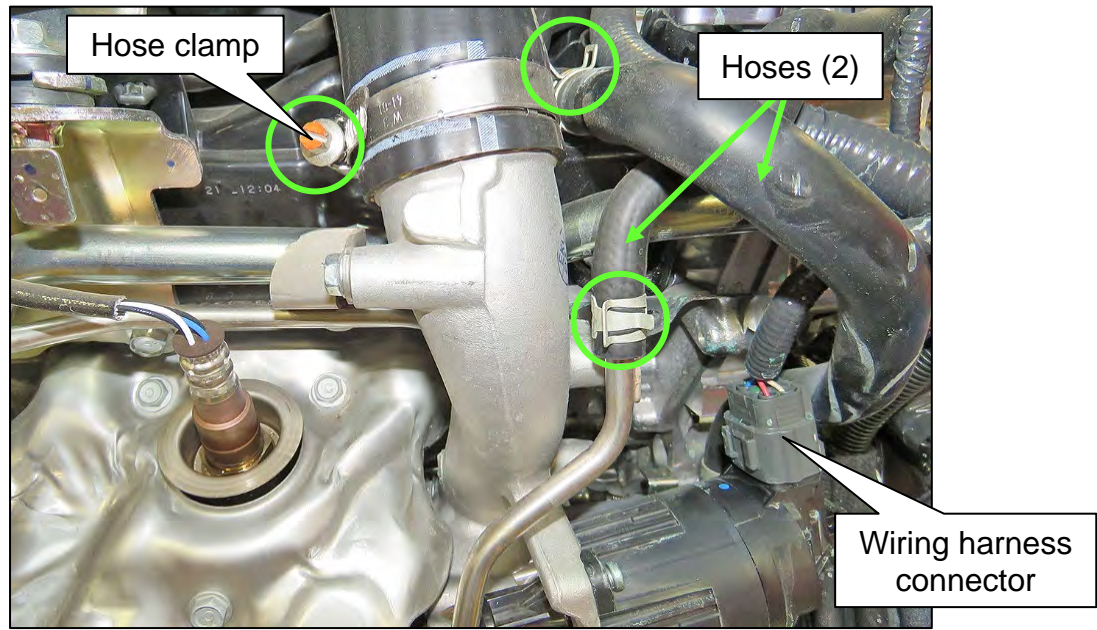


Figure 44

67. Unplug the A/F sensor wiring harness connector, and then remove the A/F sensor from the turbocharger housing.
68. If present, unplug the Turbocharger Exhaust Gas Temperature Sensor (Bank 1) wiring harness connector, and then remove the sensor from the turbocharger housing.

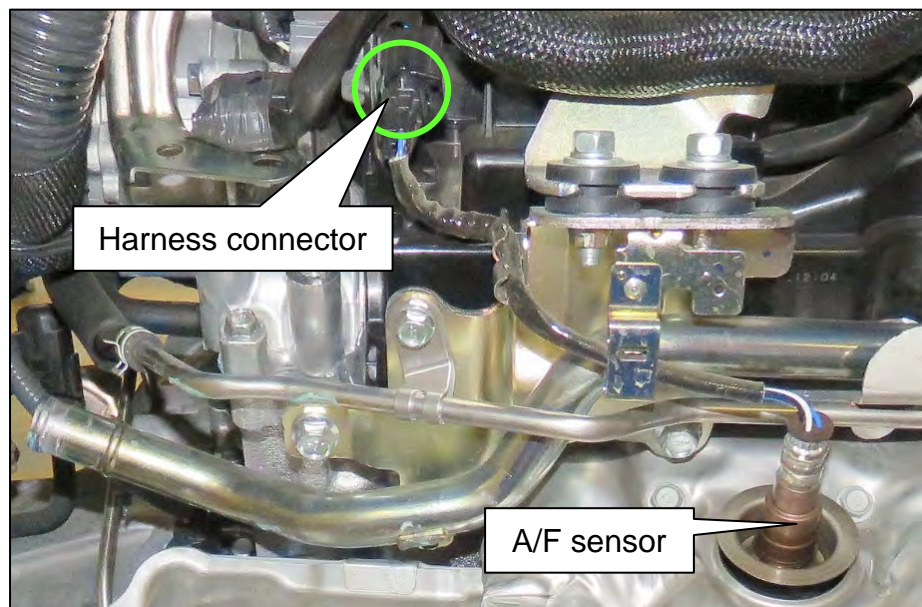


Figure 45

69. Remove the turbocharger Heat Insulator (upper).

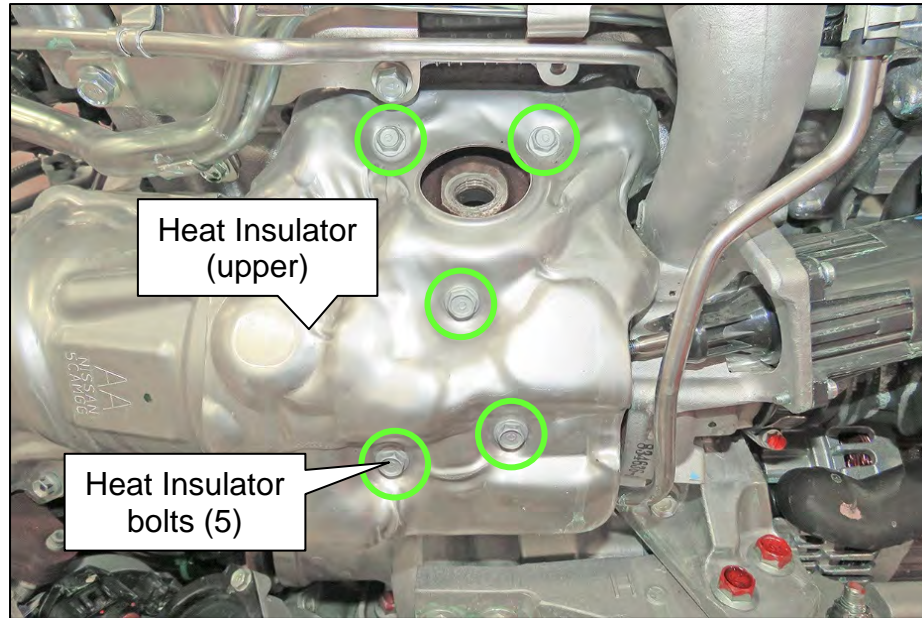


Figure 46

70. Remove the two (2) exhaust mount bolts shown in Figure 47.

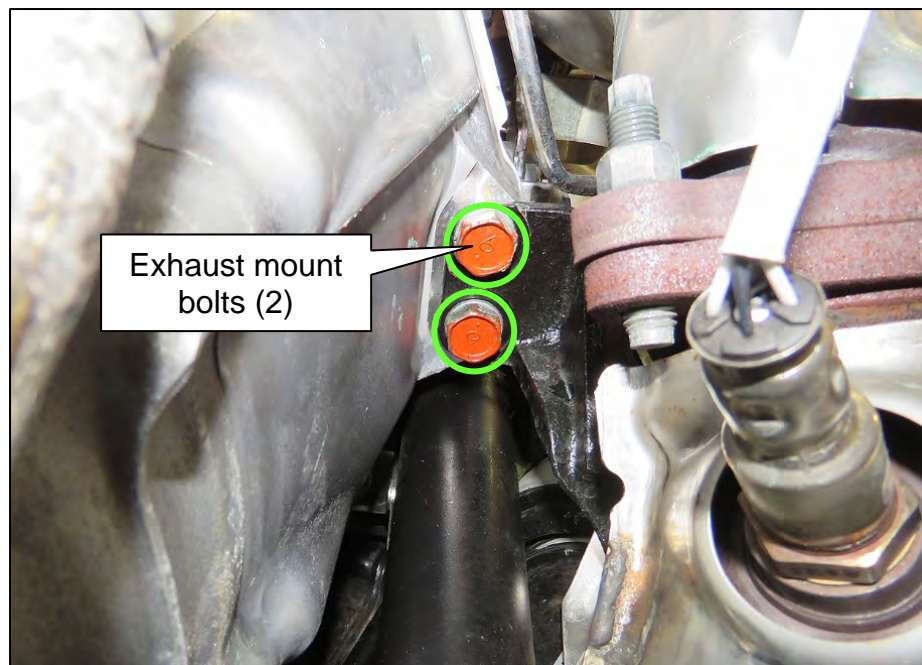


Figure 47

71. Remove the three (3) nuts that connect the Catalyst Converter (bank 1) to the 2nd Catalyst Converter (bank 1).

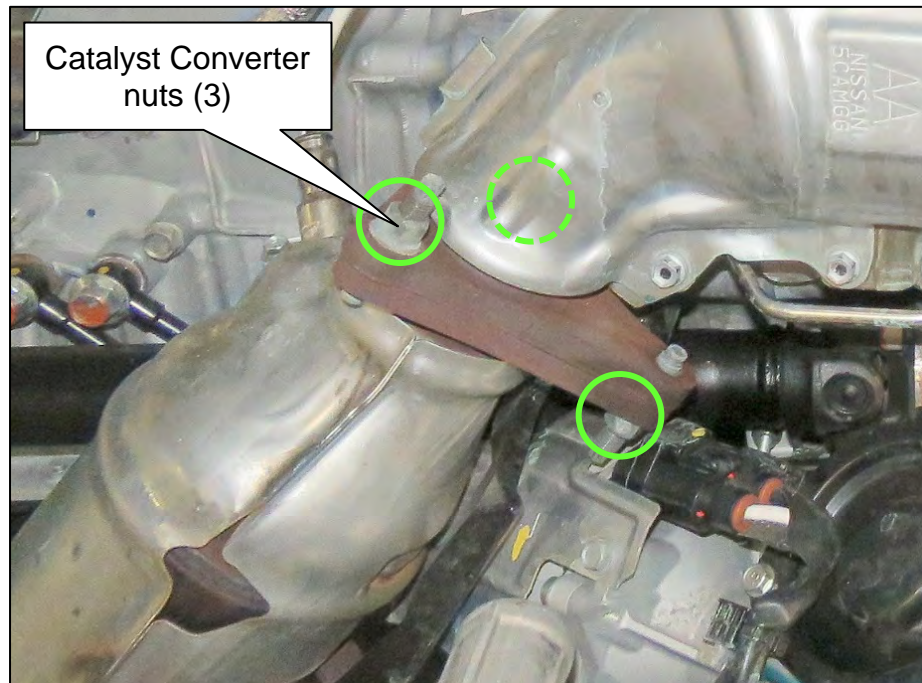


Figure 48

72. Remove the Catalyst Converter (bank 1) support bracket bolt.

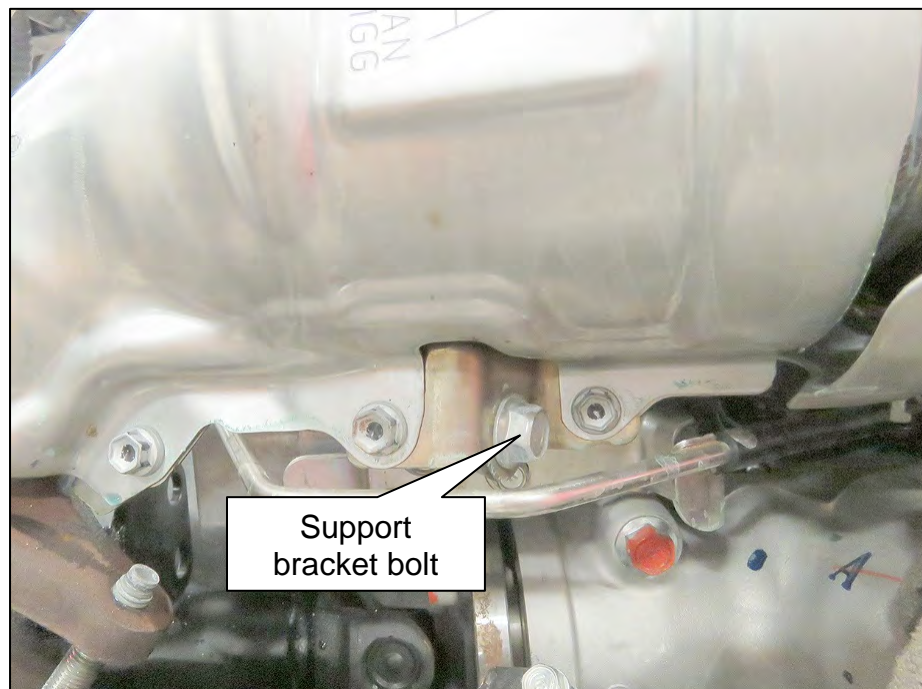


Figure 49

73. Release the spring clamp and disconnect the associated coolant hose shown in Figure 50.
74. Remove the water tube bracket bolt (Figure 50).

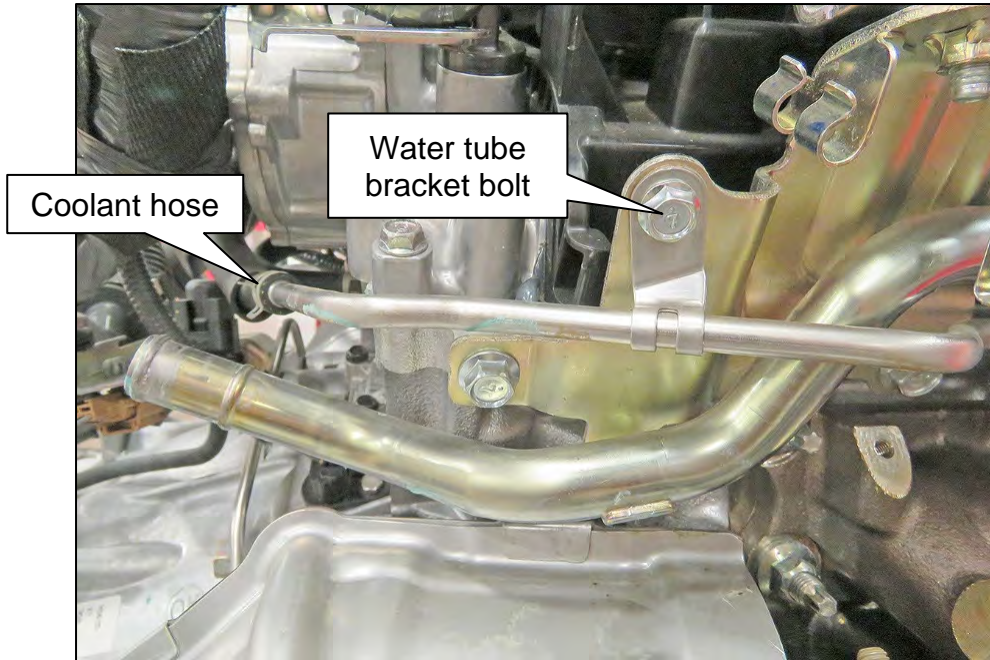


Figure 50

75. If present, disconnect the Turbocharger Speed Sensor (Bank 1) wiring harness connector (not shown).
76. Loosen the turbocharger assembly mounting nuts in order, from 1 to 4, as shown in Figure 51.
77. Remove the band clamp bolt.

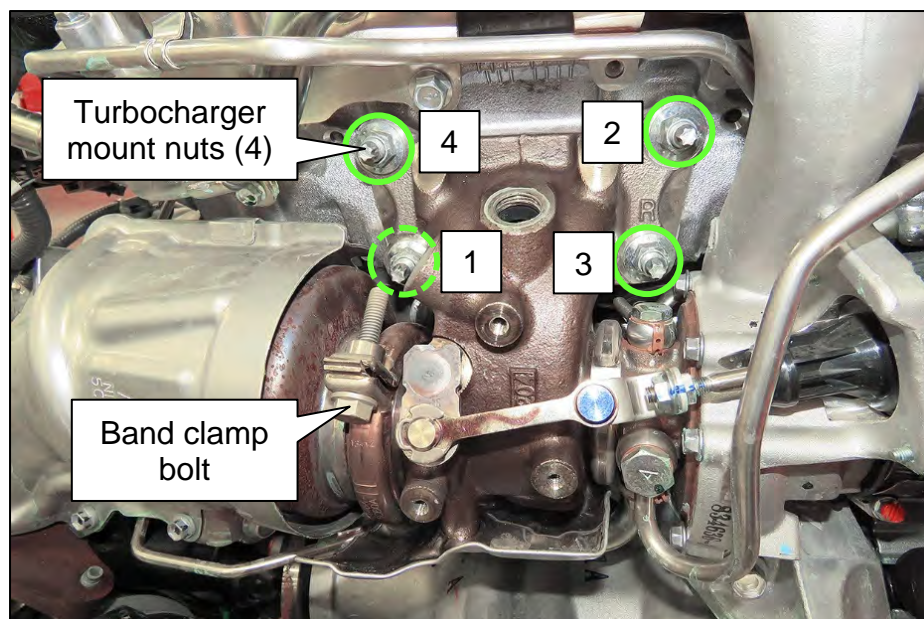


Figure 51

78. Detach Catalyst Converter (bank 1) from the turbocharger outlet.
79. Release the spring clamp and disconnect the associated oil return hose shown in Figure 52.

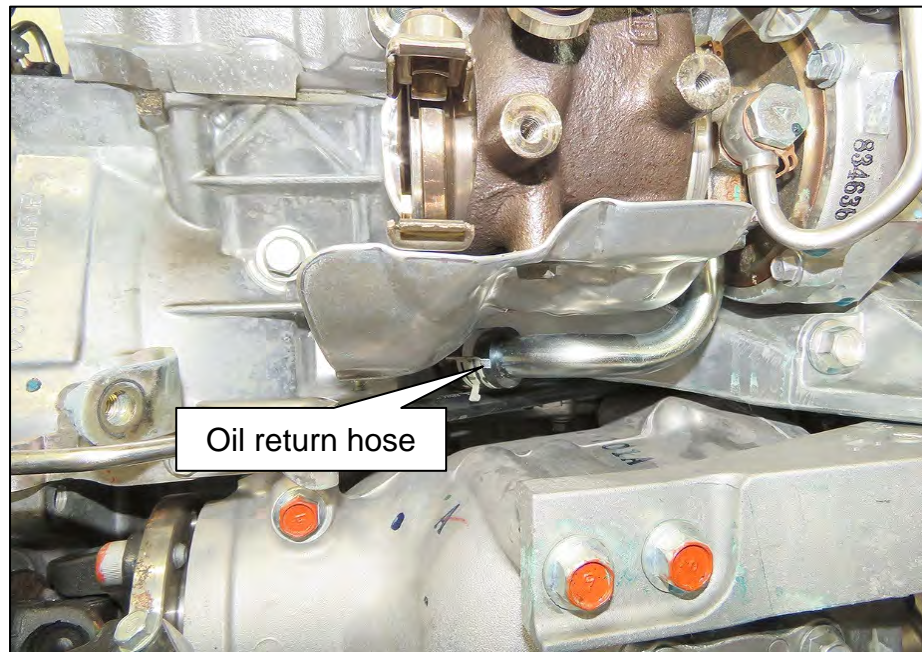


Figure 52

80. Remove the eye bolt retaining the oil feed tube.

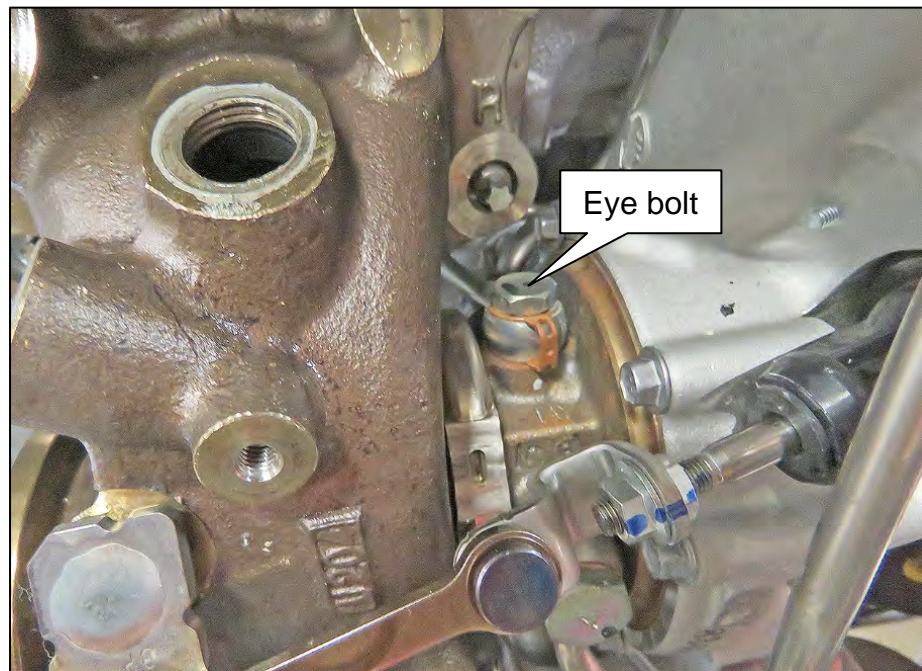


Figure 53

81. Detach the Air Inlet Hose from the turbocharger.
82. Gently remove the turbocharger from its mounting studs so that the oil line mounting bracket bolt can be reached (Figure 54).
83. Remove the oil feed tube mounting bracket bolt shown in Figure 54.

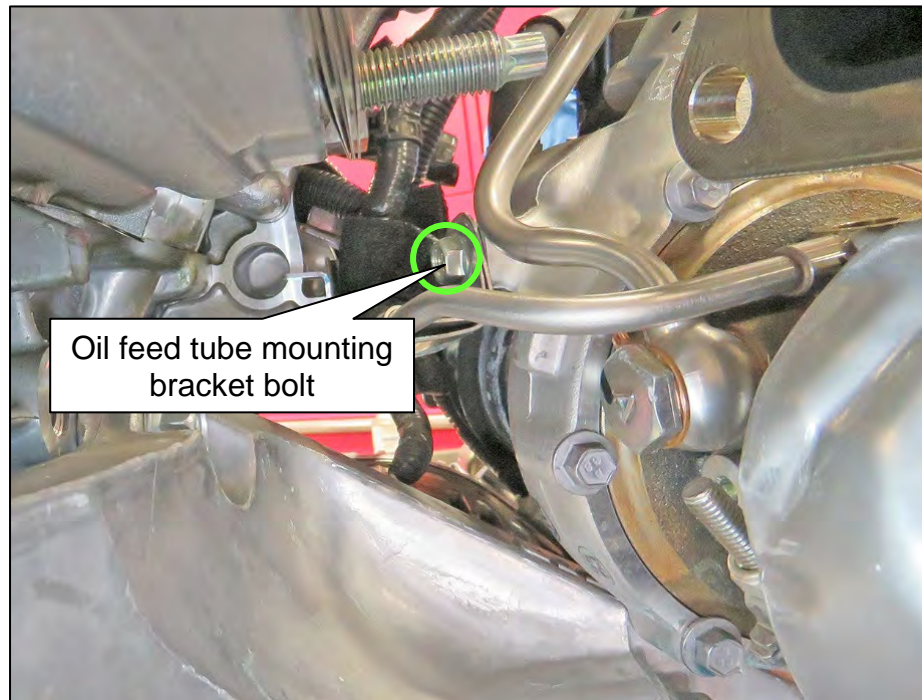


Figure 54

84. Remove the turbocharger from the engine and place it on a clean workbench.

Reinstall the Passenger (RH) Side Turbocharger

85. Transfer the components from the old to the new turbocharger assembly and torque to the specifications below.

IMPORTANT: Refer to **PARTS INFORMATION** for single use parts.

