

**Issue Date: Jan 18, 2024**

**Repair Instruction of Tightening ABS  
Hydraulic Unit Flare Nuts  
GSX1300R**

## Workflow

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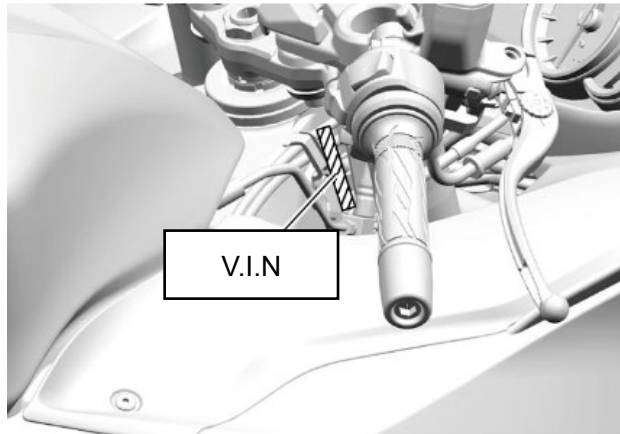
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## 1. Confirmation of Affected Vehicles

Check the Vehicle Identification Number (V.I.N.) if the vehicle is applicable unit to this replacement.

### V.I.N.

V.I.N. Location···· The frame front right side



## 2. Affected V.I.N. Range

Affected V.I.N. range is shown as below.

### NOTE:

- “#” indicates any check digit from 0 to 9 and X.
- NOT all vehicles in the below V.I.N. range are affected.

Model	SPEC	V.I.N. Range		
GSX1300RRQM4,	E03	JS1EJ11B#R7100201	-	JS1EJ11B#R7101144
GSX1300RRQ2M4	E33	JS1EJ11D#R7100027	-	JS1EJ11D#R7100246

## 3. Countermeasure Procedure

### 3-1. Required Tools

- General Tool

Tool Name	Size, Special Tool Number
Ratchet handle	
Socket wrench	10 mm
Hexagon socket wrench	4 mm, 5 mm, 6mm
Torque wrench	4.0 N·m (0.41 kgf-m, 2.95 lbf-ft) to 23 N·m (2.3 kgf-m, 17.0 lbf-ft)
Flare nut socket wrench *1	10 mm (16 N·m(1.6 kgf-m, 11.5 lbf-ft))
Pliers	

\*1 : Sample photo



**NOTE:**

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When a flare nut socket as shown in the figure is used, a difference occurs between the set value of the torque wrench and the actual torque. Set the torque value based on the effective length of the socket and wrench to be used.

**Example)**

Effective length of torque wrench: A mm

Effective length of flare nut socket: B mm

Specified torque: 16 N·m (1.6 kgf-m, 12.0 lbf-ft)

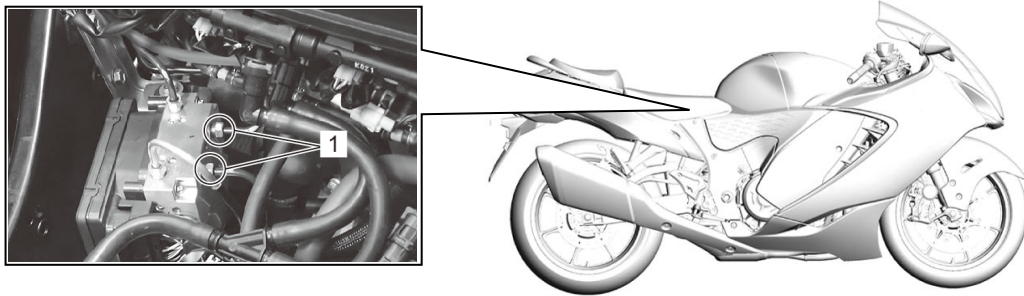
In the above case, the set value is “ $16 \times A \div (A + B)$ ”.

**Make the torque wrench and flare nut socket straight.**

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### 3-2. Countermeasure

- Tighten the brake pipe flare nuts (2 places) of ABS unit.
- In case brake fluid leakage is found, check the brake fluid level. And if the brake fluid level is below the lower limit line, replenish the brake fluid up to the specified amount.



