Engine Mount Kit for 2022+ WRX and BRZ/GR86(Separate Instructions At End)

2026-03-16 PSP-DRV-056

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. We can be reached in any of the following methods:

Email Tech@PERRIN.com
Instant Chat off the main page of www.PERRIN.com
Or simply call our tech team at 503-693-1702

WARNING: This product can expose you to chemicals including Lead which is known to the State of California to cause cancer birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov

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.

SPECIAL NOTES:

- The use of a factory service manual is highly recommended for installation. These can be purchased online at http://techinfo.subaru.com.
- Expect added NVH during all driving situations especially at Idle. Some NVH can be reduced by raising the stock Idle RPM. Roughly 100-200 RPM more than stock is a good starting point. This must be done using an ECU reflash device like an Accessport. If using an Accessport, this parameter can be adjusted by going to Tune/Adjustments/ Idle.
- A threaded type adjustable jack stand placed under the engine, is required to safely install these mounts. These are generally too tall to use typical car jack stands with, which means this install needs to be done on professional type hoist. Failure to use an adjustable jack stand while lifting engine can result in a very dangerous situation.
- **Special care must be taken when installing PERRIN Engine Mounts with aftermarket headers. Wrapping and/or additional shielding on the header primaries is required to keep heat away from the PERRIN Engine Mount to prevent bushings from being damaged. Especially during dyno tuning (with very little air flowing around headers and mounts), care must be taken to prevent damage to the bushings.**
- **If "U" bracket is removed from motor mount for maintenance reasons, re-torque bolt to 40ft-lbs**
- **We do not recommend removing the studs for installation as reinstalling them after the mounts are placed onto the engine is very difficult.**

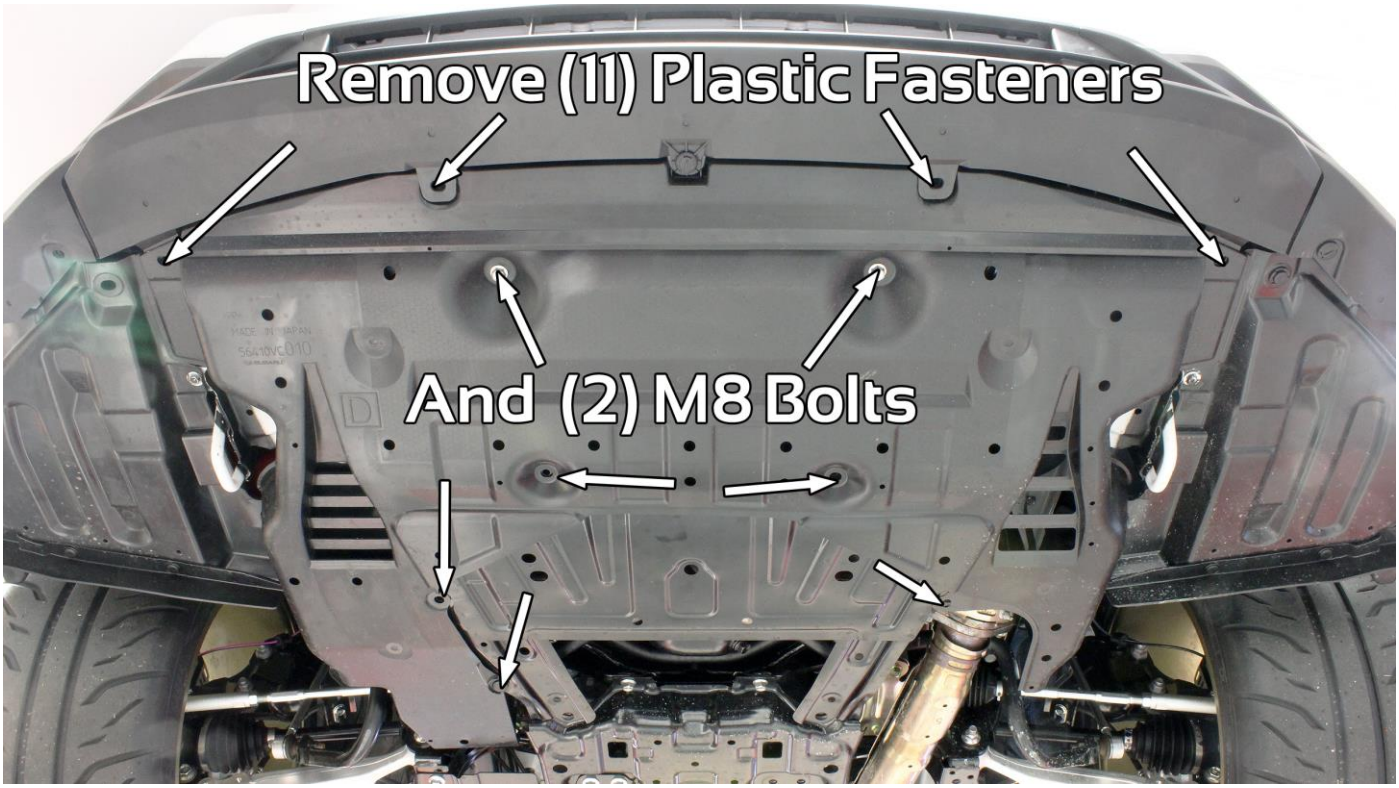
Included Parts with PERRIN Engine Mount Kit:

