08+STI Master Cylinder Brace

Thank you for purchasing this PERRIN product for your car! Installation of this product should only be performed by persons experienced with installation of aftermarket performance parts and proper operation of high performance vehicles. If vehicle needs to be raised off the ground for installation, the installer must use proper jacks, jack-stands and/or a professional vehicle hoist for safety of the installer and to protect property. If the vehicle is lifted improperly, serious injury or death may occur! Please read through all instructions before performing any portion of installation. If you have any questions, please contact our tech department prior to starting installation.

GENERAL MODIFICATION NOTE

Modifications to any vehicle can change the handling and performance. As with any vehicle extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive a vehicle safely may result in serious injury or death. Do not drive a vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications (and combinations of modifications) are not recommended and may not be permitted in your state or country. Consult the owner's manual, service manual, instructions accompanying these products, and local laws before purchasing and installing these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.

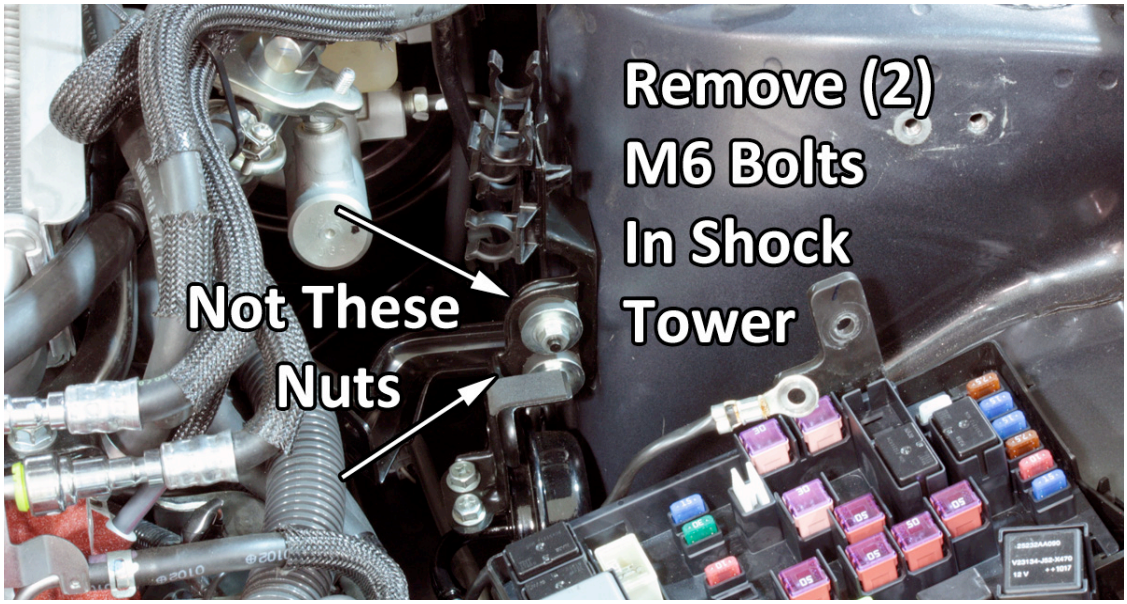
Parts Included with the PERRIN Master Cylinder Brace:

- **(1) 08+ PERRIN Master Cylinder Support Bracket**
- **(1) 08+ PERRIN Master Cylinder Support Brace**
- **(1) 2 Hole Bracket for FPR**
- **(1) M4 Allen Wrench**
- **(1) M6 Allen Wrench**
- **(1) M6x25 Stud**
- **(2) M6 SS nut**
- **(4) M6 SS washers**
- **(6) M6 Fender washer**
- **(3) M6x10 SS Button Head Socket ap Screw**
- **(5) M6x14 SS Button Head Socket Cap Screw**
- **(1) M8x20 SS Socket Cap Screw**
- **(1) M8 Fender Washer**
- **(2) M8 Flat Washer**
- **(1) M8 Nut**
- **(1) M12x30 SS set screw**
- **(1) M12 SS jam nut**
- **(4) 8" Zipties**

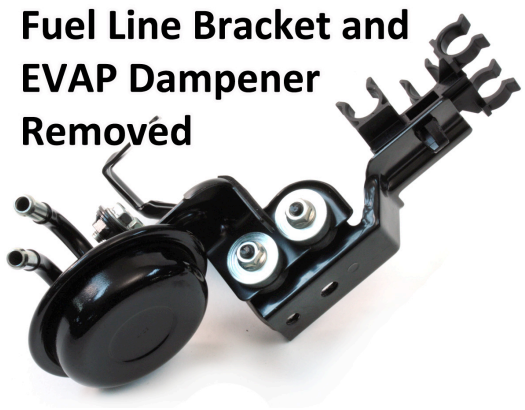
Installation of PERRIN Master Cylinder Brace

1. Disconnect battery and remove from car. This requires a 10mm wrench to remove both terminals as well as battery hold-down bracket.
2. Remove fuse box cover and locate and remove (3) M6 bolts secureing fuse box to chassis, and (2) chassis ground bolts.