### Precautions

- To avoid getting burned, do not touch the engine and exhaust system until they have cooled.
- Before the repair work, wash dirt off from the vehicle so that removed parts are kept free from dust.
- When 2 or more persons work together, pay attention to the safety of each other.
- When removing parts that are to be reused, keep them arranged in an orderly manner so that they may be reinstalled in the proper order and orientation.
- Keep away from fire or spark.
- During disassembling, use care to minimize spillage of gasoline.
- Spilled gasoline should be wiped off immediately.
- Work in a well-ventilated area.
- When replenishing brake fluid, take care not to get dust into the fluid.
- Use a torque wrench to tighten fasteners to the specified torque.

Refer to the service manual for the details not mentioned in the instructions.

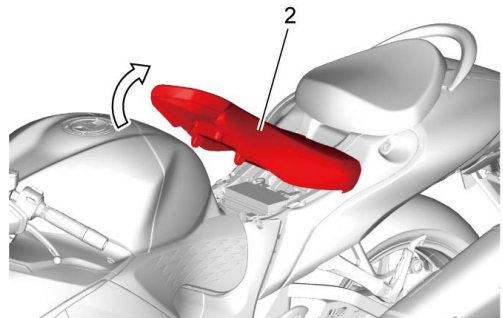
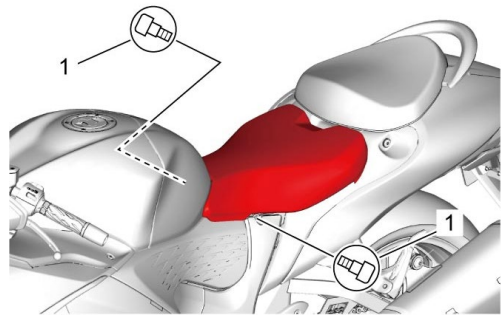
### 3-3. Work Procedure

**NOTE:**

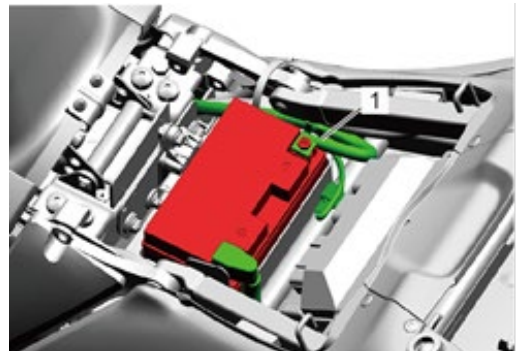
**By removing the battery, the SDMS mode setting is initialized to A mode and the engine rpm indicator light setting is changed to OFF.**

#### 3-3-1. Fuel Tank Removal

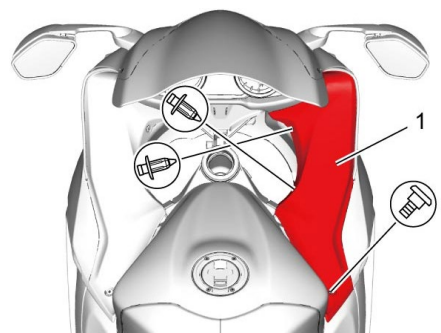
- 1) Turn the ignition switch OFF.
- 2) Remove the front seat bolts (1) and front seat (2).



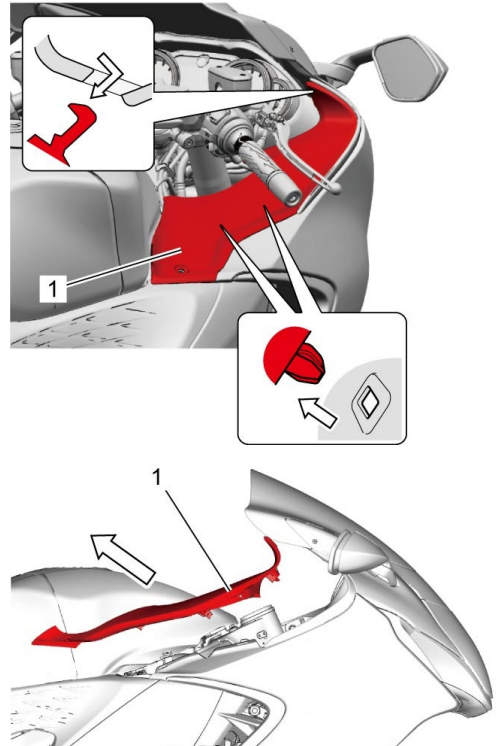
- 3) Disconnect the battery (-) lead wire (1).



