

Installation and Operations instructions for Flexible Tower Bar

- Thank you for purchasing this product.
- This manual provides installation and handling instructions for this product, and precautions to be observed.
- Before using this product, be sure to read "Safety Precautions" and use the product 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	Precautions that you must observe for your safety. [Failure to observe these precautions may result in death or serious injury.]
⚠ Caution	Precautions that you must observe for your safety and for your vehicle. [Failure to observe these precautions may result in damages or accidents.]
* Advice	Information that you should familiarize yourself with. Information that are useful.

⚠ Warning

- Never attempt to modify this product. This may damage the product and may become cause of serious accidents.
- Be sure to stop the engine during work for safety reasons.
- Be sure to tighten bolts and nuts firmly.
- Inspect the nuts and bolts after the first 100km (62 miles) of driving after attaching them. Re-tighten them if necessary.
- If abnormal noise or vibration occurs while driving, pull over the car immediately to a safe place, and then inspect and re-tighten the attaching bolts. If abnormalities persist, perform inspection and make necessary repairs immediately. If you continue to drive in this condition, damages or accidents may occur.
- Stop using this product immediately if it has defects such as deterioration and breakage, or receives a strong impact, as these conditions impair the product's original performance.
- Make sure that no part comes in contact with the battery while working.

⚠ Caution

- This product does not improve the limit performance significantly. Always drive safely.
- Do not use this product on inapplicable vehicles or for purposes other than it is designed for. Doing so may result in damages or accidents.
- If bolts and nuts are not tightened with specified torque while installing this product, they may be damaged or become loose. Make sure to tighten them with the specified torque.

* Advice

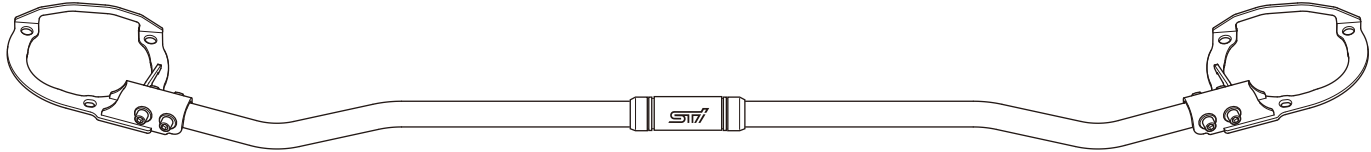
- We do not assume any liability or responsibility for any malfunction, damage, or any other defects arising from inappropriate installation or misuse of the products.
- When replacing the product, be sure to use genuine Subaru products for parts that cannot be reused, such as the locking flange nuts.
- Specifications of this product are subject to change without prior notice.
- Installation of this product may degrade the ride feeling, or cause significant changes in the driving characteristics.

Installation Procedures

1. Part Number and Applicable Model

STI part number	Part Name	Applicable Model
E4010FL000	Flexible Tower Bar F	IMPREZA (17MY~) XV (18MY~) CROSSTREK(18MY~)

2. Components

		1 set
Flexible Tower Bar F main unit		
Flange nut (M10)		6 pieces
Clearance check gauge		1 sheet

* Check the number of items included first. If any items are missing or different, contact the place of purchase.

3. Specifications

The bracket that connects left and right strut tops are made of steel. The jointing bar is a light-weight aluminum pipe with alumite treatment, which is divided into left and right halves and contains pillow balls, and covered with a rubber boot. This Flexible Tower Bar is designed to ensure body stiffness and to improve driving performance and riding comfort.

4. Precautions During Installation

⚠ Warning

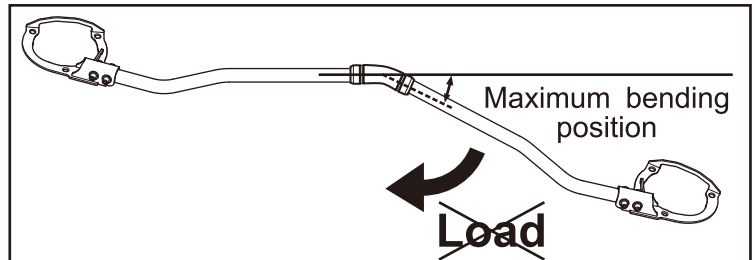
- For safety purposes, always turn off the engine and ignition while operating.
- Always tighten bolts and nuts firmly.