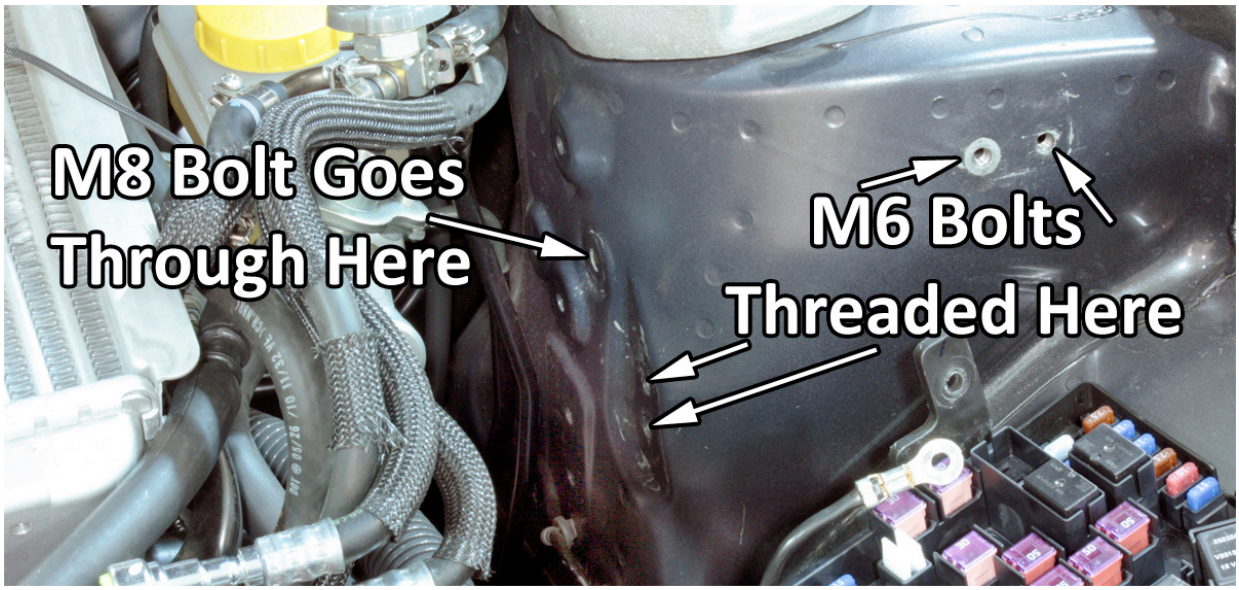
3. Pull fuse box forward in car roughly 5” to expose shock tower, fuel lines, EVAP dampener (If equiped), and fuel line bracket.
4. Unclip fuel lines from fuel line bracket. Using (2) supplied zip ties, bundle fuel lines and tie them out of the way toward intercooler bracket as shown below.
5. Remove Fuel Line Support Bracket from shock tower:
    a. Locate and remove (2) M6 bolts securing fuel line bracket to shock tower.
    b. Locate large power wire attached to bracket and slide off after releasing tab.
    c. Remove (2) M6 bolts securing fuel line bracket to chassis and remove entire bracket from car. If car is equipped with an EVAP Dampener (Large round black part with two hoses coming out of it), disconnect (2) hoses as fuel line bracket is removed. Take note of these two hoses as these will be reinstalled later, and take note they are different sizes. **NOTE: Alternativly you can remove the EVAP dampener first then the fuel line bracket.**



    d. If equiped with EVAP dampener, remove (2) M6 bolts to free EVAP dampener from fuel line bracket.
    e. Install EVAP dampener to PERRIN bracket as shown below. Use (2) supplied M6x14 button head screws and (2) M6 Fender washers to secure to bracket. Tighten bolts to roughly 5ft-lbs.