- 4) Remove the fasteners and bolt from the meter panel (1).

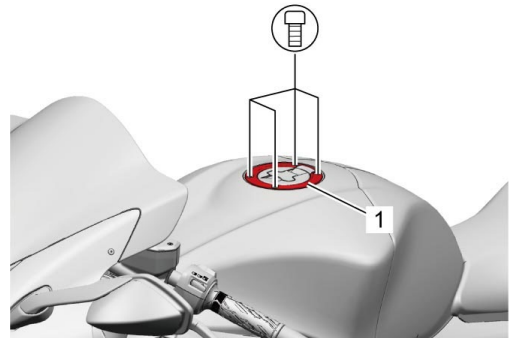


5) Remove the meter panel (1) in the direction as shown in the figure with unhooking the hooks.

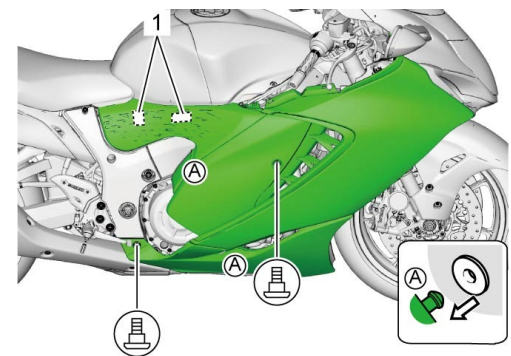


6) Remove the left side meter panel as in steps 4) and 5).

7) Remove the fuel tank cap cover bolts and remove the fuel tank cap cover (1).



8) Remove the hook, fasteners (1) and bolts as shown in the figure.

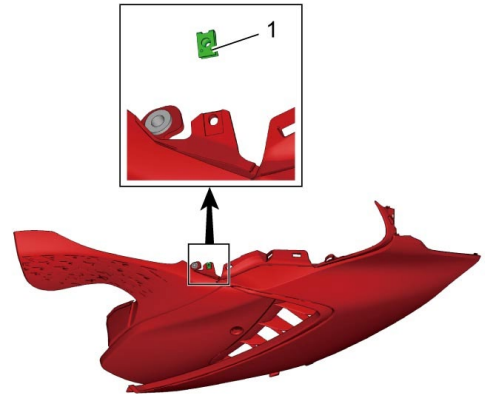


**NOTICE:**

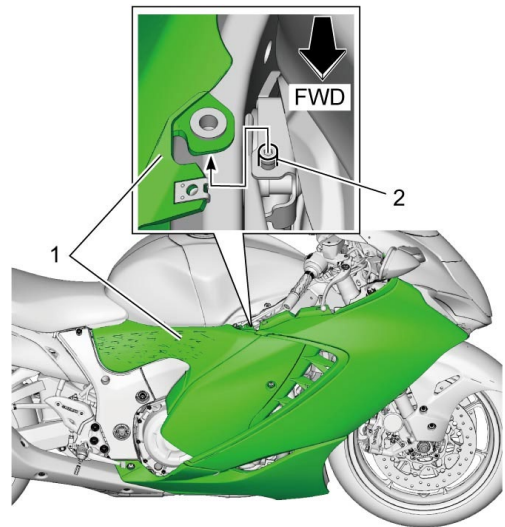
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To prevent damage to frame, remove the nut (1) from the side cowling assembly.

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- 9) Unhook the side cowling assembly (1) from the protrusion (2) of the bracket.



- 10) Remove the fuel tank front cover bolt (1).  
11) Pull the side cowling assembly (2) in the direction as shown in the figure to make the space and remove the fastener (3).

**NOTICE:**

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Do not pull the side cowling assembly too wide as it may damage the side cowling assembly.

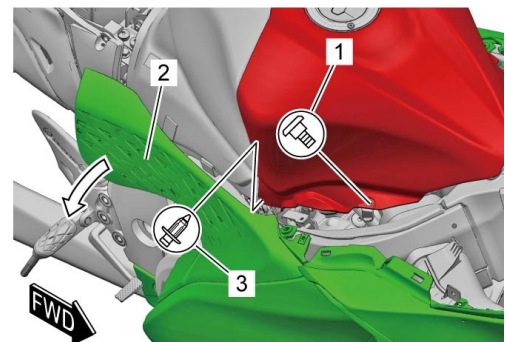
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**NOTE:**

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Be careful not to drop the fastener (3).