* Cautions about the Flexible Tower Bar

⚠ Caution

- The rubber boot at the middle of the Flexible Tower Bar has pillow ball inside it.
Do not apply excessive load on the pillow ball part when the bar is fully bent.

Too much load may cause damages.



⚠ Caution

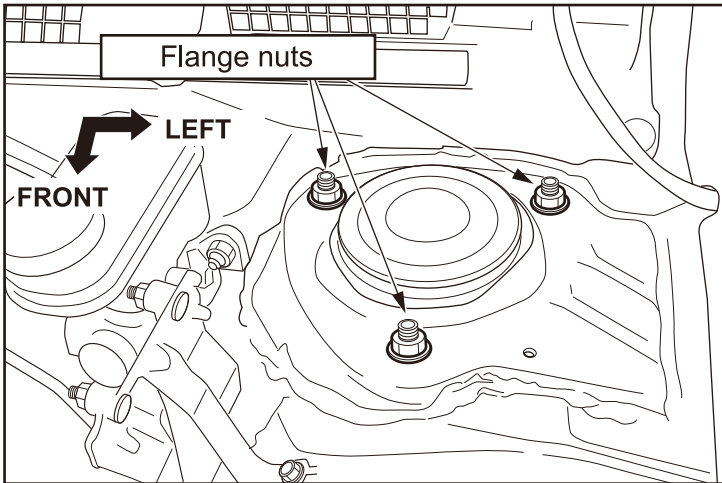
- The contents of this manual is designed for automobile mechanics or those who have basic knowledge about automobile maintenance. Do not let inexperienced persons to work alone, as it could cause the vehicle to undergo dangerous troubles during driving. To install the product properly for it to function as intended, it is recommended to perform the installation procedure at an authorized Subaru retailer.
- Tighten bolts and nuts according to specified torque. If not tightened with specified torque, the bolts and nuts may become damaged or loose.

5. Parts that Cannot be Replaced at the Same Time or Reused

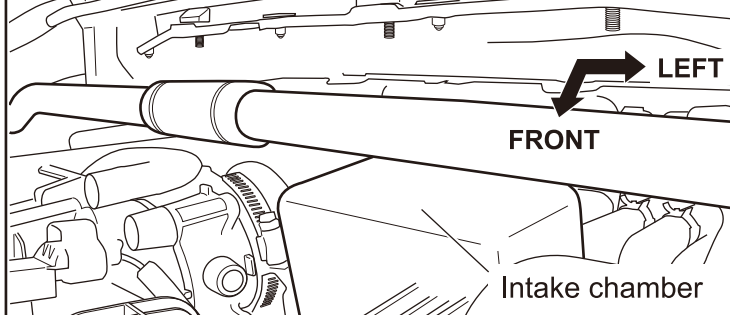
- Do not reuse the originals nuts for fixing this product to the upper mount. Be sure to use the flange nuts provided with the product.
- Be sure to tighten with the specified torque. The specified torque for the included flange nuts is 32N·m(24ft-lbs).
- Tools to use: ratchet wrench(14 mm), torque wrench (14 mm), hexagon socket (5 mm).

6. Work Procedure * This manual shows left side. Install on the right side in the same way.

- (1) Remove the upper mount attaching flange nuts.
(3 on each side.)



- (2) Lift the middle part of the Flexible Tower Bar in the assembled state, and attach RH and LH of the bracket to the upper mount.



- (3) Temporarily tighten the bracket with the included new flange nuts.

- (4) Adjust Flexible Tower Bar so that a right bar and left bar become straight.

⚠ Warning

For safety reasons, be sure to stop the engine and turn off the ignition while working.

*** Advice**

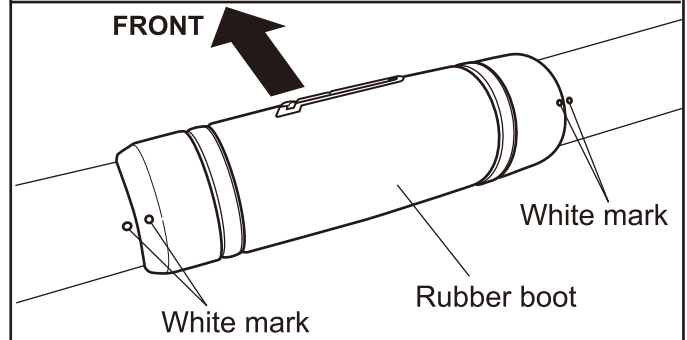
Make sure that no one is inside the vehicle and all wheels are on the ground when performing installation to ensure the product performance.