- (1) PERRIN Left Engine Mount
- (1) PERRIN Right Engine Mount
- (2) SS Spacers
- (2) M10x1.25 Flange Nuts

Installation Instructions

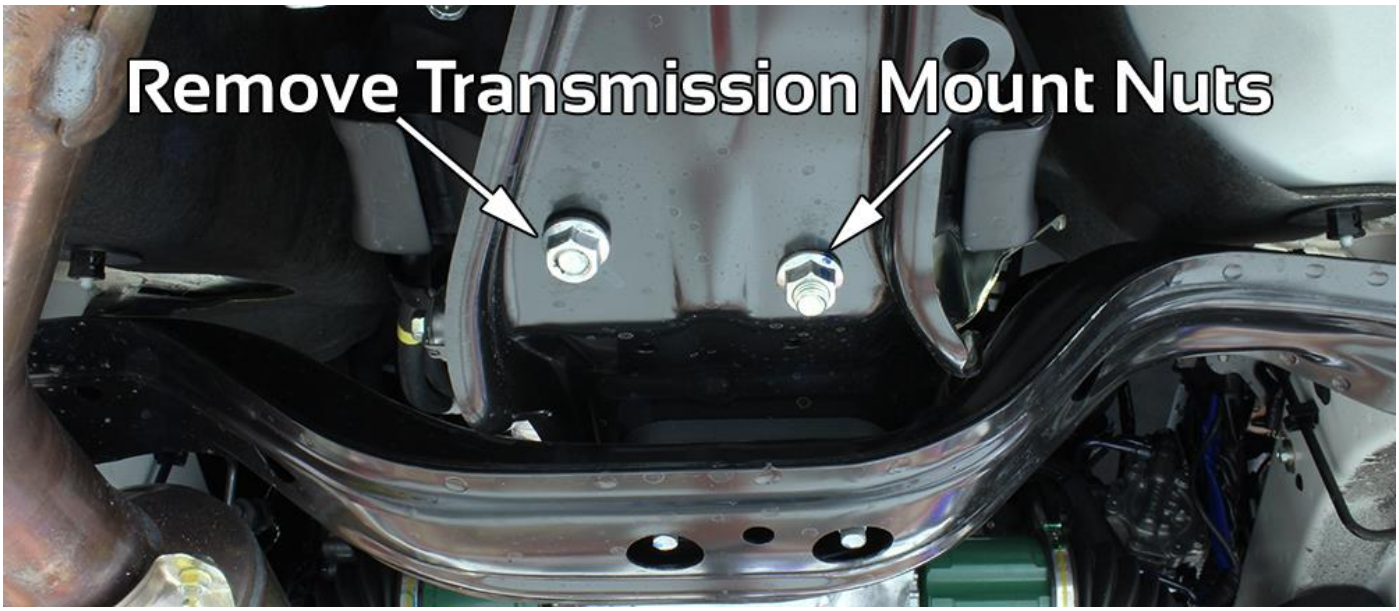
1. Using a professional vehicle hoist, or proper jack and jack stands, raise vehicle off the ground. The vehicle's weight must be supported by jack stands. Death or serious injury could result from an improperly supported vehicle.
2. Using panel removal tool or flat head screwdriver, locate and remove (3) plastic fasteners in each wheel well as shown below.