- Water tube eye bolt torque: 25.0 N•m (2.6 kg-m, **18 ft-lb**)
HINT: One (1) Water tube eye bolt is hidden in Figure 55.
- Bracket bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)
- Oil Return Pipe 1 bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)
- Heat Insulator (lower) bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)
- If present, Turbocharger Speed Sensor (bank 1):
 - Wiring harness connector bracket to turbocharger torque: 7.0 N•m (0.71 kg-m, **62 in.-lb**)
 - Wiring harness connector to bracket torque: 2.2 N•m (0.22 kg-m, **19 in.-lb**)

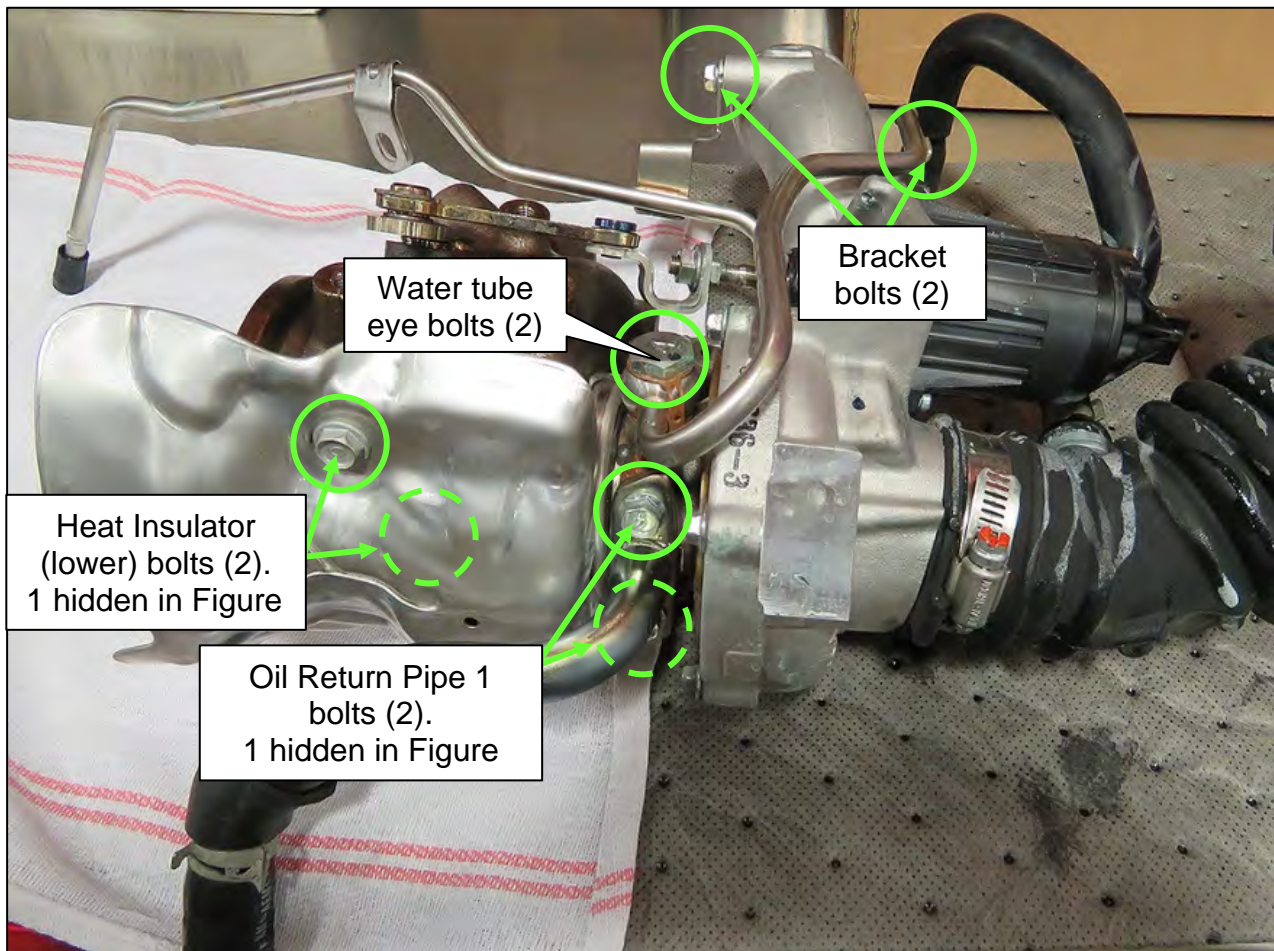


Figure 55

86. Install and temporarily tighten the eye bolt for the oil line, with a new gasket (Figure 56).
87. Reattach the oil feed tube mounting bracket with bolt (Figure 56) and torque to specification.
 - Bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)

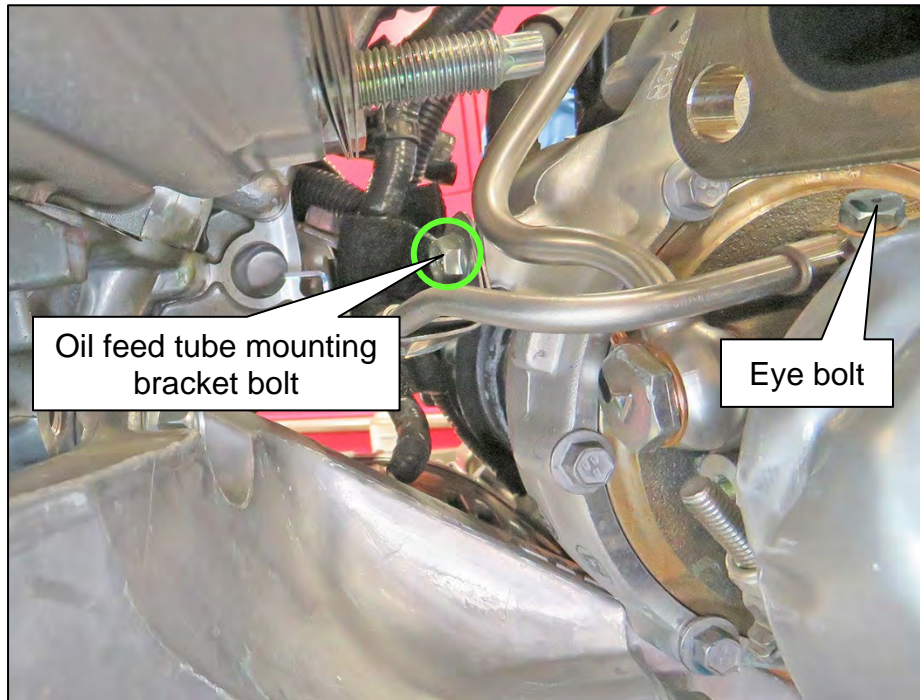


Figure 56

88. Align the turbocharger Air Inlet Hose 1 (bank 1) with the turbocharger output, and then slide the turbocharger onto its mounting studs.
 - Leave the turbocharger Air Inlet Hose 1 (bank 1) clamp loose at this time.
 - Replace the turbocharger to cylinder head gasket with a new part from **PARTS INFORMATION**.

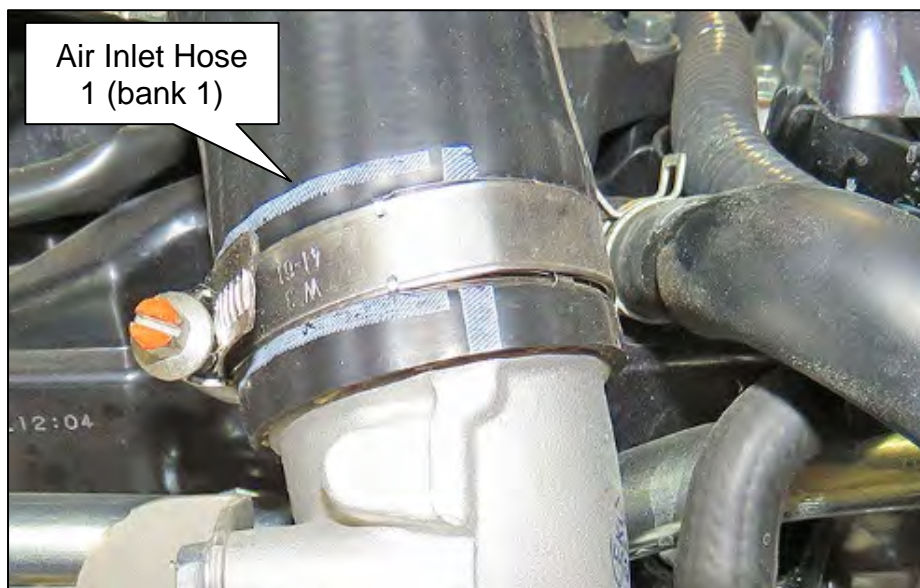


Figure 57

89. Reconnect the oil return hose and spring clamp.

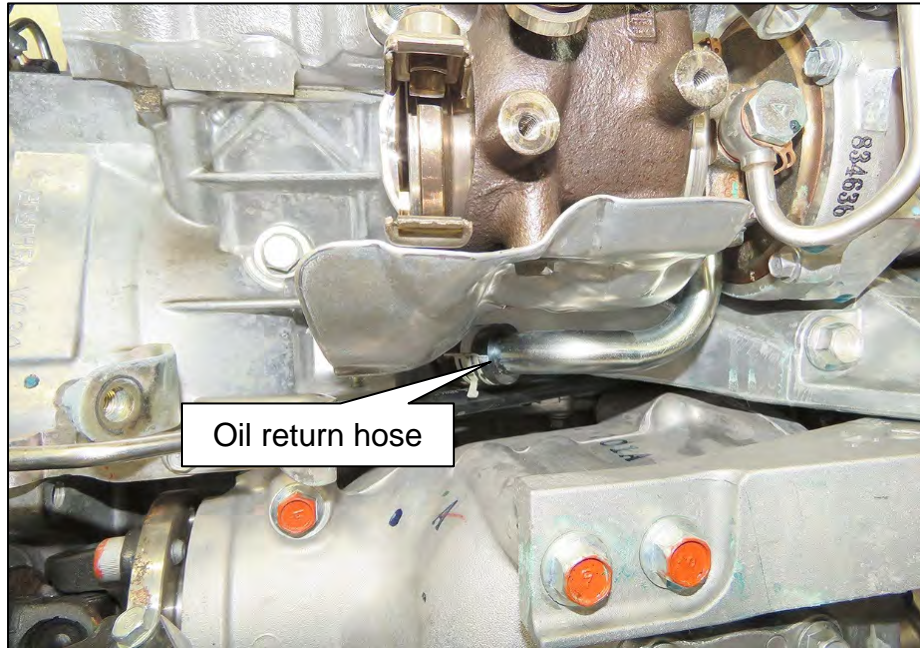


Figure 58

90. Install all four (4) turbocharger mount nuts, and then torque them in the order (from 1 to 6) shown in Figure 59.
- Nut torque: 30.5 N•m (3.1 kg-m, **22 ft-lb**)
91. Align the Catalyst Converter (bank 1) with 2nd Catalyst Converter (bank 1) studs and install the nuts finger tight. See **PARTS INFORMATION** for new gasket.
92. Reattach the Catalyst Converter (bank 1) to the turbocharger outlet, and then lightly tighten the band clamp bolt enough to align catalyst, but allow it to rotate.

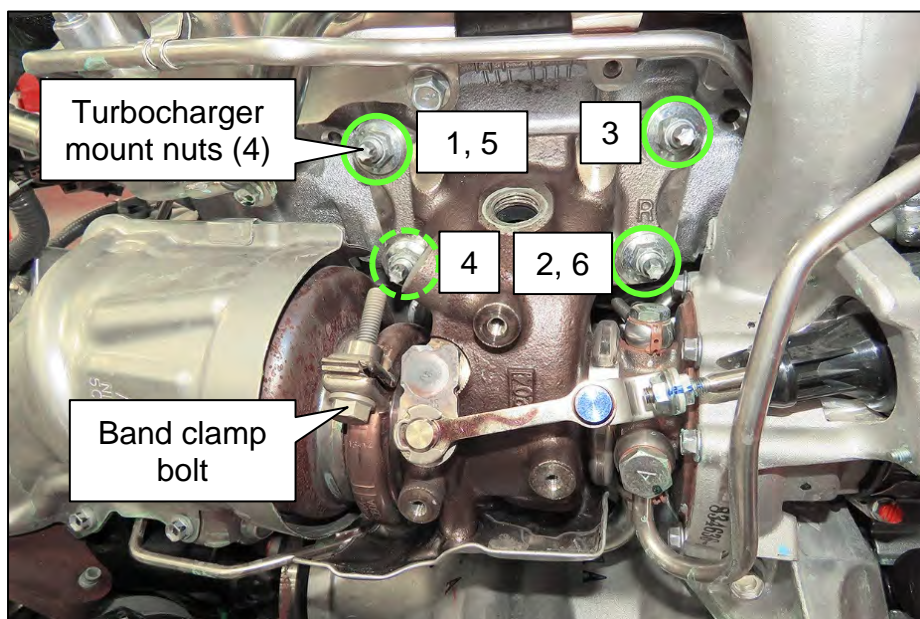


Figure 59

93. Install the catalyst converter support bracket bolt and torque to specification.
- Bolt torque: 47.8 N•m (4.9 kg-m, **35 ft-lb**)

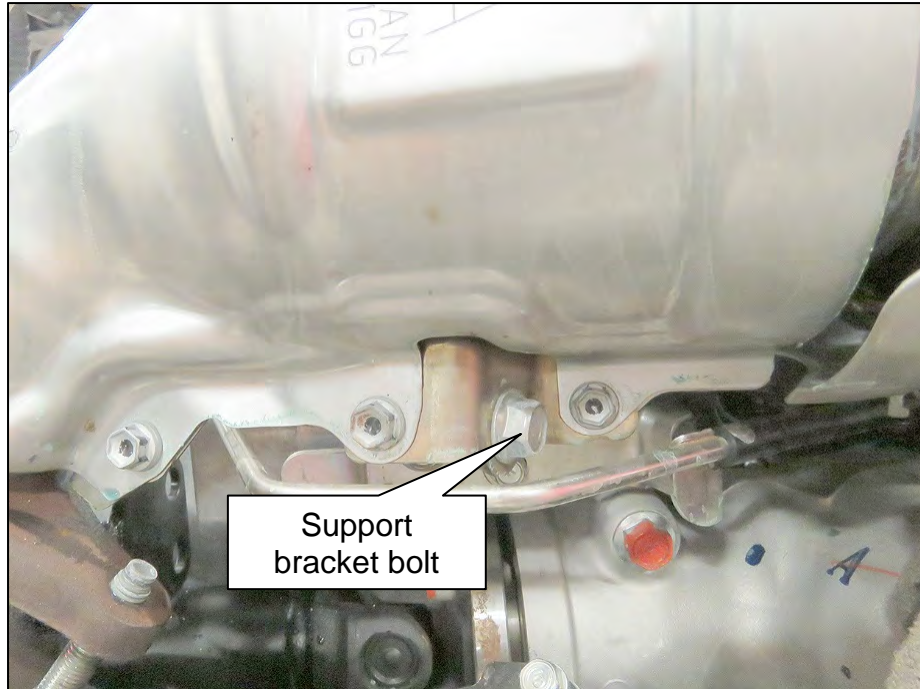


Figure 60

94. Torque the Catalyst Converter (bank 1) to the turbocharger outlet band clamp bolt to specification.
- Bolt torque: 15 N•m (1.5 kg-m, **11 ft-lb**)
95. Torque the oil feed tube eye bolt to specification.
- Bolt torque: 25.0 N•m (2.6 kg-m, **18 ft-lb**)

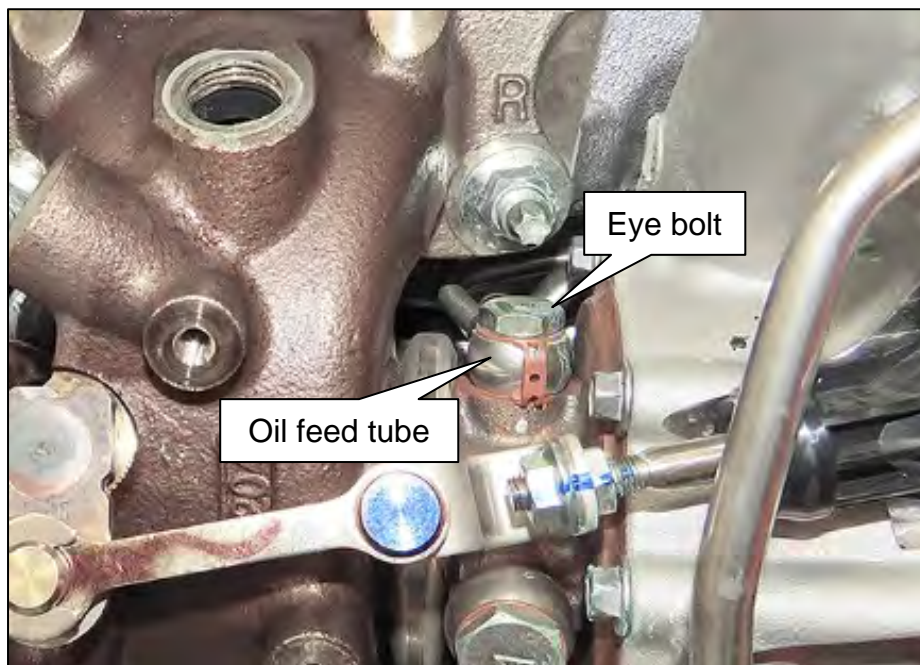


Figure 61

96. Reinstall the water tube bracket bolt (Figure 62) and torque to specification.
 - Bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)
97. Reinstall the coolant hose and its spring clamp (Figure 62).

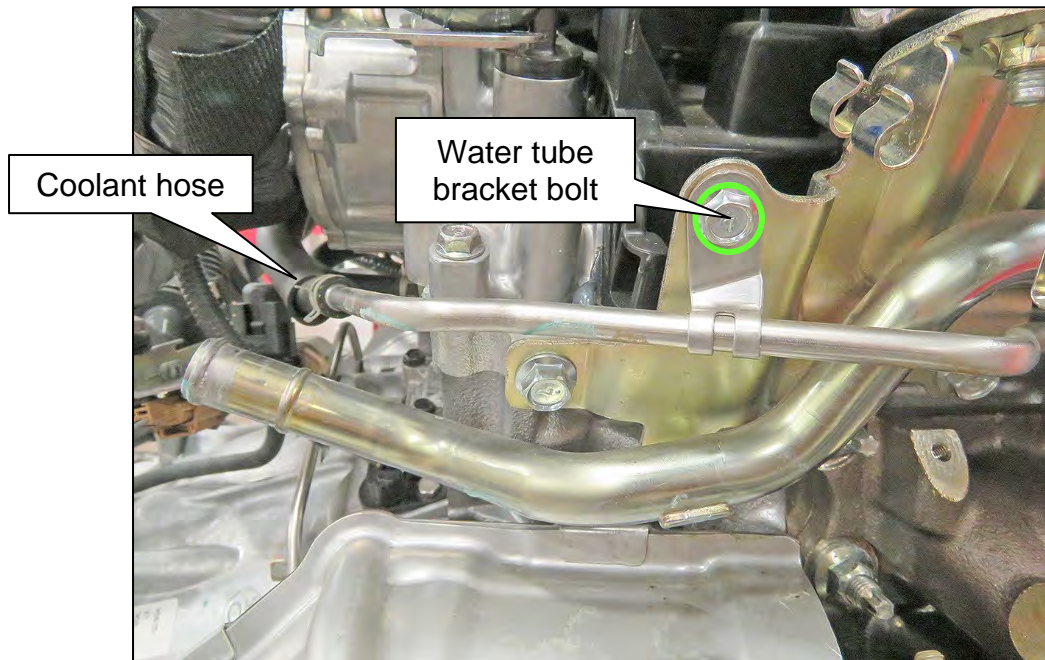


Figure 62

98. Reinstall the two (2) exhaust mount bolts shown in Figure 63 finger tight.

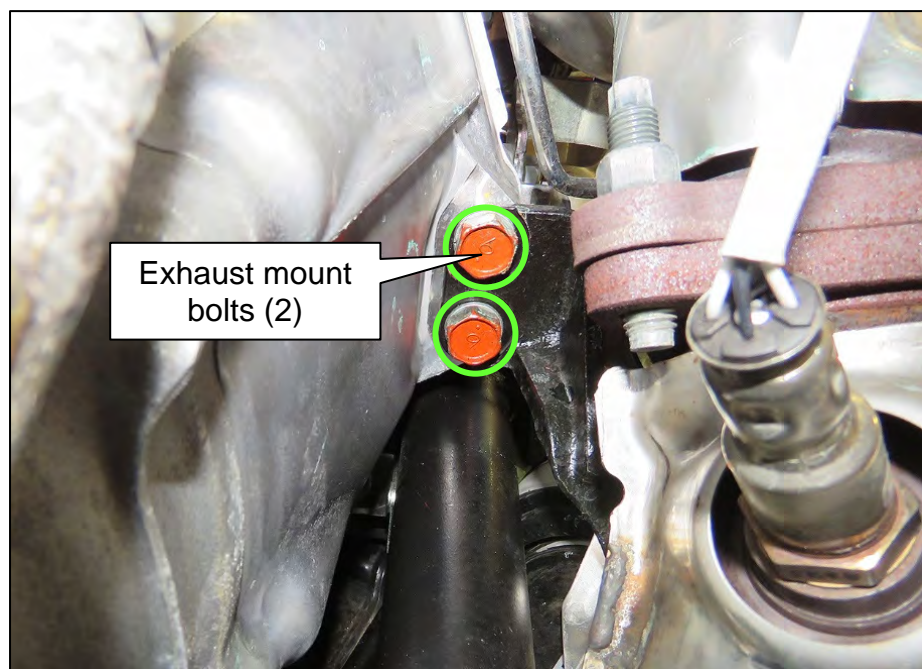


Figure 63

99. Torque the Catalyst Converter (bank 1) to 2nd Catalyst Converter (bank 1) nuts that were finger tightened, in step 91 on page 27, to specifications.
- Nut torque: 44.9 N•m (4.6 kg-m, **33 ft-lb**)
100. Torque the two (2) exhaust mount bolts installed finger tight in step 98 on page 29 to specification.
- Bolt torque: 44.9 N•m (4.6 kg-m, **33 ft-lb**)

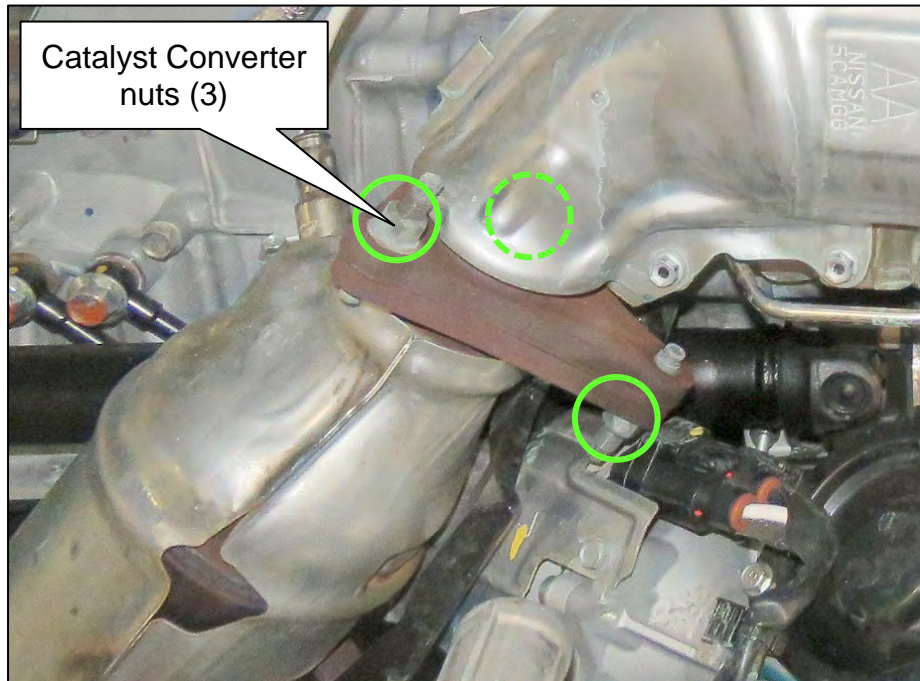


Figure 64

101. Reinstall Heat Insulator (upper) with five (5) bolts.
- Bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)

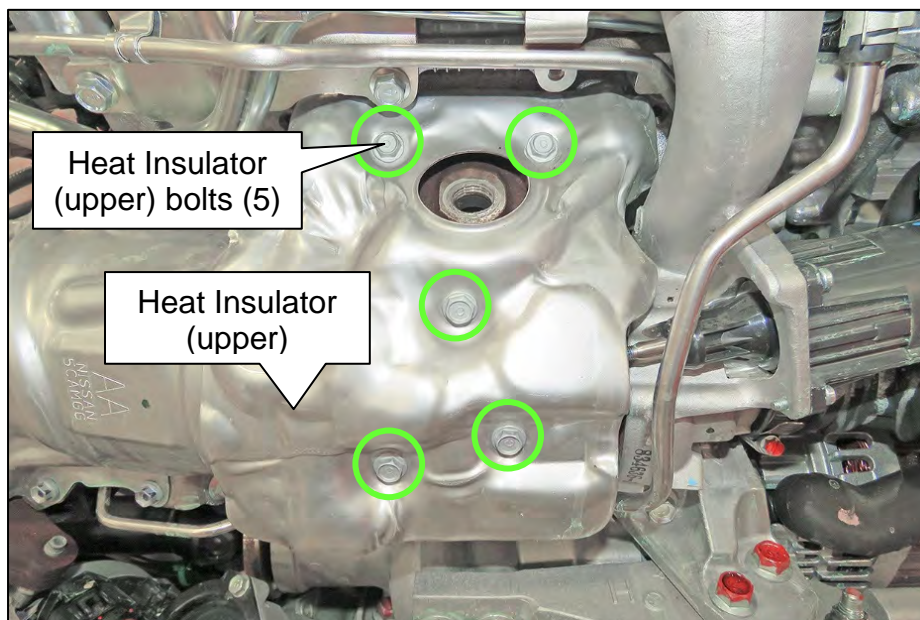


Figure 65

102. Install a new A/F sensor from **PARTS INFORMATION**, torque it to specification and then reconnect its wiring harness connector.

