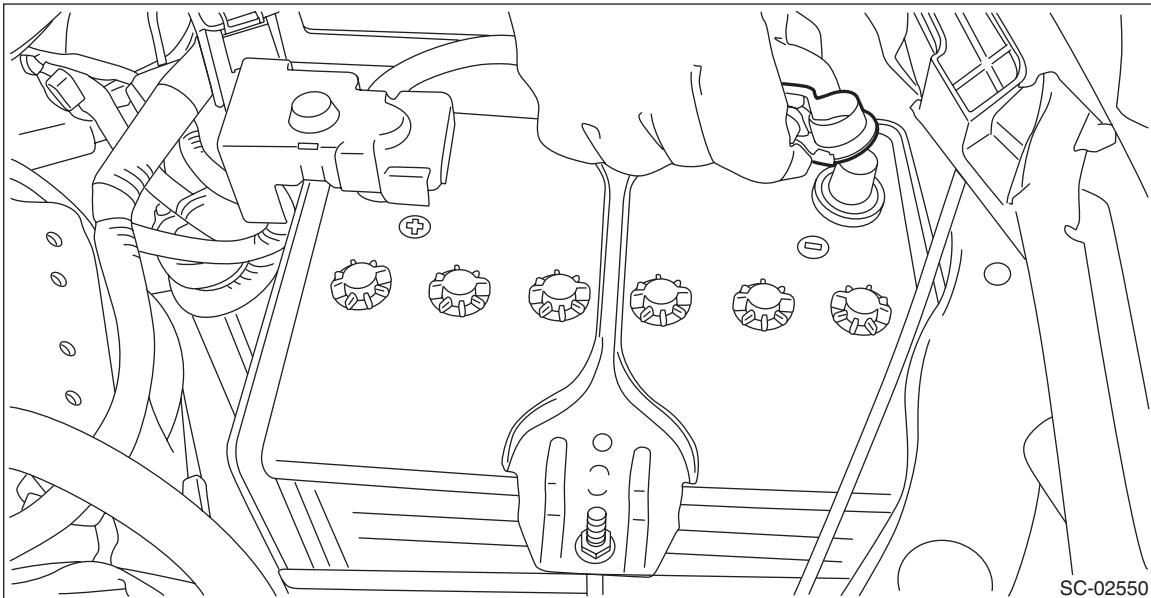


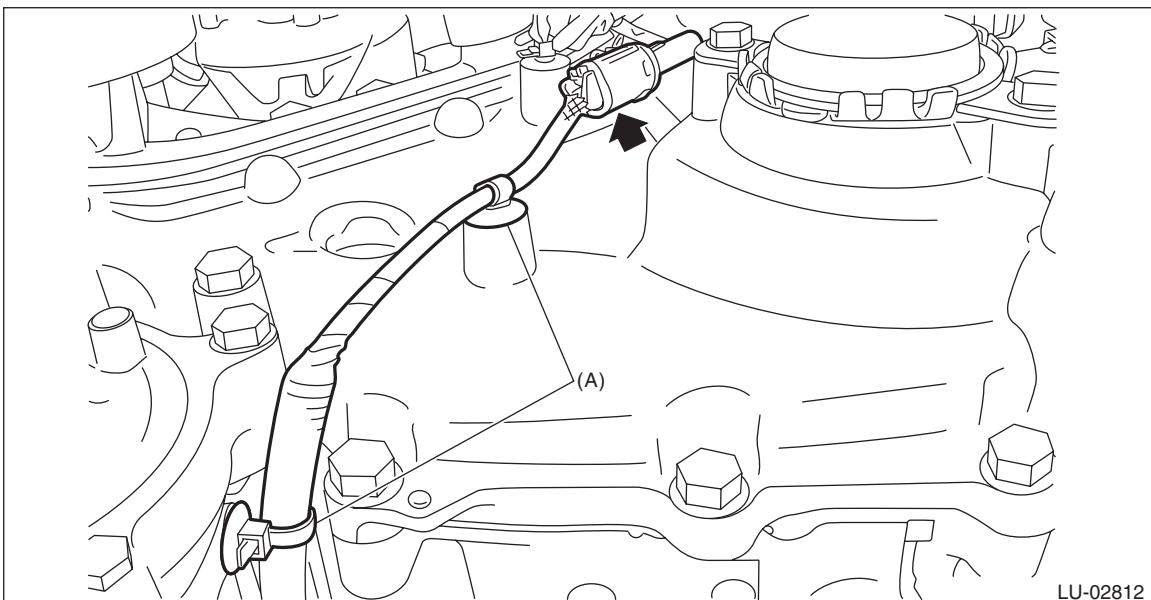
## 8. Oil Level Switch

### A: REMOVAL

- 1) Disconnect the ground cable from battery.



- 2) Disconnect the oil level switch connector from the engine harness, and remove the clip (A) securing the harness.

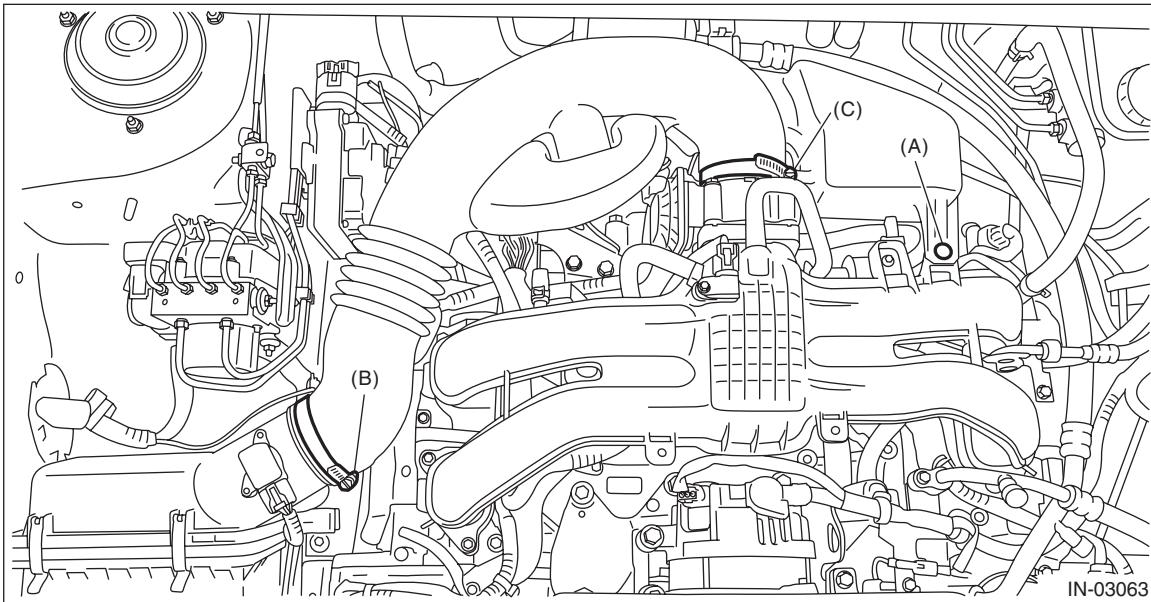


- 3) Remove the clip (A) from the air intake boot.
- 4) Loosen the clamp (B) connecting the air intake boot and air cleaner case (rear).