3. Using proper panel removal tool or flat head screwdriver, locate and remove (11) plastic fasteners and (2) 12mm headed bolts from lower portion of splash guard as shown below.

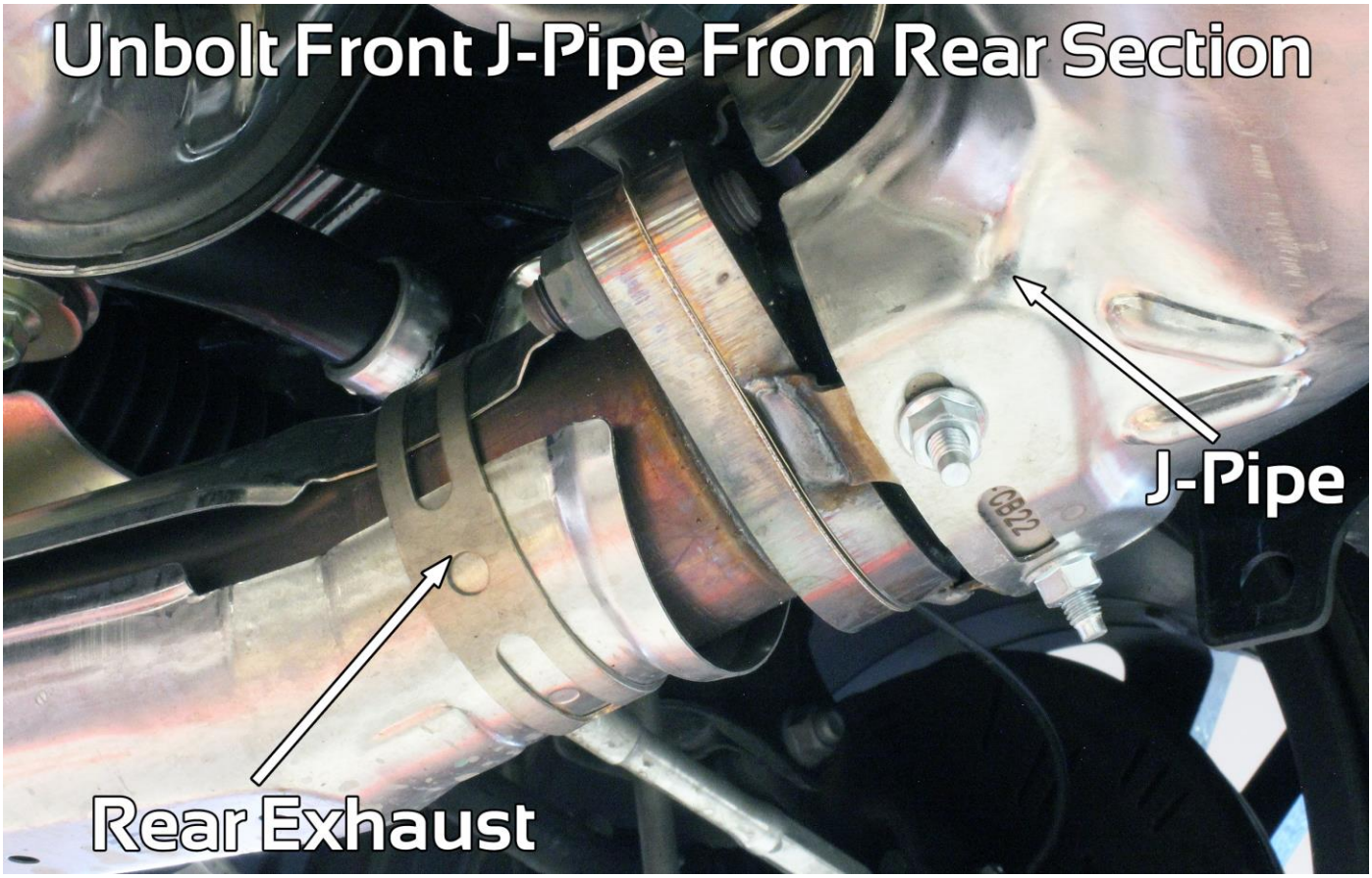


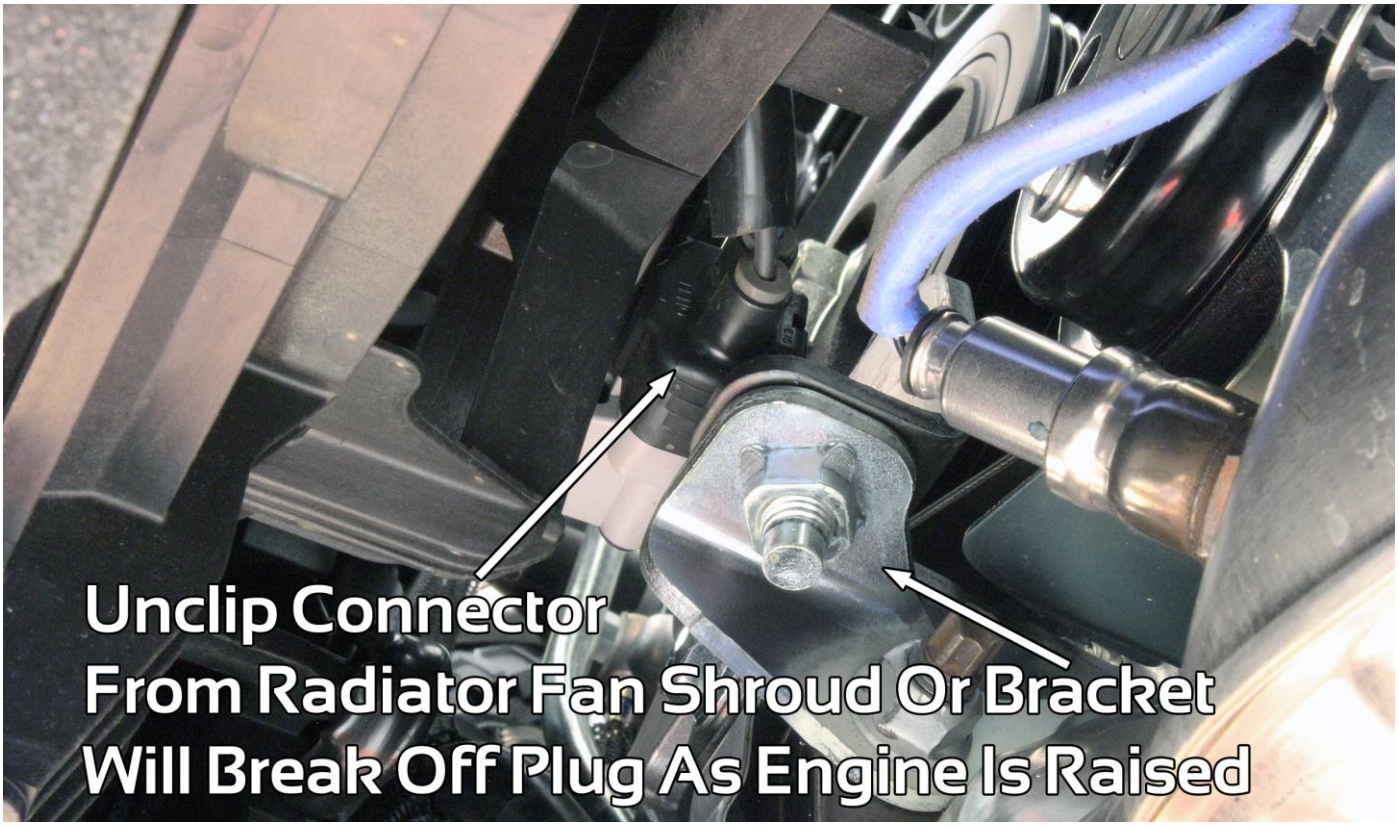
4. Locate and remove (4) M8 bolts securing black steel skid plate from chassis and set skid plate aside.

5. Remove (2) M10 nuts securing transmission mount to sub frame. This is done to allow the engine to be raised up in future steps.



6. Remove rear section of exhaust from J-pipe. This is the section that is after the "J" Pipe (where primary catalytic converter is) right in front of the swaybar. All hardware and gaskets will be reused in future steps.



