



Installation and Instruction Manual: STI F FLEX STRUT BAR

- Thank you for purchasing this product.
- This manual provides installation and handling instructions for the product, along with precautions that should be observed.
- Read "Safety Precautions" prior to use and ensure that the product is used properly.
- Keep this manual in a safe place, such as the glove box, and refer to it whenever necessary.

Important precautions are indicated with the following marks. Be sure to observe those precautions.

 WARNING	This mark indicates precautions that you must observe for safety reasons. [Failure to observe these precautions may result in death or serious injury.]
 CAUTION	This mark indicates precautions that you must observe to ensure safety and avoid vehicle damage. [Failure to observe these precautions may result in an injury or accident.]
* Advice	Information that you should be familiar with. Information that is useful.

WARNING

- Never attempt to modify the product. Doing so could damage the product or cause a serious accident.
- To ensure safety, make sure to shut off the engine before performing installation work.
- Be sure to fully tighten bolts and nuts.
- Inspect the installation bolts after the first 100 km of driving and periodically after attaching them. Re-tighten them if necessary.
- If abnormal noise or vibration occurs while driving, pull over the car immediately in a safe place and then inspect and re-tighten the installation bolts. If any issues persist, inspect the part and make necessary repairs immediately. Continuing to drive under such conditions could result in damage or an accident.
- Stop using the product immediately if it exhibits defects or damage, or if it has been subjected to a strong mechanical impact, for example due to an accident, as these conditions could compromise the product's intended performance.
- Make sure that no parts come into contact with the battery while working.

CAUTION

- This Product does not improve the limit performance significantly. Always practice safe driving habits.
- Do not use the product on vehicles other than the intended model or for any unintended purpose. Doing so may result in damage or an accident.
- Install the product in accordance with this document and the service manual issued by SUBARU CORPORATION for your model, and be sure to observe the precautions described in this document.
- If bolts and nuts are not tightened to the specified torque while installing the product, they may be damaged or become loose. Make sure to tighten them to the specified torque.
- Fluid replenishment or replacement after installation of the product should be performed by an authorized SUBARU dealer.

*** Advice**

- SUBARU is not liable for any direct or indirect damage due to failures or other malfunctions caused by incorrect installation or handling of the product.
- When replacing parts with the product, be sure to use genuine SUBARU parts for non-reusable parts, consumables, and oil and grease.
- Product specifications are subject to change without notice.
- Installation of the product may cause deterioration in ride comfort or significant changes in driving characteristics.


Installation Guidelines

1. Part Number and Applicable Models

Part No.	Part Name	Applicable Models
SG950VC000	STI F FLEX STRUT BAR	WRX (VB, VN)

*Applicable with left-hand drive car and right-hand drive with MT car.

2. Components

1. STI F FLEX STRUT BAR  ×1	2. Flange nut (M10) ※Parts Number 902370060 ×6
---	--

* Verify quantities and check contents for damage before installation.

If there are any missing parts or discrepancies, please contact your dealer.

3. Specifications

The bracket that connects left and right strut tops is made of steel. The jointing bar is a lightweight aluminum pipe with alumite treatment, which is divided into left and right halves and contains pillow balls, and covered with a rubber boot.

This STI F FLEX STRUT BAR is designed to ensure body stiffness and to improve driving performance and ride comfort.

4. Installation Precautions

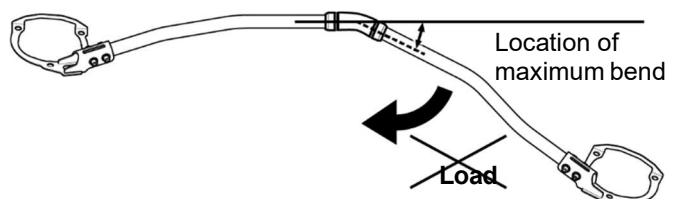
⚠ WARNING

- To ensure safety, **be sure to shut off the engine and turn off the ignition** before performing installation work.
- Exercise care to avoid burns as vehicle parts will be hot immediately after driving.
- Use fender covers and other materials to protect the vehicle.
- **Be sure to fully tighten** bolts and nuts.

Precautionary information for the STI F FLEX STRUT BAR

⚠ CAUTION

- The rubber boot at the middle of the STI F FLEX STRUT BAR has a pillow ball inside it. Handle so as to ensure no load is applied to the pillow ball while the bar is fully bent. Too much load may cause damages.