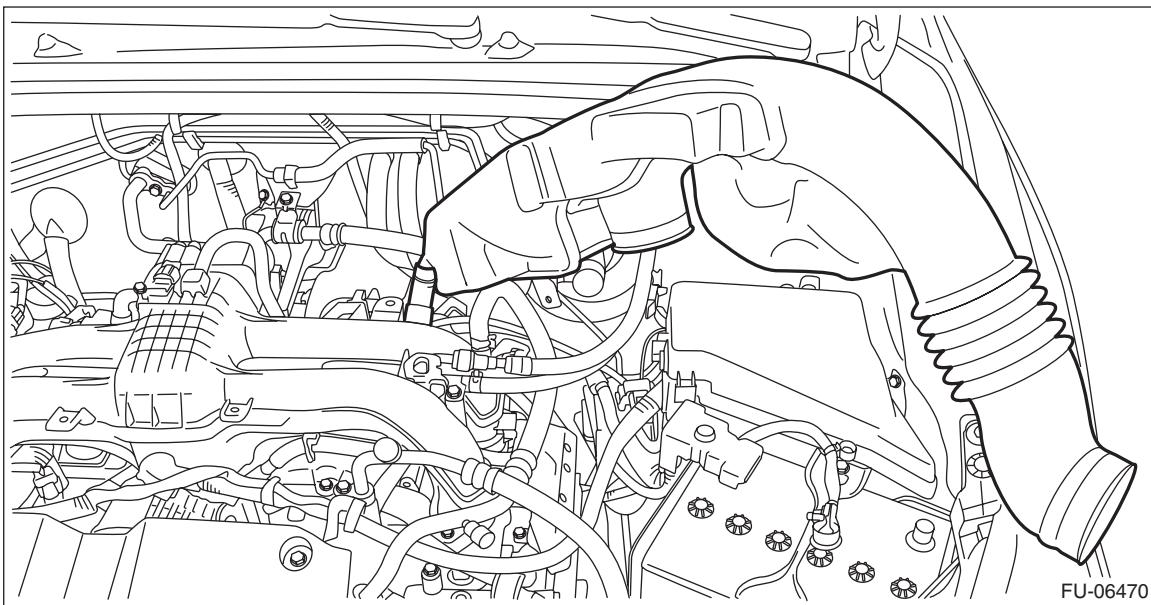
# Oil Level Switch

## LUBRICATION

5) Loosen the clamp (C) which connects the air intake boot and throttle body.



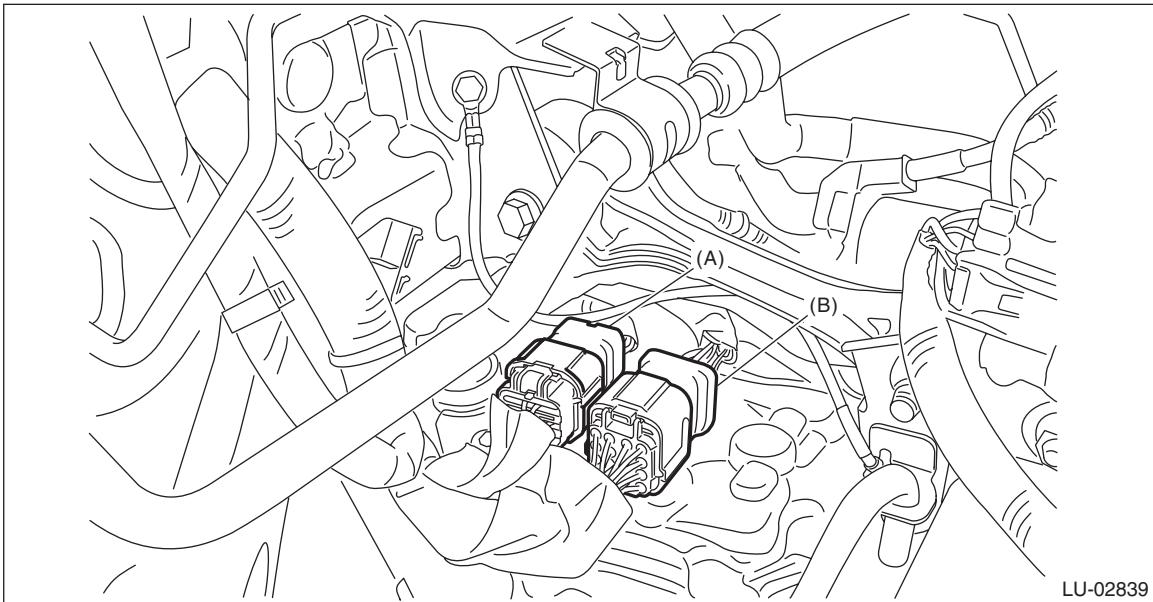
6) Remove the air intake boot from the throttle body, and move the air intake boot to the left side wheel apron.



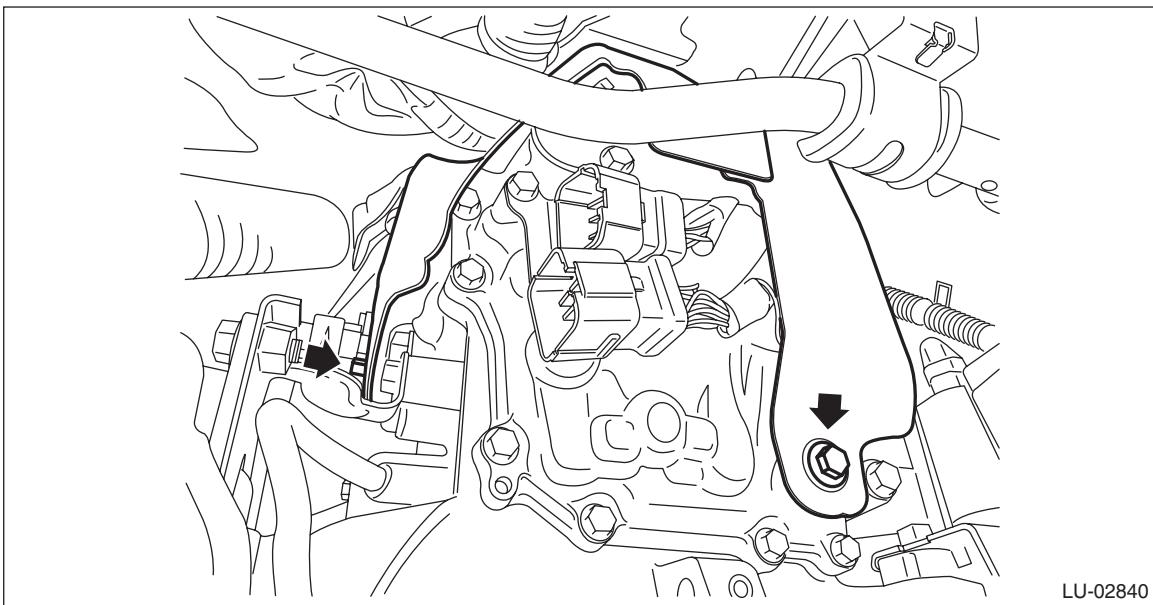
# Oil Level Switch

## LUBRICATION

7) Disconnect the transmission harness connector (A) and inhibitor harness connector (B). (CVT model)



