

4. Engine Wiring Harness

A: REMOVAL

1) Release the fuel pressure. <Ref. to FU(H4DO(HEV))-98, RELEASING OF FUEL PRESSURE, PROCEDURE, Fuel.>

2) Disconnect the ground cable from battery. <Ref. to NT-5, BATTERY, NOTE, Note.>

NOTE:

For the 12 volt engine restart battery, disconnect the ground terminal from 12V engine restart battery sensor.

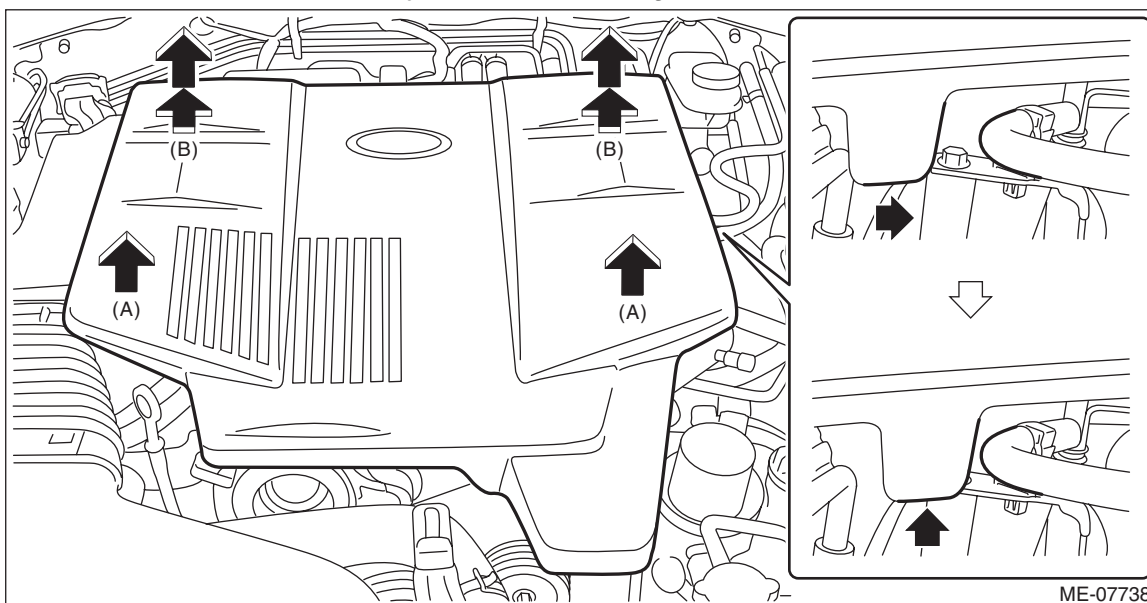
3) Remove the collector cover.

(1) Carefully pull up the front of collector cover at two positions (A).

(2) Carefully pull up the rear of collector cover at two positions (B) while moving it backward.

NOTE:

Be careful not to contact the fuel delivery tube when moving the collector cover rearward.



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4) Open the fuel filler lid and remove the fuel filler cap.

