

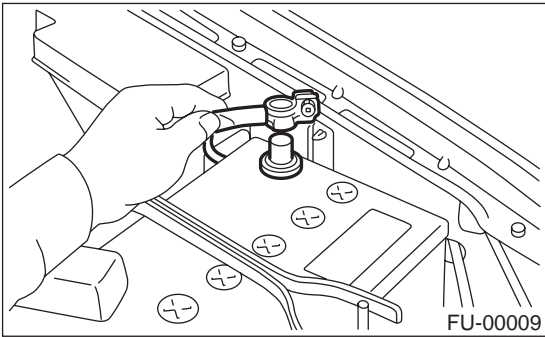
YAW RATE AND LATERAL G SENSOR

VDC

6. Yaw Rate and Lateral G Sensor

A: REMOVAL

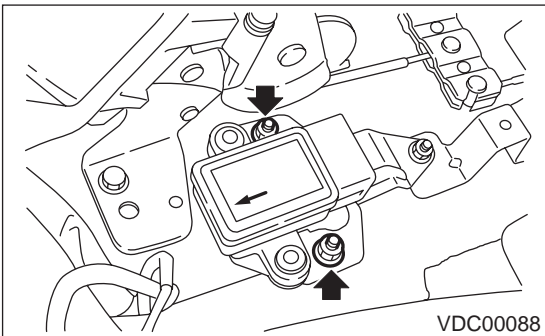
- 1) Disconnect battery ground cable.



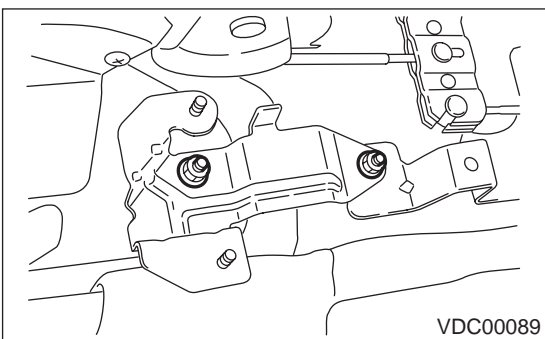
- 2) Remove console cover.
<Ref. to EI-36, Console Box.>
- 3) Disconnect connector from yaw rate and lateral G sensor.
- 4) Remove yaw rate and lateral G sensor.

CAUTION:

Do not drop or bump yaw rate and lateral G sensor.



- 5) Remove bracket from body.

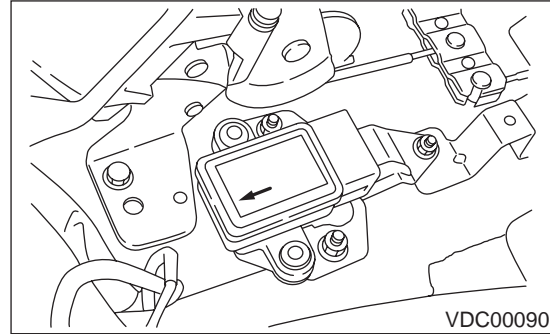


B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Do not install yaw rate and lateral G sensor in the wrong direction. There is an arrow on the sensor showing which side faces the front of the vehicle.



CAUTION:

After completion of installation procedure, the following two position settings must be made.

- Steering angle sensor center positioning
 - Yaw rate and lateral G sensor 0 positioning
- These procedures are necessary for VDCCM to later recognize what position the vehicle is in. For procedures for the above two settings, <Ref. to VDC-9, ADJUSTMENT, VDC Control Module (VDCCM).>.