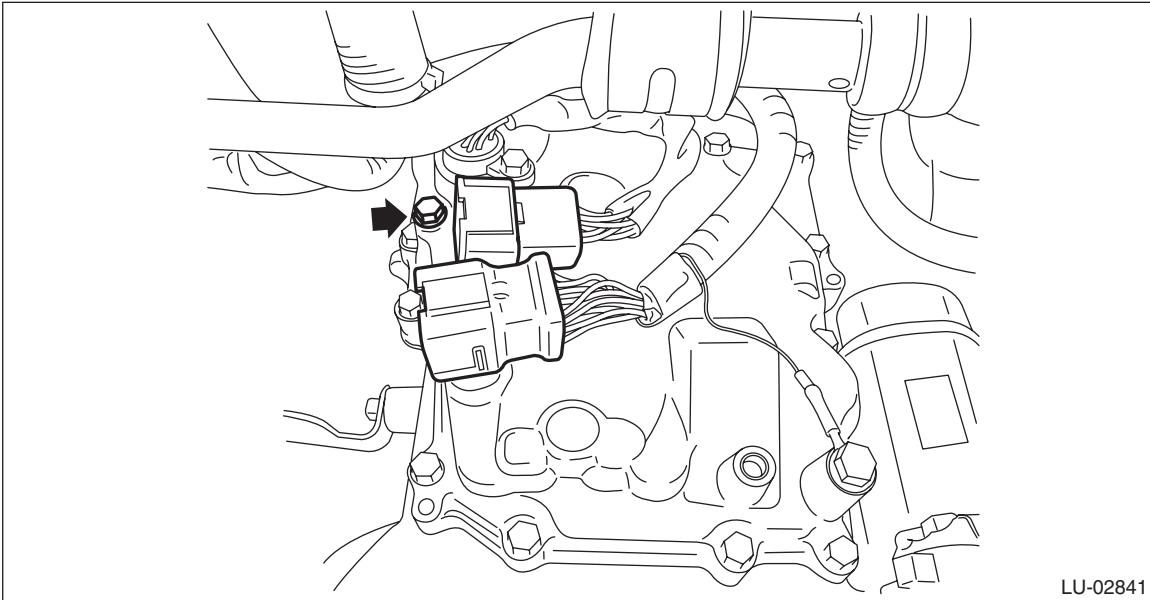
8) Remove the transmission cover. (CVT model)



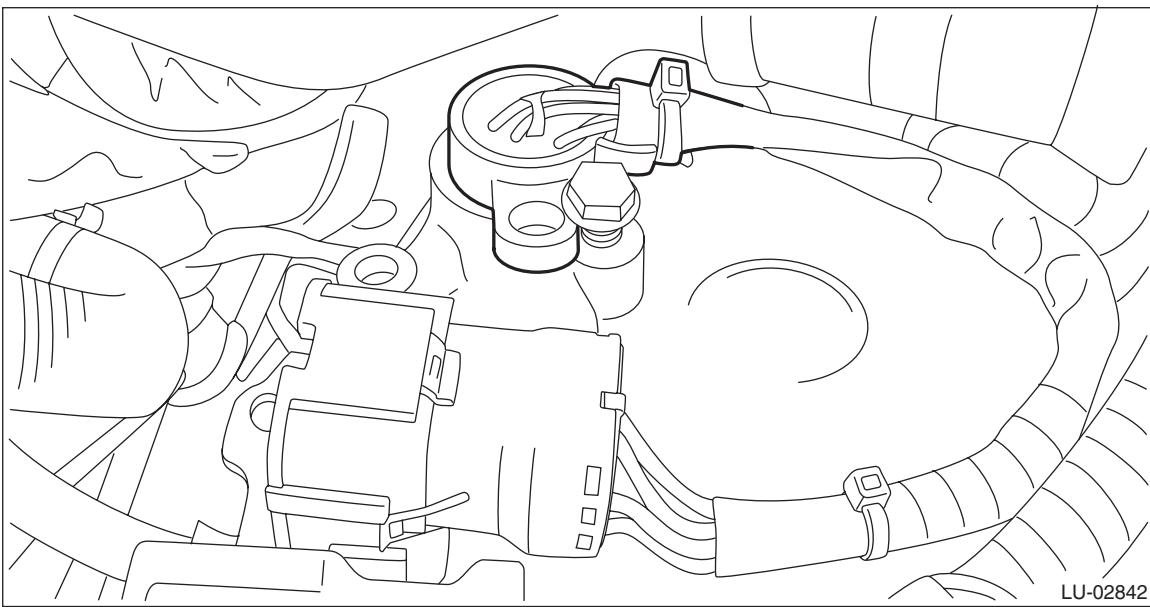
## Oil Level Switch

### LUBRICATION

9) Remove the bolt from the connector bracket. (CVT model)



10) Remove the bolt of transmission harness, and rotate it clockwise as shown in the figure, till it moves as much as the width of a bolt. (CVT model)

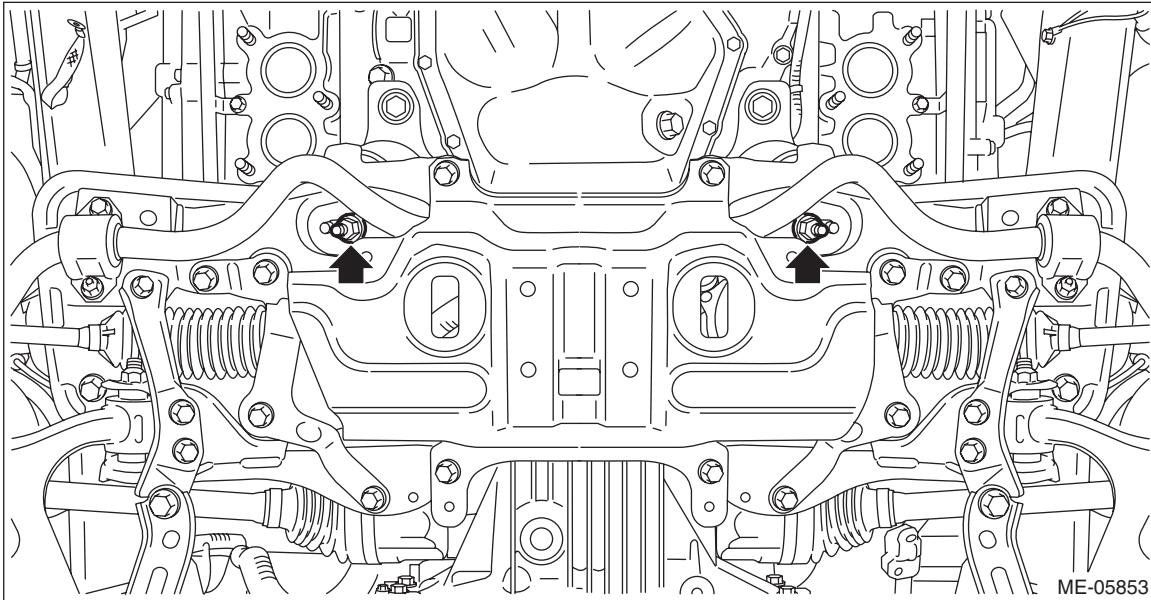


- 11) Lift up the vehicle.
- 12) Remove the under cover. <Ref. to EI-27, REMOVAL, Front Under Cover.>
- 13) Drain the engine oil. <Ref. to LU(H4DO)-10, REPLACEMENT, Engine Oil.>
- 14) Remove the front exhaust pipe. <Ref. to EX(H4DO)-7, REMOVAL, Front Exhaust Pipe.>