- A/F sensor torque: 50 N•m (5.1 kg-m, **37 ft-lb**)

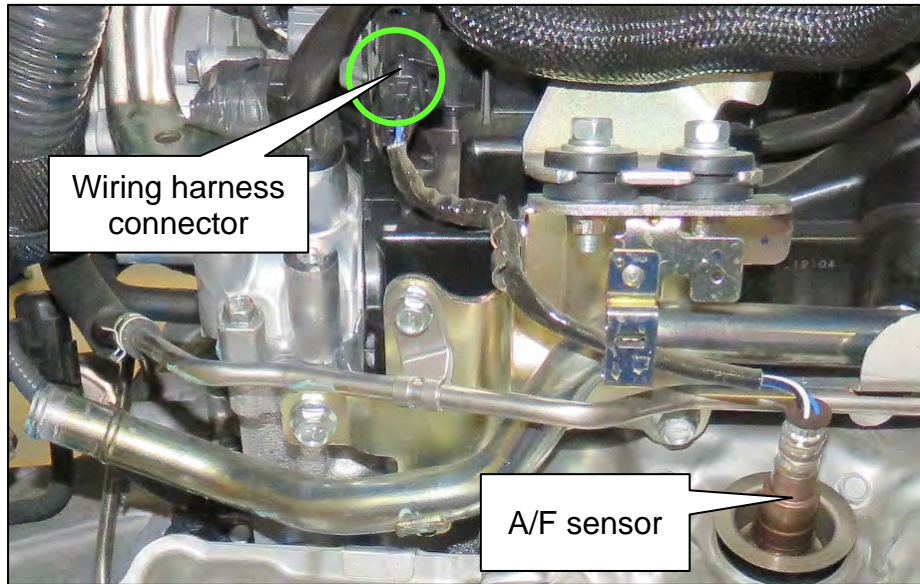


Figure 66

103. Tighten the hose clamp (Figure 67).

- Torque hose clamp to 7.0 N•m (0.71 kg-m, **62 in-lb**)

104. Reconnect the two (2) hoses (Figure 67).

105. Reconnect the wiring harness connector (Figure 67).

106. If the Turbocharger Exhaust Gas Temperature Sensor (bank 1) wiring harness connector was disconnected in step 75 on page 22, then reconnect it.

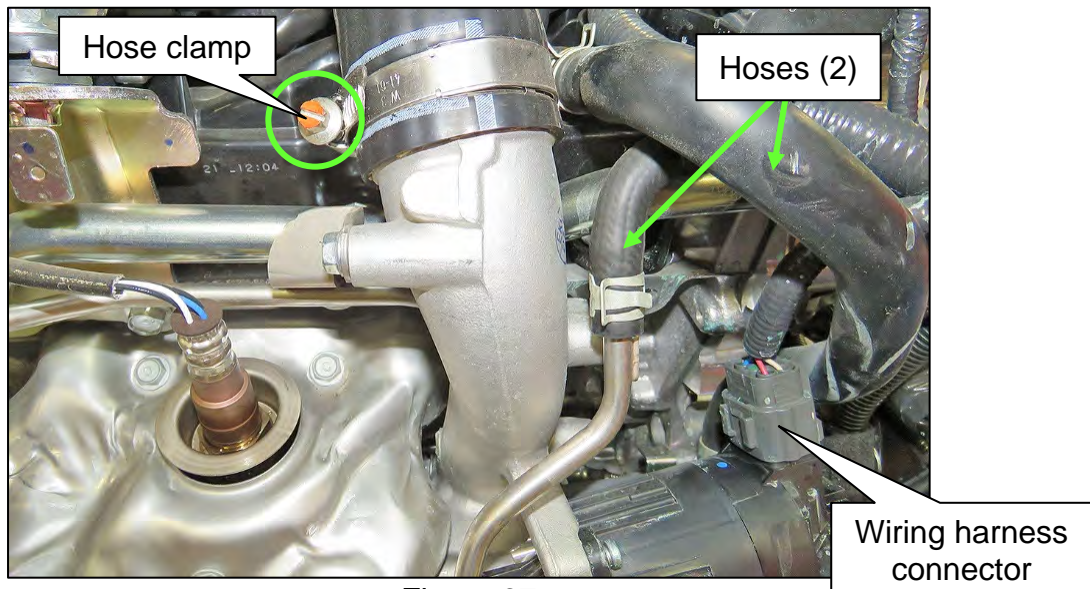


Figure 67

Remove the Driver (LH) Side Turbocharger

107. Loosen the hose clamp shown in Figure 68. This hose will be detached in step 124 on page 36.
108. Release the spring clamps and disconnect the three (3) associated hoses, shown in Figure 68.
109. Disconnect the wiring harness connector shown in Figure 68.

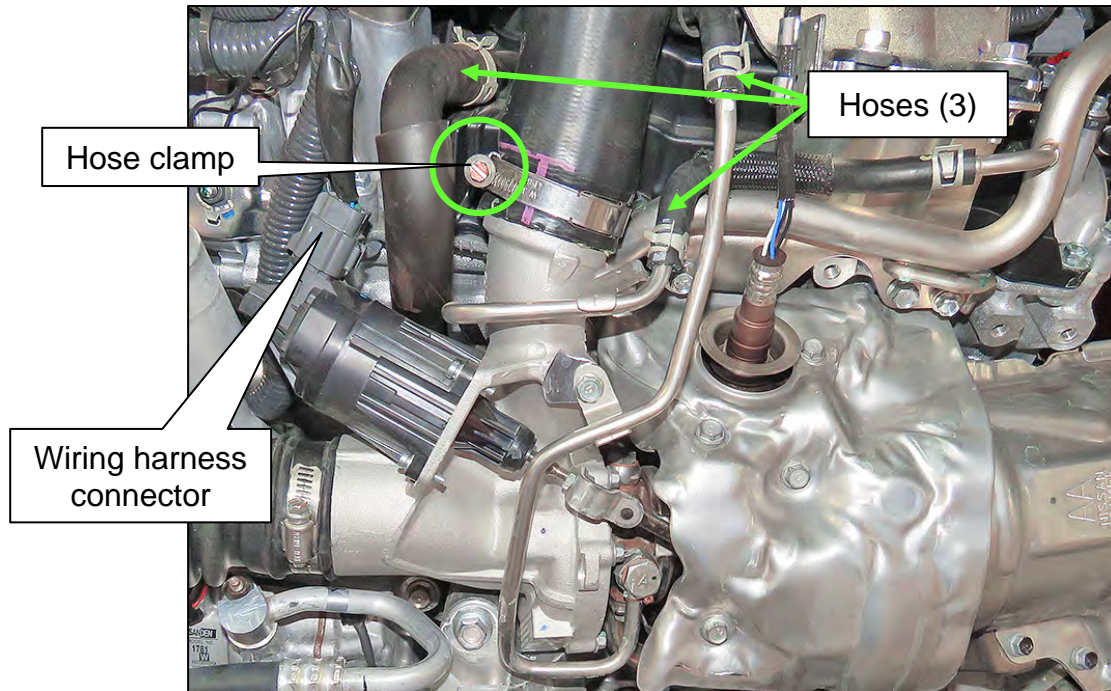


Figure 68

110. Unplug the A/F sensor wiring harness connector, and then remove the A/F sensor from the turbocharger housing.

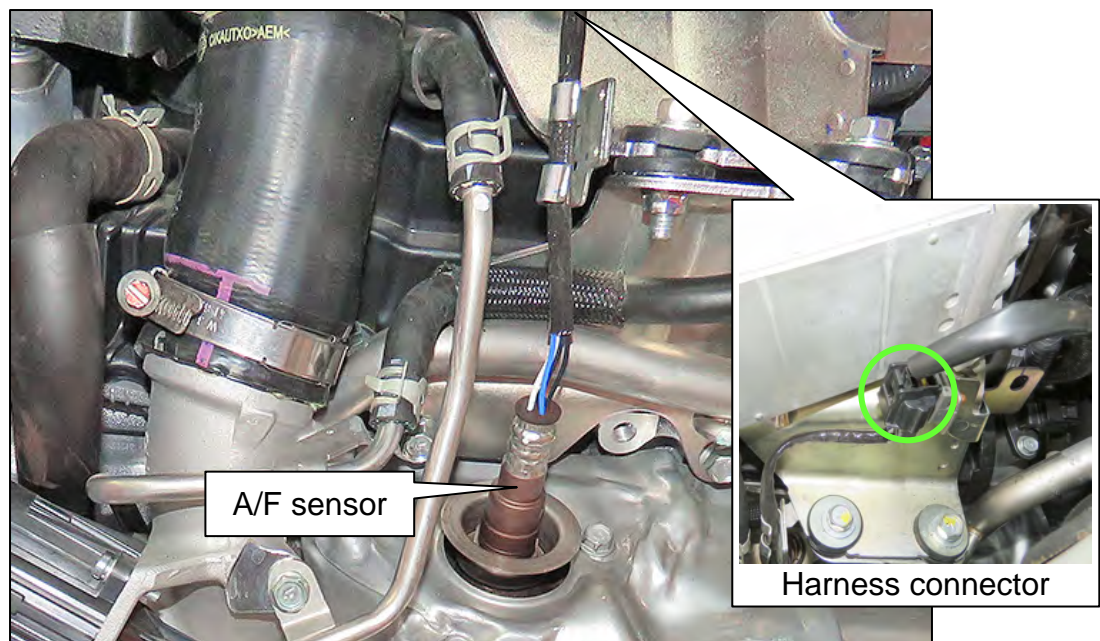


Figure 69

111. If present, unplug the Turbocharger Exhaust Gas Temperature Sensor (Bank 2) wiring harness connector, and then remove the sensor from the turbocharger housing.
112. Remove the turbocharger Heat Insulator (upper).

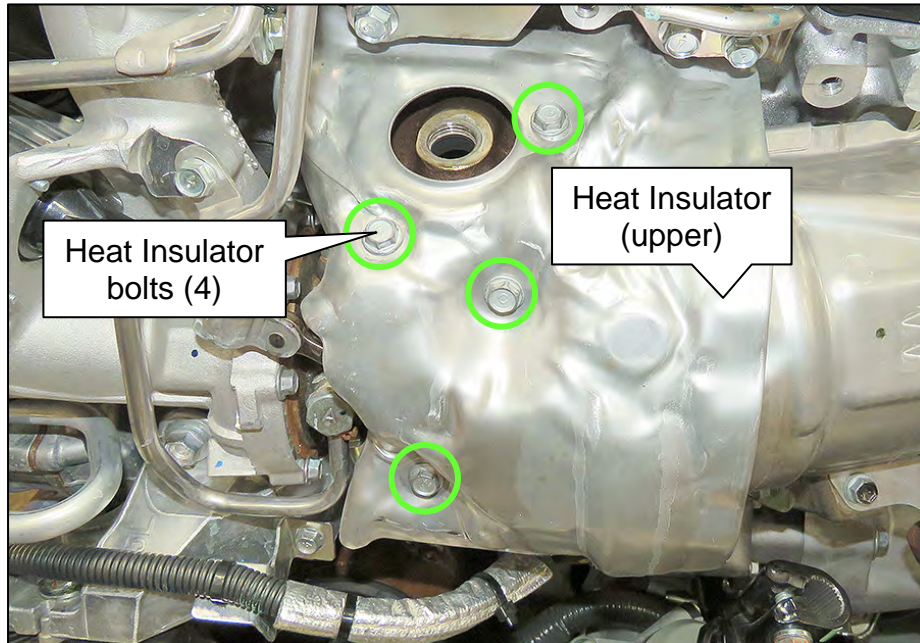


Figure 70

113. Remove the two (2) nuts that connect the Catalyst Converter (bank 2) to the 2nd Catalyst Converter (bank 2).

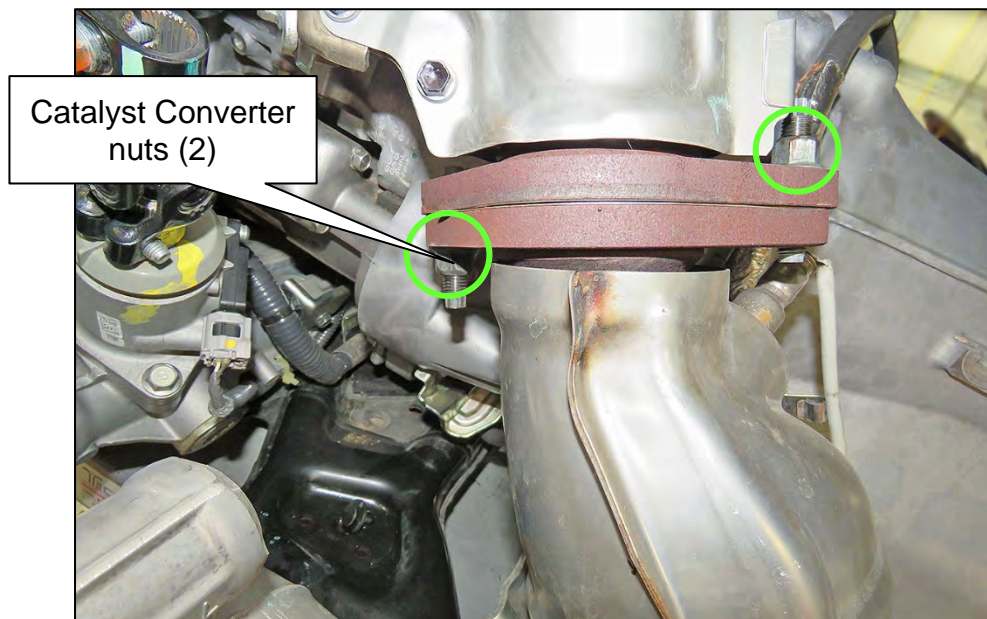


Figure 71

114. Remove the Catalyst Converter (bank 2) support bracket bolt.

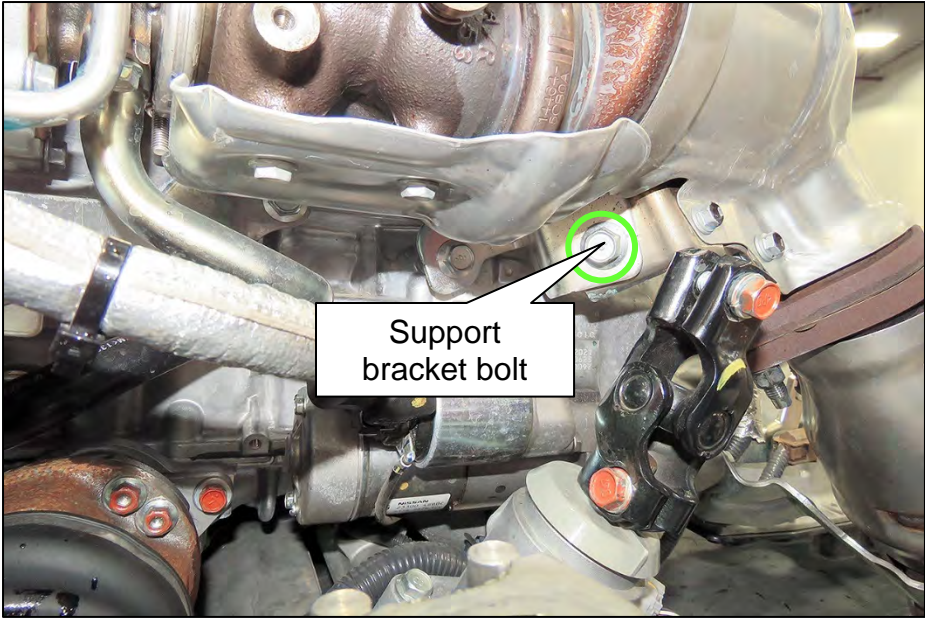


Figure 72

115. Remove the 2nd Catalyst Converter (bank 2) support bracket bolt.

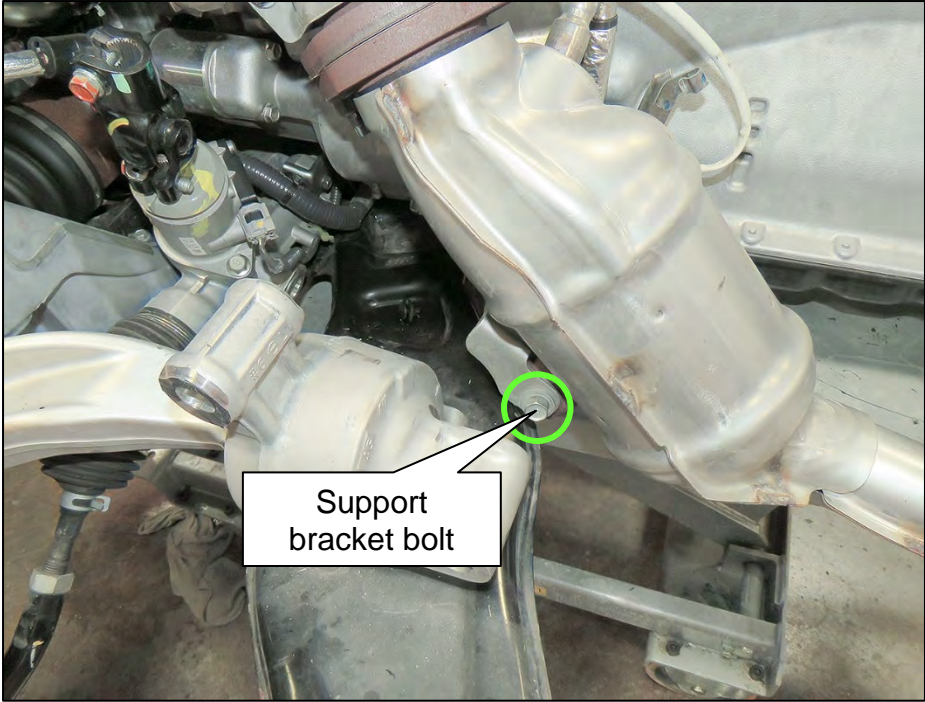


Figure 73

116. Loosen the turbocharger assembly mounting nuts in order, from 1 to 4, as shown in Figure 74.

117. Remove the band clamp bolt.

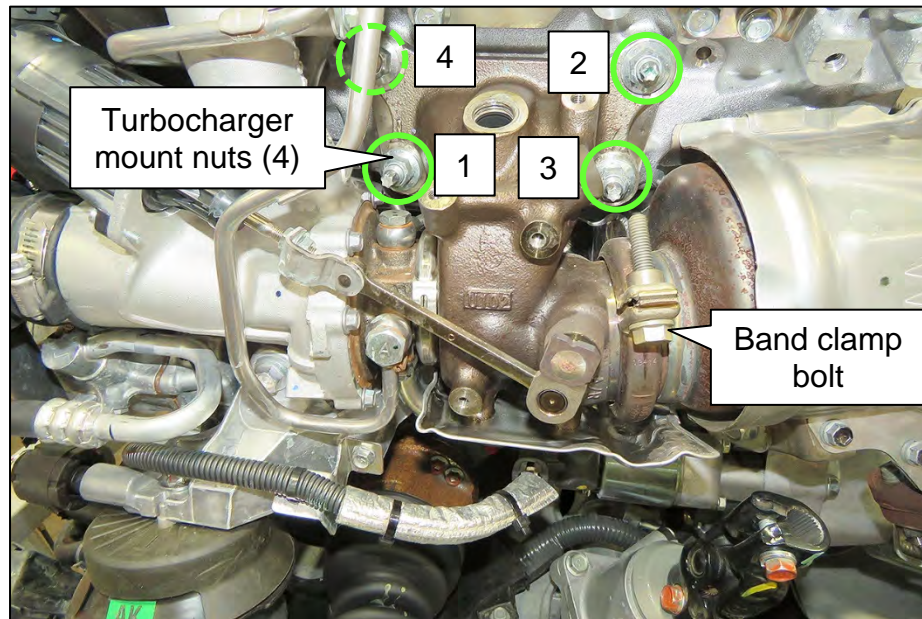


Figure 74

118. Detach Catalyst Converter (bank 2) from the turbocharger outlet.

119. Release the spring clamp and disconnect the associated oil return hose shown in Figure 75.



Figure 75

120. Remove the eye bolt retaining the oil feed tube.

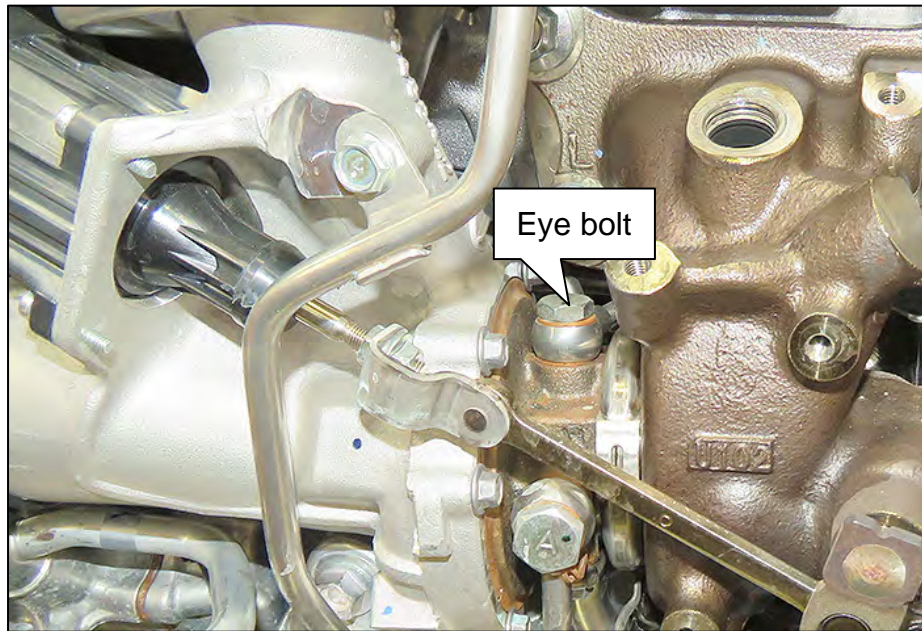


Figure 76

121. Remove both the A/C High-Pressure Flexible Hose and then the Low-Pressure Pipe 2 from the A/C compressor (Figure 77).