VDC-22

YAW RATE AND LATERAL G SENSOR

VDC

C: INSPECTION

1. LATERAL G SENSOR SIGNAL

Step	Value	Yes	No
1 CHECK SUBARU SELECT MONITOR.	Do you have SUBARU select Monitor?	Go to step 5.	Go to step 2.
2 CHECK YAW RATE AND LATERAL G SENSOR. 1) Move the vehicle to a flat location. 2) Turn ignition switch to OFF. 3) Connect connector to yaw rate and lateral G sensor. 4) Turn ignition switch to ON. 5) Measure voltage between yaw rate and lateral G sensor connector terminals. Connector & terminal (R100) No. 5 (+) — No. 6 (-) Is the voltage within the specified range when yaw rate and lateral G sensor is horizontal?	2.5±0.2 V	Go to step 3.	Replace yaw rate and lateral G sensor.
3 CHECK YAW RATE AND LATERAL G SENSOR. 1) Remove yaw rate and lateral G sensor from vehicle. 2) Measure voltage between yaw rate and lateral G sensor connector terminals. Connector & terminal (R100) No. 5 (+) — No. 6 (-) NOTE: If the yaw rate and lateral G sensor is moved, the VDC (Yaw rate sensor) may be stored into the memory. Is the voltage within the specified range when yaw rate and lateral G sensor is inclined right to 90°?	3.5±0.2 V	Go to step 4.	Replace yaw rate and lateral G sensor.
4 CHECK YAW RATE AND LATERAL G SENSOR. Measure voltage between yaw rate and lateral G sensor connector terminals. Connector & terminal (R100) No. 5 (+) — No. 6 (-) NOTE: If the yaw rate and lateral G sensor is moved, the VDC (Yaw rate sensor) may be stored into the memory. Is the voltage within the specified range when yaw rate and lateral G sensor is inclined left to 90°?	1.5±0.2 V	Go to step 5.	Replace yaw rate and lateral G sensor.

VDC-23

YAW RATE AND LATERAL G SENSOR

VDC

Step	Value	Yes	No
5 CHECK YAW RATE AND LATERAL G SENSOR. 1) Turn ignition switch to OFF. 2) Connect select monitor connector to data link connector. 3) Turn ignition switch to ON. 4) Turn select monitor into {BRAKE CONTROL} mode. 5) Set the display in the {Current Data Display & Save} mode. 6) Read the yaw rate and lateral G sensor output voltage. NOTE: If the yaw rate and lateral G sensor is moved, the VDC (Yaw rate sensor) may be stored into the memory. Is the indicated reading within the specified range when the vehicle is in horizontal position?	2.5±0.2 V	Go to step 6.	Replace yaw rate and lateral G sensor.
6 CHECK YAW RATE AND LATERAL G SENSOR. 1) Remove console box. 2) Remove yaw rate and lateral G sensor from vehicle. (Do not disconnect connector.) 3) Read the select monitor display. NOTE: If the yaw rate and lateral G sensor is moved, the VDC (Yaw rate sensor) may be stored into the memory. Is the voltage within the specified range when yaw rate and lateral G sensor is inclined right to 90°?	3.5±0.2 V	Go to step 7.	Replace yaw rate and lateral G sensor.
7 CHECK YAW RATE AND LATERAL G SENSOR. Read the select monitor display. NOTE: If the yaw rate and lateral G sensor is moved, the VDC (Yaw rate sensor) may be stored into the memory. Is the voltage within the specified range when yaw rate and lateral G sensor is inclined left to 90°?	1.5±0.2 V	Yaw rate and lateral G sensor is normal.	Replace yaw rate and lateral G sensor.

VDC-24

YAW RATE AND LATERAL G SENSOR

VDC

2. YAW RATE SENSOR SIGNAL

Step	Value	Yes	No
1 CHECK YAW RATE AND LATERAL G SENSOR USING OSCILLOSCOPE. 1) Connect all connectors. 2) Set oscilloscope to TCM connector terminals. Positive probe; (R100) No. 4 Earth lead; (R100) No. 6 3) Start the engine. 4) Measure signal voltage indicated on oscilloscope. <Ref. to VDC-18, WAVEFORM, MEASUREMENT, Control Module I/O Signal.> Is the voltage within the specified range?	2.1 V — 2.9 V	Go to step 2.	Replace yaw rate and lateral G sensor is normal.
2 CHECK YAW USING OSCILLOSCOPE. 1) Turn ignition switch to OFF. 2) Set oscilloscope to TCM connector terminals. Positive probe; (R100) No. 2 Earth lead; (R100) No. 6 3) Start the engine. 4) Measure signal voltage indicated on oscilloscope. <Ref. to VDC-18, WAVEFORM, MEASUREMENT, Control Module I/O Signal.> Is the voltage within the specified range?	5 V	Yaw rate and lateral G sensor is normal.	Replace yaw rate and lateral G sensor.

VDC-25