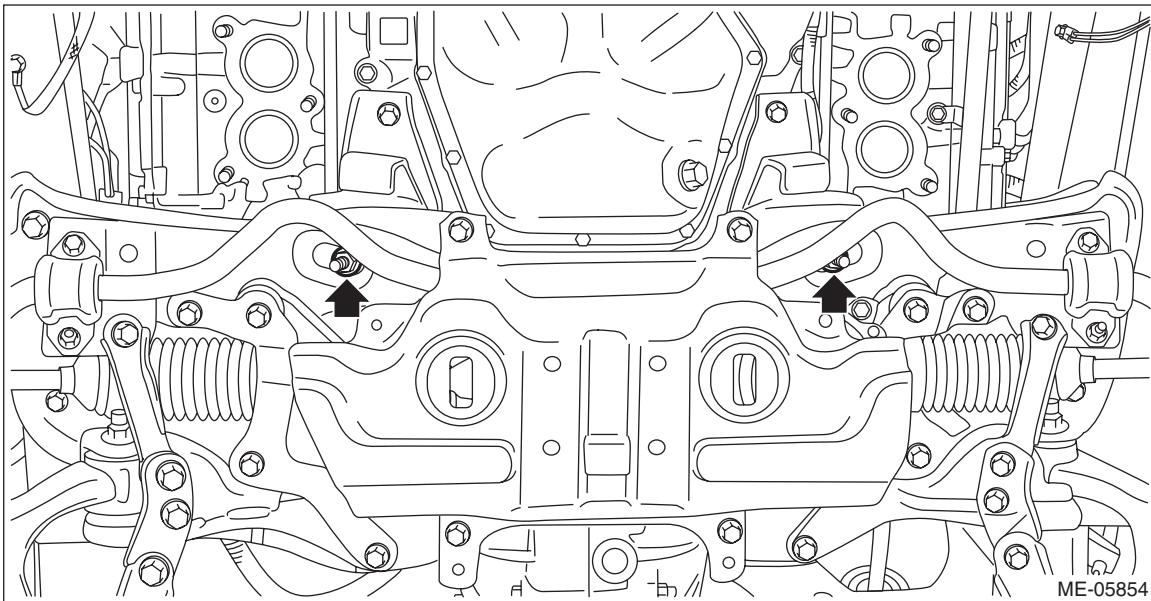
# Oil Level Switch

## LUBRICATION

15) Remove the nuts which secure the engine mounting to the front crossmember. (CVT model)



16) Remove the nuts which secure the engine mounting to the front crossmember. (MT model)



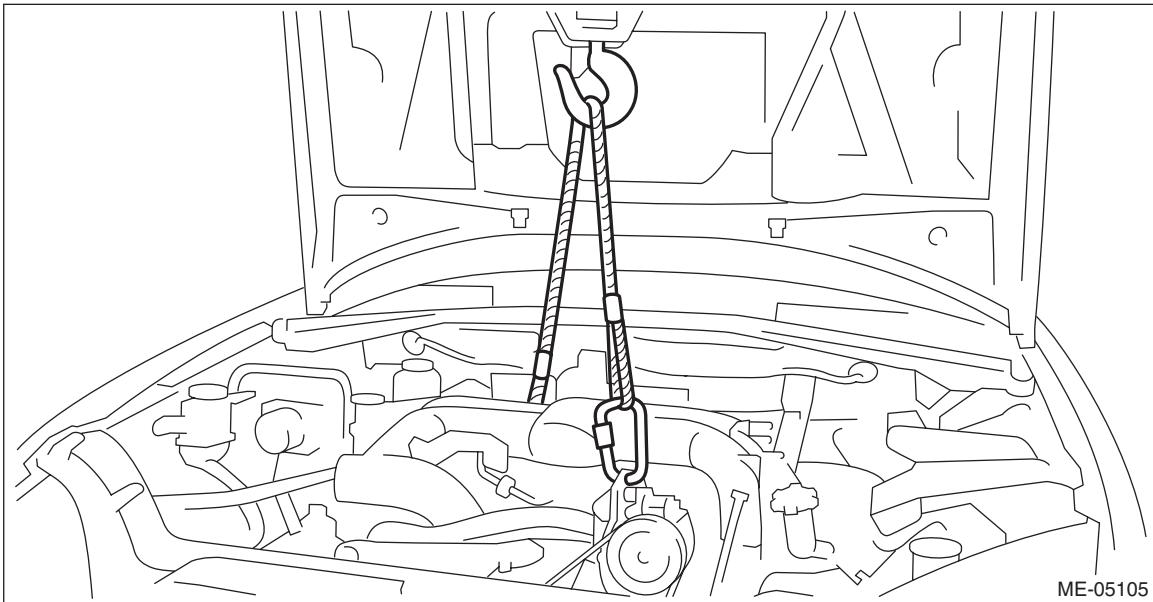
17) Remove the electric power steering gearbox. <Ref. to PS-26, REMOVAL, Electric Power Steering Gearbox.>

18) Remove the front drive shaft LH. <Ref. to DS-57, REMOVAL, Front Drive Shaft.>

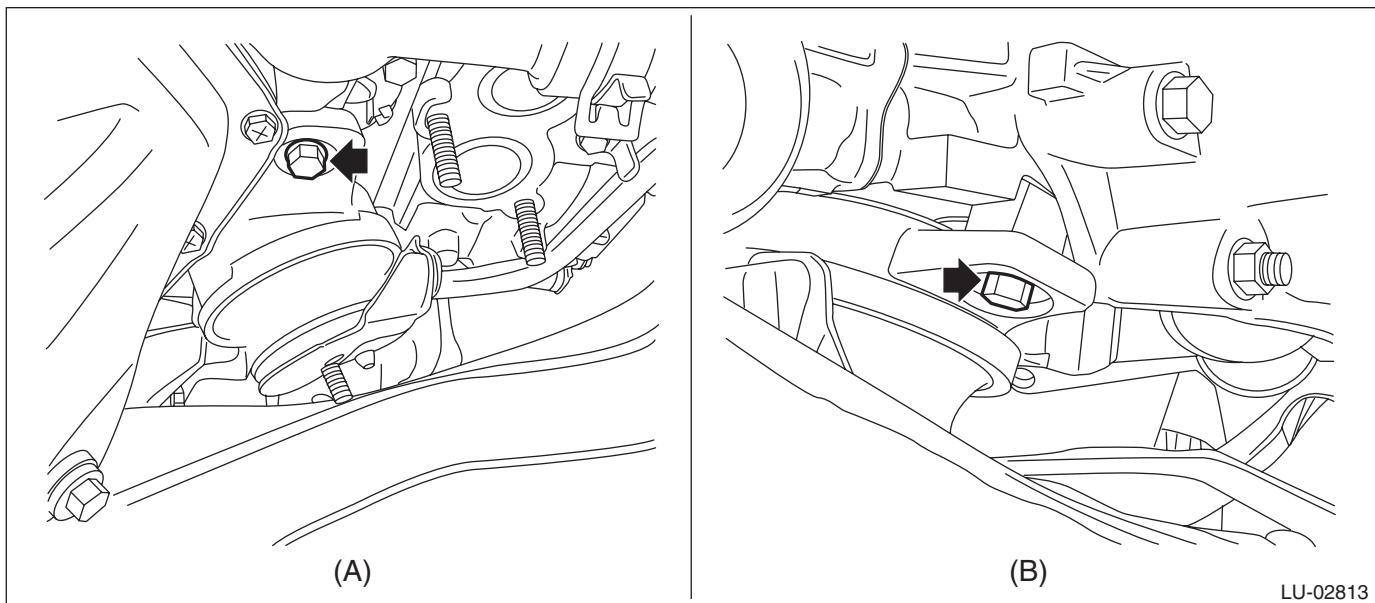
# Oil Level Switch

## LUBRICATION

19) Support the engine with a lifting device and wire ropes.