⚠ CAUTION

- This document assumes basic knowledge of vehicle maintenance. Avoid performing this work by yourself if you have no experience. Doing so is dangerous and could result in injury or vehicle problems while driving.
- We recommend that the product be installed at an authorized SUBARU maintenance facility to ensure proper installation and function.
- Install the product in accordance with this document and the service manual issued by SUBARU CORPORATION for your model, and be sure to observe the precautions described in this document.
- If bolts and nuts are not tightened to the specified torque while installing the product, they may be damaged or become loose. Make sure to tighten them to the specified torque.

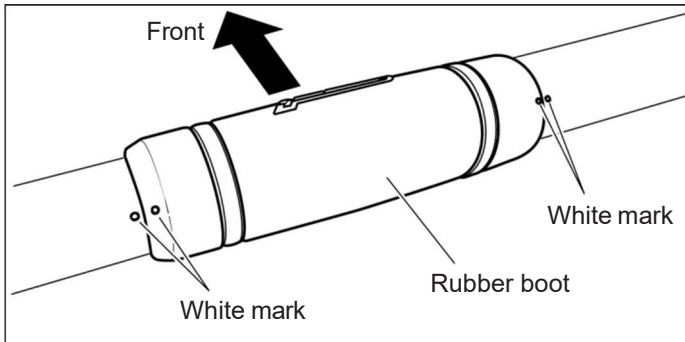
5. Simultaneous Replacement and Non-reusable Parts

- Do not reuse the original nuts to fasten the product to the upper mount. Be sure to use the nuts provided with the product.
- Be sure to observe the specified torque value. Specified torque for nuts: 32 N · m (23.6 ft-lbs)
- Tools used... Ratchet wrench, Torque wrench (14 mm) and Hexagonal socket (5 mm).

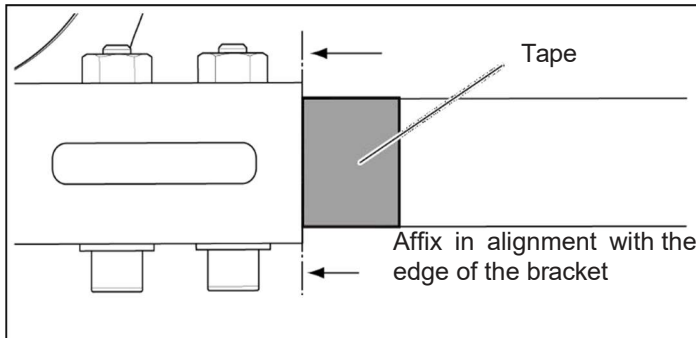
6. Work procedure

* This document describes the procedure for installing the product on the left side. Perform the same work for the right side.

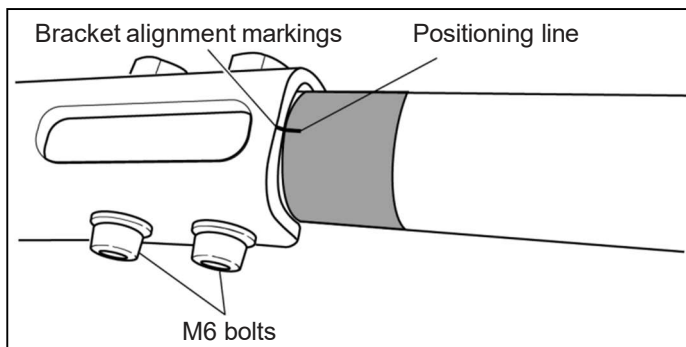
(1) Before installing the STI F FLEX STRUT BAR, check that the white marks on the rear surfaces of both ends of the central rubber boot align with the white marks on the bar. If misaligned, turn the rubber boot to align.



(2) Affix tape to the STI F FLEX STRUT BAR on the right side of the vehicle so that it is aligned with the edge of the bracket.



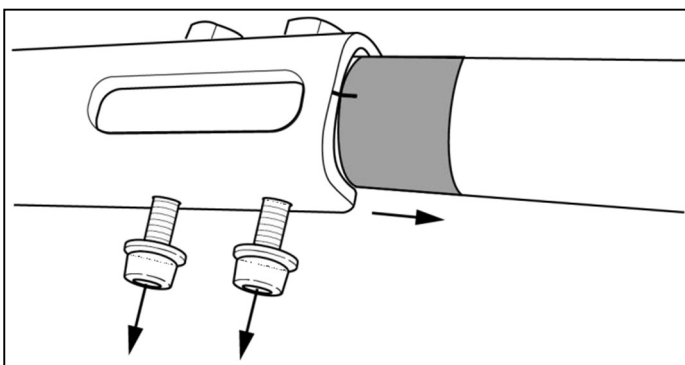
(3) Draw a positioning line on the tape at the extended position of the alignment marks on the bracket.