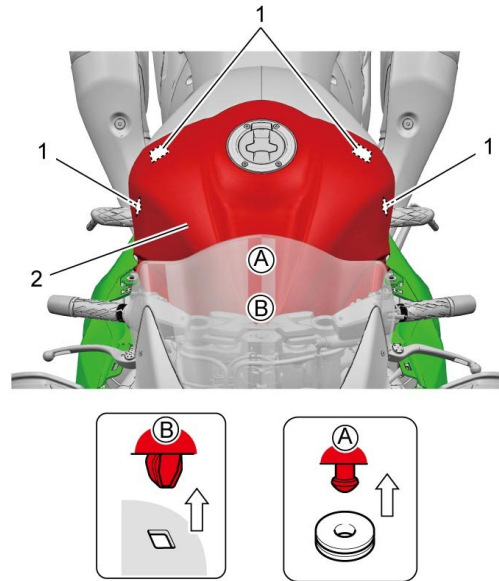
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- 12) Pull the left side cowling assembly and remove the fastener as in steps 8) through 11).



13) Unhook the hooks and disconnect the fasteners (1) to remove the fuel tank front cover (2).



14) Remove the fuel tank front bolts (1) from the frame.



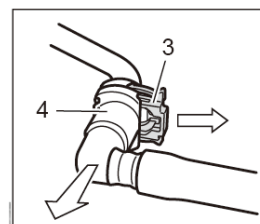
15) Lift and support the fuel tank.

16) Disconnect the fuel pump coupler (1) from the fuel pump.

17) Place a clean rag under the fuel feed hose (2).

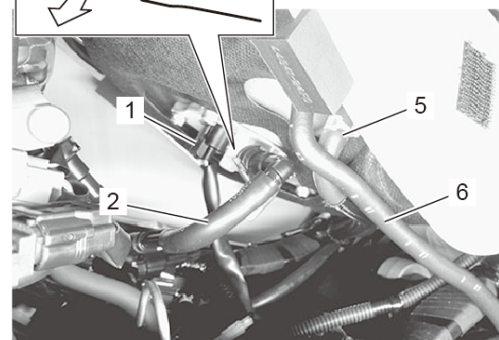
18) Pull the retainer (3).

19) Disconnect the fuel feed hose joint (4) from the fuel pump.

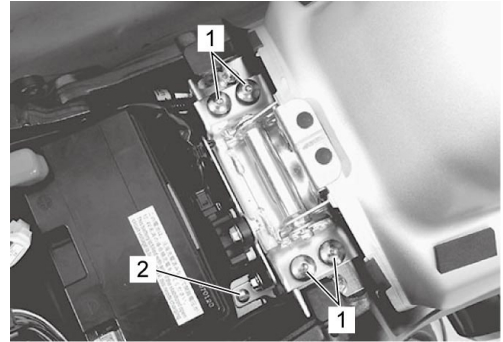


20) With EVAP Control System : Disconnect the surge hose (5) and fuel tank water drain hose (6) from the fuel tank.

Without EVAP Control System : Disconnect the fuel tank breather hose (5) and fuel tank water drain hose (6) from the fuel tank.

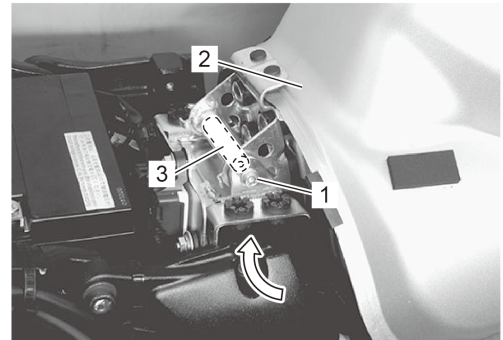


21) Remove the fuel tank rear bracket bolts (1) and rear brake master cylinder reservoir tank bracket bolt (2).



22) Lift up the rear side of fuel tank, and then remove the fuel tank rear bolt (1) and fuel tank(2).

23) Remove the fuel tank rear bolt spacer (3) from the fuel tank.