122. Remove the Oil Feed Tube mounting bracket bolt shown in Figure 77.

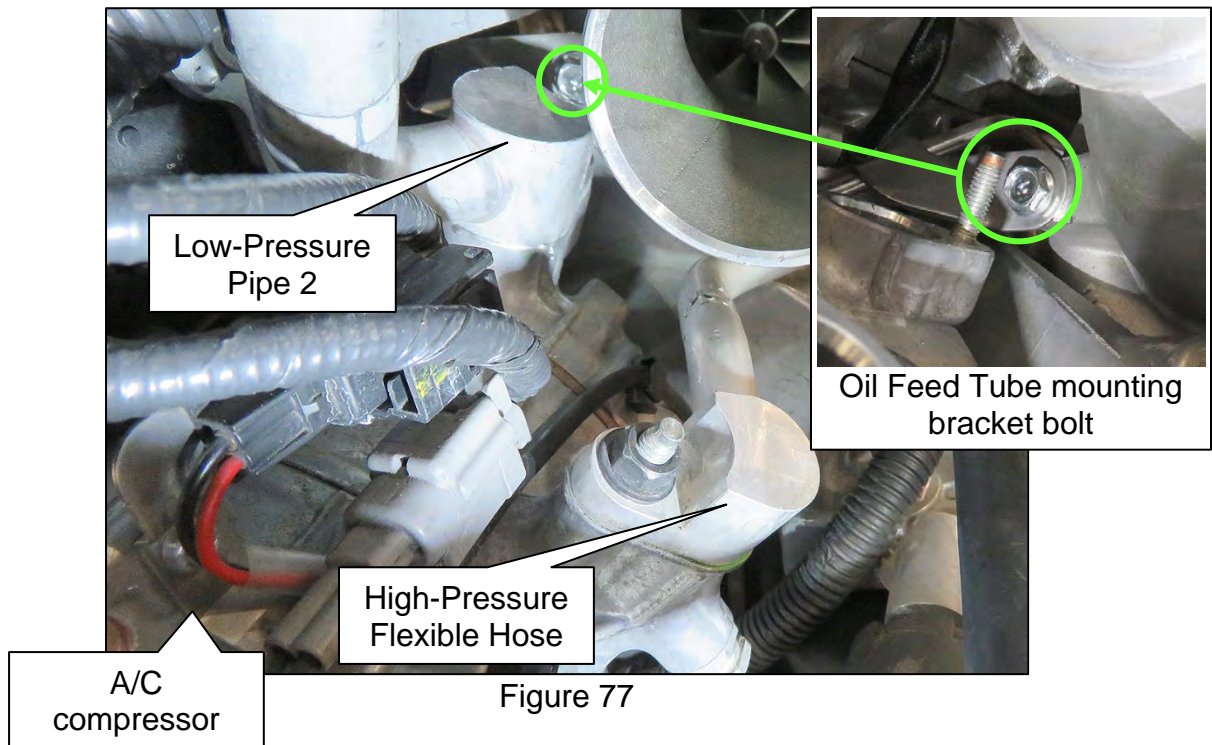


Figure 77

123. If present, disconnect the Turbocharger Speed Sensor (Bank 2) wiring harness connector.

124. Remove the turbocharger from the engine and place it on a clean workbench.

125. Transfer the components from the old to the new turbocharger assembly and torque to the specifications below.

IMPORTANT: Refer to **PARTS INFORMATION** for single use parts.

- Water tube eye bolt torque: 25.0 N•m (2.6 kg-m, **18 ft-lb**)
HINT: One (1) Water tube eye bolt is hidden in Figure 55.
- Bracket bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)
- Oil return pipe bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)
- Heat insulator (lower) bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)
- If present, Turbocharger Speed Sensor (bank 2):
 - Wiring harness connector bracket to turbocharger torque: 7.0 N•m (0.71 kg-m, **62 in.-lb**)
 - Wiring harness connector to bracket torque: 2.2 N•m (0.22 kg-m, **19 in.-lb**)

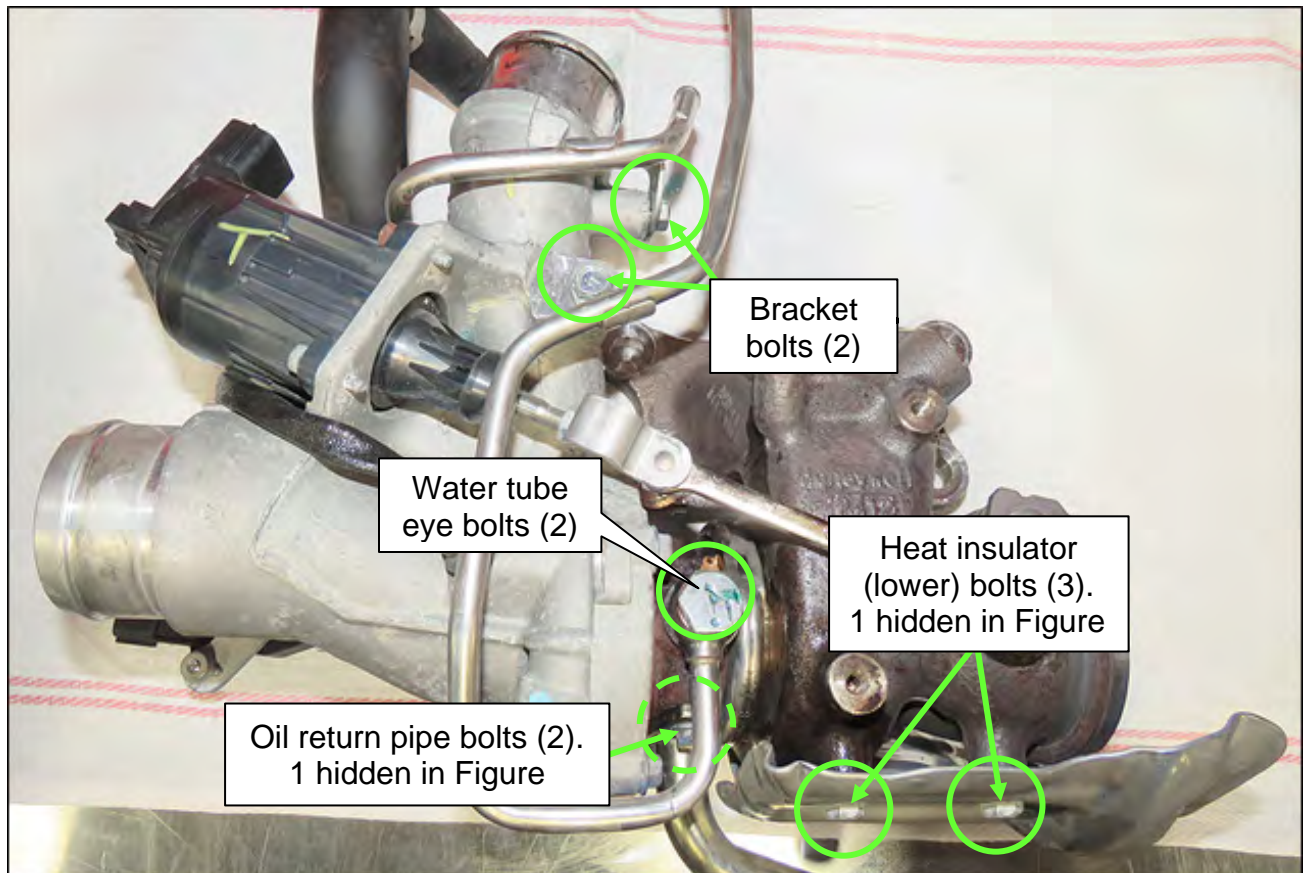


Figure 78

Reinstall the Driver (LH) Side Turbocharger

126. If present, reconnect the Turbocharger Speed Sensor (Bank 2) wiring harness connector.
127. Install and temporarily tighten the eye bolt for the oil feed tube, with a new gasket (Figure 79).

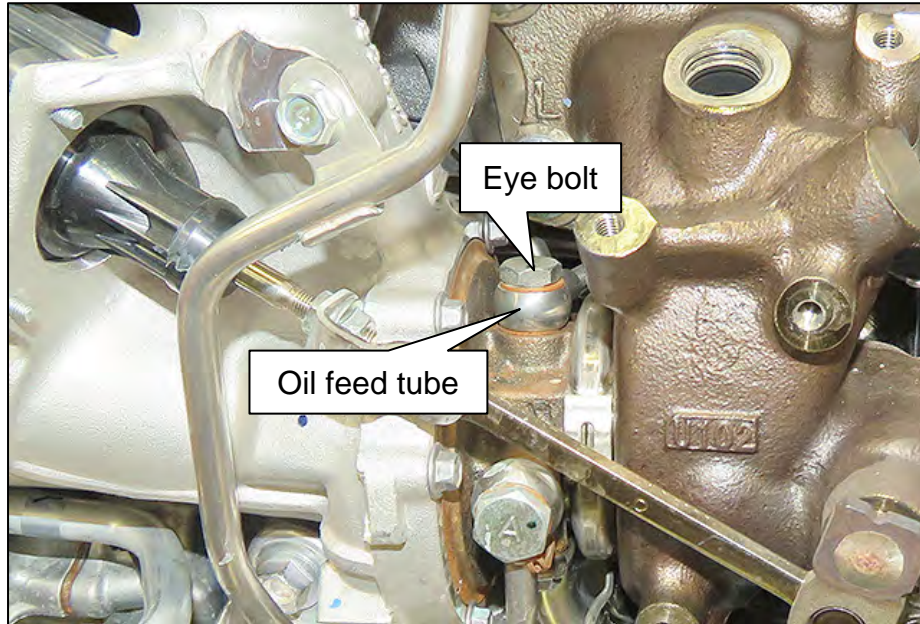


Figure 79

128. Reattach the Oil Feed Tube mounting bracket bolt (Figure 80), and then torque to specification.
 - Bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)

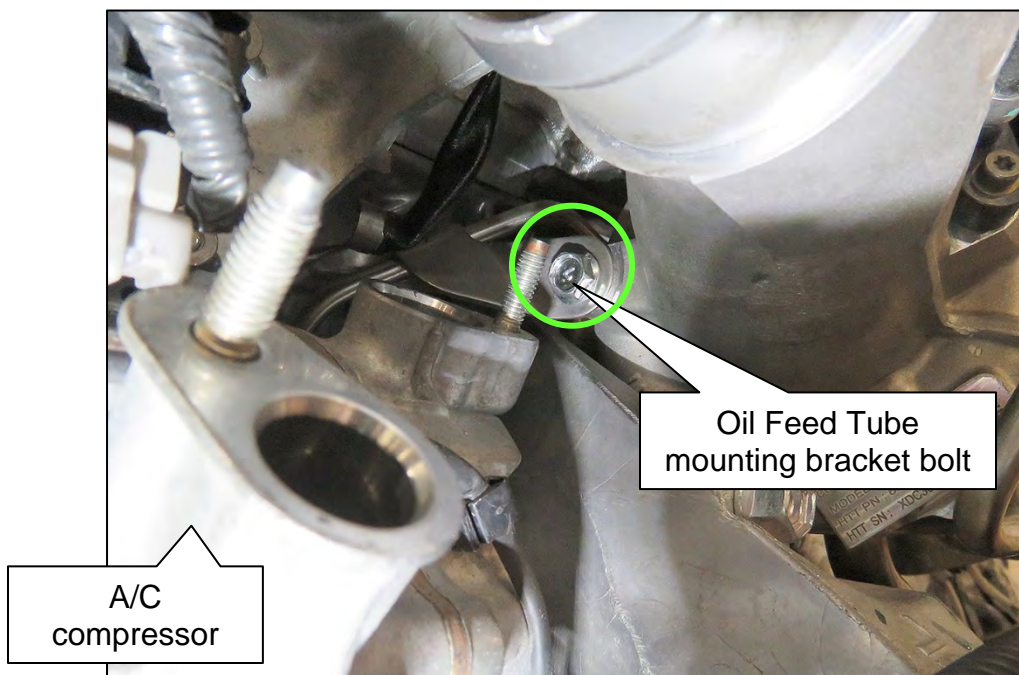


Figure 80

129. Align the turbocharger Air Inlet Hose 1 (bank 2) with the turbocharger output, and then slide the turbocharger onto its mounting studs.

- Leave the turbocharger Air Inlet Hose 1 (bank 2) clamp loose at this time.
- Replace the turbocharger to cylinder head gasket with a new one from **PARTS INFORMATION**.

130. Reconnect the wiring harness connector shown in Figure 81.

131. Reconnect the three (3) hoses shown in Figure 81.

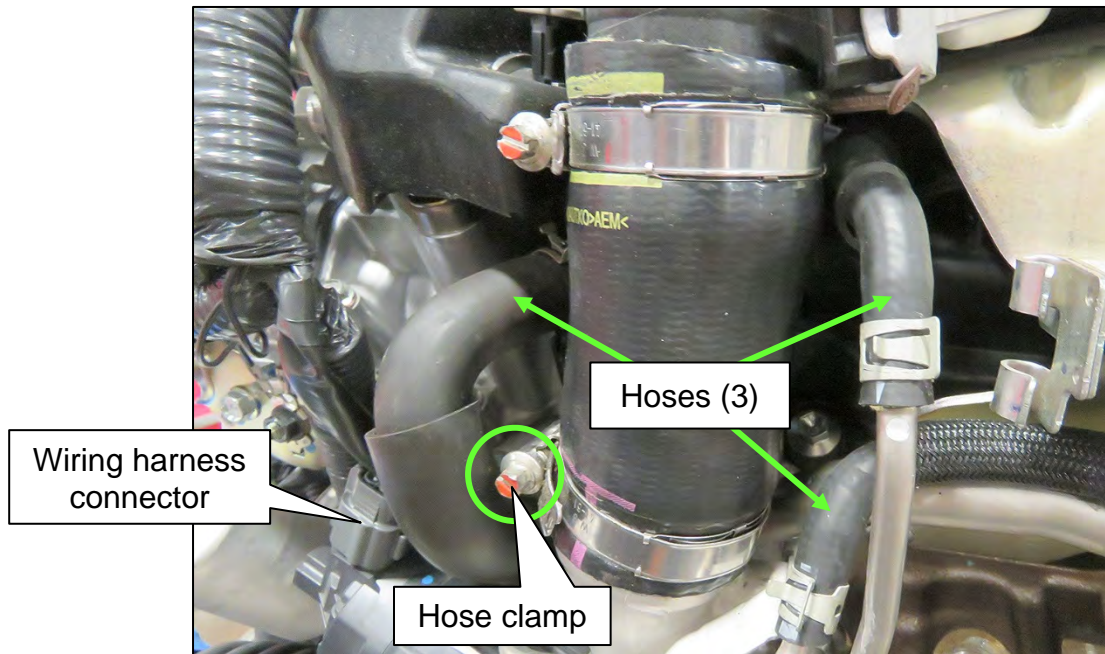


Figure 81

132. Reconnect the oil return hose and spring clamp.



Figure 82

133. Install all four (4) turbocharger mount nuts, and then torque them in the order (from 1 to 6) shown in Figure 83.

- Nut torque: 30.5 N•m (3.1 kg-m, **22 ft-lb**)

134. Align the Catalyst Converter (bank 2) with 2nd Catalyst Converter (bank 2) studs and install the nuts finger tight.

135. Reattach the Catalyst Converter (bank 2) to the turbocharger outlet, and then lightly tighten the band clamp bolt just enough to align catalyst, but allow it to rotate.

- Band clamp will be torqued in step 138 on page 42.

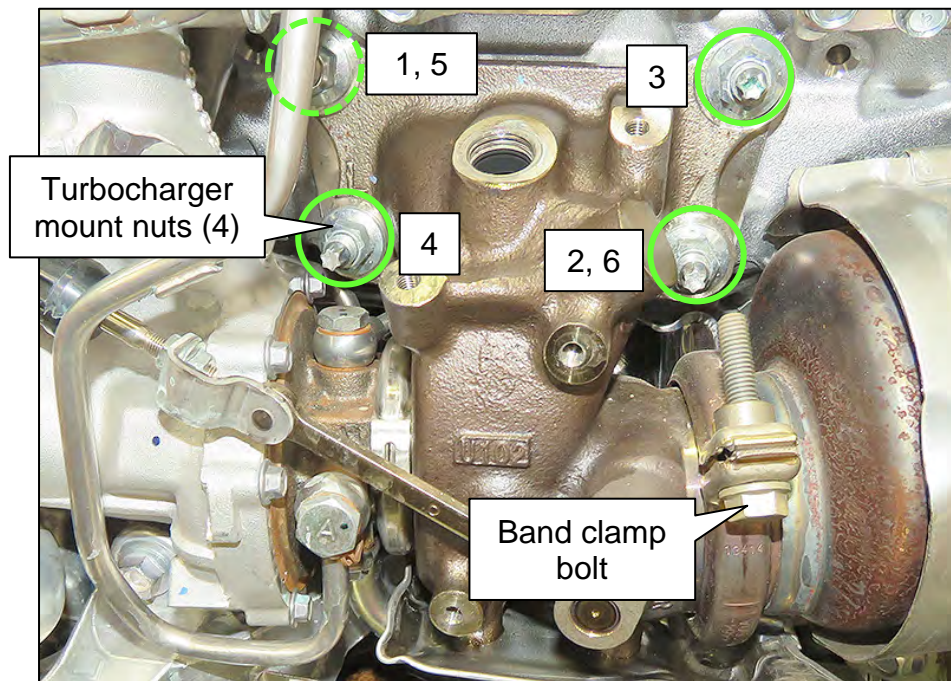


Figure 83

136. Reinstall the 2nd Catalyst Converter (bank 2) support bracket bolt finger tight.

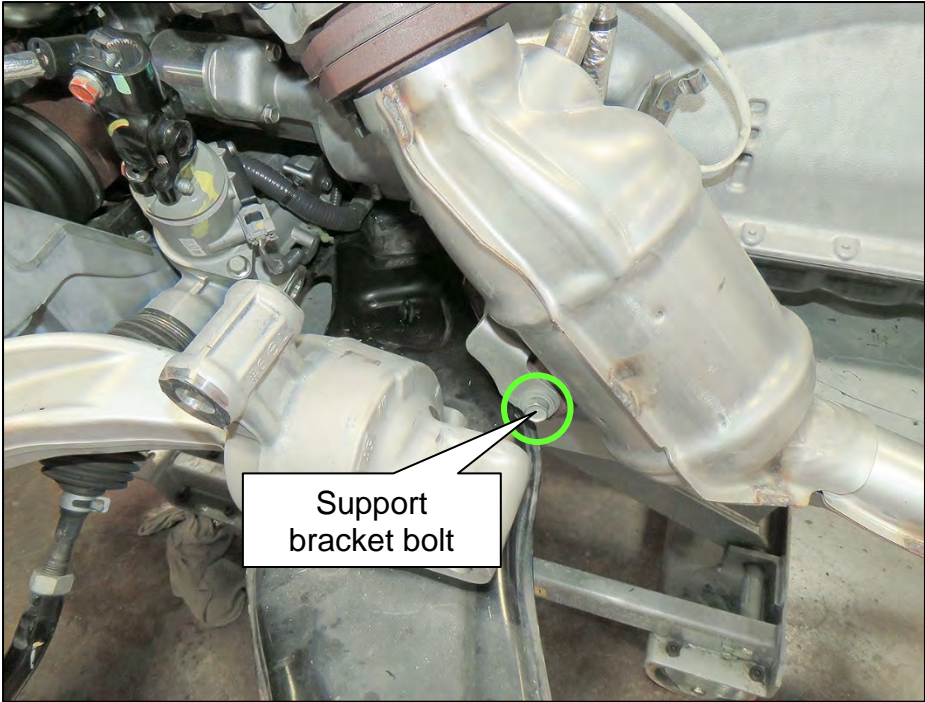


Figure 84

137. Reinstall the Catalyst Converter (bank 2) support bracket bolt finger tight.

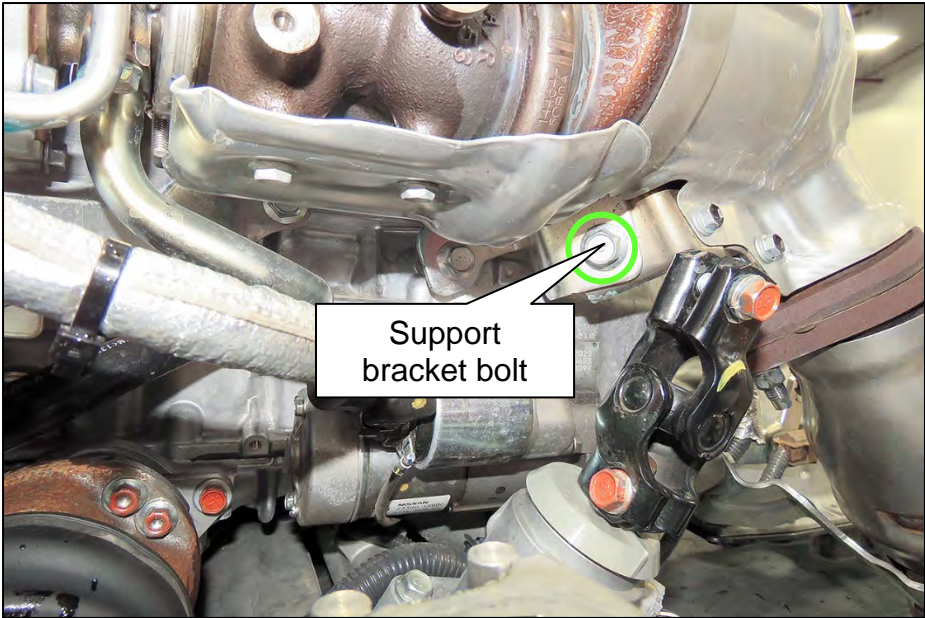


Figure 85

138. Torque the Catalyst Converter (bank 2) to the turbocharger outlet band clamp bolt to specification.

- Bolt torque: 15 N•m (1.5 kg-m, **11 ft-lb**)

139. Torque the 2nd Catalyst Converter (bank 2) support bracket bolt to specification.

- Bolt torque: 47.8 N•m (4.9 kg-m, **35 ft-lb**)

140. Torque the Catalyst Converter (bank 2) support bracket bolt to specification.

- Bolt torque: 47.8 N•m (4.9 kg-m, **35 ft-lb**)

141. Torque the oil feed tube eye bolt (Figure 86) to specification.

- Bolt torque: 25.0 N•m (2.6 kg-m, **18 ft-lb**)

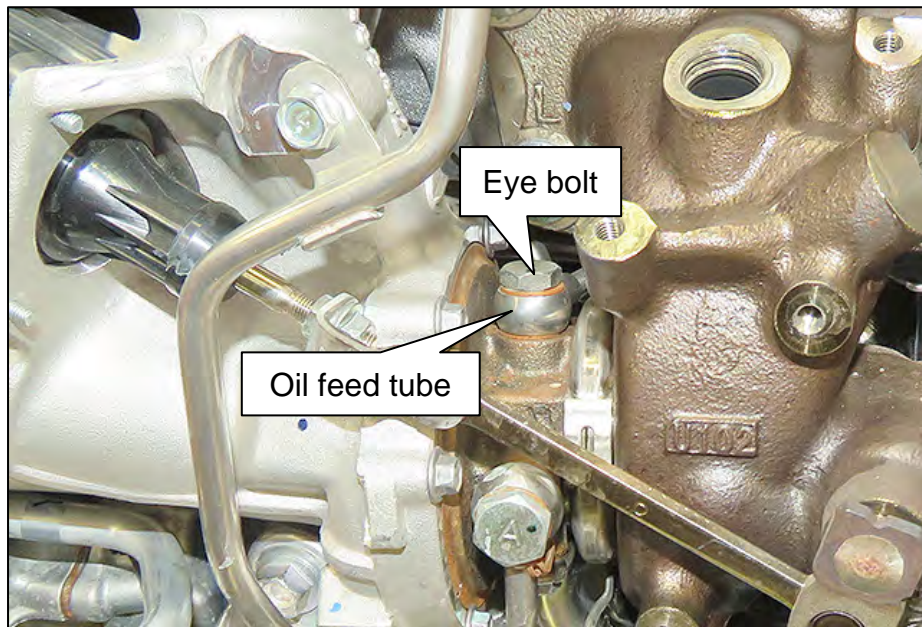


Figure 86

142. Torque the Catalyst Converter (bank 2) to 2nd Catalyst Converter (bank 2) nuts that were finger tightened, in step 134 on page 40, to specification.