⚠ Caution

The rubber boot at the middle of the Flexible Draw Tower Bar has pillow ball inside it. Do not apply excessive load on the pillow ball part when the bar is fully bent. Too much load may cause damages.

*** Advice**

Before installing the Flexible Tower Bar, align the white marking on the rubber boot at the middle and the white marking of the Bar, and adjust the logo to be level.

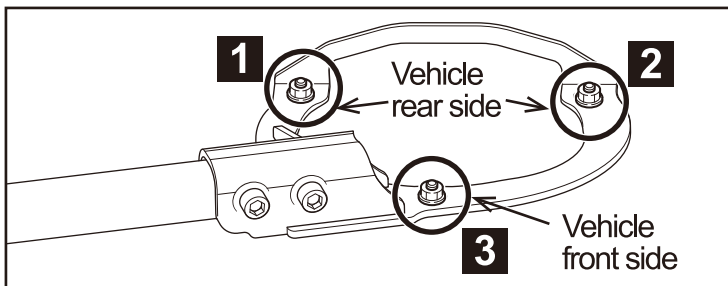


⚠ Caution

Reusing the flange nuts may cause the screws to become damaged or loose.

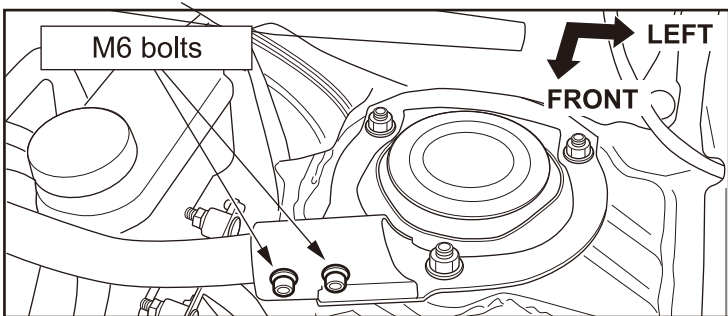
(5) Tighten the flange nuts according to the specified torque. Tighten 2 nuts on the side towards the vehicle rear first, and then tighten 1 nut on the side towards the vehicle front.

* Specified torque: 32 N·m (3.2 kgf·m / 24 ft-lbs)

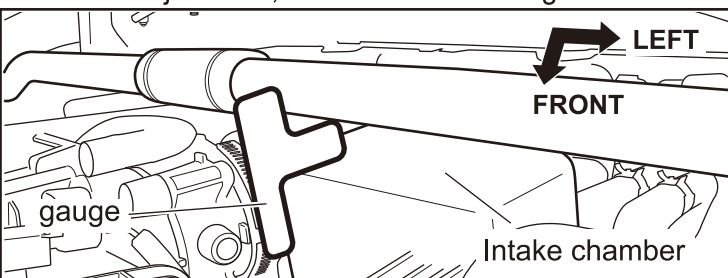


(6) Loosen the M6 bolts (2 pieces) securing by 1/2 to 1 turn where the bar attaches to the left side bracket in order to adapt the Flexible Tower Bar to the vehicle. With bolts loose, ensure the bar has adequate clearance with nearby components (brackets and nuts). Adjust if necessary. Then tighten them to the specified torque.

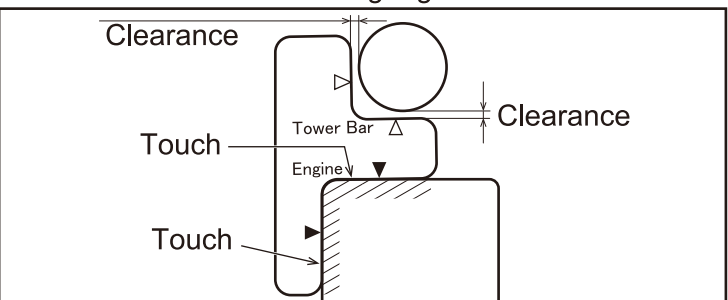
* Specified torque: 15 N·m (1.5 kgf·m / 11 ft-lbs)



(7) After installing, Use gauge to check the clearance between the bar and the vehicle. When clearance is not enough, loosen the flange nut. Go back to step 4, re-adjust the Flexible Tower Bar and recheck the clearance. The re-adjustment, turn the bracket using a slotted hole.