### 3-3-2. Brake Pipe Flare Nuts Tightening

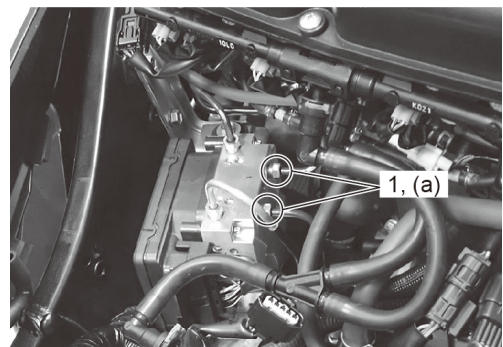
1) Tighten the brake pipe flare nuts (1) to the specified torque.

#### Tightening torque

**Brake pipe flare nut ( a ): 16 N·m (1.6 kgf-m, 11.5 lbf-ft)**

#### **NOTICE:**

- **Make sure to hold the brake pipe when tightening the flare nut, or it may be misaligned.**
- **Do not allow the torque wrench to contact with the surrounding pipes or other parts, when tightening the brake pipe flare nut to the specified torque. Otherwise, the brake pipe flare nut may not tighten to the specified torque.**



### 3-3-3. Brake Fluid Leakage Check

- 1) Check the around the brake pipe flare nut to make sure there is no brake fluid leakage.

**NOTE:**

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If brake fluid leaks, clean the brake fluid adhesion with water.

Check the brake fluid level. When the brake fluid level is below the lower limit line, replenish the brake fluid to the specified amount.

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### 3-3-4. Fuel Tank Installation

Install the fuel tank in the reverse order of removal.

Pay attention to the following points:

**NOTICE:**

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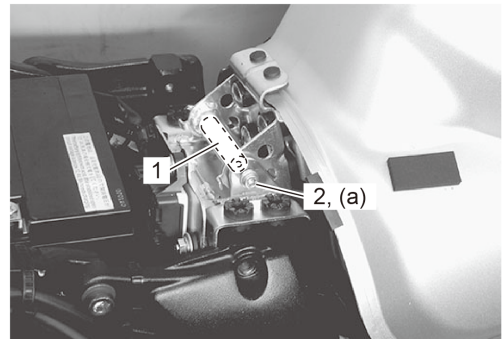
Be sure not to bend or twist the hoses when installing.

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- 1) Attach the fuel tank rear bolt spacer (1) to the fuel tank.
- 2) Tighten the fuel tank rear bolt (2) to the specified torque.

**Tightening torque**

**Fuel tank rear bolt ( a ): 10 N·m (1.0 kgf-m, 7.5 lbf-ft)**

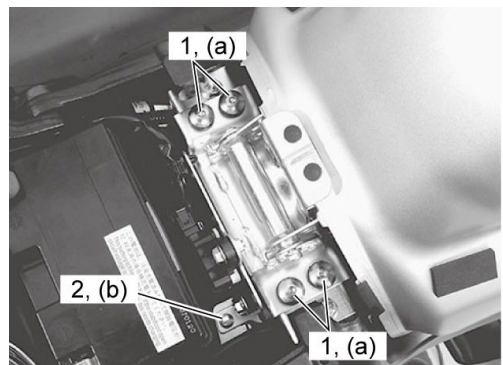


- 3) Tighten the fuel tank rear bracket bolts (1) and rear brake master cylinder reservoir tank bracket bolt (2) to the specified torque.