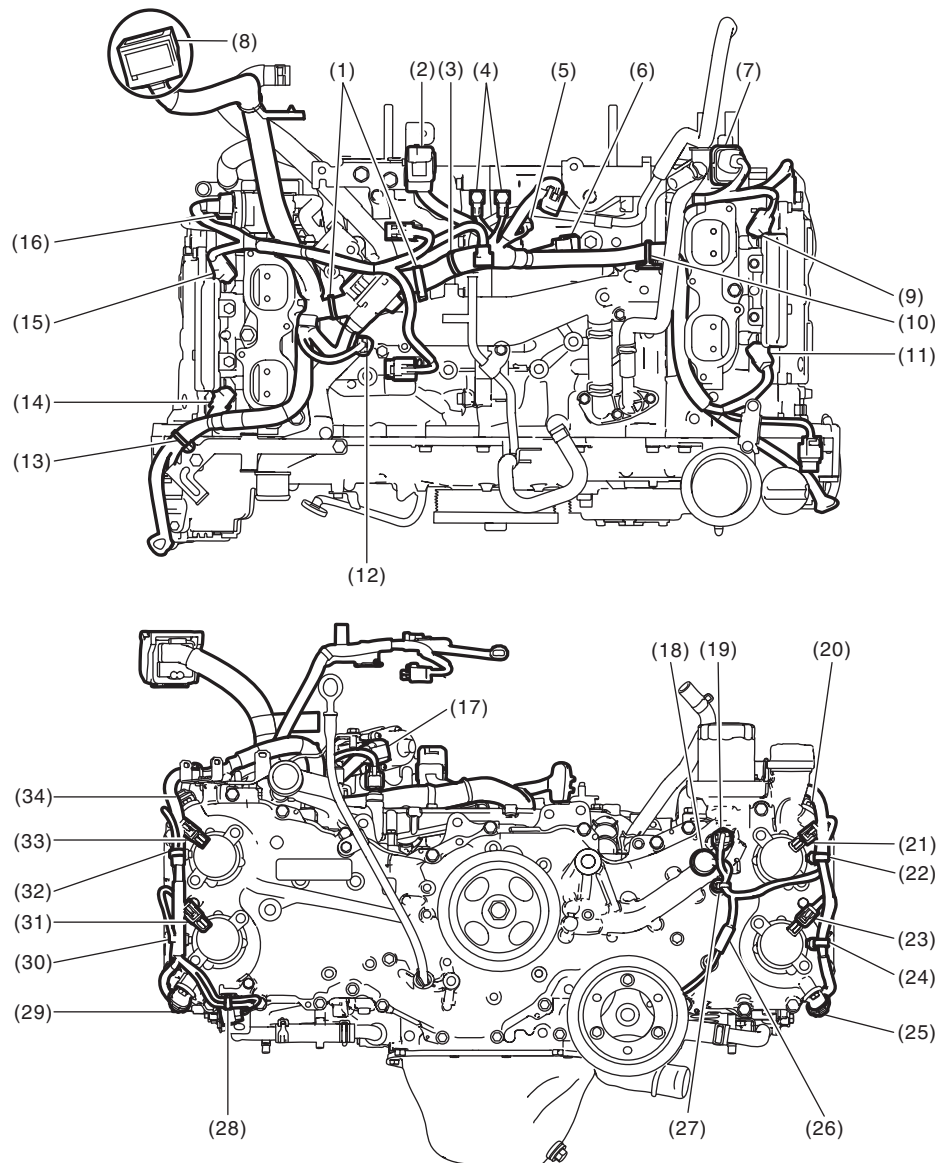
5) Remove the intake manifold. <Ref. to FU(H4DO(HEV))-19, REMOVAL, Intake Manifold.>

Engine Wiring Harness

FUEL INJECTION (FUEL SYSTEMS)

6) Disconnect the connector from the engine, and then remove the engine wiring harness.