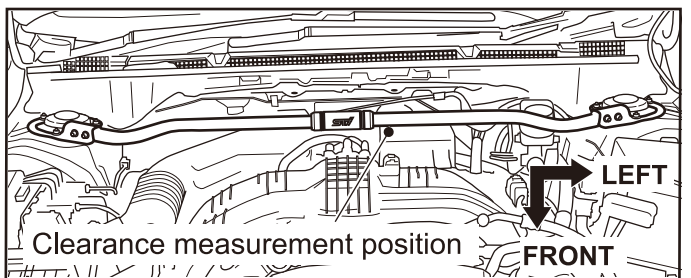
* Check the clearance with gauge



* Advice
Necessary tools: 14 mm size ratchet wrench, torque wrench

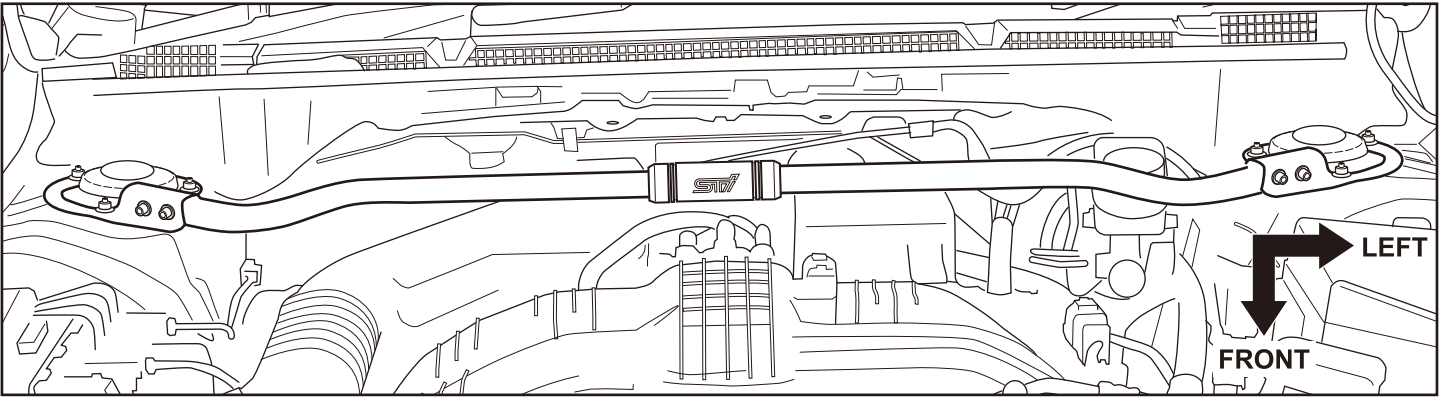
⚠ Caution
Be careful not to tighten more than necessary, as doing so may deform bar.

* Advice
Tools to use: 5 mm hexagon socket, torque wrench.



⚠ Caution
Place gauge to the tower bar perpendicularly.

⑧ Illustration of installed state



7. Operation procedure for vehicle maintenance

◆ Maintenance such as strut

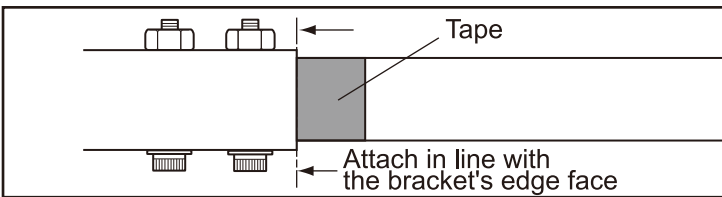
Remove the Flexible tower bar in the assembled state,
When restoring, install 6 new nuts according to this manual. (Part number 902350029)

◆ Maintenance in engine compartment.