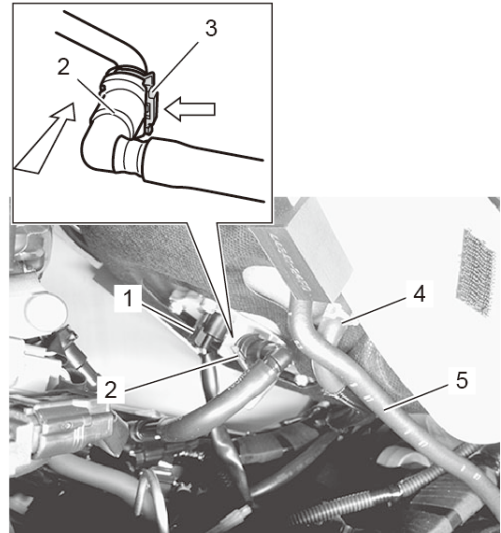
**Tightening torque**

**Fuel tank rear bracket bolt ( a ): 10 N·m (1.0 kgf-m, 7.5 lbf-ft)**

**Rear brake master cylinder reservoir tank bracket bolt ( b ): 10 N·m (1.0 kgf-m, 7.5 lbf-ft)**



- 4) Connect the fuel pump coupler (1) to the fuel pump while confirming that it clicks.
- 5) Connect the fuel feed hose joint (2) to the fuel pump.
- 6) Lock the retainer (3).
- 7) With EVAP Control System : Connect the surge hose (4) and the fuel tank water drain hose (5) to the fuel tank.  
Without EVAP Control System : Connect the fuel tank breather hose (4) and the fuel tank water drain hose (5) to the fuel tank.



**NOTE:**

- Face the white mark of the surge hose to the left side.
- Face the white mark of the fuel tank water drain hose to front side.

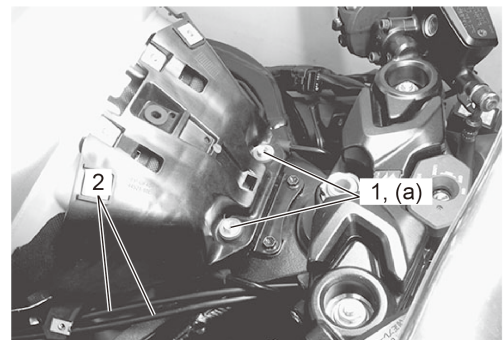
- 8) Remove a rag.
- 9) Tighten the fuel tank front bolts (1) to the specified torque.

**Tightening torque**

**Fuel tank front bolt ( a ) : 5.5 N·m (0.56 kgf-m, 4.05 lbf-ft)**

**NOTICE:**

**When installing the fuel tank, do not pinch the throttle cables (2).**

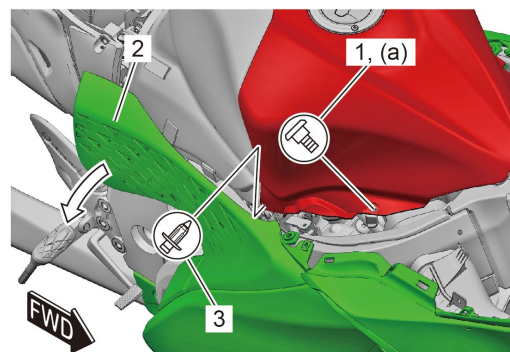


- 10) Install the fuel tank front cover and tighten the fuel tank front cover bolt (1) to the specified torque.

**Tightening torque**

**Fuel tank front cover bolt ( a ) : 4.0 N·m (0.41 kgf-m, 2.95 lbf-ft)**

- 11) Pull the side cowling assembly (2) in the direction as shown in the figure to make the space and install the fastener (3).



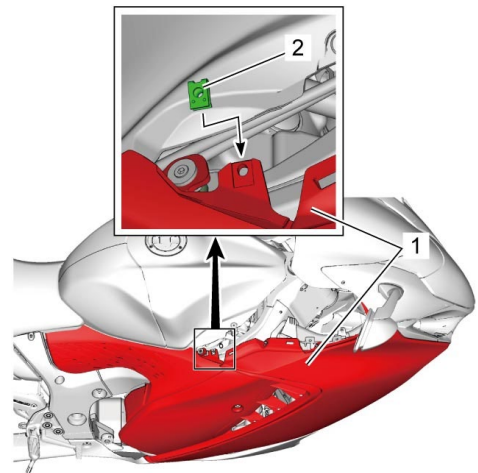
**NOTICE:**

**Do not pull the side cowling assembly too wide as it may damage the side cowling assembly.**

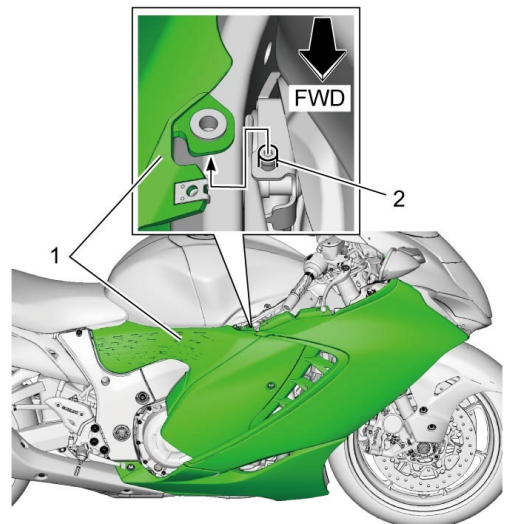
**NOTE:**

**Be careful not to drop the fastener (3).**

- 12) Attach the removed nut (2) to the side cowling assembly (1).