- Nut torque: 44.9 N•m (4.6 kg-m, **33 ft-lb**)

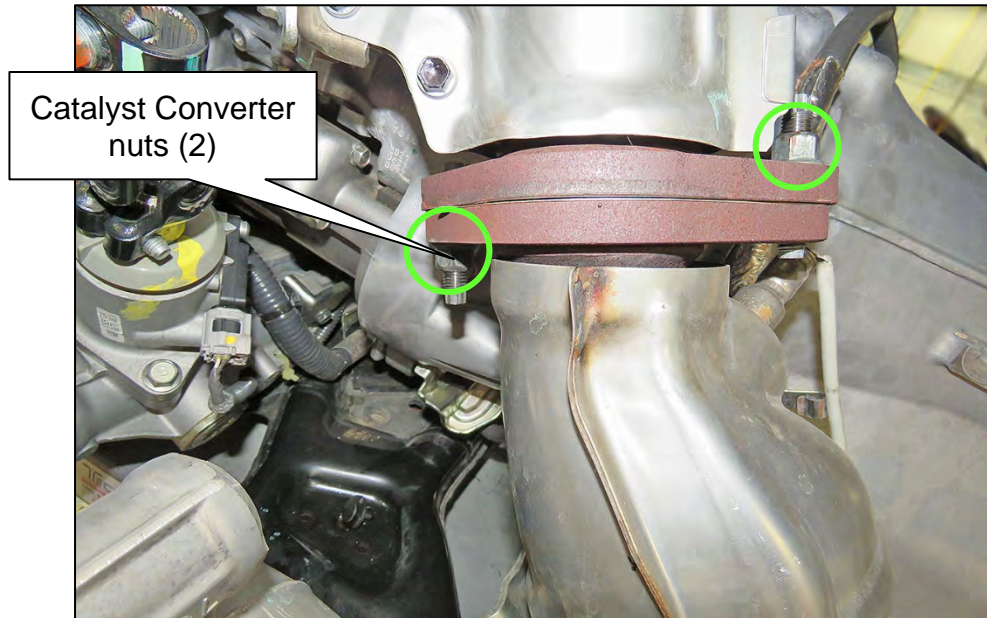


Figure 87

143. Reinstall Heat Insulator (upper) with four (4) bolts.

- Bolt torque: 9.0 N•m (0.92 kg-m, **80 in.-lb**)

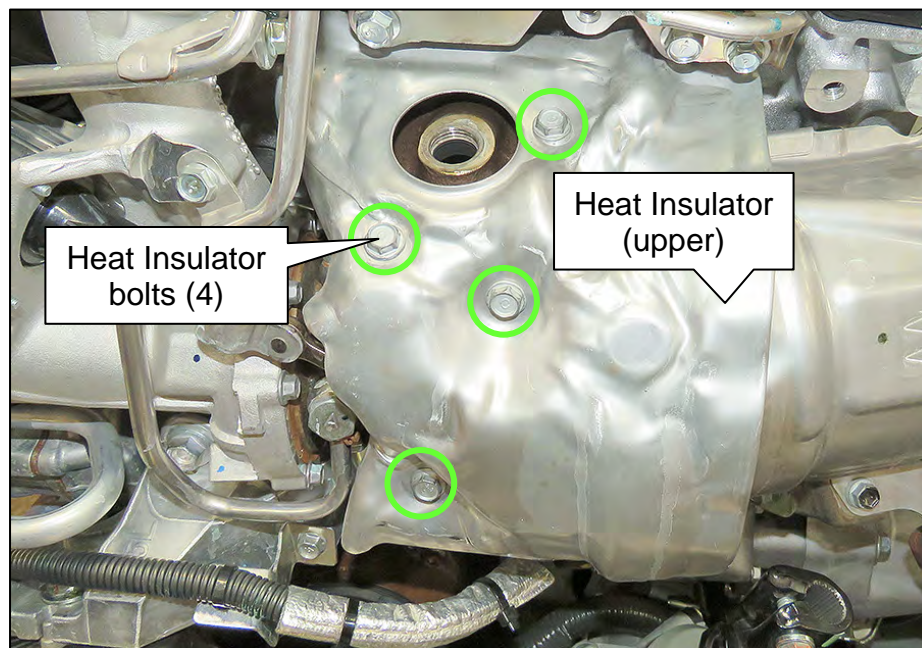


Figure 88

144. Install a new A/F sensor from **PARTS INFORMATION**, torque it to specification and then reconnect its wiring harness connector.

- A/F sensor torque: 50 N•m (5.1 kg-m, **37 ft-lb**)

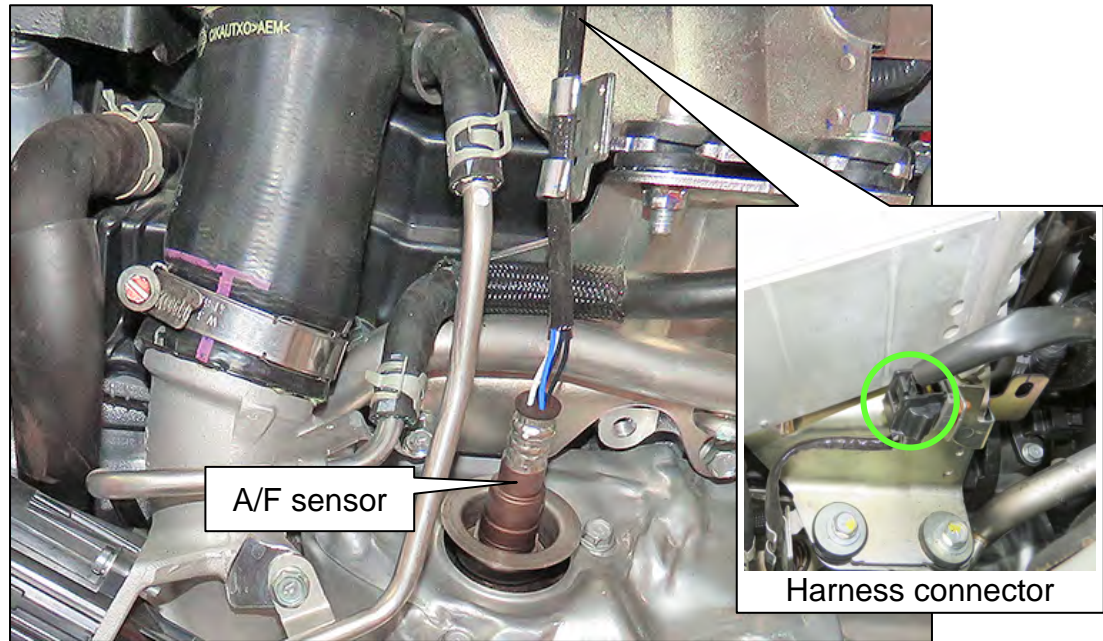


Figure 89

145. Tighten the hose clamp shown in Figure 90.

- Torque hose clamp to 7.0 N•m (0.71 kg-m, **62 in-lb**)

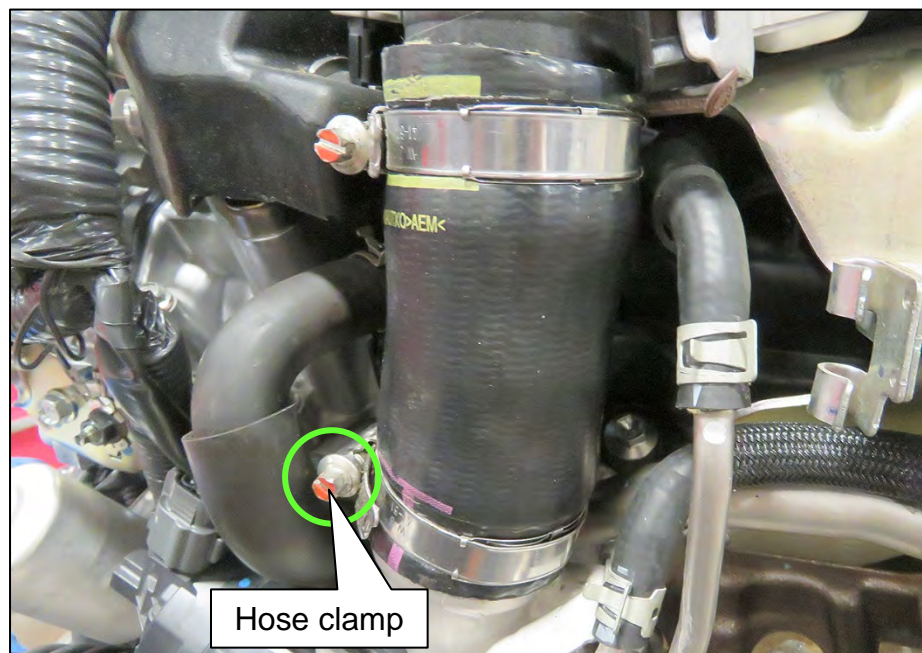


Figure 90

146. Reattach the Low-Pressure Pipe 2 and then the A/C High-Pressure Flexible Hose to the A/C compressor (Figure 91) and then torque to specification.

- Nut torque: 13.7 N•m (1.4 kg-m, **10 ft-lb**)

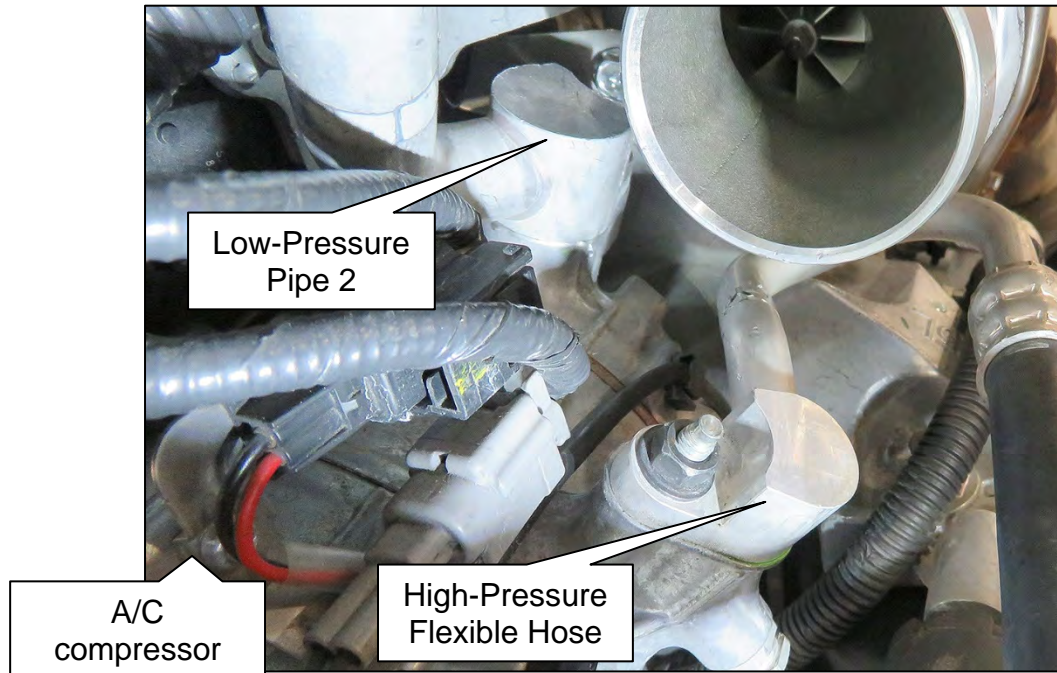


Figure 91

Reinstall Driveline

147. Carefully raise the driveline back into the vehicle.

148. For AWD vehicles, reinstall the four (4) transverse link bolts; two (2) per side, and temporarily tighten.

- These bolts will be torqued to specification in step 152 on page 47.

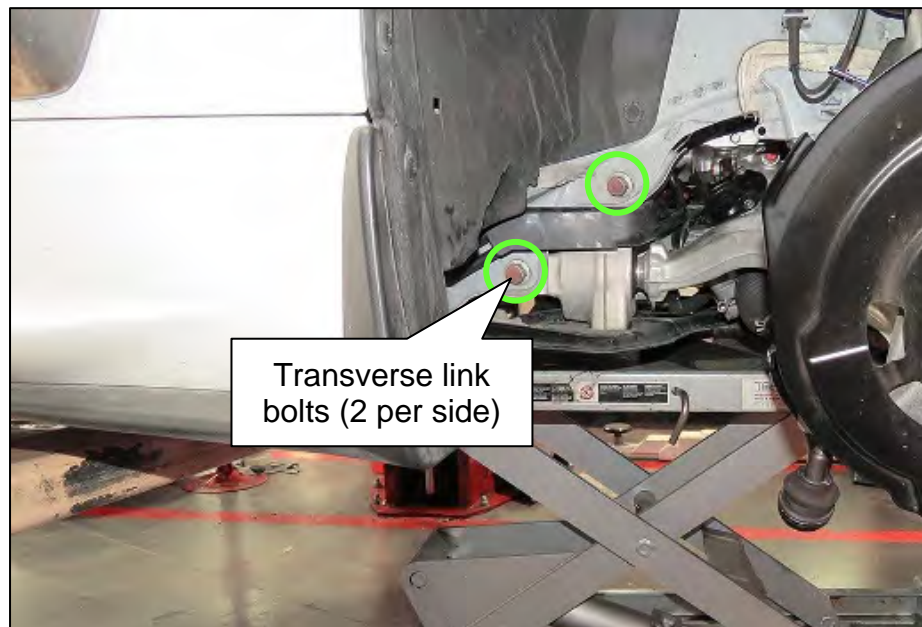
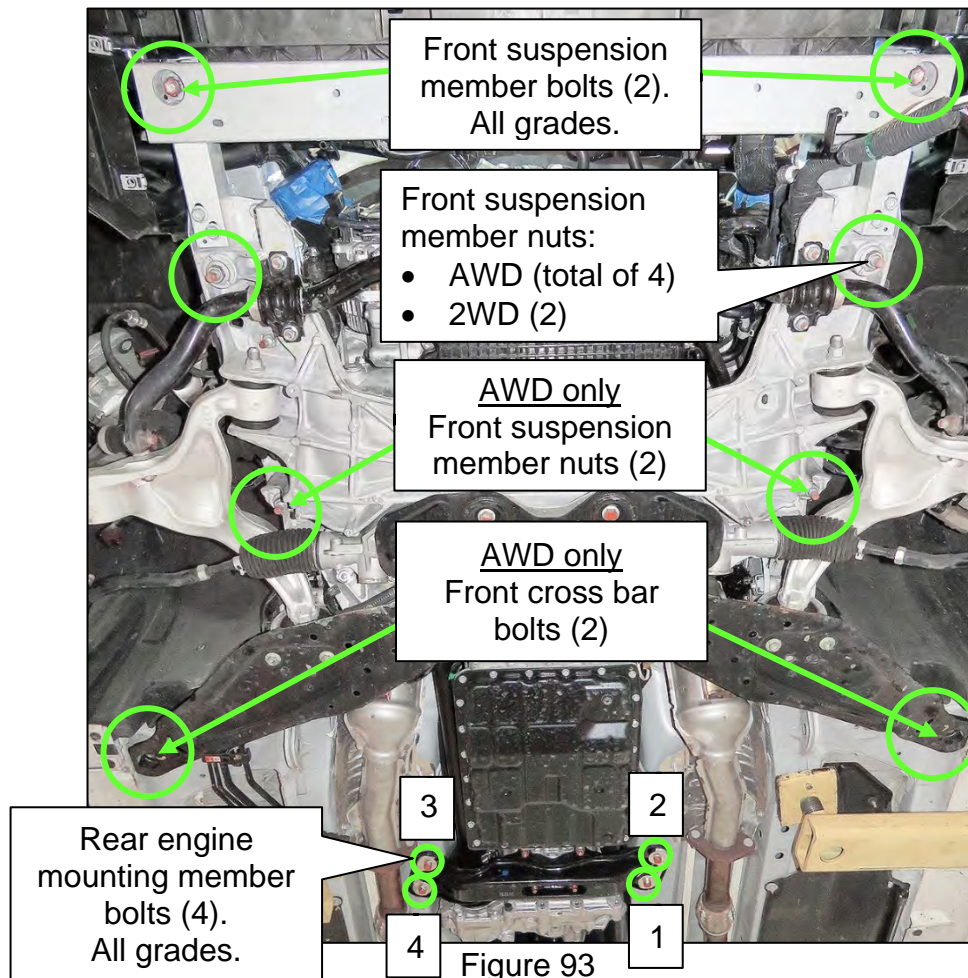


Figure 92

149. Reinstall and temporarily tighten the following nuts and bolts indicated in Figure 93.

- AWD has a total of four (4) front suspension member nuts.
- 2WD has two (2) front suspension member nuts.
- Two (2) front suspension member bolts (both AWD and 2WD).
- AWD only: Two (2) front cross bar bolts.
- The rear engine mounting member bolts.

HINT: Figure 93 is of an AWD vehicle. Nut and bolt locations are similar for 2WD.



150. Torque the sub frame nuts, bolts, and front cross bar bolts to the following specifications:

- Torque the front suspension member nuts to 130 N•m (13 kg-m, **96 ft-lb**).
- Torque the front suspension member bolts to 82 N•m (8.4 kg-m, **60 ft-lb**).
- Torque the front cross bar bolts to 75 N•m (7.7 kg-m, **55 ft-lb**).

151. Torque the rear engine mounting member bolts in the pattern shown in Figure 93.

- Bolt torque: 49 N•m (5.0 kg-m, **36 ft-lb**).

152. For AWD vehicles, torque the four (4) transverse link bolts; two (2) per side, to specification.

- Bolt torque: 128 N•m (13 kg-m, **94 ft-lb**)

Transverse link bolts (2 per side)

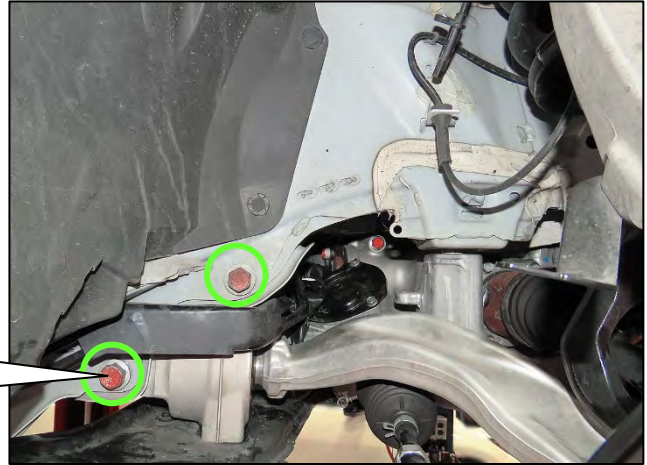


Figure 94

153. Slowly lower, and then remove, the driveline support table from under the driveline.

Driveline support table

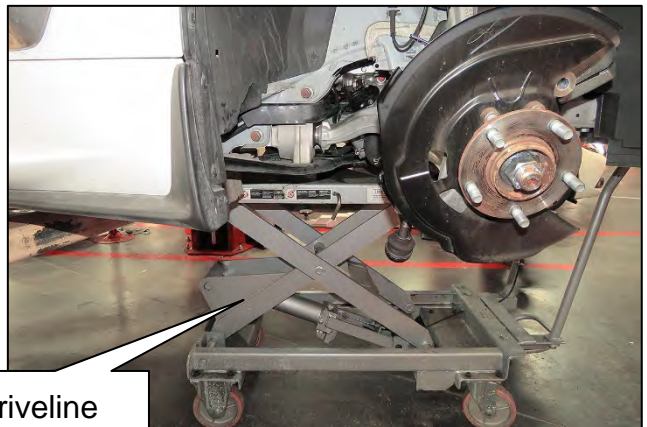
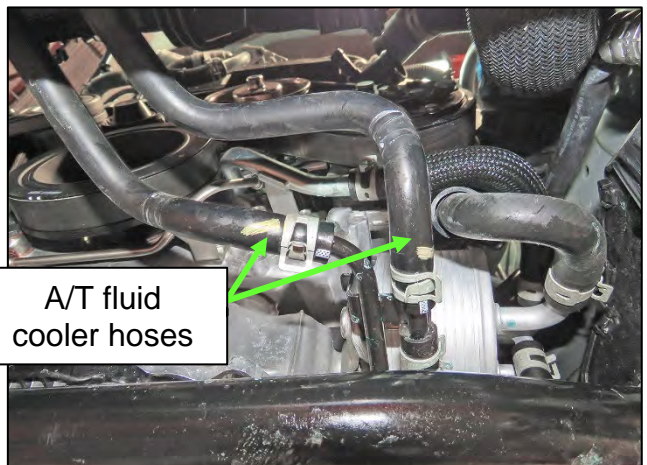


Figure 95

154. Raise the vehicle to a comfortable height for the following steps.

155. Reattach the A/T fluid cooler hoses.



A/T fluid cooler hoses

Figure 96

156. Reconnect Oil Cooler Hose 1 and Oil Cooler Hose 2 if they were disconnected in step 58 on page 16.

157. Reconnect the power steering wiring harness connector, if present.

HINT: Electric power steering type shown in Figure 37.