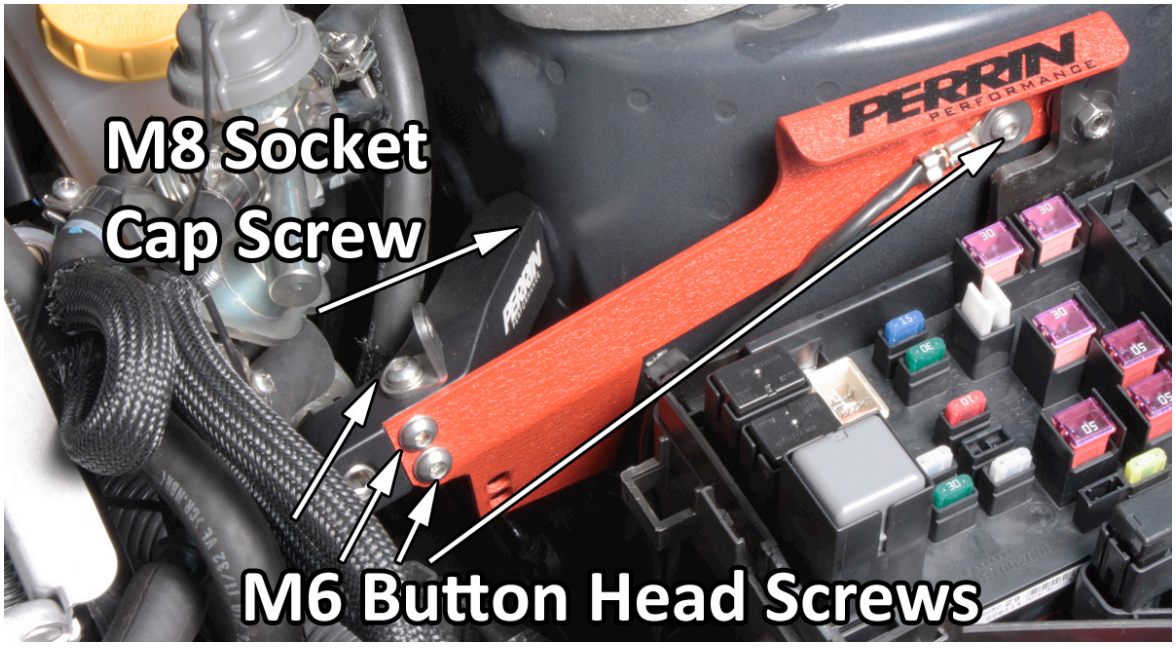


6. Using the picture below, locate M6 threaded holes and hole were M8 bolt will pass through shock tower.
7. Using high quality jack or vehicle lift, raise vehicle off the ground on drivers side of car and support with high quality jack stands. **NOTE: This step is done to expose the hole where M8 bolt will pass through from engine bay to wheel well area. Alternativly you can turn the steering wheel and use an extension with a universal joint to get to this exposed area.**



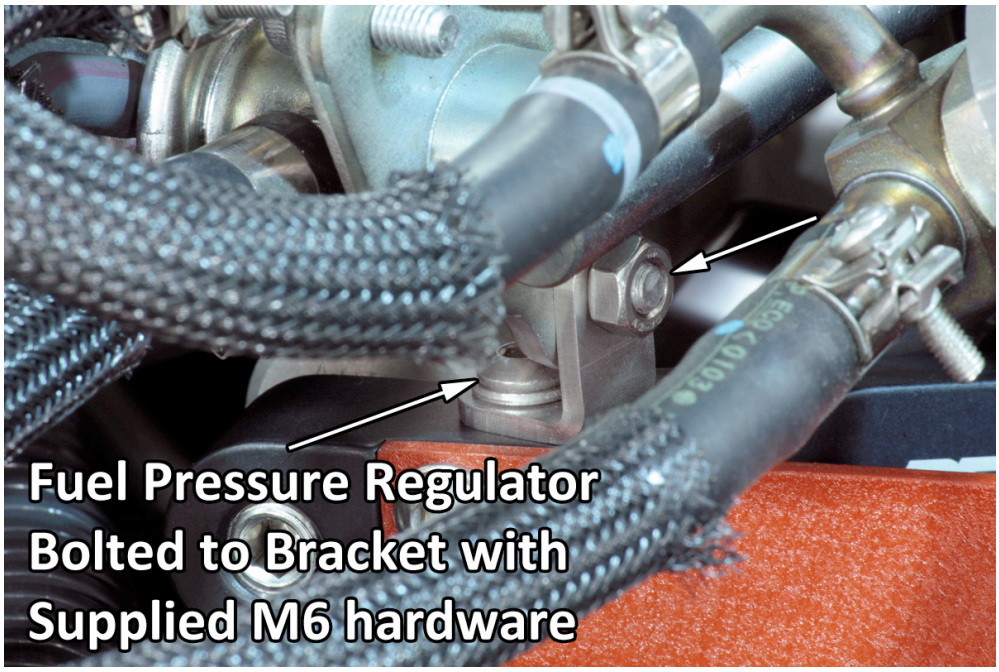
8. Using (2) supplied M6x14mm button head screws and (2) M6 fender washers (large diameter), install PERRIN Support brace (thin steel powedercoated part) to threaded holes in shock tower showing in middle of above picture. At this time leave bolts slightly loose.
9. Using (1) supplied M6x14mm button head screw and fender washer, secure PERRIN support brace and ground cable to front of shock tower as shown below. NOTE: Only thread into left hole as shown, and put ground cable under fender washer, making sure to leave bolt slightly loose.
10. Install supplied M6 stud into remaining hole (roughly 4 turns) as shown below. Install M6 fender washer then M6 nut over set screw and leave loose.