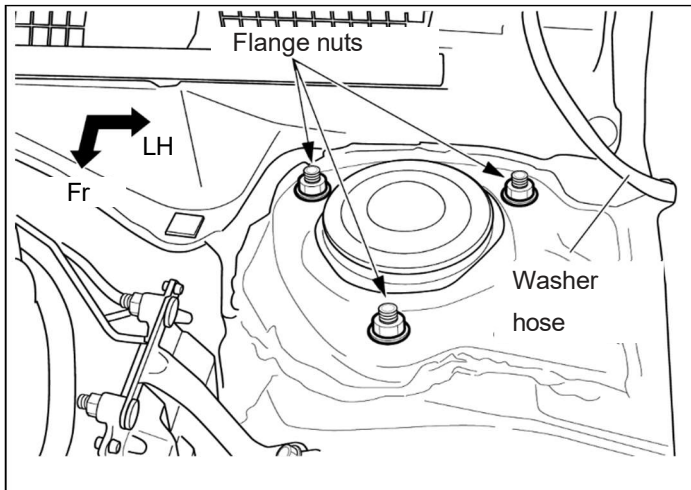
CAUTION

- The rubber boot at the middle of the STI F FLEX STRUT BAR has a pillow ball inside it. Do not apply an excessive load to the pillow ball part when the bar is fully bent. Too much load may cause damages.

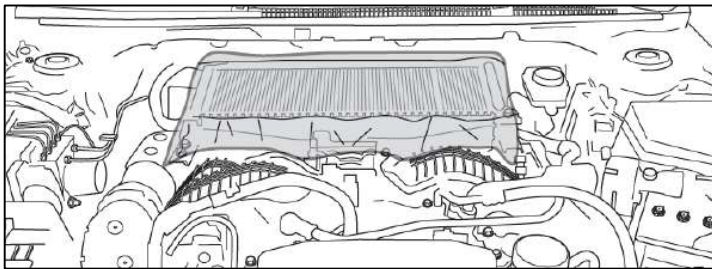
(4) Remove the two M6 bolts connecting the bar and the bracket on the right side of the vehicle and then remove the bracket on the right side of the vehicle.



- (5) Remove the upper mount installation flange nuts. (3 each on left and right)



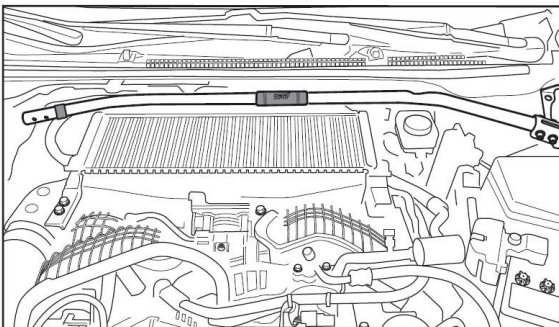
- (6) Protect the area around the intercooler with cushion used as packaging material to prevent damage to the intercooler and flexible tower bar when installing the flexible tower bar.



⚠ WARNING

- Make sure the engine is cold before protecting the area around the intercooler.

- (7) Route the bar from the left side to the right behind the intercooler and temporarily secure the left bracket in place with the included flange nut.



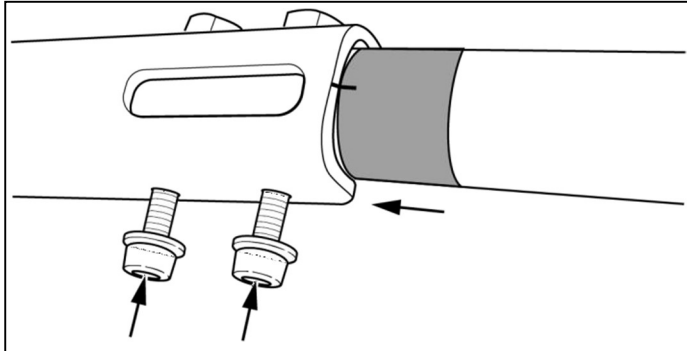
⚠ CAUTION

- The rubber boot at the middle of the STI F FLEX STRUT BAR has a pillow ball inside it. Do not apply an excessive load to the pillow ball part when the bar is fully bent. Too much load may cause damages.
- Route the bar behind the intercooler carefully and slowly to avoid causing damage or scratches to the part.