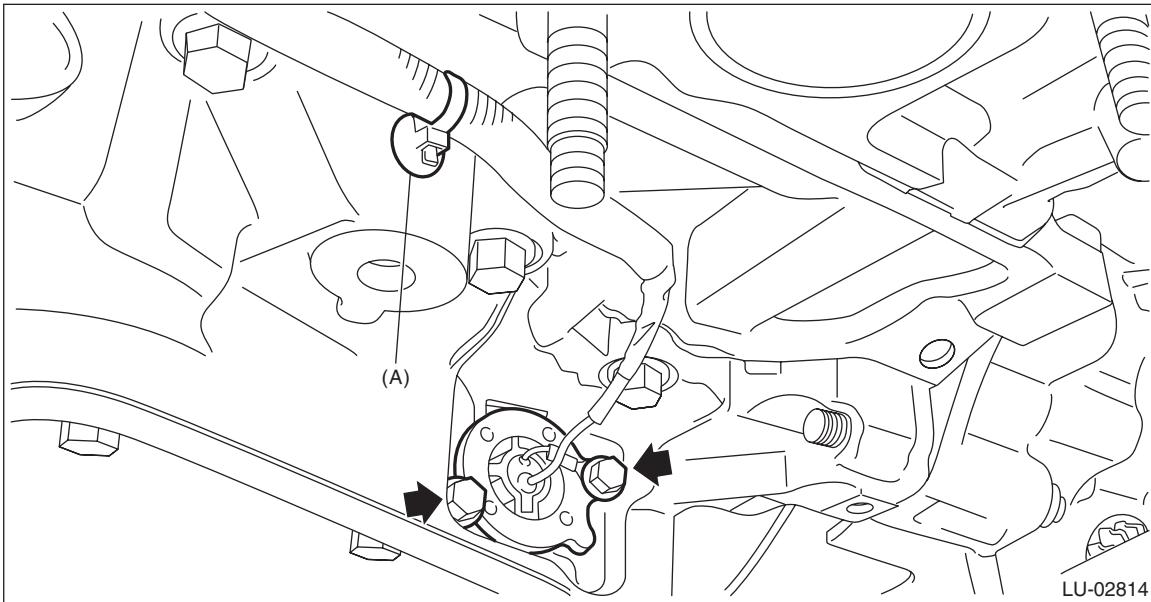
20) Remove the engine mounting LH from the engine.



(A) Front side

(B) Rear side

21) Remove clip (A) from the oil pan upper, and remove the oil level switch.



## B: INSTALLATION

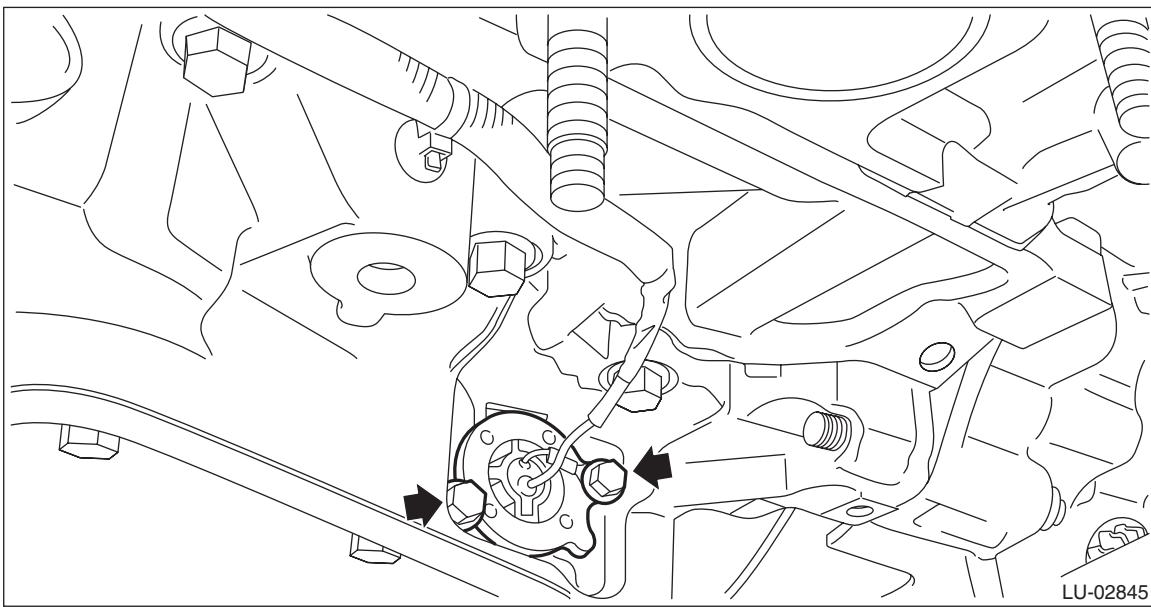
Install in the reverse order of removal.

NOTE:

- Use new O-rings.
- Apply a coat of engine oil to the O-rings.