- Structural diagram 1



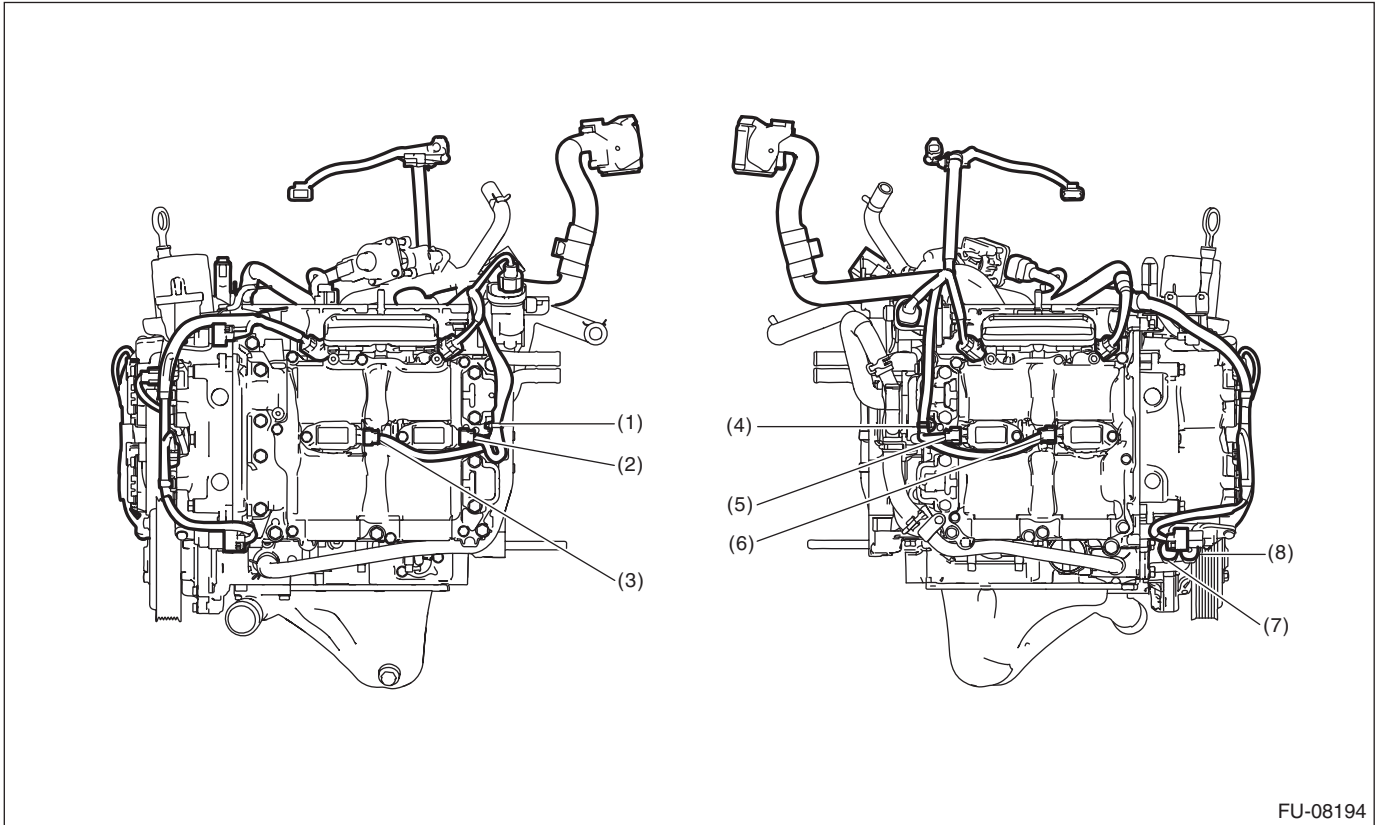
FU-08256

Engine Wiring Harness

FUEL INJECTION (FUEL SYSTEMS)

- (1) Remove the clip from the screw hole.
- (2) Engine harness connector (16P)
- (3) Remove the clip from the brake pipe bracket.
- (4) Engine ground (2 locations)
- (5) Crankshaft position sensor
- (6) Knock sensor
- (7) Tumble generator valve actuator LH
- (8) Engine harness connector (54P)
- (9) Fuel injector (#4)
- (10) Remove the clip from the hole of the water pipe assembly.
- (11) Fuel injector (#2)
- (12) Engine coolant temperature sensor
- (13) Remove the clip from the bracket.
- (14) Fuel injector (#1)
- (15) Fuel injector (#3)
- (16) Tumble generator valve actuator RH
- (17) EGR control valve
- (18) Oil pressure switch
- (19) Engine oil temperature sensor
- (20) Intake camshaft position sensor LH
- (21) Intake oil control solenoid LH
- (22) Remove the clip from the screw hole.
- (23) Exhaust oil control solenoid LH
- (24) Remove the clip from the screw hole.
- (25) Exhaust camshaft position sensor LH
- (26) Oil level switch connector
- (27) Remove the clip from the screw hole.
- (28) Remove the clip from the oval hole.
- (29) Exhaust camshaft position sensor RH
- (30) Remove the clip from the screw hole.
- (31) Exhaust oil control solenoid RH
- (32) Remove the clip from the screw hole.
- (33) Intake oil control solenoid RH
- (34) Intake camshaft position sensor RH

- Structural diagram 2



FU-08194

- (1) Remove the clip from the screw hole.
- (2) Ignition coil No. 4
- (3) Ignition coil No. 2
- (4) Remove the clip from the screw hole.
- (5) Ignition coil No. 3
- (6) Ignition coil No. 1
- (7) Front oxygen (A/F) sensor
- (8) Rear oxygen sensor