- 13) Hook the side cowling assembly (1) to the protrusion (2) of the bracket.

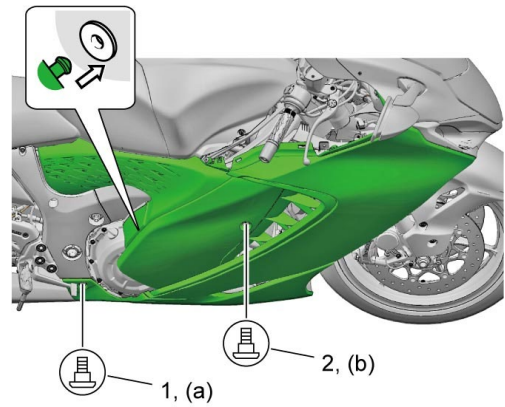


- 14) Tighten the under cowling bolt (1) and side cowling assembly bolt (2) to the specified torque.

**Tightening torque**

**Under cowling bolt ( a ): 10 N·m (1.0 kgf-m, 7.5 lbf-ft)**

**Side cowling assembly bolt ( b ): 10 N·m (1.0 kgf-m, 7.5 lbf-ft)**

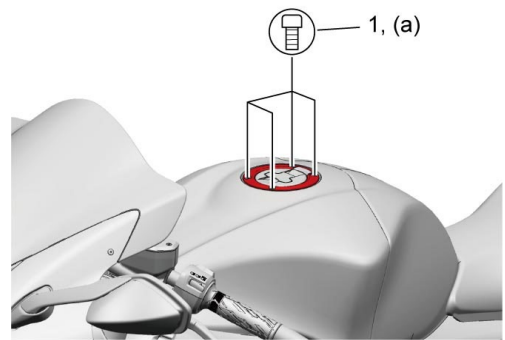


- 15) Perform the work on the left side cowling assembly as in steps 10) through 14).

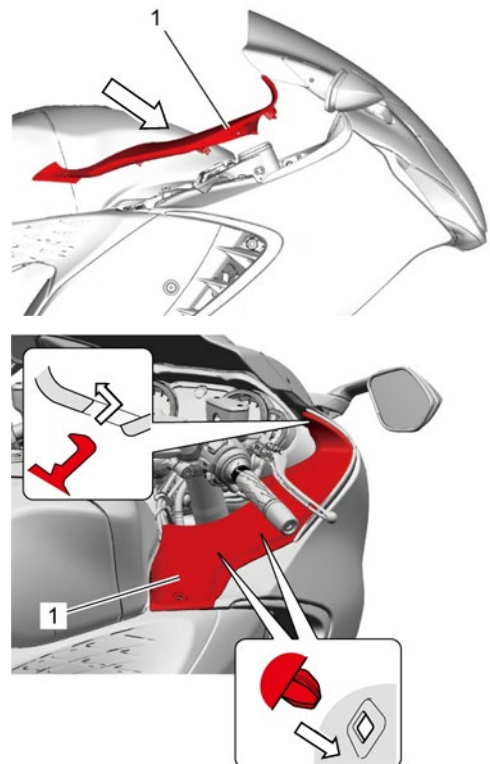
- 16) Tighten the fuel tank cap cover bolts (1) to the specified torque.

**Tightening torque**

**Fuel tank cap cover bolt ( a ): 5.5 N·m (0.56 kgf-m, 4.05 lbf-ft)**



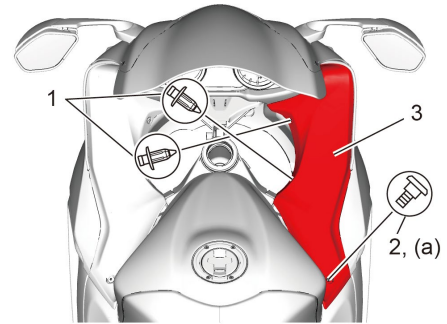
- 17) Install the meter panel (1) in the direction as shown in the figure with hooking the hooks.