*** Advice**

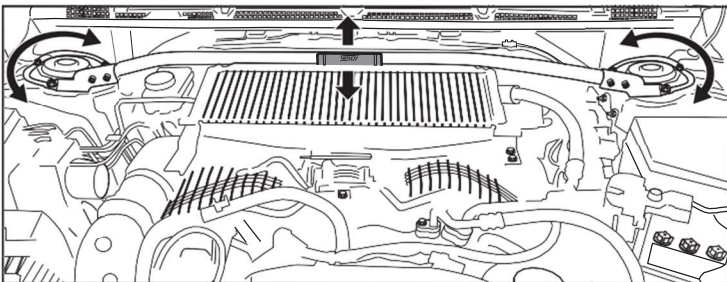
Temporary tighten the flange nuts enough that the bracket resists movement.

- (7) Assemble the bar and the bracket on the right side of the vehicle and then temporarily tighten the M6 bolts.



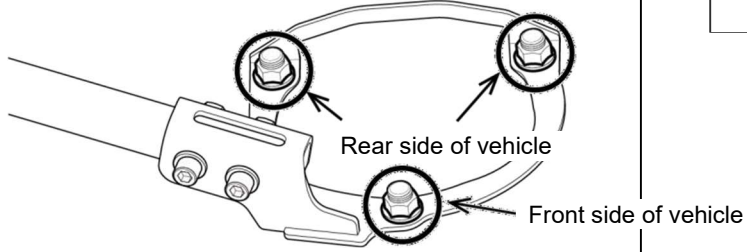
- (8) Install the bracket RH onto the upper mount and temporarily tighten it in place with the new flange nuts provided with the product.

- (9) Adjust so that the left and right bars are straight and positioned so that they don't come into contact with nearby parts. (There's room for adjustment as shown in the figure below.)



- (10) Tighten the flange nuts to the specified torque. Tighten the two nuts that are closer to the back of the vehicle first and then the one nut that's closer to the front of the vehicle.

*** Tightening torque: 32 N·m (3.2 kgf·m, 23.6 ft-lbs)**



*** Advice**

Temporary tighten the flange nuts enough that the bracket resists movement.

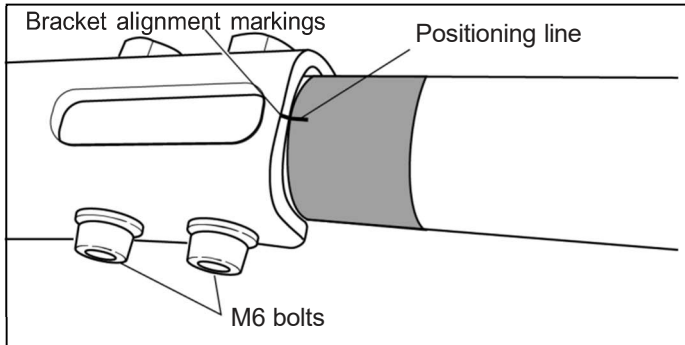
***Advice**

Tools:

- 14 mm ratchet wrench
- Torque wrench

(11) With the bar on the right side of the vehicle and bracket aligned with the tape edge and bracket edge, and the alignment marks on the bracket aligned with the tape positioning line, tighten the M6 bolts while pushing up on the bar from below so that the base of the bar does not drop.

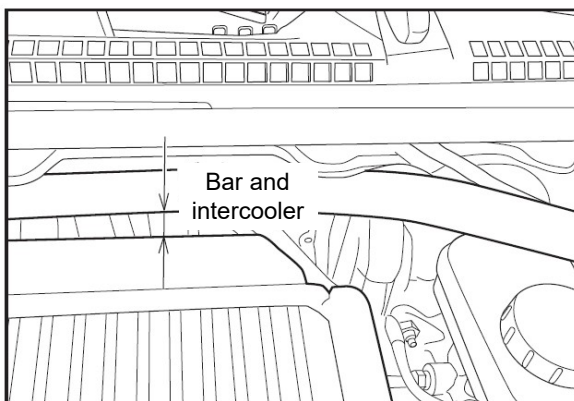
*** Tightening torque: 15 N·m (1.5 kgf·m, 11 ft-lbs)**



⚠ CAUTION

- Install so that the bar is pressing down on the top part of the brackets.
- Overtightening can cause bar deformation.