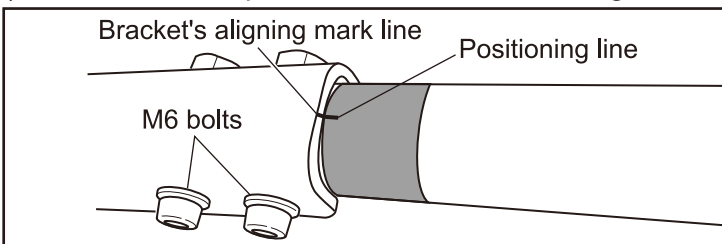
Leave the bracket to the vehicle, remove the bar only in accordance with the following procedure.

When Removing

- (1) On the Flexible Tower Bar's bar, attach the tape in line with the bracket's face.



- (2) Mark a positioning line on the tape on the extension of the aligning mark line of the bracket.
(Perform the same procedures for both left and right sides.)



- (3) Remove the M6 bolts (4 pieces on the left and right) joining the bracket and the bar, and remove the bracket.

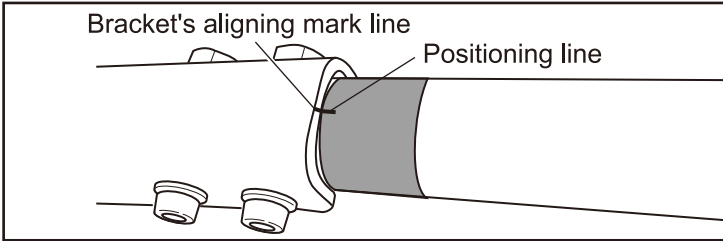
* Advice

Necessary tools: 5 mm size hexagon socket,
torque wrench, paper tape, pen

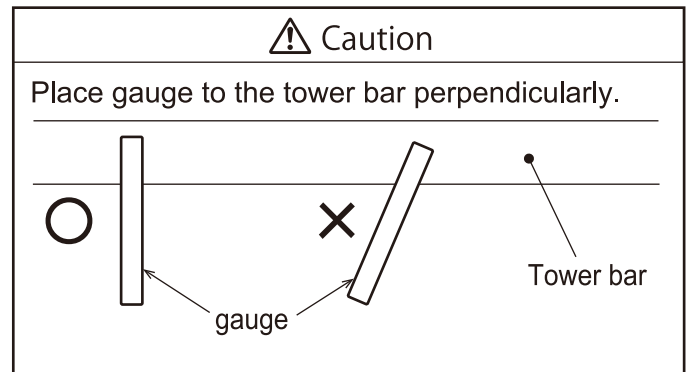
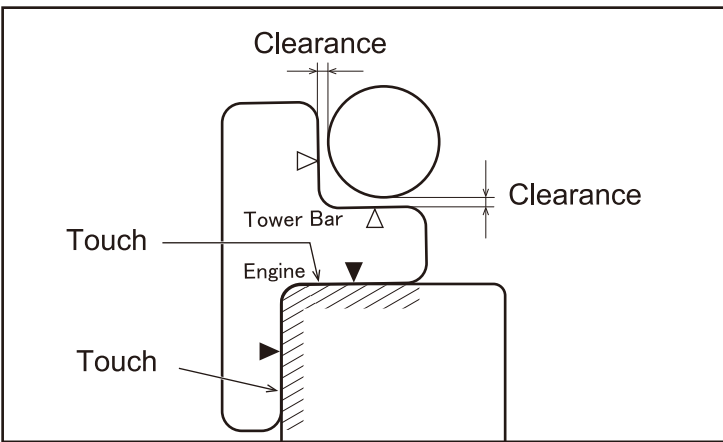
When Restoring

(4) Align the tape end and bracket's edge face as well as the bracket's aligning mark line and the tape's positioning line with the M6 bolts removed from the bar and the bracket. Then, tighten the M6 bolts.

* Specified torque: 15 N·m (1.5 kg f·m)



(5) Check the clearance with gauge.



To the customers

Handling Precautions

⚠ Caution

- To install the product properly for it to function as intended, it is recommended to perform the installation procedure at an authorized Subaru retailer.
- When storing the Flexible Tower Bar removed from the vehicle, put a support under bar to prevent the middle part (rubber boot section) from sagging.
- Do not remove the rubber boot at the pillow ball part in the middle.

**Flexible Tower Bar F
E4010FL000**

Clearance confirmation template