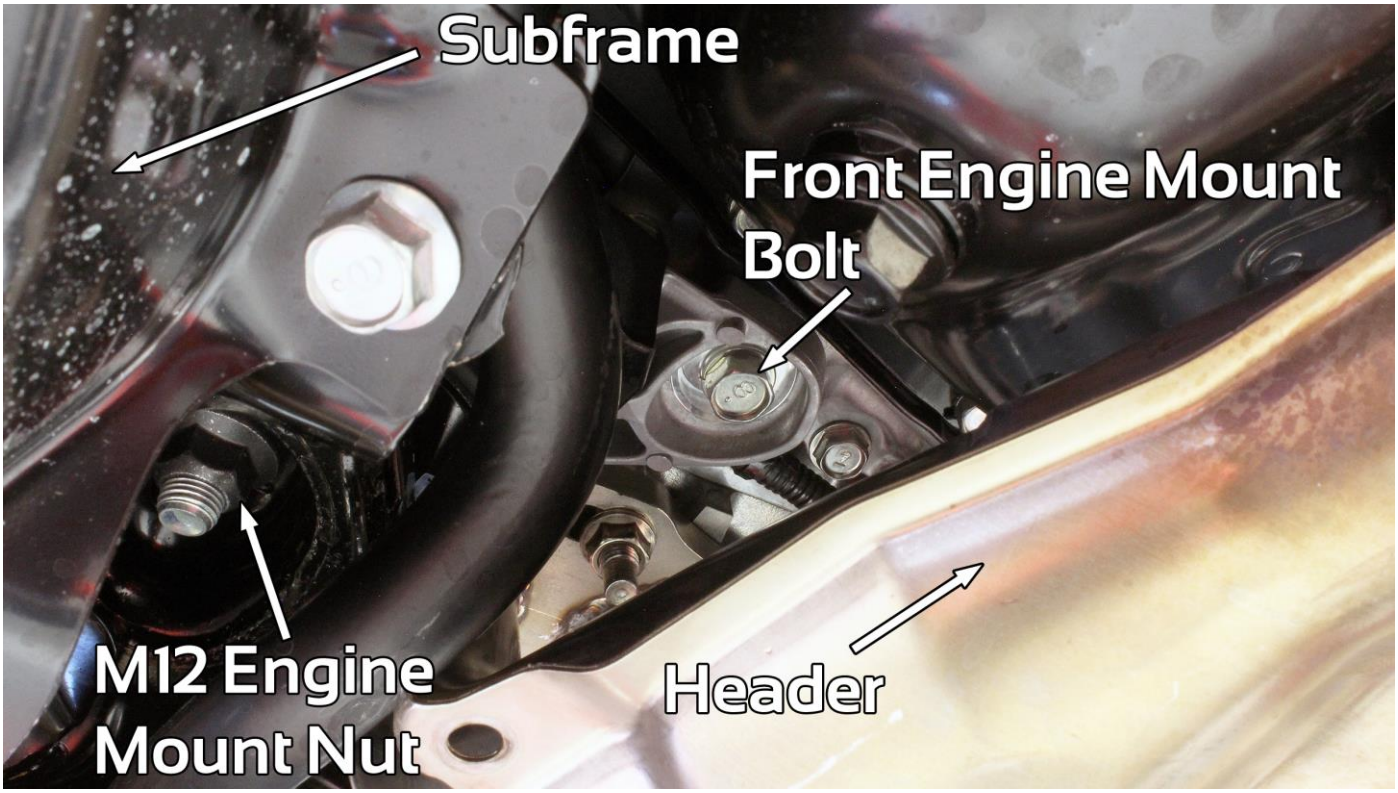


7. Using the above picture as a guide, locate electrical connection that is directly above turbo support bracket. Remove connector from radiator fan shroud. This is done to allow engine to be raised up high enough access rear motor mount bolt.
8. Locate and remove (2) M12 nuts securing motor mounts to the subframe as shown below.

9. Open hood of vehicle and determine if additional parts need to be removed:
    a. Remove intercooler and loosen both bolts securing pitch stop mount to firewall and engine. **NOTE: If aftermarket pitch stop mount is installed, you can leave this step out as they are designed to pivot up and down**.
    b. If aftermarket intake or turbo inlet hose is installed, these must be unbolted at the turbo connection. This is required as the engine is raised up, it can damage these parts.