(12) Verify that there is sufficient clearance (at least 15 mm) between the bar and the intercooler.



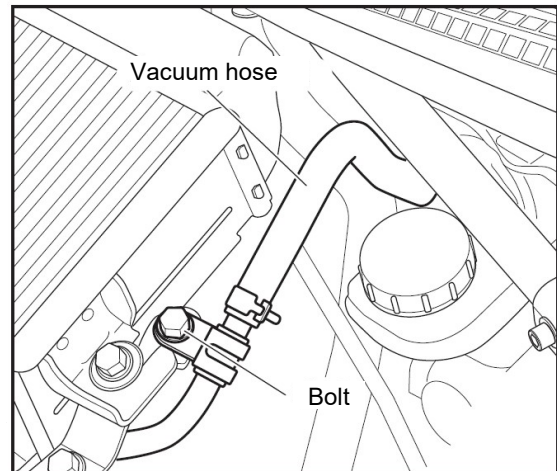
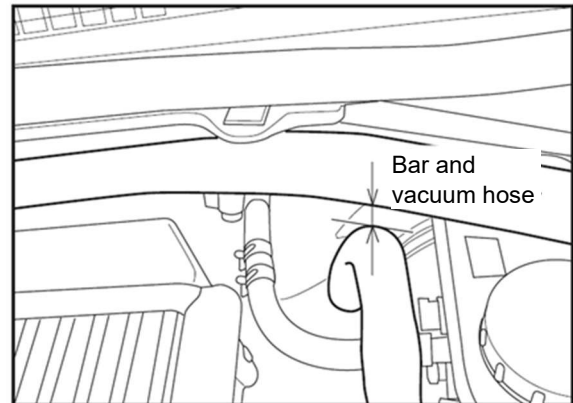
(13) If the clearance of each part is not secured, readjust again from (9).

(14) Remove the bar positioning tape.

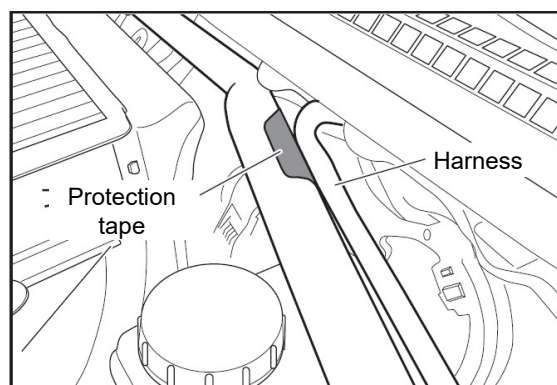
*** Advice**

For MT vehicles, make sure that the clearance between the bar and the vacuum hose is at least 10 mm. If the clearance cannot be obtained even after adjusting the tower bar, loosen the bolts at the vacuum hose clamp and adjust the clearance. After adjustment, retighten the bolts to the specified torque.

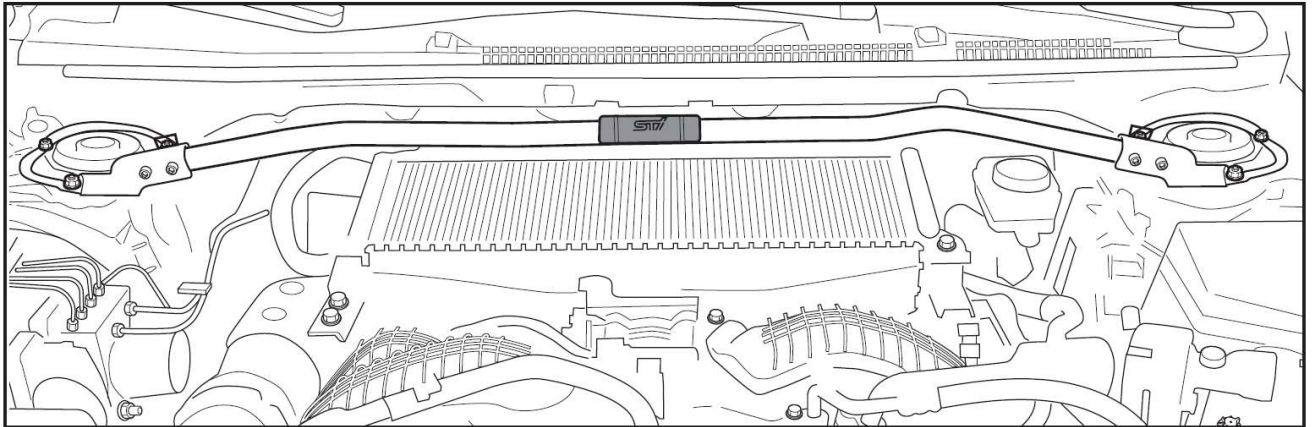
*** Tightening torque: 18 N·m (1.8 kgf·m, 13.3 ft-lbs)**



If the harness and the bar are in contact or close, adjust the bar mounting position so that the close point of the harness is within the protection tape application area.