**Tightening torque:**

**6.4 N·m (0.7 kgf·m, 4.7 ft-lb)**

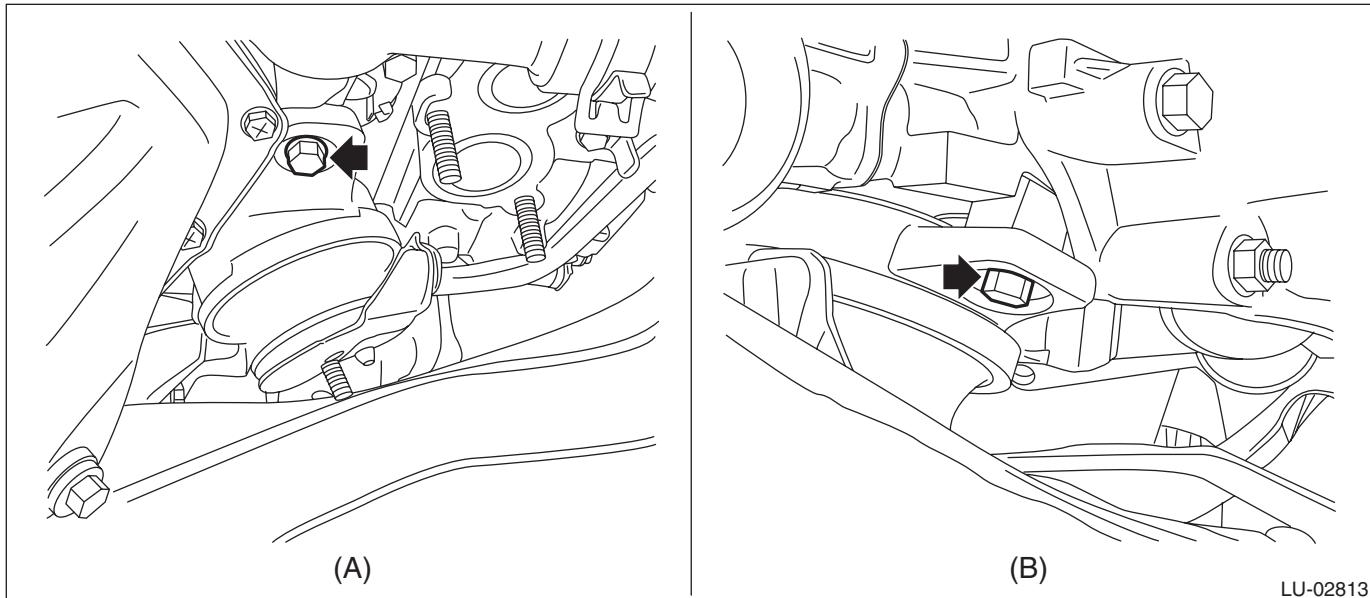


## **Oil Level Switch**

## LUBRICATION

### ***Tightening torque:***

**35 N·m (3.6 kgf-m, 25.8 ft-lb)**



(A) Front side

(B) Rear side

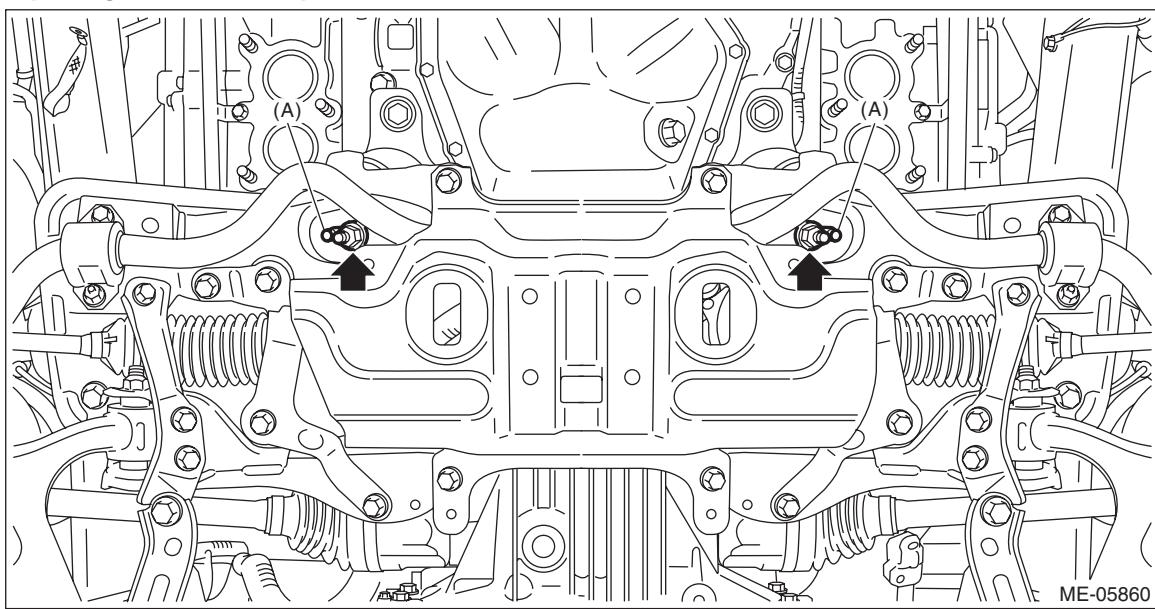
- CVT model

**NOTE:**

Make sure that locators (A) of the engine mounting are securely installed.