- Located on either the driver (LH) side or passenger (RH) side of the front corner of the front suspension member, under the inner fender protector.

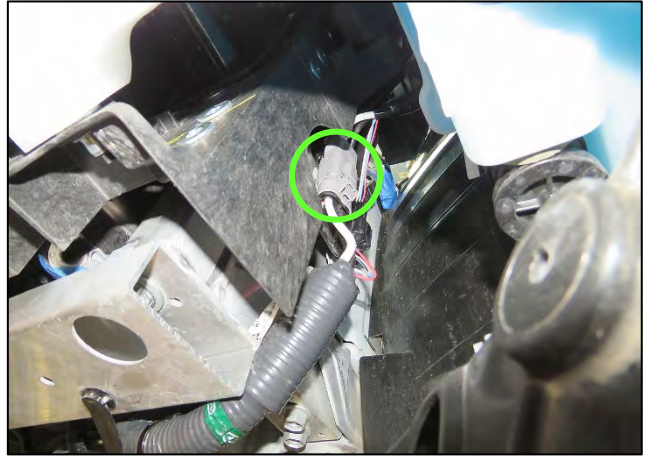


Figure 97

158. Reconnect the steering shaft to the steering rack, and then install the bolt.

- Bolt torque: 26.5 N•m (2.7 kg-m, **20 ft-lb**)

HINT: The bolt location and component view may differ based on the type of steering system.

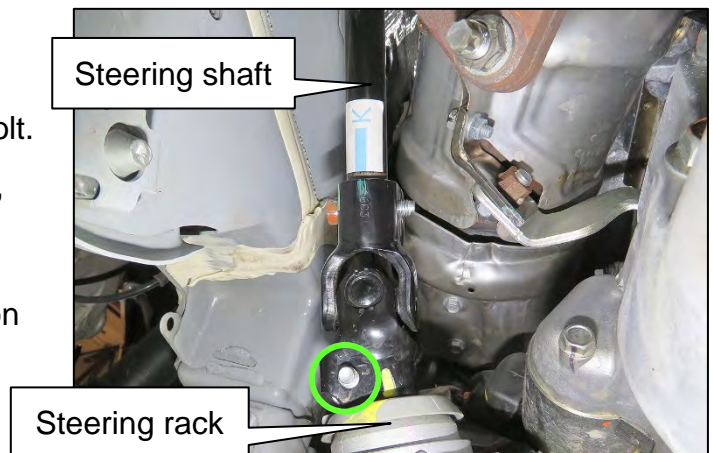


Figure 98

159. Reconnect the transmission's Control Rod with Snap Pin.

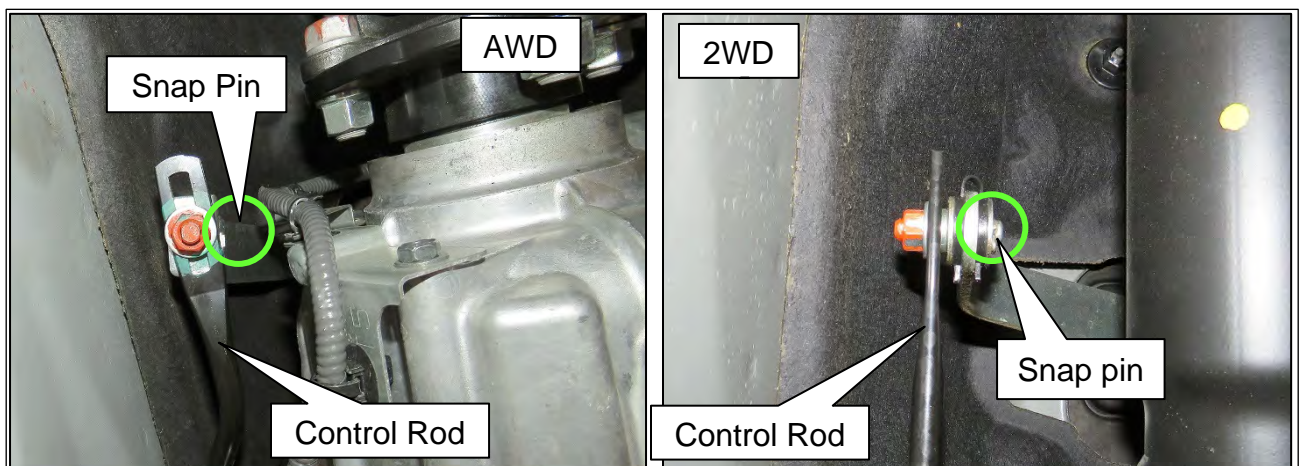


Figure 99

160. For 2WD only, reinstall the propeller shaft and complete exhaust into the vehicle, and then skip to step 162.

- Refer to the ESM: **REPAIR > TRANSMISSION & DRIVELINE > DRIVELINE > REMOVAL AND INSTALLATION > REAR PROPELLER SHAFT**

161. For AWD vehicles, reconnect the propeller shaft to the transmission with four (4) nuts and bolts, and then torque to specification.

- Torque to 80 N•m (8.2 kg-m, **59 ft-lb**).
- One (1) hidden nut/bolt in Figure 100.



Figure 100

162. Reconnect the Exhaust Front Tube to the Center Muffler with a new gasket and two (2) nuts and bolts (Figure 101), and then torque to specification.

- Torque to 58 N•m (5.9 kg-m, **43 ft-lb**).
- See **PARTS INFORMATION** for single use parts.

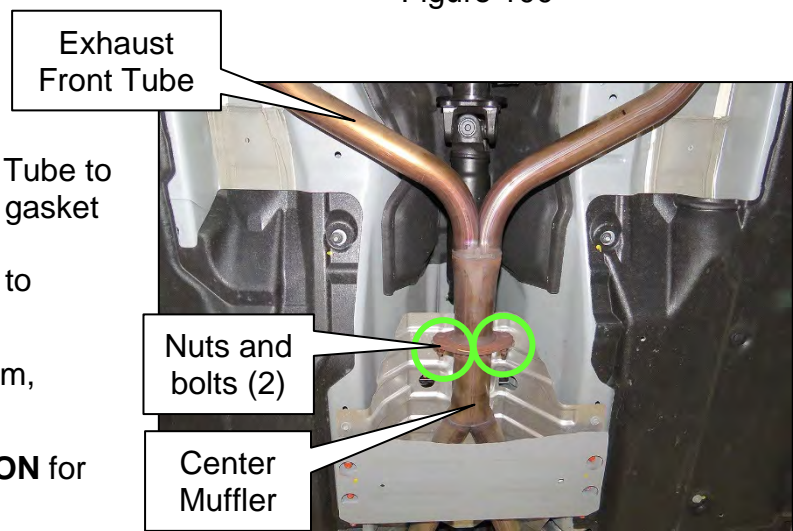


Figure 101

163. Reinstall all Under Covers.

164. Lower the vehicle to a comfortable height to reassemble the suspension and brake components.

The following steps will be performed on both the passenger (RH) side and the driver (LH) side of the vehicle. The figures are of the RH side. The LH side is similar.

165. Reattach both Shock Absorber Arms to the Transverse Links with nuts and fasteners, and then torque to the specifications below.

- For AWD torque, refer to Figure 102.
- For 2WD torque, refer to Figure 103.

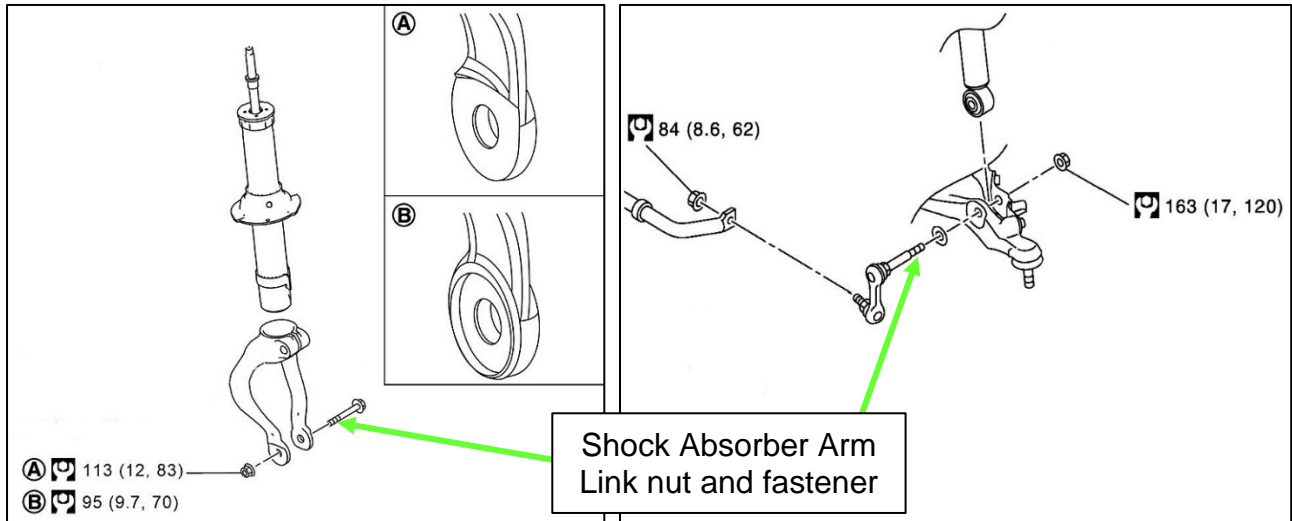


Figure 102

Figure 103

166. Reattach the top of the Steering Knuckle to the Upper Link, and then torque to specification.

- Torque to 55 N•m (5.6 kg-m, **41 ft-lb**).

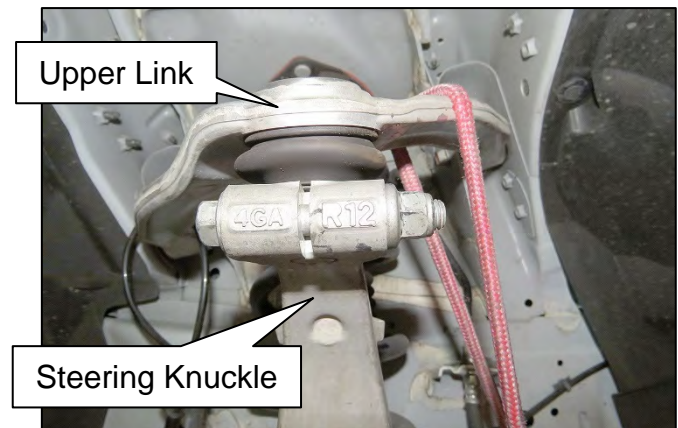


Figure 104

167. Reattach both brake rotors and caliper assemblies, and then torque bolts to specification.

- For 2 or 4 piston calipers, torque bolts to 123 N•m (13 kg-m, **91 ft-lb**).

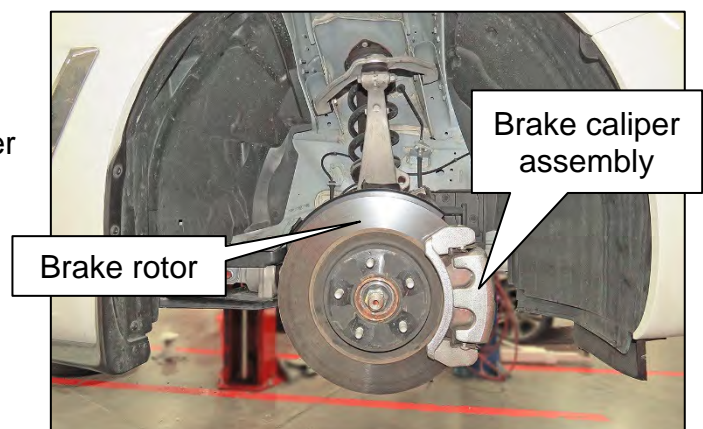


Figure 105

168. Reattach the brake hose locator clips.

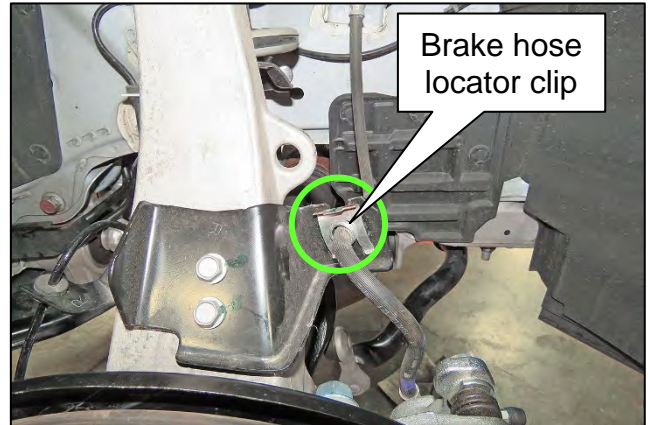


Figure 106

169. Reattach the wheel sensors to both Steering Knuckles.

- Bolt torque: 9 N•m (9.2 kg-m, **80 in.-lb**)

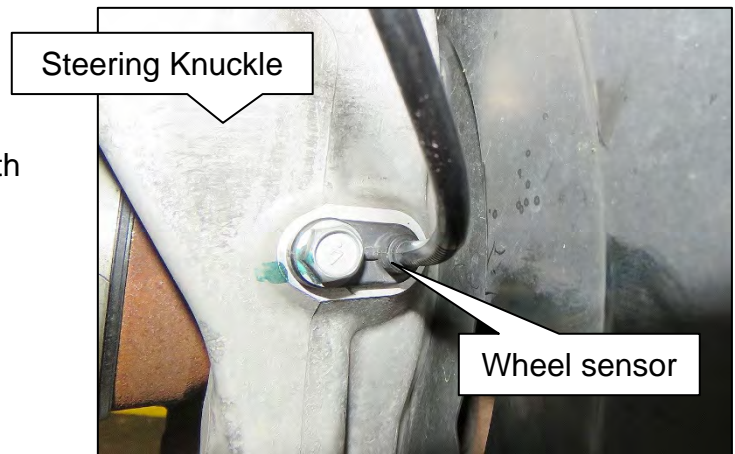


Figure 107

170. Reattach the wheel sensor harnesses to the two (2) locations, on each Steering Knuckle, shown in Figure 108.



Figure 108

171. Lower the vehicle to a comfortable height to work in engine room.

172. Reattach the High-Pressure Flexible Hose to the condenser.

- One (1) bolt.
- Bolt torque: 5.5 N•m (0.56 kg-m, **49 in.-lb**)

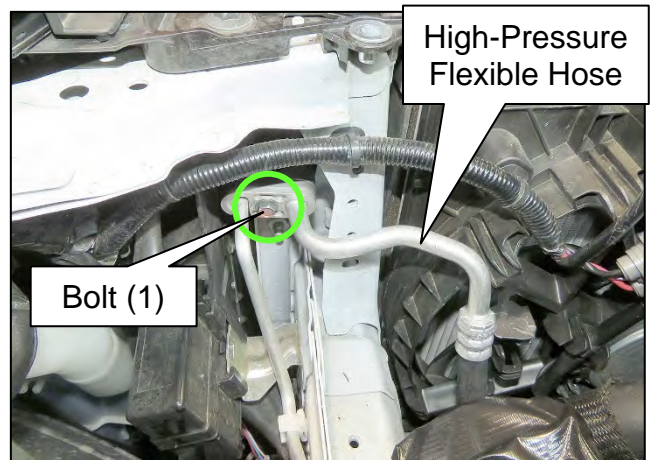


Figure 109

173. Reconnect the Low-Pressure Flexible Hose to the Internal Heat Exchanger Pipe.

- One (1) bolt.
- Bolt torque: 5.5 N•m (0.56 kg-m, **49 in.-lb**)

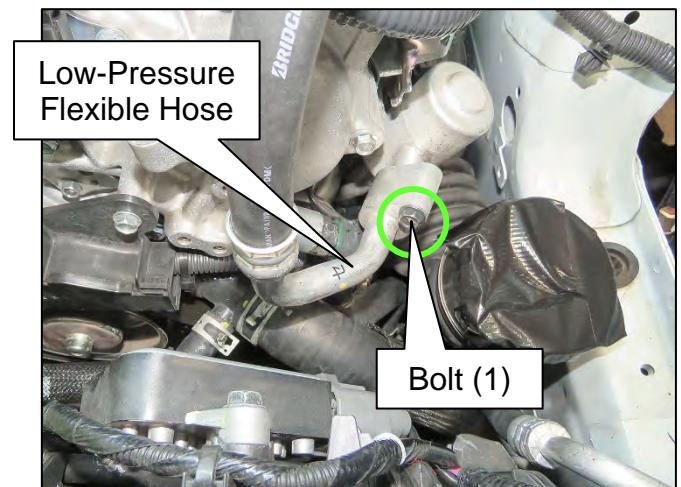


Figure 110

174. Reattach the Radiator Hose (lower) and the Reservoir Tank Hose to the Multi-way Control Valve.

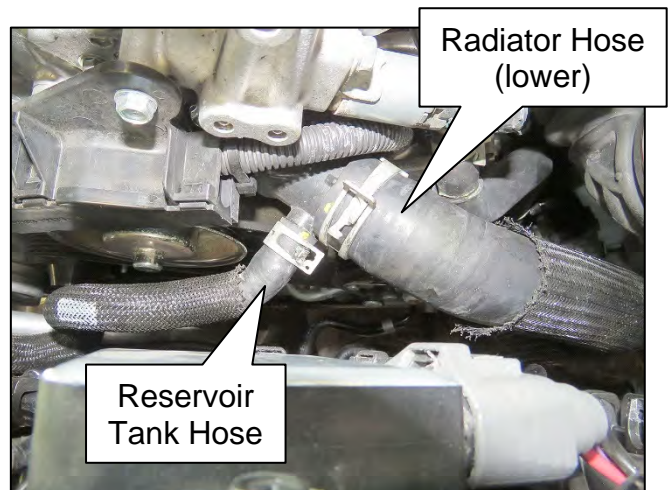
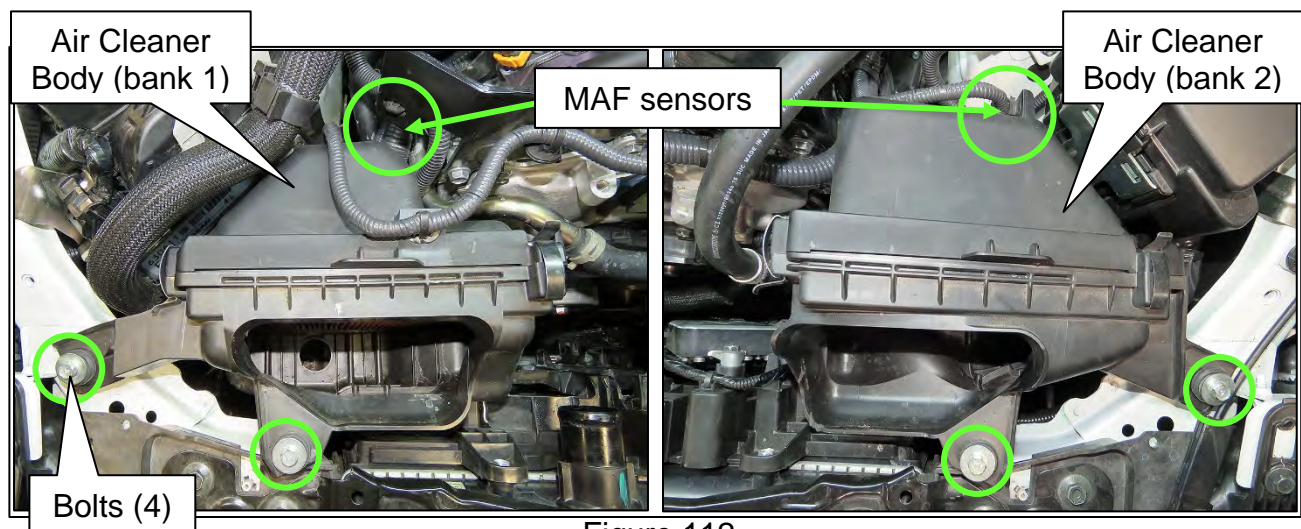
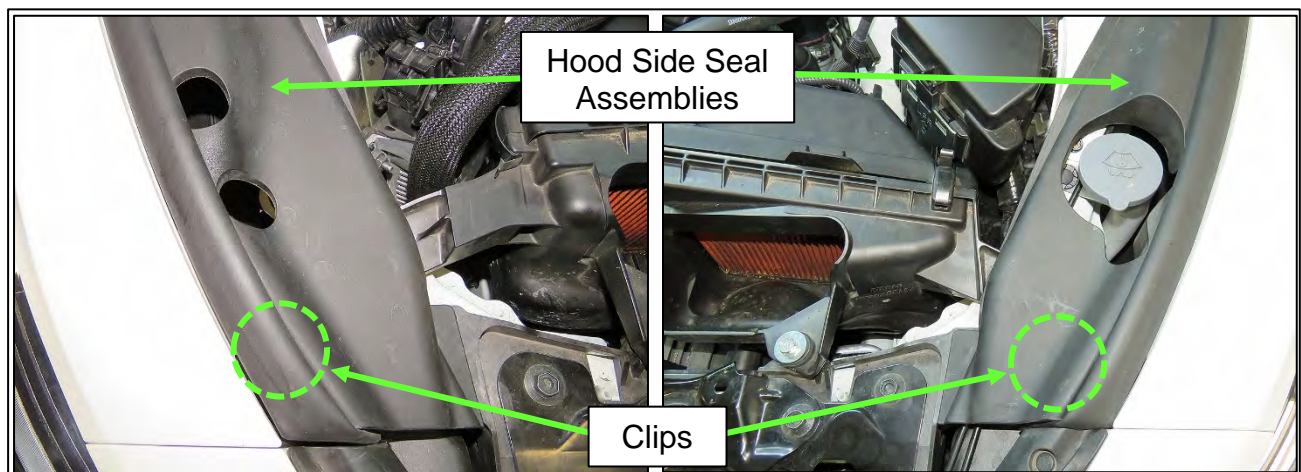


Figure 111

175. For vehicles that the Oil Cooler Pipe 1 bolts were removed in step 37 on page 10, reinstall the two (2) bolts.
- Bolt torque: 5.5 N•m (0.56 kg-m, **49 in.-lbs**)
176. Remove the tape from over Air Duct (bank 1) and Air Duct (bank 2) inlets.
177. Reattach both Air Cleaner Body (bank 1) and Air Cleaner Body (bank 2) to Air Duct (bank 1) and Air Duct (bank 2), and then install their bolts; a total of four (4).
- Bolt torque: 5.5 N•m (5.6 kg-m, **49 in.-lb**)
178. Reattach the MAF sensor wiring harnesses to Air Cleaner Body (bank 1) and Air Cleaner Body (bank 2).
179. Reconnect both MAF sensor wiring harness connectors to the MAF sensors (Figure 112), located on the Air Cleaner Body (bank 1) and Air Cleaner Body (bank 2).