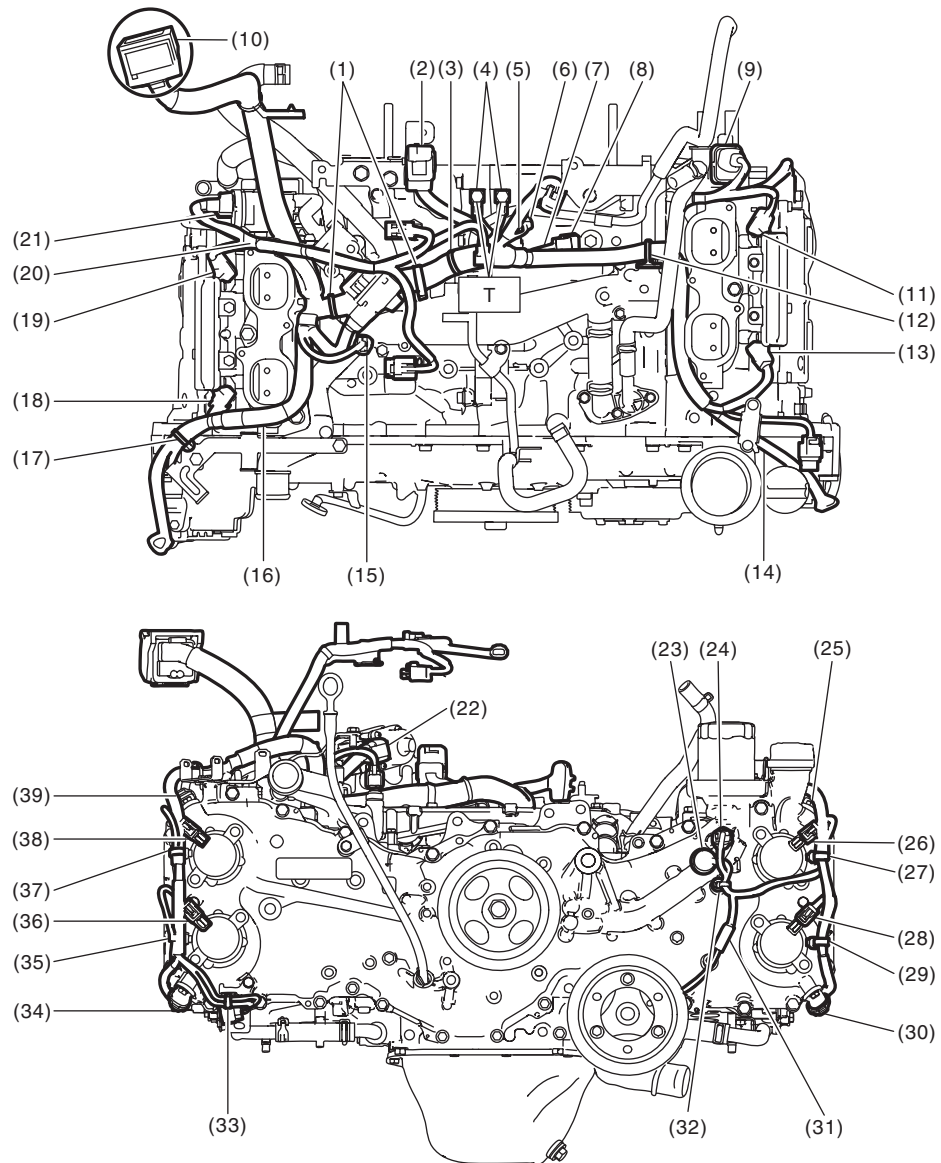
Engine Wiring Harness

FUEL INJECTION (FUEL SYSTEMS)

B: INSTALLATION

1) Route the engine wiring harness around the engine and connect connectors.

- Structural diagram 1



FU-08193

- (1) Secure the clip to the screw hole.
- (2) Engine harness connector (16P)
- (3) Secure the clip to the brake pipe bracket.
- (4) Engine ground (2 locations)
- (5) Pass the crankshaft position sensor harness on the upper side of the preheater hose.
- (6) Crankshaft position sensor
- (7) Pass the knock sensor harness on the front side of the preheater hose.
- (8) Knock sensor
- (9) Tumble generator valve actuator LH
- (10) Engine harness connector (54P)
- (11) Fuel injector (#4)
- (12) Secure the clip to the hole of the water pipe assembly.
- (13) Fuel injector (#2)
- (14) Pass the engine wiring harness under the bracket.
- (15) Engine coolant temperature sensor
- (16) Be careful of pinching when installing the intake manifold.
- (17) Secure the clip to the bracket.
- (18) Fuel injector (#1)
- (19) Fuel injector (#3)
- (20) Be careful of pinching when installing the intake manifold.
- (21) Tumble generator valve actuator RH
- (22) EGR control valve
- (23) Oil pressure switch
- (24) Engine oil temperature sensor
- (25) Intake camshaft position sensor LH
- (26) Intake oil control solenoid LH
- (27) Secure the clip to the screw hole.
- (28) Exhaust oil control solenoid LH
- (29) Secure the clip to the screw hole.
- (30) Exhaust camshaft position sensor LH
- (31) Oil level switch connector
- (32) Secure the clip to the screw hole.
- (33) Secure the clip to the oval hole.
- (34) Exhaust camshaft position sensor RH
- (35) Secure the clip to the screw hole.
- (36) Exhaust oil control solenoid RH
- (37) Secure the clip to the screw hole.
- (38) Intake oil control solenoid RH
- (39) Intake camshaft position sensor RH