### ***Tightening torque:***

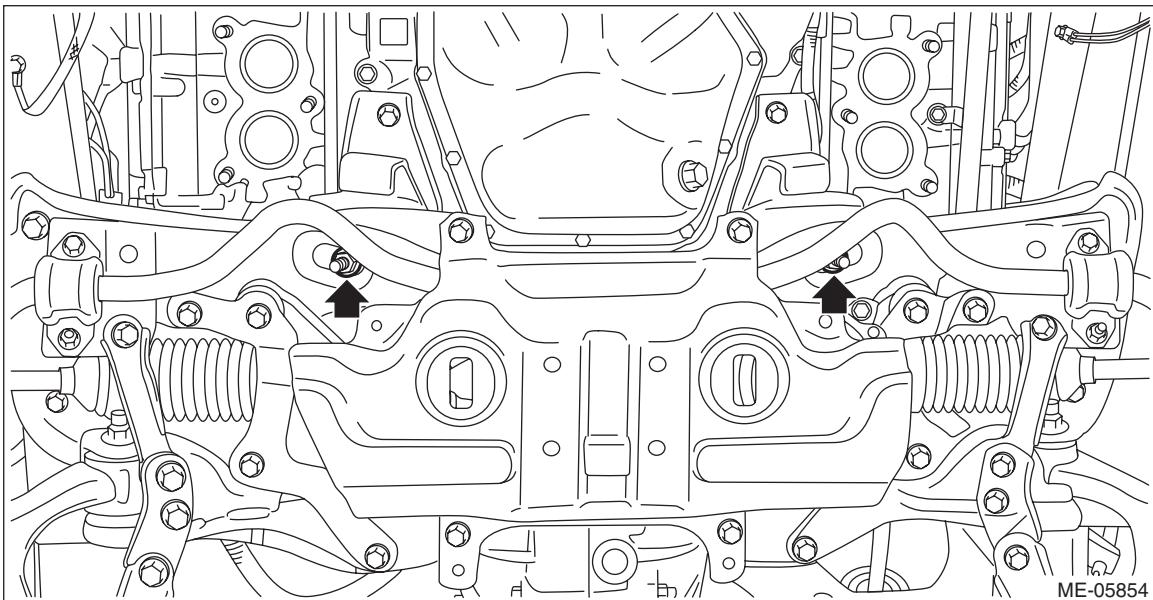
**45 N·m (4.6 kgf-m, 33.2 ft-lb)**



- MT model

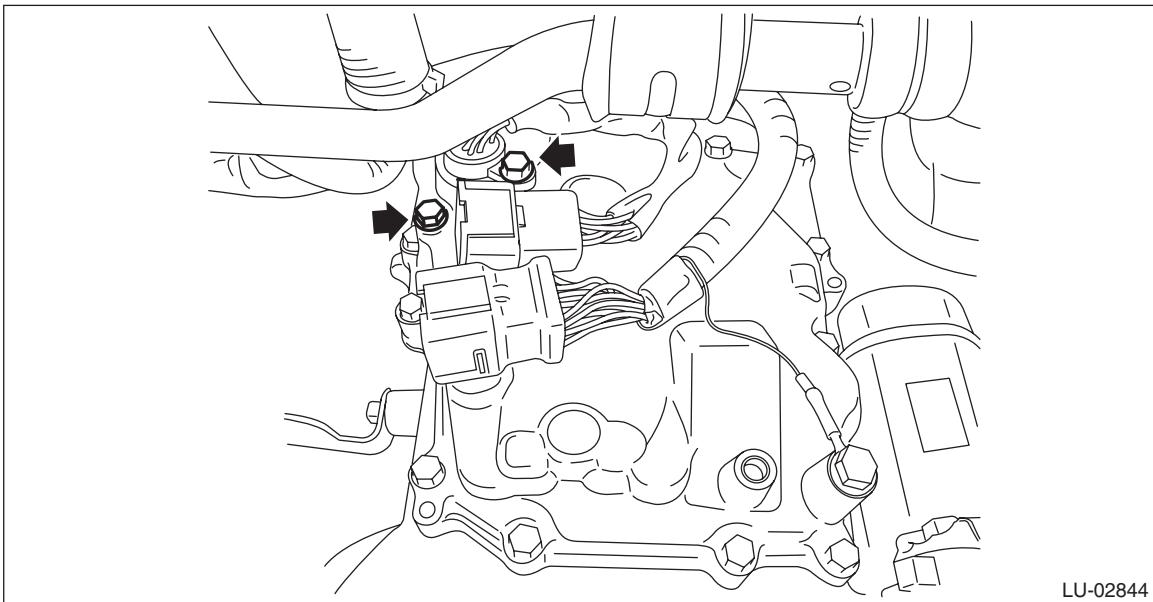
**Tightening torque:**

**45 N·m (4.6 kgf·m, 33.2 ft-lb)**



**Tightening torque:**

**7 N·m (0.7 kgf·m, 5.2 ft-lb)**

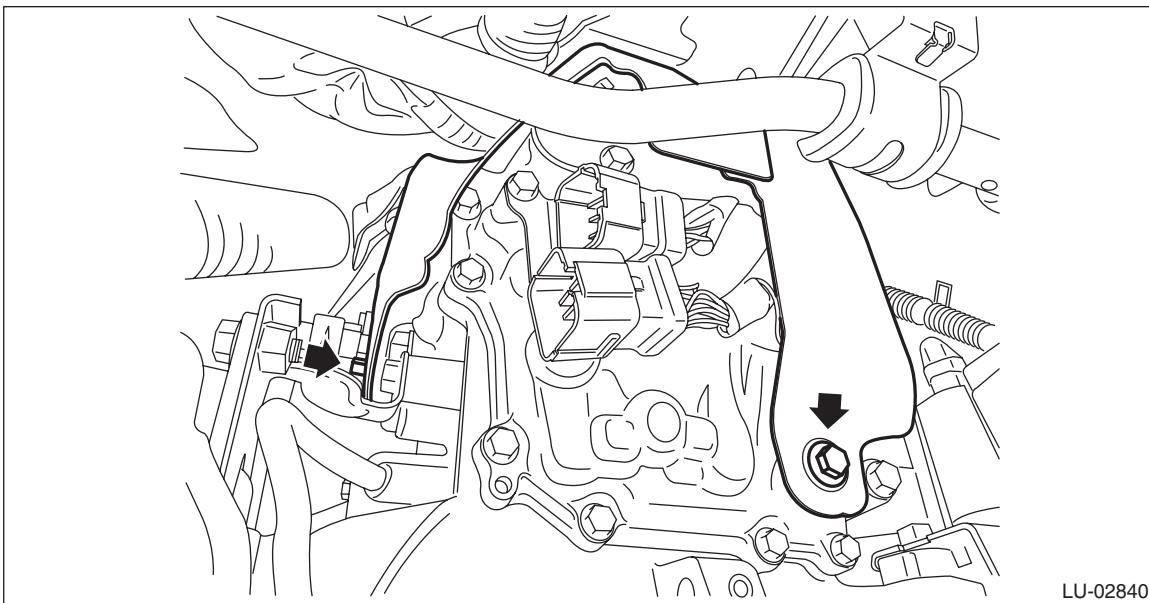


# Oil Level Switch

## LUBRICATION

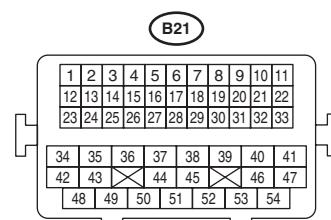
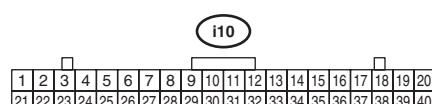
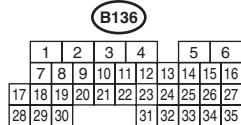
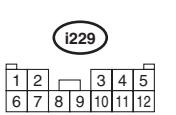
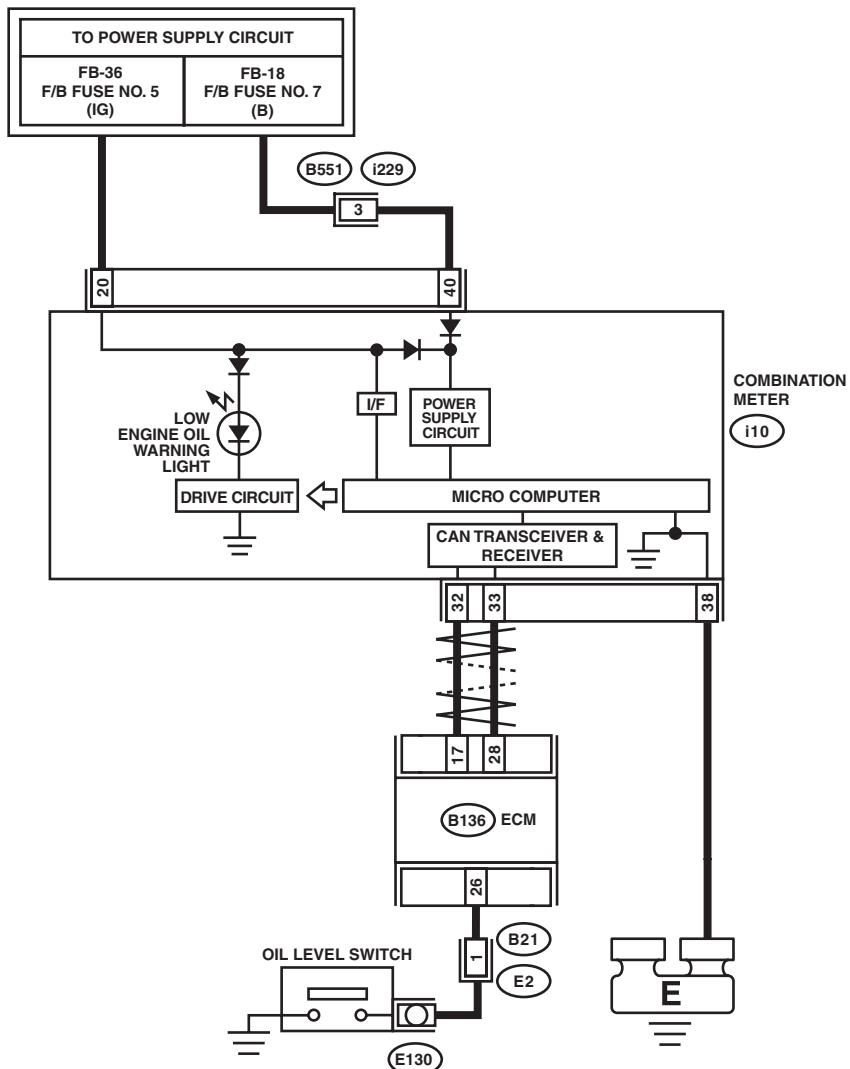
### ***Tightening torque:***