10. Place proper engine jack or threaded type jack in location shown below and raise engine up roughly 4”. The higher you can go the easier it will be to remove both motor mounts. **DO NOT USE HYDRAULIC JACK TO DO THIS STEP!!**

11. Using a 14mm socket and a universal joint, locate and loosen (2) M10mm bolts securing front portion OEM motor mounts to engine. These are located between the subframe and header as shown below. **NOTE: These are not removed to make next step easier.**



12. Locate and remove (2) M10 mm bolts securing rear portion of OEM motor mounts to engine. **NOTE: This can be tricky given the tight space. The use of an open-ended wrench and or breaker bar can aid in getting these out.**
13. With rear bolts removed, now remove (2) front bolts securing motor mounts to engine.
14. Remove both mounts from engine and chassis. This step can be tricky finding just the right orientation that will allow them to come out. Take time and make sure engine is raised high enough during this step.
15. Locate PERRIN Engine Mount marked RIGHT and install this to the Right side of engine securing front connection using OEM bolt removed earlier. Leave bolt loose for now. **NOTE: Make sure to align mount so the “Front and Arrow” are pointed toward front of car.**
16. Secure rear of PERRIN mount using OEM M10 bolt removed in previous step. Leave loose at this time.
17. Snug both bolts down, then tighten front and rear motor mount bolts to 30 ft-lbs.
18. Repeat the same steps above on the left side motor mount.

19. Drop engine down slowly making sure to line up both engine mount studs with slots in engine cross member. **NOTE: If studs do not line up with slots in subframe, raise engine slightly to reduce weight on mounts. Then use a prybar to move engine left to right or front to back. Make sure it is centered left to right when done.**

20. Install supplied SS spacer over stud and into slot in subframe, then secure with supplied M10 nut. Tighten nuts to 40ft-lbs.
21. Reinstall all the following items you may have loosened or removed in earlier steps:
    a. Connect electrical connect back to radiator fan shroud.
    b. Reinstall "J" pipe/downpipe to exhaust system. (Torque bolts to 25.8 ft-lbs)
        i. If OEM exhaust components are used, and there are under 20K miles on your car, reusing this gasket is acceptable. In all other instances we recommend replacing this gasket.
    c. Reinstall (4) bolts holding steel skid plate to sub frame. (Torque bolts to 18.4 ft-lbs)
    d. Reinstall (2) nuts securing transmission mount to chassis. (Torque bolts to 25.8 ft-lbs)
    e. Reinstall plastic splash guard and all plastic fasteners. Tighten (2) M8 bolts to 13.3 ft-lbs.
    f. Tighten pitch stop mount bolt. (Torque to 44.4ft-lbs)
    g. Reinstall Intercooler.
22. Start engine and take car for test drive. Initially you will notice additional noises and or vibrations in the car. This is perfectly normal after installation.
23. Periodically inspect mounts to ensure no damage has occurred to them from extreme conditions like drag racing or road racing.

Questions, Comments and Suggestions Contact: Tech@PERRIN.com
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Engine Mounts for 22+BRZ/GR86

2026-03-16

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SPECIAL NOTES:

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- Expect added NVH during all driving situations especially at Idle. Some NVH can be reduced by raising the stock Idle RPM. Roughly 100-200 RPM more than stock is a good starting point. This must be done using an ECU reflash device.
- A threaded type adjustable jack stand placed under the engine, is required to safely install these mounts. These are generally too tall to use typical car jack stands with, which means this install needs to be done on professional type hoist. Failure to use an adjustable jack stand while lifting engine can result in a very dangerous situation.
- We highly recommend taking these to a shop to install do to having to raise engine and the potentially unsafe working condition from working in a small area.
- **Special care must be taken when installing PERRIN Engine Mounts with aftermarket headers. Wrapping and/or additional shielding on the header primaries is required to keep heat away from the PERRIN Engine Mount to prevent bushings from being damaged. Especially during dyno tuning (with very little air flowing around headers and mounts), care must be taken to prevent damage to the bushings.**
- **If "U" bracket is removed from motor mount for maintenance reasons, re-torque bolt to 40ft-lbs**