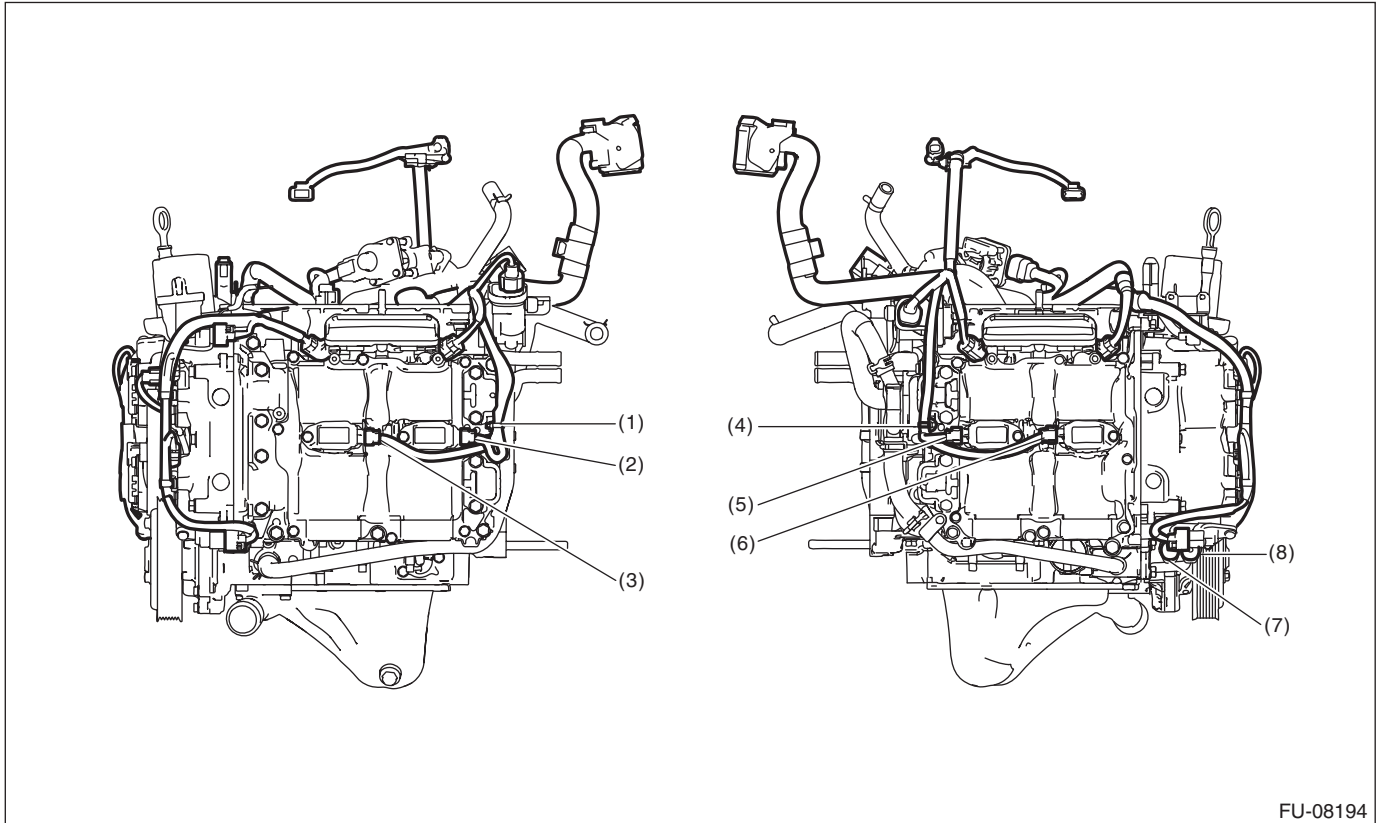
Tightening torque: N·m (kgf-m, ft-lb)

T: 19 (1.9, 14.0)

Engine Wiring Harness

FUEL INJECTION (FUEL SYSTEMS)

- Structural diagram 2



FU-08194

- (1) Secure the clip to the screw hole.
- (2) Ignition coil No. 4
- (3) Ignition coil No. 2
- (4) Secure the clip to the screw hole.
- (5) Ignition coil No. 3
- (6) Ignition coil No. 1
- (7) Front oxygen (A/F) sensor
- (8) Rear oxygen sensor

2) Install the intake manifold. <Ref. to FU(H4DO(HEV))-25, INSTALLATION, Intake Manifold.>

3) Install the collector cover.

4) Connect the battery ground terminal. <Ref. to NT-5, BATTERY, NOTE, Note.>

C: INSPECTION

Check that the engine wiring harness does not have deformation, cracks and any other damage.