18) Install the fasteners (1) and meter panel bolt (2) to the meter panel (3), and then tighten the meter panel bolt (2) to the specified torque.

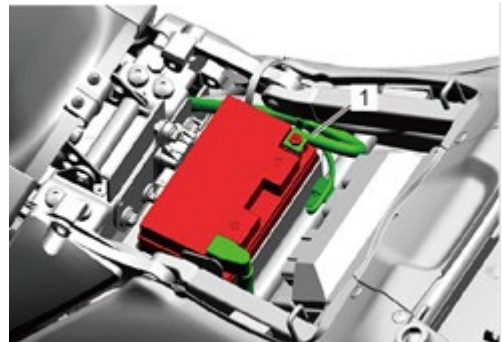
**Tightening torque**

**Meter panel bolt ( a ): 4.0 N·m (0.41 kgf-m, 2.95 lbf-ft)**



19) Install the left side meter panel as in steps 17) and 18).

20) Connect the battery negative (-) terminal (1).



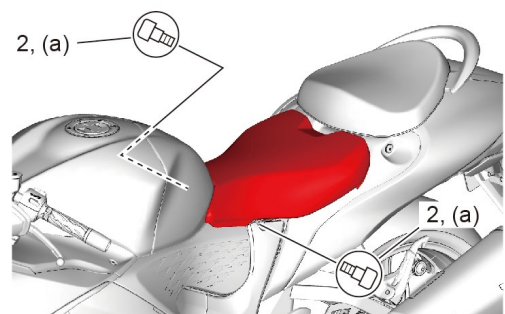
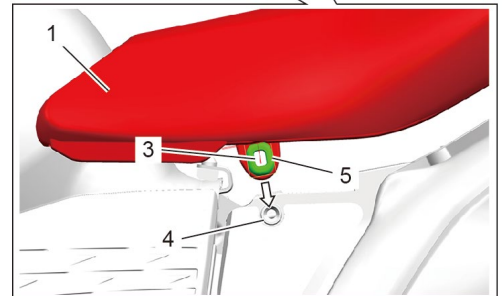
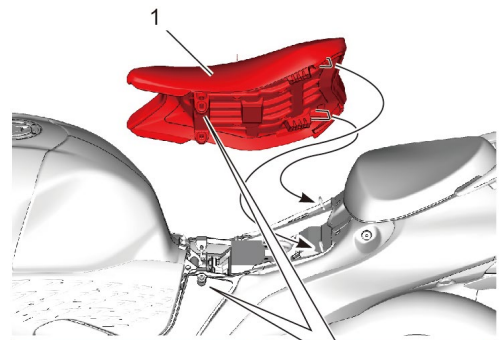
21) Slide the front seat (1) into bracket and tighten the front seat bolts (2) to the specified torque.

**Tightening torque**

**Front seat bolt ( a ): 23 N·m (2.3 kgf-m, 17.0 lbf-ft)**

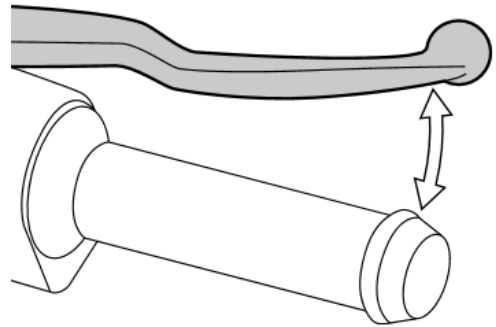
**NOTE:**

- **Align the front sheet hole (3) with the frame hole (4).**
- **Check that the cushion (5) is not detached.**



### 3-4. Final Check

- 1) Check if there is any rag left.
- 2) Check that each part is set and tightened securely.
- 3) If the front brake lever grasp or the rear brake pedal depresses softly, inspect it to see if air is mixed in. If you find any anomalies, examine the brake fluid and bleed the air.



- 4) Set the date and time. (Reference: Owner's Manual)
- 5) For vehicle subjected to air bleeding in step 3), drive the motorcycle on a dry road surface and front or rear brakes are operated independently to check if its braking performance is adequate. Additionally, check for any unusual noise.
- 6) Notify the customer that the mode setting of the driver assist system is initialized when the vehicle is returned.