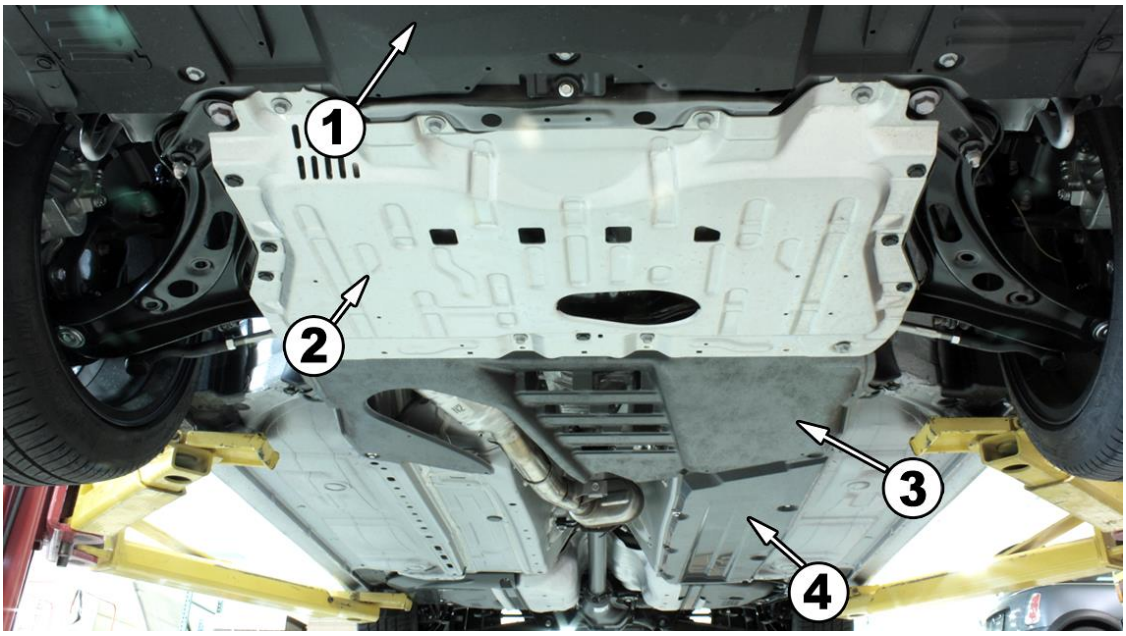
Included Parts with PERRIN BRZ/FR-S/86 Engine Mount Kit:

- (1) PERRIN Left Engine Mount
- (1) PERRIN Right Engine Mount
- (2) SS Spacers
- (2) M10x1.25 Flange Nuts