(15) Figure showing completed installation (reference)

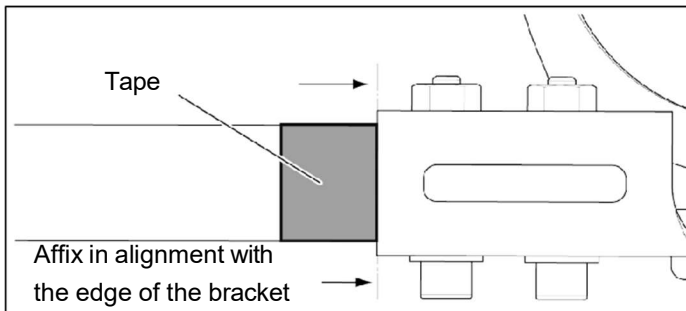


7. When Performing Vehicle Maintenance

- ◆ When performing strut or other maintenance (removing and reinstalling assembly)
 - Remove the product in the assembled state and then reinstall as described in this document, using new nuts.
- ◆ When performing maintenance inside the engine compartment, etc.
 - Remove only the bars, leaving the brackets. Remove and reinstall as described below. (Both LH and RH)

Removal

(1) Affix tape to the STI FLEX STRUT BAR so that it is aligned with the edge of the bracket.

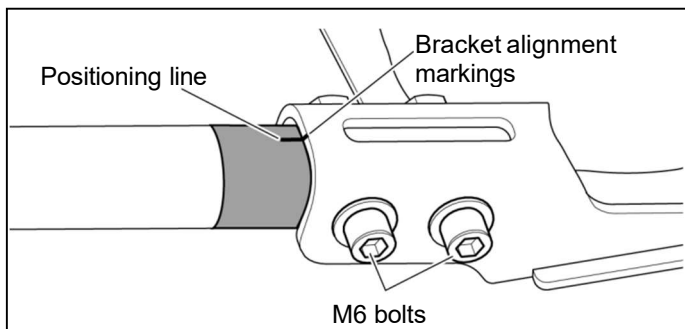


* Advice

Tools:

- 5 mm hexagonal socket
- Torque wrench
- Paper tape
- Pen

(2) Draw a positioning line on the tape at the extended position of the alignment marks on the bracket. (Perform the same steps for both the right and left sides.)



(3) Remove the M6 bolts (total of four on left and right) connecting the bar to the brackets and then remove the brackets.

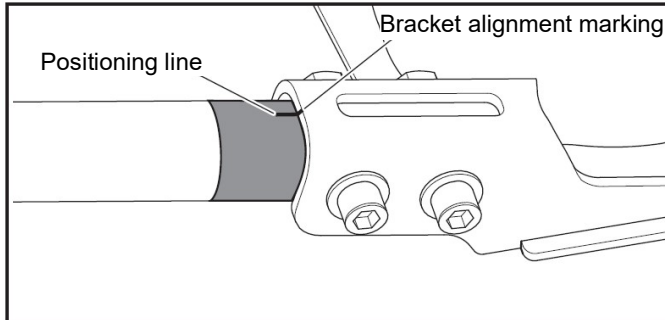
Reinstallation

- (4) Tighten the M6 bolts after aligning the tape edge with the bracket edge and the bracket alignment marks with the tape positioning line.

⚠ CAUTION

- Verify that the left and right bars are straight before tightening the bolts.

*** Tightening torque: 15 N·m (1.5 kgf·m, 11 ft-lbs)**



To customers

Handling Precautions

⚠ CAUTION

- We recommend that the product be installed at an authorized SUBARU maintenance facility to ensure proper installation and function.
- When removing the STI F FLEX STRUT BAR from the vehicle, place a support underneath the bar so that the center part (rubber boot) does not bend.
- Do not remove the center pillow ball's rubber boot.