180. Reattach the passenger (RH) side and the driver (LH) side Hood Side Seal Assembly clips (Figure 113).



181. Reconnect the Radiator Hose (Upper) to the radiator.

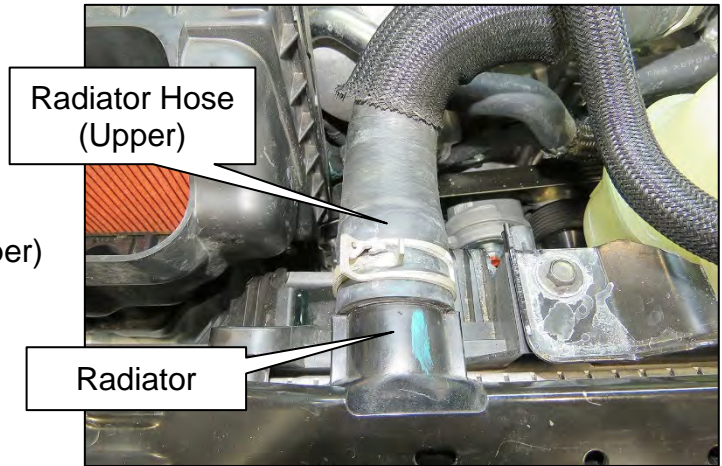


Figure 114

182. Reconnect the Radiator Hose (Upper) and the Reservoir Tank Hose to the Multi-way Control Valve.

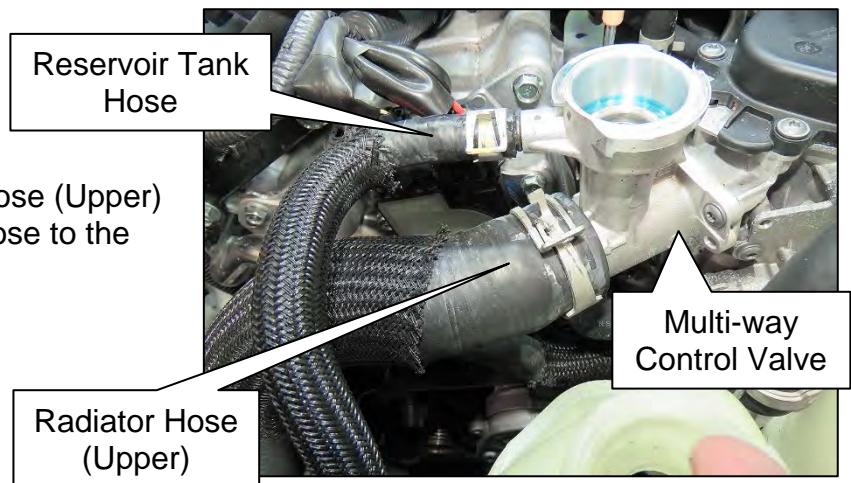


Figure 115

183. Install the Air Duct (inlet), shown in Figure 116.

- Eight (8) clips.

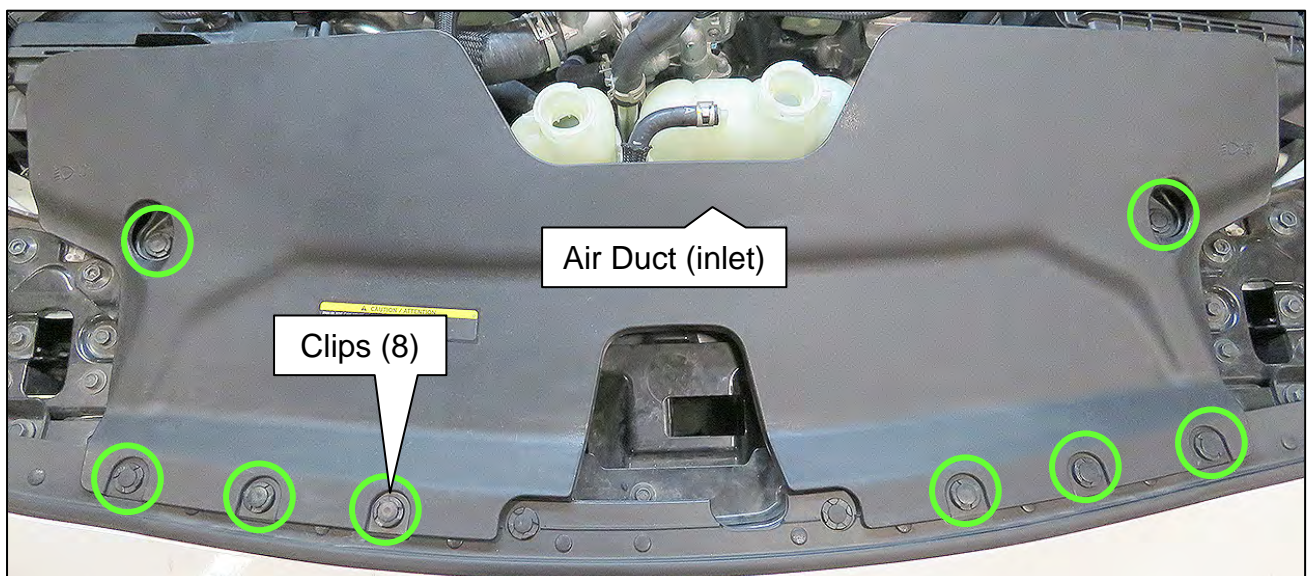


Figure 116

184. Reconnect Water Hose 9 to Water Pipe 3.

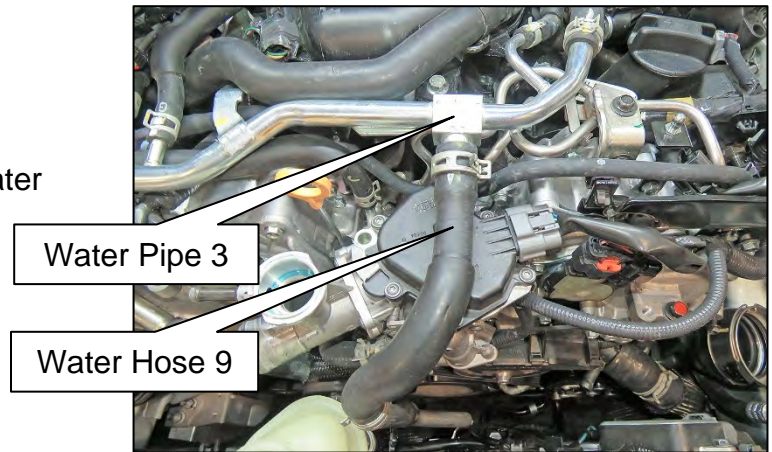


Figure 117

185. Reconnect Water Hose 1 to Connector Pipe 3.

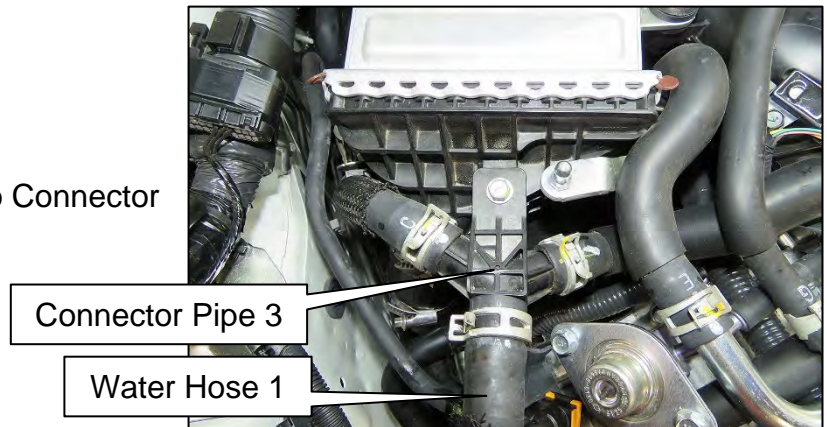


Figure 118

186. Reattach Fuel Feed Hose 2.

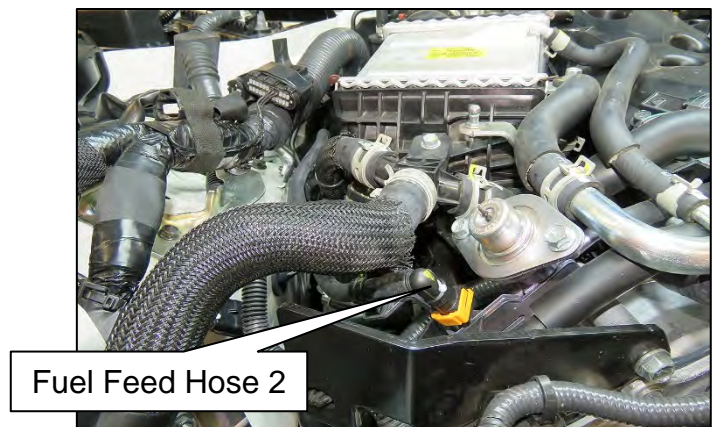


Figure 119

187. Reconnect both the passenger (RH) side and the driver (LH) side heater hoses to the engine (Figure 120 and Figure 121).

188. Reinstall the two (2) bolts retaining the engine room wiring harness bracket (Figure 120).

- Bolt torque: 13.5 N•m (1.4 kg-m, **10 ft-lb**)

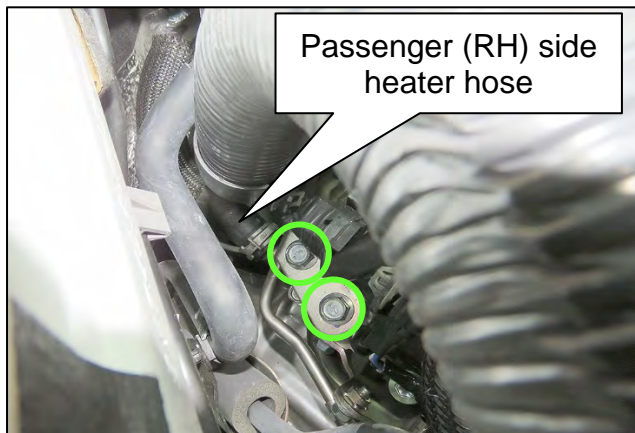


Figure 120



Figure 121

189. Reattach the body ground cable (Figure 122) and the engine ground cable (Figure 123).

- The body ground cable is located on the driver (LH) side of the engine room inner fender.
- The engine ground cable is located on the front of the timing cover.

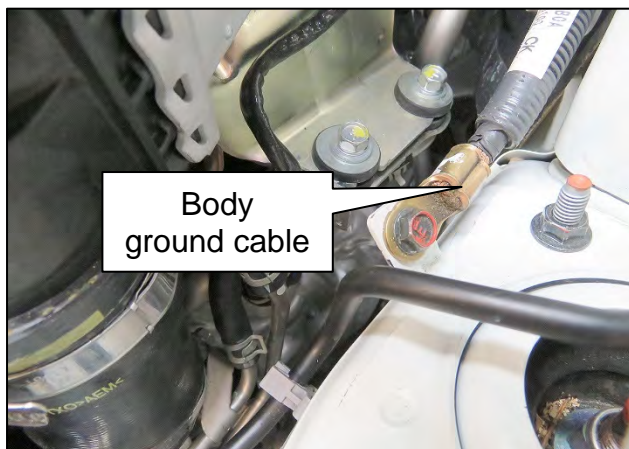


Figure 122

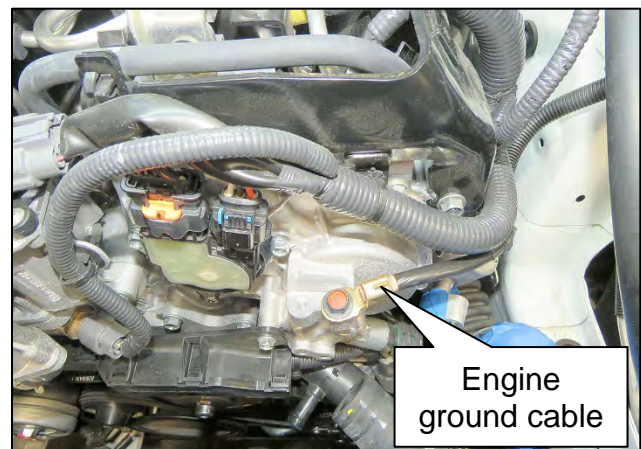


Figure 123

190. Reattach the positive battery cable grommet to the vehicle.

191. Reconnect the engine wiring harness to its mounting bracket.

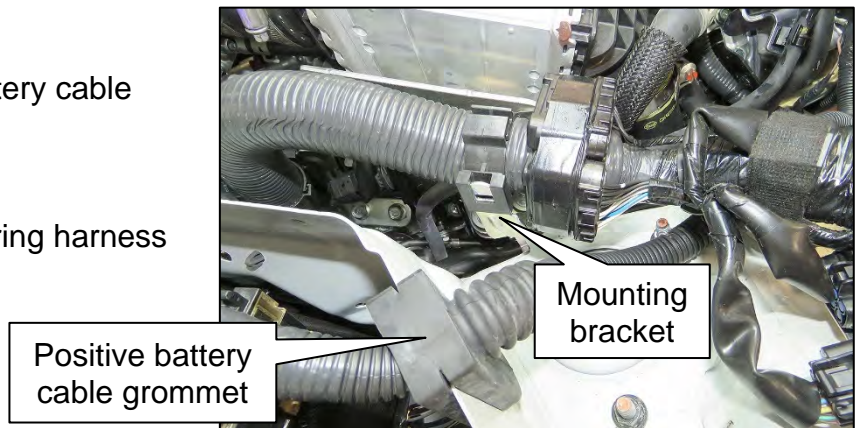


Figure 124

192. Reattach the positive battery cable to the battery terminal with fusible link.

- Nut torque: 13.5 N•m (1.4 kg-m, **10 ft-lb**)

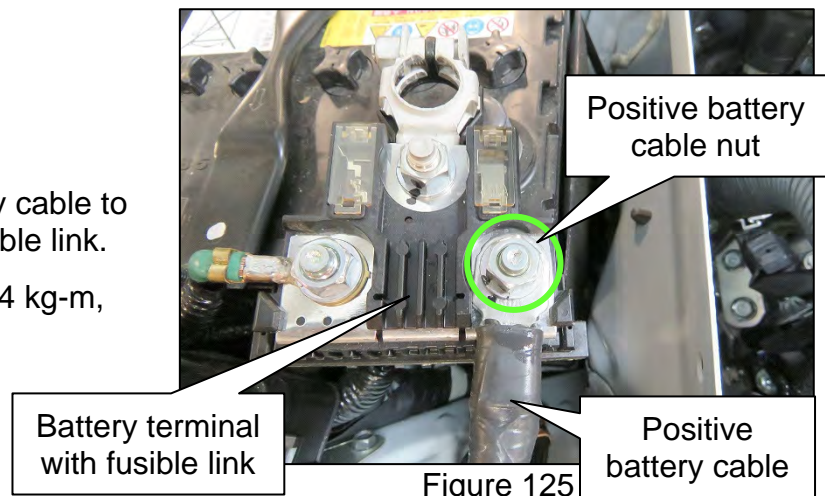


Figure 125

193. Reconnect the three (3) wiring harness connectors shown in Figure 126.

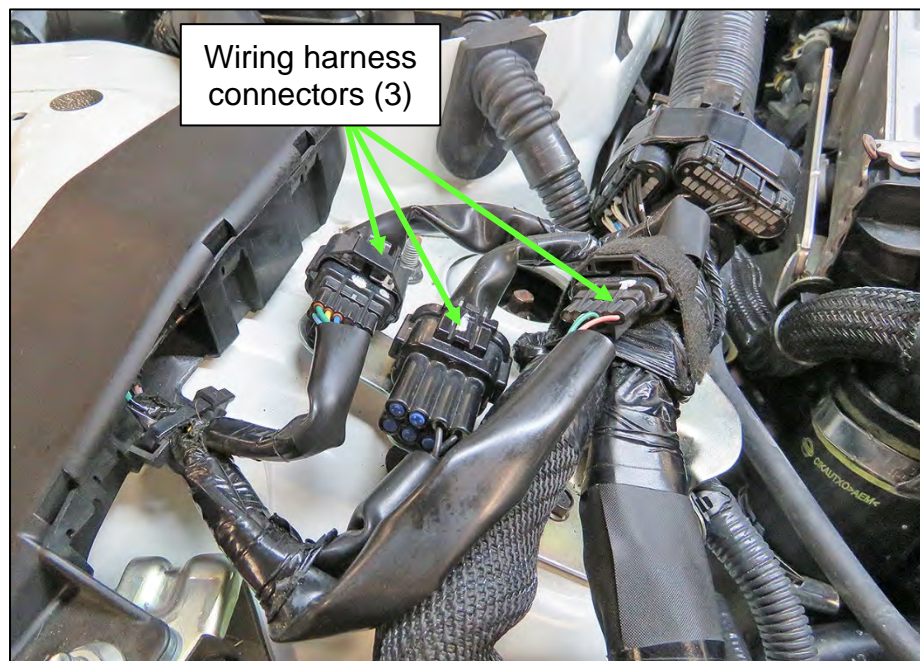


Figure 126

194. Reconnect the ECM wiring harness connectors (3).

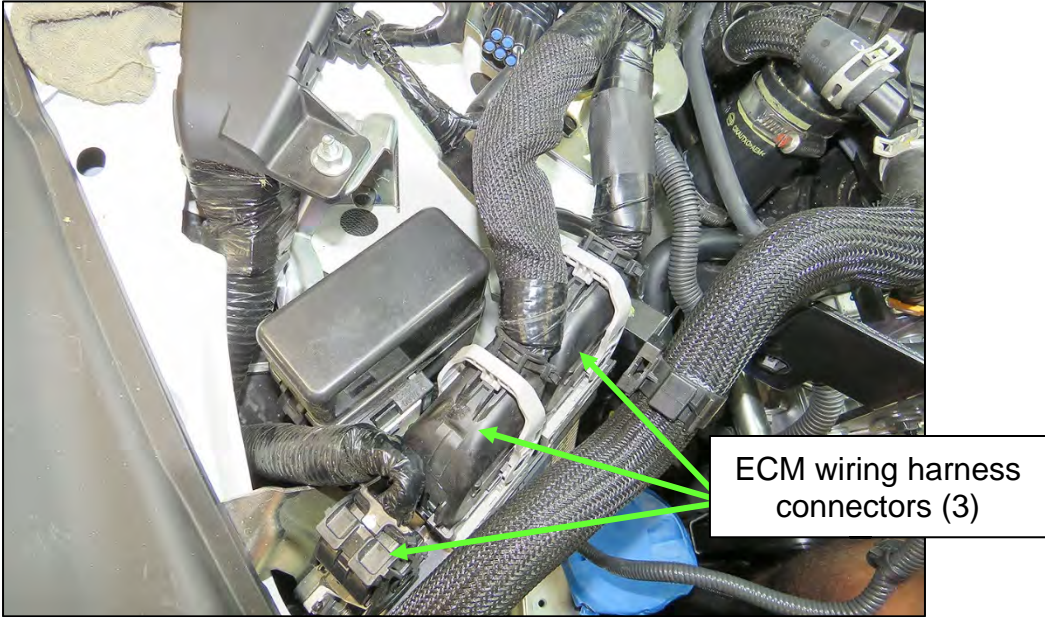


Figure 127

195. Reconnect the Vacuum Hose 1 to the vacuum piping (Figure 128), and then reattach its grommet to the bulkhead.

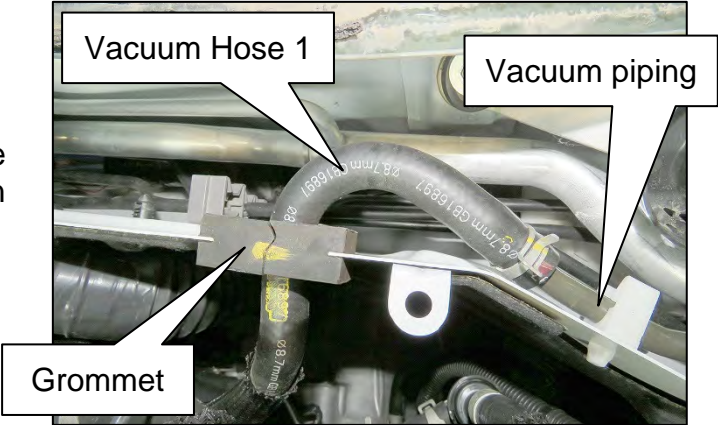


Figure 128

196. Reattach the Engine Control Harness grommet to the bulkhead.

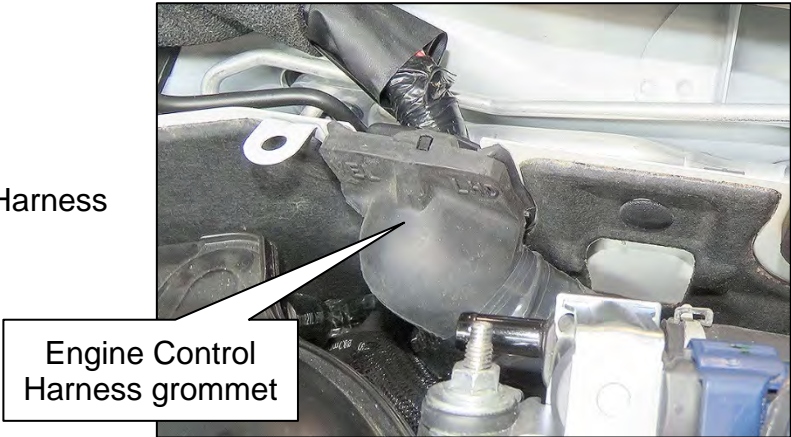


Figure 129

- 197. Reattach the two (2) Engine Control Harness mounting clips (Figure 130).
- 198. Reconnect the wiring harness connector (Figure 130).
 - Located directly behind the battery.

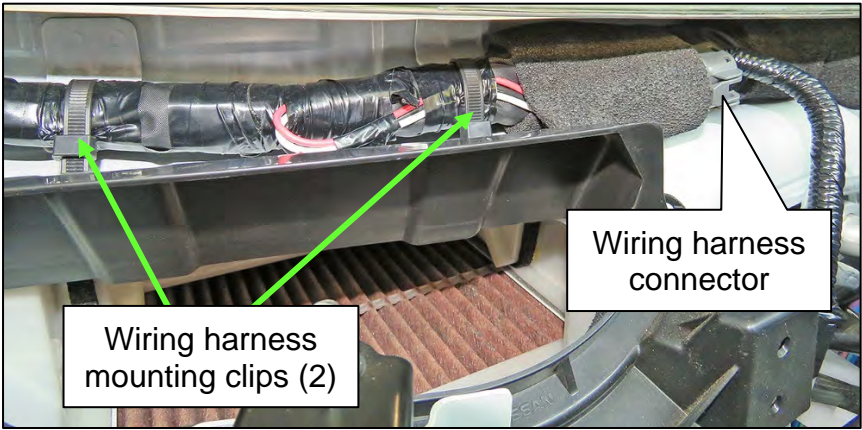


Figure 130

- 199. Reconnect the Engine Control Harness from the Engine Room Harness (Figure 131).