**8 N·m (0.8 kgf·m, 5.9 ft-lb)**



## **C: WIRING DIAGRAM**

Engine electrical system <Ref. to WI-74, WIRING DIAGRAM, Engine Electrical System.>



LU-02835

# Oil Level Switch

## LUBRICATION

### D: INSPECTION

#### 1. INSPECTION WHILE LOW ENGINE OIL LEVEL WARNING LIGHT IS ON

Step	Check	Yes	No
1 <b>CHECK ENGINE OIL LEVEL.</b>	Is engine oil level normal?	Go to step 2.	Replace engine oil or refill, and check again while the oil level is normal condition. <Ref. to LU(H4DO)-10, REPLACEMENT, Engine Oil.> To turn off the low engine oil level warning light, install the spare fuse at the delivery (test) mode fuse in the main fuse box. Then turn the ignition switch to ON (engine off) again, to confirm the low engine oil level warning light turns off. Remove the spare fuse installed to finish. NOTE: The engine oil level switch is normal if the low engine oil level warning light turns off with the delivery (test) mode fuse inserted.
2 <b>CHECK LAN SYSTEM.</b>	Has a DTC of the LAN system been input?	Perform the diagnosis according to DTC.	Go to step 3.

# Oil Level Switch

## LUBRICATION

Step	Check	Yes	No
<b>3</b> <b>CHECK OIL LEVEL SWITCH CIRCUIT.</b> 1) Turn the ignition switch to ON (engine OFF). 2) Read the current data for engine in the Subaru Select Monitor to confirm the item for "Oil level switch". <Ref. to EN(H4DO)(diag)-36, READ CURRENT DATA FOR ENGINE (NORMAL MODE), OPERATION, Subaru Select Monitor.>	Is the "Oil level switch" signal displayed in Subaru Select Monitor HIGH?	<p>To turn off the low engine oil level warning light, install the spare fuse at the delivery (test) mode fuse in the main fuse box. Then turn the ignition switch to ON (engine off) again, to confirm the low engine oil level warning light turns off. Remove the spare fuse installed to finish.</p> <p><b>NOTE:</b> The engine oil level switch is normal if the low engine oil level warning light turns off with the delivery (test) mode fuse inserted.</p>	Go to step 4.
<b>4</b> <b>CHECK COMBINATION METER.</b> Perform the self-diagnosis of combination meter to check if there are any faults in the combination meter. <Ref. to IDI-7, OPERATION, Combination Meter System.>	Is combination meter OK?	Go to step 5.	<p>Replace the combination meter.</p> <p>&lt;Ref. to IDI-17, REMOVAL, Combination Meter.&gt;</p>
<b>5</b> <b>CHECK SECURE CONNECTION OF CONNECTOR BETWEEN ENGINE HARNESS AND OIL LEVEL SWITCH.</b>	Is there any insecure connection?	<p>Remedy the connection condition. Then, to turn off the low engine oil level warning light, install the spare fuse at the delivery (test) mode fuse in the main fuse box. Then turn the ignition switch to ON (engine off) again, to confirm the low engine oil level warning light turns off. Remove the spare fuse installed to finish.</p> <p><b>NOTE:</b> The engine oil level switch is normal if the low engine oil level warning light turns off with the delivery (test) mode fuse inserted.</p>	Go to step 6.

# Oil Level Switch

## LUBRICATION

Step	Check	Yes	No
<b>6</b> <b>CHECK OIL LEVEL SWITCH.</b> 1) Deliberately short circuits by connecting the engine harness connector terminal and chassis ground. 2) Turn the ignition switch to ON (engine OFF). 3) Read the current data for engine in the Subaru Select Monitor to confirm the item for "Oil level switch". <Ref. to EN(H4DO)(diag)-36, READ CURRENT DATA FOR ENGINE (NORMAL MODE), OPERATION, Subaru Select Monitor.>  <i>Connector &amp; terminal (E130) No. 1 — Chassis ground:</i>	Is the "Oil level switch" signal displayed in Subaru Select Monitor HIGH?	Replace the oil level switch. <Ref. to LU(H4DO)-29, REMOVAL, Oil Level Switch.>>	Go to step <b>7</b> .
<b>7</b> <b>CHECK SECURE CONNECTION OF CONNECTOR BETWEEN BULKHEAD HARNESS AND ENGINE HARNESS.</b>	Is there any insecure connection?	Remedy the connection condition. Then, to turn off the low engine oil level warning light, install the spare fuse at the delivery (test) mode fuse in the main fuse box. Then turn the ignition switch to ON (engine off) again, to confirm the low engine oil level warning light turns off. Remove the spare fuse installed to finish.  NOTE: The engine oil level switch is normal if the low engine oil level warning light turns off with the delivery (test) mode fuse inserted.	Go to step <b>8</b> .
<b>8</b> <b>CHECK ENGINE HARNESS.</b> 1) Disconnect the connector on the oil level switch side for the engine harness. 2) Disconnect the connector on the bulkhead harness side for the engine harness. 3) Measure the resistance between connector terminals.  <i>Connector &amp; terminal (E2) No. 1 — (E130) No. 1:</i>	Is the resistance less than $1\ \Omega$ ?	Go to step <b>9</b> .	Repair or replace the open circuit of engine harness.

# Oil Level Switch

## LUBRICATION

Step	Check	Yes	No
9 <b>CHECK SECURE CONNECTION OF CONNECTOR BETWEEN ENGINE CONTROL MODULE (ECM) AND BULKHEAD HARNESS.</b> Remove the glove box lid assembly. <Ref. to EI-67, REMOVAL, Glove Box.>	Is there any insecure connection?	Remedy the connection condition. Then, to turn off the low engine oil level warning light, install the spare fuse at the delivery (test) mode fuse in the main fuse box. Then turn the ignition switch to ON (engine off) again, to confirm the low engine oil level warning light turns off. Remove the spare fuse installed to finish.  NOTE: The engine oil level switch is normal if the low engine oil level warning light turns off with the delivery (test) mode fuse inserted.	Go to step 10.
10 <b>CHECK BULKHEAD HARNESS.</b> 1) Remove the glove box lid assembly. <Ref. to EI-67, REMOVAL, Glove Box.> 2) Disconnect the engine control module (ECM) side connector for the bulkhead harness. 3) Disconnect the engine harness connectors from the bulkhead harness. 4) Measure the resistance between connector terminals.  <i>Connector &amp; terminal</i> <b>(B136) No. 26 — (B21) No. 1:</b>	Is the resistance less than 1 Ω?	Replace the engine control module (ECM). <Ref. to FU(H4DO)-102, REMOVAL, Engine Control Module (ECM).>	Repair or replace the open circuit of the bulkhead harness.

## 2. OTHER INSPECTIONS

- 1) Check that the oil level switch does not have deformation, cracks, or damage.
- 2) Check the oil level switch installation part for oil leakage and oil seepage.