

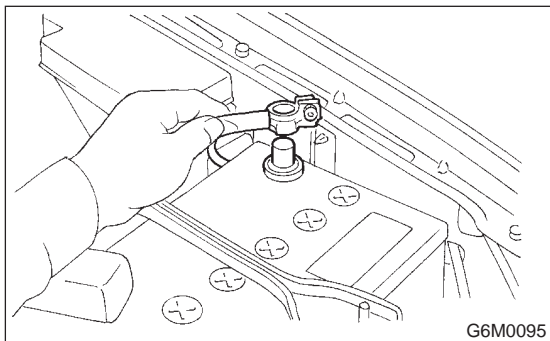
## 6. Yaw Rate and Lateral G Sensor

S402634

### A: REMOVAL

S402634A18

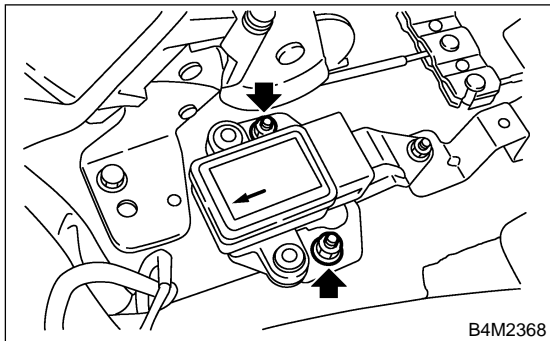
- 1) Disconnect battery ground cable.



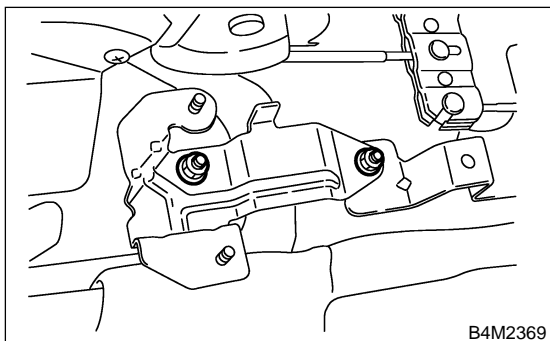
- 2) Remove console cover.  
<Ref. to EI-36 Console Box.>
- 3) Disconnect connector from yaw rate and lateral G sensor.
- 4) Remove yaw rate and lateral G sensor.

#### CAUTION:

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



- 5) Remove bracket from body.



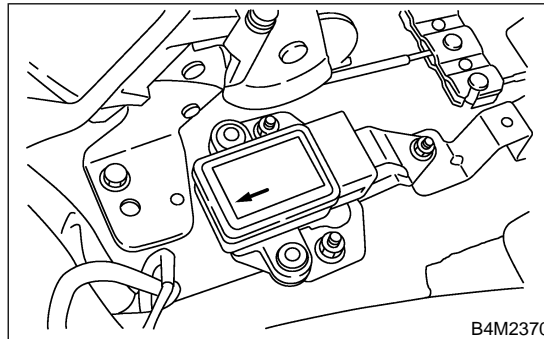
### B: INSTALLATION

S402634A11

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-12 ADJUSTMENT, VDC Control Module (VDCCM).>.

## C: INSPECTION S402634A10

### 1. LATERAL G SENSOR SIGNAL S402634A1001

No.	Step	Check	Yes	No
1	<b>CHECK SUBARU SELECT MONITOR.</b>	Do you have SUBARU select Monitor?	Go to step 5.	Go to step 2.
2	<b>CHECK YAW RATE AND LATERAL G SENSOR.</b> 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. <b>Connector &amp; terminal</b> <b>(R100) No. 5 (+) — No. 6 (-)</b>	Is the voltage $2.5\pm 0.2$ V when yaw rate and lateral G sensor is horizontal?	Go to step 3.	Replace yaw rate and lateral G sensor.
3	<b>CHECK YAW RATE AND LATERAL G SENSOR.</b> 1) Remove yaw rate and lateral G sensor from vehicle. 2) Measure voltage between yaw rate and lateral G sensor connector terminals. <b>Connector &amp; terminal</b> <b>(R100) No. 5 (+) — No. 6 (-)</b> NOTE: If the yaw rate and lateral G sensor is moved, the VDC (Yaw rate sensor) may be entered into the memory.	Is the voltage $3.5\pm 0.2$ V when yaw rate and lateral G sensor is inclined left to $90^\circ$ ?	Go to step 4.	Replace yaw rate and lateral G sensor.
4	<b>CHECK YAW RATE AND LATERAL G SENSOR.</b> Measure voltage between yaw rate and lateral G sensor connector terminals. <b>Connector &amp; terminal</b> <b>(R100) No. 5 (+) — No. 6 (-)</b> NOTE: If the yaw rate and lateral G sensor is moved, the VDC (Yaw rate sensor) may be entered into the memory.	Is the voltage $1.5\pm 0.2$ V when yaw rate and lateral G sensor is inclined right to $90^\circ$ ?	Go to step 5.	Replace yaw rate and lateral G sensor.
5	<b>CHECK YAW RATE AND LATERAL G SENSOR.</b> 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 entered into the memory.	Is the indicated reading $2.5\pm 0.2$ V when the vehicle is in horizontal position?	Go to step 6.	Replace yaw rate and lateral G sensor.

# YAW RATE AND LATERAL G SENSOR

VDC

No.	Step	Check	Yes	No
6	<b>CHECK YAW RATE AND LATERAL G SENSOR.</b> 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 entered into the memory.	Is the indicated reading $3.5\pm 0.2$ V when yaw rate and lateral G sensor is inclined left to $90^\circ$ ?	Go to step 7.	Replace yaw rate and lateral G sensor.
7	<b>CHECK YAW RATE AND LATERAL G SENSOR.</b> Read the select monitor display. NOTE: If the yaw rate and lateral G sensor is moved, the VDC (Yaw rate sensor) may be entered into the memory.	Is the indicated reading $1.5\pm 0.2$ V when yaw rate and lateral G sensor is inclined right to $90^\circ$ ?	Yaw rate and lateral G sensor is normal.	Replace yaw rate and lateral G sensor.

## 2. YAW RATE SENSOR SIGNAL S402634A1002

No.	Step	Check	Yes	No
1	<b>CHECK YAW RATE AND LATERAL G SENSOR USING OSCILLOSCOPE.</b> 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-15 WAVE FORM, MEASUREMENT, Control Module I/O Signal.>	Is the voltage between 2.1 V and 2.9 V?	Go to step 2.	Replace yaw rate and lateral G sensor is normal.
2	<b>CHECK YAW USING OSCILLOSCOPE.</b> 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-15 WAVE FORM, MEASUREMENT, Control Module I/O Signal.>	Is the voltage 5 V?	Yaw rate and lateral G sensor is normal.	Replace yaw rate and lateral G sensor.