11. Install PERRIN Master Cylinder support bracket (black aluminum part) to PERRIN Master Cylinder brace using (2) supplied M6x10 button head screws and (2) M6 flat washers. Leave bolts slightly loose for now.
12. Install 2 hole bracket to top of bracket using supplied M6x10 button head screw and washer. Leave bolts slightly loose at this point.
13. Inside engine bay, install M8 socket cap screw and SS washer through PERRIN bracket and through shock tower. Inside of wheel well, install supplied M8 fender washer (large diameter), M8 flat washer then M8 nut onto bolt where it passes through shock tower to wheel well. Thread nut down to hand tight for now.



14. Go through and snug all bolts starting with M6 bolts holding brace to bracket, then M8 bolt going through wheel well, then brace to side of shock tower, then brace to front of shock tower. Go back and torque all M6 bolts to 10ft-lbs and M8 bolt/nut to 20ft-lbs, making sure to follow the same order as before.
15. Install fuse box back to chassis starting by placing upper right tab on M6 set screw coming out of front of shock tower. Use supplied M6 nut to secure.
16. Reinstall M6 bolts removed earlier into (3) other locations. See first picture to see all locations**. NOTE: Make sure and attach ground to metal tab on chassis.**
17. If car was equiped with EVAP dampener, connect hoses removed from it ealier. **NOTE: Its best to route hose coming from fire wall behind PERRIN Master Cylinder Support, then down toward EVAP dampener.**
18. Cut zip tie holding back fuel lines.
19. Prepare to install fuel pressure regulator to 90 degree bracket on top of PERRIN bracket. In order for this to line up properly, you will need to adjust the rotation of the fuel pressure regulator, fuel pressure dameners and other lines so they line up like they do in the below picture. **NOTE:This will require loosening fuel clamps and twisting (not removing) the fuel lines, as well as reclocking each clamp. While its unlikely that fuel will come out of hoses, take great care in spilling fuel after these are loosened. Its helpful to have rags handy to catch any that might leak from hose.**

20. Tighten M6x10 bolt (holding 90 degree bracket to PERRIN bracket) to roughly 5ft-lbs (just past hand tight). This allows bracket to still rotated slightly for the next step. Take not as to the direction of the bracket in the picture above. Use above picture and below picture as a guide.
21. Locate lower bolt coming out bottom of fuel pressure regulator. Place this bolt through upper hole in 90 degree bracket. Take note of the clearance between the fuel line and the brake line as shown in above picture. Rotate backet until there is at least .100" of clearance. Remove regulator from bracket and fully tighten M6x10 bolt on top to 10ft-lbs. Install M6 nut and washer and tighten to 10ft-lbs. **NOTE: This step may take a few times to get desired clearance at fuel line and brake line.**



22. Using supplied M6 wrench, thread supplied M12 set screw into front of PERRIN support until roughly 3 threads are showing on the other side.
23. Install supplied M12 lock nut onto set screw between master cylinder and PERRIN support.

24. Using a 19mm wrench to hold lock nut, thread M12 set screw up to end of master cylinder.
25. Preload PERRIN Master Cylinder Brace roughly ½ to 1 full turn on set screw, then lock down M12 lock nut to body of PERRIN brace. **NOTE: Do not tighten lock nut to master cylinder body as this will not lock it down at all!**
26. Press on brake pedal rather hard a few times to ensure there are no popping noises. If noises occur double check all bolts being tight.
27. Lower car from jack stands.
28. Reinstall battery to chassis and battery hold down brackets to top of battery. Tighten battery hold down nuts to hand tight or until battery no longer can move around. **NOTE: Short "J" rod goes behind battery and longer "J" rod goes in front. Both rods hook to sepecific holes in chassis, which can be a little tricky to get to.**
29. Reattached battery terminals starting with the Positive(Red or +) side then ground connection (Black or -).