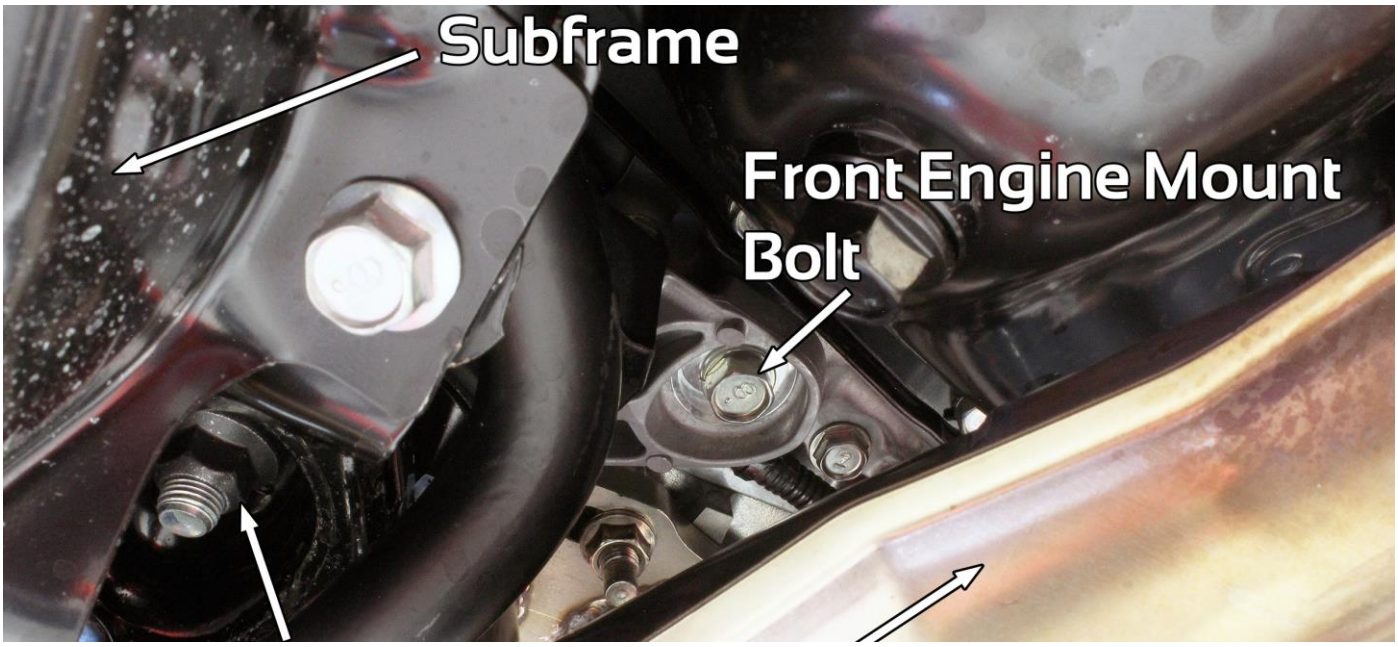
Installation Instructions

1. Raise front wheels off the ground. The vehicles weight must be supported by jack stands. Death or serious injury could result from an improperly supported vehicle.
2. Unbolt connection where frontpipe and catback exhaust meet. This is done to ensure there is no damage to catback when engine is raised up.

3. If aftermarket transmission mount, or mount insert is installed, unbolt mount from transmission (4) 14mm bolts. **NOTE: If aftermarket mount or insert is installed and engine is raised up, damage to transmission mount can occur.**
4. Using the below diagram, remove lower fiberglass woven shield (#3). Locate and remove (11) 10mm bolts securing it to car.
5. Using the below diagram, remove lower aluminum splash guard (#2). Locate and remove (7) plastic pop-it fasteners, (8) 12mm bolts securing it to car.
6. Locate and remove 14mm nuts and washers on either side of subframe that secure motor mounts to subframe. **NOTE: If aftermarket transmission mount is installed, remove lower connection at tranny crossmember. This is done to ensure no damage occurs to tranny mount while engine is raised up.**



7. Using a threaded jack and a small block of wood, jack up transmission 3-4". This should be enough room to get motor mounts out from under engine. **DO NOT USE HYDRAULIC JACK TO DO THIS STEP!!**
8. Locate (4) 14mm bolts securing OEM engine mounts to block. Unscrew (2) rear bolts until they are loose in mount and free from engine.
9. Remove front (2) 14mm bolts from mount and remove mounts from car. **NOTE: These can be a little tricky to remove, and additional jacking up of engine may be necessary.**



10. Locate PERRIN Engine Mount marked RIGHT and install this to the right side of engine securing front connection using OEM bolt removed earlier. Leave bolt loose for now. **NOTE: Make sure and align mount so the "Front and Arrow" are pointed toward front of car.**

11. Remove 14mm bolt from rear of OEM mount. **NOTE: Bolt will not drop out of mount, it needs to be unscrewed completely.**
12. Snug both bolts then tighten front and rear motor mount bolts to 30 ft-lbs.
13. Locate PERRIN Engine Mount marked LEFT and install this to the left side of engine securing front connection using OEM bolt removed earlier. Leave bolt loose for now. **NOTE: Make sure and align mount so the "Front and Arrow" are pointed toward front of car.**
14. Remove 14mm bolt from rear of OEM mount. **NOTE: Bolt will not drop out of mount, it needs to be unscrewed completely.**
15. Snug both bolts, then tighten front and rear motor mount bolts to 30 ft-lbs.
16. Drop engine down slowly making sure to line up stud with slots in engine cross member. **NOTE: If stud does not line up with slots in subframe, raise engine slightly to reduce weight on mounts. Then use a prybar to move engine left to right or front to back. Make sure it is centered left to right when done.**

17. Install supplied SS spacer over stud and into slot in subframe making sure to put the small diameter portion into the subframe. Then install supplied M10 nut and tighten nuts to 40ft-lbs.
18. Reinstall all the following items you may have loosened or removed in earlier steps:
    a. Reinstall aluminum splash guard.
    b. Reinstall fiber type splash guard
    c. Reinstall frontpipe to catback exhaust connection.
    d. Reinstall transmission mount to transmission.
19. Start engine and take car for test drive. Initially you will notice additional noises and or vibrations in the car. This is perfectly normal after installation.
20. Periodically inspect mounts to ensure no damage has occurred to them from extreme conditions like drag racing or road racing.

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