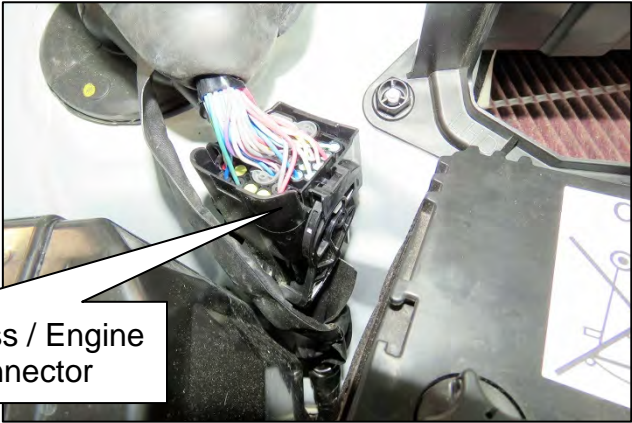


Figure 131

- 200. Roll down the wiring harness dust boot (Figure 132).
- 201. Reconnect the wiring harness connector shown in Figure 132.

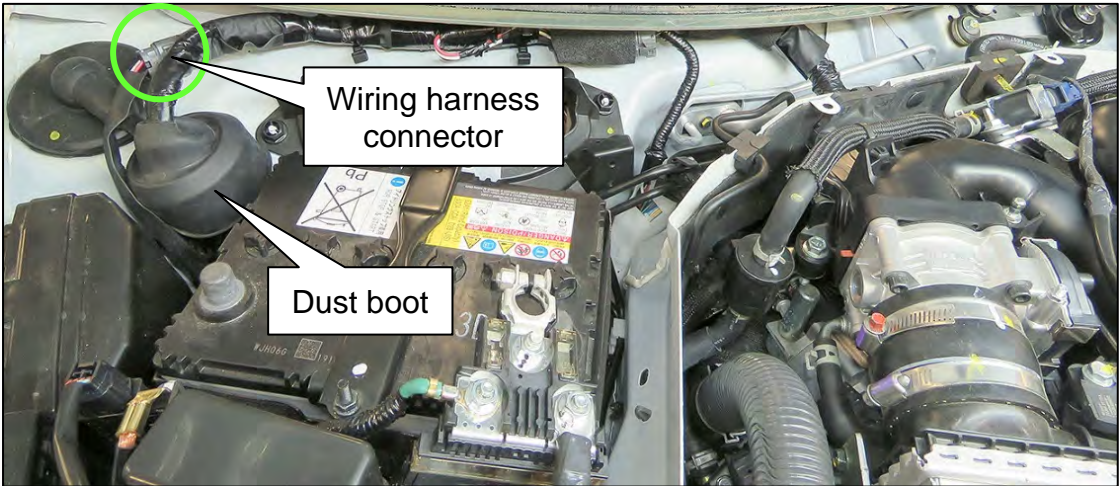


Figure 132

202. Refill the engine coolant.

203. Refill Intercooler coolant.

204. Reconnect the battery cable to the positive terminal.

- Nut torque: 13.5 N•m (1.4 kg-m, **10 ft-lb**)

205. Reinstall the cover of the battery positive terminal.

206. Reconnect the battery cable to the negative terminal.

- Nut torque: 13.5 N•m (1.4 kg-m, **10 ft-lb**)

207. Reinstall the Cowl Top Cover RH and Cowl Top Cover LH.

- Refer to the ESM: **REPAIR > BODY EXTERIOR, DOORS, ROOF & VEHICLE SECURITY > EXTERIOR > REMOVAL AND INSTALLATION > COWL TOP**

208. Reinstall the Engine Cover.

- Refer to the ESM: **REPAIR > ENGINE > ENGINE MECHANICAL > REMOVAL AND INSTALLATION > ENGINE COVER**

209. Recharge the A/C refrigerant using approved equipment.

210. Perform **Turbocharger Wastegate Control Solenoid Valve Data Initialization**.

- Refer to the ESM: **DIAGNOSIS > ENGINE > ENGINE CONTROL SYSTEM > BASIC INSPECTION > ENGINE CONTROL SYSTEM > TURBOCHARGER WASTEGATE CONTROL SOLENOID VALVE DATA INITIALIZATION**

211. Perform **Required Procedure After Battery Disconnection**.

- Refer to the ESM: **GENERAL INFORMATION > GENERAL INFORMATION > BASIC INSPECTION > ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL**

ECM REPROGRAMMING

212. Using CONSULT-III plus, confirm the current ECM part number and write it on the repair order.

- If it matches one of the part numbers in **Table A**, continue to step 213 on page 64.
- If it does not match one of the part numbers in **Table A**, this bulletin does not apply. Go back to ASIST for further diagnostic and repair information.

Table A

MODEL	CURRENT ECM PART NUMBER: 23710-
2016 Q50	5CD5A, 5CD5B, 5CD5C, 5CD5D, 5CD5E, 5CD6A, 5CD6B 5CD6C, 5CD6D, 5CD6E, 5CF1B, 5CF1C, 5CF1D, 5CF1E 5CF2A, 5CF2B, 5CF2C, 5CF2D, 5CF2E, 5CF3A, 5CF3B 5CF3C, 5CF3D, 5CF3E, 5CF4A, 5CF4B, 5CF4C, 5CF4D 5CF4E, 5CF5A, 5CF5B, 5CF5C, 5CF5D, 5CF5E, 5CF6A 5CF6B, 5CF6C, 5CF6D, 5CF6E, 5CF7A, 5CF7B, 5CF7C 5CF7D, 5CF7E, 5CF8A, 5CF8B, 5CF8C, 5CF8D, 5CF8E 5CF9A, 5CF9B, 5CF9C, 5CF9D, 5CF9E, 5CH3A, 5CH3B 5CH3C, 5CH3D, 5CH3E, 5CH4A, 5CH4B, 5CH4C, 5CH4D 5CH4E, 5CH7A, 5CH7B, 5CH7C, 5CH7D, 5CH7E, 5CH8A 5CH8B, 5CH8C, 5CH8D, 5CH8E, 5CH9A, 5CH9B, 5CH9C 5CH9D, 5CH9E, 5CJ2A, 5CJ2B, 5CJ2C, 5CJ2D, 5CJ2E 5CJ3A, 5CJ3B, 5CJ3C, 5CJ3D, 5CJ3E, 5CJ4A, 5CJ4B 5CJ4C, 5CJ4D, 5CJ4E, 5CJ5A, 5CJ5B, 5CJ5C, 5CJ5D 5CJ5E, 5CJ6A, 5CJ6B, 5CJ6C, 5CJ6D, 5CJ6E, 5CJ7A 5CJ7B, 5CJ7C, 5CJ7D, 5CJ7E, 5CJ8A, 5CJ8B, 5CJ8C 5CJ8D, 5CJ8E, 5CJ9A, 5CJ9B, 5CJ9C, 5CJ9D, 5CJ9E 5CW0A, 5CW0B, 5CW0C, 5CW0D, 5CW0E, 5CW1A, 5CW1B 5CW1C, 5CW1D, 5CW1E, 5CW2A, 5CW2B, 5CW2C, 5CW2D 5CW2E, 5CW3A, 5CW3B, 5CW3C, 5CW3D, 5CW3E, 5CW4A 5CW4B, 5CW4C, 5CW4D, 5CF1A
2017 Q50	5CW4E, 5CW5A, 5CW5B, 5CW5C, 5CW5D, 5CW5E, 5CW6A 5CW6B, 5CW6C, 5CW6D, 5CW6E, 5CW7A, 5CW7B, 5CW7C 5CW7D, 5CW7E, 5CW8A, 5CW8B, 5CW8C, 5CW8D, 5CW8E 5CW9A, 5CW9B, 5CW9C, 6HA0A, 6HA0B, 6HA0C, 6HA0D 6HA0E, 6HA1A, 6HA1B, 6HA1C, 6HA1D, 6HA1E, 6HA2A 6HA2B, 6HA2C, 6HA2D, 6HA2E, 6HA3A, 6HA3B, 6HA3C 6HA3D, 6HA3E, 6HA4A, 6HA4B, 6HA4C, 6HA4D, 6HA4E 6HA5A, 6HA5B, 6HA5C, 6HA5D, 6HA5E, 6HA6A, 6HA6B 6HA6C, 6HA6D, 6HA6E, 6HA7A, 6HA7B, 6HA7C, 6HA7D 6HA7E, 6HF0A, 6HF0B, 6HF0C, 6HF0D, 6HF0E, 6HF1A 6HF1B, 6HF1C, 6HF1D, 6HF1E, 6HF2A, 6HF2B, 6HF2C 6HF2D, 6HF2E, 6HF3A, 6HF3B, 6HF3C, 6HF3D, 6HF3E 6HF4A, 6HF4B, 6HF4C, 6HF4D, 6HF4E, 6HF5A, 6HF5B 6HF5C, 6HF5D, 6HF5E, 6HF6A, 6HF6B, 6HF6C, 6HF6D 6HF6E, 6HF7A, 6HF7B, 6HF7C, 6HF7D, 6HF7E, 6HG2A 6HG2B, 6HG2C, 6HG2D, 6HG2E, 6HG3A, 6HG3B, 6HG3C 6HG3D, 6HG3E, 6HG4A, 6HG4B, 6HG4C, 6HG4D, 6HG6C 6HG6D, 6HG6E, 6HG7A, 6HG7B, 6HG7C, 6HG7D, 6HG7E 6HG8A

MODEL	CURRENT ECM PART NUMBER: 23710-
2017 Q50 (continued)	6HG8B, 6HG8C, 6HG8D, 6HG8E, 6HG9A, 6HG9B, 6HG9C 6HG9D, 6HG9E
2018 Q50	6HB0A, 6HB0B, 6HB0C, 6HB0D, 6HB1A, 6HB1B, 6HB1C 6HB1D, 6HB2A, 6HB2B, 6HB2C, 6HB2D, 6HB3A, 6HB3B 6HB3C, 6HB3D, 6HB4A, 6HB4B, 6HB4C, 6HB4D, 6HB5A 6HB5B, 6HB5C, 6HB5D, 6HB6A, 6HB6B, 6HB6C, 6HB6D 6HB7A, 6HB7B, 6HB7C, 6HB7D, 6HD4A, 6HD4B, 6HD4C 6HD4D, 6HD5A, 6HD5B, 6HD5C, 6HD5D, 6HD6A, 6HD6B 6HD6C, 6HD6D, 6HD7A, 6HD7B, 6HD7C, 6HD7D, 6HD8A 6HD8B, 6HD8C, 6HD8D, 6HD9A, 6HD9B, 6HD9C, 6HD9D 6HJ0A, 6HJ0B, 6HJ0C, 6HJ0D, 6HJ1A, 6HJ1B, 6HJ1C 6HJ1D, 6HJ2A, 6HJ2B, 6HJ2C, 6HJ2D, 6HJ3A, 6HJ3B 6HJ3C, 6HJ3D, 6HJ4A, 6HJ4B, 6HJ4C, 6HJ4D, 6HJ5A 6HJ5B, 6HJ5C, 6HJ5D, 6HJ6A, 6HJ6B, 6HJ6C, 6HJ6D 6HJ7A, 6HJ7B, 6HJ7C, 6HJ7D, 6HJ8A, 6HJ8B, 6HJ8C 6HJ8D, 6HJ9A, 6HJ9B, 6HJ9C, 6HJ9D
2019 Q50	4GJ0A, 4GJ0B, 4GJ1A, 4GJ1B, 4GJ2A, 4GJ2B, 4GJ4A 4GJ4B, 4GJ5A, 4GJ5B, 4GJ6A, 4GJ6B, 4GJ7A, 4GJ7B 4GJ8A, 4GJ8B, 4GJ9A, 4GJ9B, 4GK0A, 4GK0B, 4GK1B 4GK2A, 4GK2B, 4GK3A, 4GK3B, 4GK4A, 4GK4B, 4GK5A 4GK5B, 4GK6A, 4GK6B, 4GK7A, 4GK7B, 4GK8A, 4GK8B 4GK9A, 4GK9B, 4GK1A
2020 Q50	4GN1C, 4GN2C, 4GN3C, 4GN4C, 4GN5C, 4GN6C, 4GN7C 4GN8C, 4GN9C, 4GR5C, 4GR6C, 6HM2C, 6HM4C, 6HM5C 6HM6C, 6HM7C, 6HM8C, 6HM3C
2021 Q50	4HF3B, 4HF3C, 4HF4B, 4HF4C, 6HN2C, 6HN2D, 6HN3C 6HN3D, 6HN4B, 6HN4C, 6HN5B, 6HN5C, 6HN6B, 6HN6C 6HN7C, 6HN8B, 6HN8C, 6HN9B, 6HN9C, 6HN7B
2022 Q50	4GT1C, 4GT2B, 4GT2C, 4GT3B, 4GT3C, 4GT4B, 4GT4 4GT5B, 4GT5C, 4GT6B, 4GT6C, 4GT7B, 4GT7C, 4GT8B 4GT8C, 4GT9B, 4GT9C, 4GT1B
2023 Q50	4GY2A, 4GY3A, 4GY4A, 4GY5A, 4GY6A, 4GY7A, 4GY8A 4GY9A, 4GY1A

Continued on the next page.

Table A (continued)

MODEL	CURRENT ECM PART NUMBER: 23710-
2017 Q60	5CB0B, 5CB0C, 5CB0D, 5CB1B, 5CB1C, 5CB1D, 5CB2B 5CB2C, 5CB2D, 5CB3B, 5CB3C, 5CB3D, 5CC0A, 5CC0C 5CC0D, 5CC0E, 5CC1A, 5CC1B, 5CC1C, 5CC1D, 5CC1E 5CC2C, 5CC2E, 5CC8A, 5CC8B, 5CC8C, 5CC8D, 5CC8E 5CC9A, 5CC9B, 5CC9C, 5CC9D, 5CC9E, 5CG0A, 5CG0C 5CG0D, 5CG0E, 5CG1A, 5CG1B, 5CG1C, 5CG1D, 5CG1E 5CG5A, 5CG5B, 5CG5C, 5CG5D, 5CG5E, 5CG6A, 5CG6B 5CG6C, 5CG6D, 5CG6E, 5CG7A, 5CG7B, 5CG7C, 5CG7D 5CG7E, 5CG8A, 5CG8B, 5CG8C, 5CG8D, 5CG8E, 5CH1A 5CH1B, 5CH1C, 5CH1D, 5CH1E, 5CH2A, 5CH2C, 5CH2D 5CH2E, 5CH5A, 5CH5C, 5CH5D, 5CH5E, 5CH6A, 5CH6C 5CH6D, 5CH6E, 5CJ0A, 5CJ0B, 5CJ0C, 5CJ0D, 5CJ0E, 5CJ1A 5CJ1B, 5CJ1C, 5CJ1D, 5CJ1E, 5CK1A, 5CK1B, 5CK1C, 5CK1D 5CK1E, 5CK2A, 5CK2B, 5CK2C, 5CK2D, 5CK2E, 5CK3B 5CK3C, 5CK3D, 5CK3E, 5CK4A, 5CK4B, 5CK4C, 5CK4D 5CK4E, 5CL5A, 5CL5B, 5CL5C, 5CL5D, 5CL5E, 5CL6A, 5CL6B 5CL6C, 5CL6D, 5CL6E, 5CL7A, 5CL7B, 5CL7C, 5CL7D, 5CL7E 5CL8A, 5CL8B, 5CL8C, 5CL8D, 5CL8E, 5CV6A, 5CV6B, 5CV6C 5CV6D, 5CV6E, 5CV7A, 5CV7B, 5CV7C, 5CV7D, 5CV7E 5CV8A, 5CV8B, 5CV8C, 5CV8D, 5CV8E, 5CV9A, 5CV9B 5CV9C, 5CV9D, 5CW9D, 5CW9E, 5CZ0A, 5CZ0B, 5CZ0C 5CZ0D, 5CZ0E, 5CZ1A, 5CZ1B, 5CZ1C, 5CZ1D, 5CZ1E, 5CZ2A 5CZ2B, 5CZ2C, 5CZ2D, 5CZ2E, 5CZ3A, 5CZ3B, 5CZ3C, 5CK3A
2018 Q60	4GC6C, 4GC6D, 4GC7A, 4GC7B, 4GC7C, 4GC8A, 4GC8B 4GC8C, 4GC9A, 4GC9B, 4GC9C, 4GD2A, 4GD2B, 4GD2C 4GD3A, 4GD3B, 4GD3C, 4GD4A, 4GD4B, 4GD4C, 4GD5A 4GD5B, 4GD5C, 4GD6A, 4GD6B, 4GD6C, 4GD7A, 4GD7B 4GD7C, 4GD8A, 4GD8B, 4GD8C, 4GD9A, 4GD9B, 4GD9C 4GE6A, 4GE6B, 4GE6C, 4GE7A, 4GE7B, 4GE7C, 4GE8A 4GE8B, 4GE8C, 4GE9A, 4GE9B, 4GE9C, 4GF3A, 4GF3B 4GF3C, 4GF6A, 4GF6B, 4GF6C, 4GG0A, 4GG0B, 4GG0C 4GG1A, 4GG1B, 4GG1C, 4GG2A, 4GG2B, 4GG2C, 4GG3A 4GG3B, 4GG3C, 4HL6A, 4HL6B, 4HL6C, 4HL7A, 4HL7B, 4HL7C 4GC6A
2019 Q60	5CR0A, 5CR0B, 5CR1A, 5CR1B, 5CR2A, 5CR2B, 5CR3A 5CR3B, 5CR4A, 5CR4B, 5CR5A, 5CR5B, 5CR6A, 5CR6B 5CR7A, 5CR7B, 5CR8A, 5CR8B, 5CR9A, 5CR9B, 5CS0A 5CS0B, 5CS1A, 5CS2A, 5CS2B, 5CS3B, 5CS4A, 5CS4B 5CS5A, 5CS5B, 5CS6A, 5CS6B, 5CS7A, 5CS7B, 5CT0A, 5CT0B 5CT1A, 5CT1B, 5CS3A
2020 Q60	5CT2C, 5CT3D, 5CT4C, 5CT5C, 5CX0C, 5CX6C, 5CX9C 5CY0C, 5CY1C, 5CY2C, 5CY4C, 5CY5C, 5CY6C, 5CY7C 5CY3C
2021 Q60	5DV1C, 5DV2B, 5DV3B, 5DV4B, 5DV5B, 5DV6B, 5DV7B, 5DV0C
2022 Q60	5CU0C, 5CU1B, 5CU1C, 5CU2B, 5CU2C, 5CU3B, 5CU3C 5CU4B, 5CU4C, 5CU5B, 5CU5C, 5CU6B, 5CU6C, 5CU7B 5CU7C, 5CU0B

⚠ WARNING **⚠ CAUTION** **NOTICE**

If you are not familiar with the reprogramming procedure, refer to the Electronic Service Manual (ESM) and the CONSULT Operation Manual to reprogram the Electronic Control Unit (ECU). Follow all precautions in both manuals to prevent possible personal injury or death and/or damage to the ECU.

213. Reprogram the ECM.

HINT: If prompted, perform "ADDITIONAL SERVICE" under the Engine Control System.

214. After completing **Erase All DTCs**, print a copy of the CONSULT screen showing the before and after part numbers of the control unit and attach it to the repair order.

PARTS INFORMATION

DESCRIPTION	PART NUMBER	QUANTITY
TURBOCHARGER (LH)	(1)	1
TURBOCHARGER (RH)	(1)	1
GASKET - EYEBOLT	15189-5CA0A	6
EXHAUST NUT	14094-JG30A	8
HEAT SHIELD BOLT	14069-JD00A	14
TURBOCHARGER INLET GASKET	14415-5CA0A	2
TURBOCHARGER OIL INLET GASKET	15196-MB40B	1
TURBOCHARGER OIL OUTLET GASKET	15196-5CB0A	2
GASKET - EYEBOLT	15189-5CA0B	2
GASKET - EYEBOLT	11026-AD200	1
PROP BOLT (AWD)	37120-AL60A	4 If Needed
PROP SHAFT NUTS (AWD)	37171-AL60A	4 If Needed
PROP BOLT (2WD)	37120-AH00A	3 If Needed
PROP WASHER (2WD)	37121-JK20B	3 If Needed
PROP SHAFT NUTS (2WD)	37171-AL60A	3 If Needed
CENTER BEARING MOUNTING BRACKET NUTS (2WD)	01225-00062	2 If Needed
FRONT SUSPENSION NUT	54588-JK03A	4
NUT	55269-AG00E	4
CLAMP	14464-5CA1A	4
EXHAUST GASKET	20692-8H30A	1
EXHAUST CLAMP	14464-5CB0A	2
CONVERTER GASKET	14445-5CB0A	2
COOLANT (2)	999MPL25500P	As Needed
AIR FUEL RATIO SENSOR	22693-5CA0A	2
CLAMP	01558-00451	2

- (1) Refer to the EPC and use vehicle VIN to look up grade specific part.
- (2) Order this item through the Infiniti Maintenance Advantage program: Phone 877-INF-IMA1 (877-463-4621). Website order via link on the dealer portal; www.NNAnet.com and click on the "Maintenance Advantage-Tire/Battery/Chemical" link.

Continued on the next page.

PARTS INFORMATION (continued)

DESCRIPTION	PART NUMBER	QUANTITY
SEAL - O RING	92472-N823A	2
SEAL - O RING	92474-N823A	1
SEAL - O RING	92473-N823A	1
SEAL - O RING	92471-N823A	1
NUT	20602-41G0A	5
GASKET EXHAUST	20691-19U0A	1
GASKET CONVERTOR	20813-5CA0A	1

- (1) Refer to the EPC and use vehicle VIN to look up grade specific part.
- (2) Order this item through the Infiniti Maintenance Advantage program: Phone 877-INF-IMA1 (877-463-4621). Website order via link on the dealer portal; www.NNAnet.com and click on the "Maintenance Advantage-Tire/Battery/Chemical" link.

CLAIMS INFORMATION

Submit a Primary Part (PP) type line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Replace RH Turbocharger- RWD	(1)	DX62AA	ZE	32	7.8
With AWD					7.4
Replace LH Turbocharger- RWD		DX63AA			7.8
With AWD					7.4
Replace Both Turbochargers- RWD		DX64AA			8.8
With AWD					8.4
Perform ECM Reprogram		DE97AA			(2)

- (1) Reference the electronic parts catalog and use the Turbocharger Assy (14411-*****) as the Primary Failed Part (**PFP**).
- (2) Reference the current Infiniti Flat Rate Manual and use the indicated Flat Rate Time (FRT).

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
November 14, 2022	ITB22-038	Original bulletin published
December 9, 2022	ITB22-038A	PARTS INFORMATION revised
August 4, 2023	ITB22-038B	APPLIED VEHICLES , page 46, and PARTS INFORMATION revised
November 6, 2023	ITB22-038C	Pages 1 and 60 revised
February 4, 2025	ITB22-038D	APPLIED VEHICLES and CLAIMS INFORMATION updated. Bulletin changed from SERVICE INFORMATION to IF YOU CONFIRM/ACTION . ECM reprogramming added.