



## Coolant Overflow Tank

2025-08-06

ASM-ENG-505

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 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](mailto:Tech@PERRIN.com)

Instant Chat off the main page of [www.PERRIN.com](http://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](http://www.P65Warnings.ca.gov)

### IMPORTANT NOTICES!

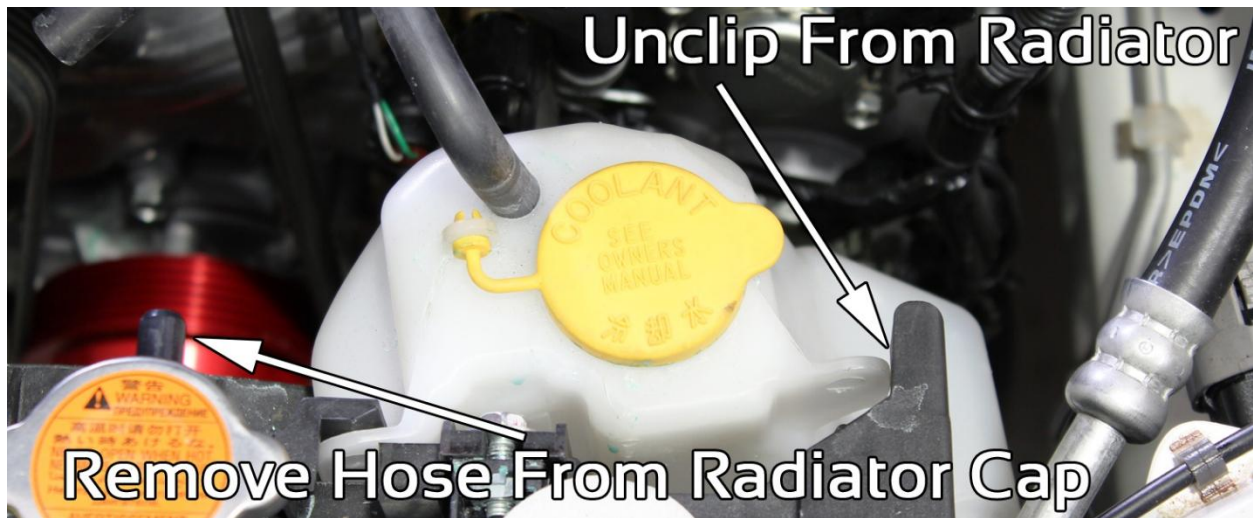
- There are multiple locations and methods to install this part into the car. The suggestions we have provided are based on the best fitment with the installation of other PERRIN parts, such as Front Mounted Intercoolers and Intakes systems.
- Take note of the 3 different mounting holes, and the multiple holes in the brackets. This will allow for different orientations to suite your install. Also the orientation of the tank can be adjusted with slight bending of the brackets.
- After installation, make sure to fill the coolant tank with halfway with water or coolant.

### Parts Included with the PERRIN Coolant Overflow Tank:

QTY	Part#	Description
1	X-ASM-ENG-505-3BK	Coolant Overflow Body Black Wrinkle
1	X-ASM-ENG-505-1BK	Coolant Overflow Top Black Anodized
1	X-ASM-ENG-505-2BK	Coolant Overflow Bottom Black Anodized
1	X-BLT-142-N70	O-Ring 2.675 x 2.881
1	X-BLT-M72X1.5MM-N70	O-Ring 72mm ID x1.5mm
55	X-HOS-112	5/16" Id Silicone Hose Black
1	X-ASM-ENG-603	Bracket Catch Can Flat 3 Hole
1	X-ASM-ENG-605	Bracket Catch Can 90 Degree
1	X-ASM-ENG-607	Bracket "C" Shape 304SS
1	X-CON-028	Plastic 5/16" Tee
2	X-BLT-3124WF-SS	1.5"OD x .31"ID x.050" Thick SS Fender Washer
1	X-BLT-M6WF-Z	M6 Flat Washer
1	X-BLT-M6X20CH10.9-Z	M6 X 20 Hex Head Bolt 10.9
1	X-BLT-M8WF-ZRC	M8 Flat Washer Zinc
1	X-BLT-M8X10CH8.8-ZFT	M8 X 10 Hex Head Bolt 8.8
1	X-BLT-M8X25CS-SS	M8 X 25 Socket Cap Screw SS
1	X-BLT-M8X25CH8.8-ZFT	M8 X 25 Hex Head Bolt 8.8
1	X-CON-078	Cap Rubber For 5/16"OD 1" Long Black
5	X-BLT-CT080B-18	Zip Tie 8" Long
2	X-BLT-M618WF-SS	M6 x 18 Fender Washer SS

### Which Way Is The Right Way?

In ALL situations, when describing left and right sides of the vehicle it is always as though you are sitting in the driver's seat looking forward. Example of a US Market Vehicle: If standing in front of the car, looking at the engine bay, the Drivers side is described as the LEFT side the vehicle.

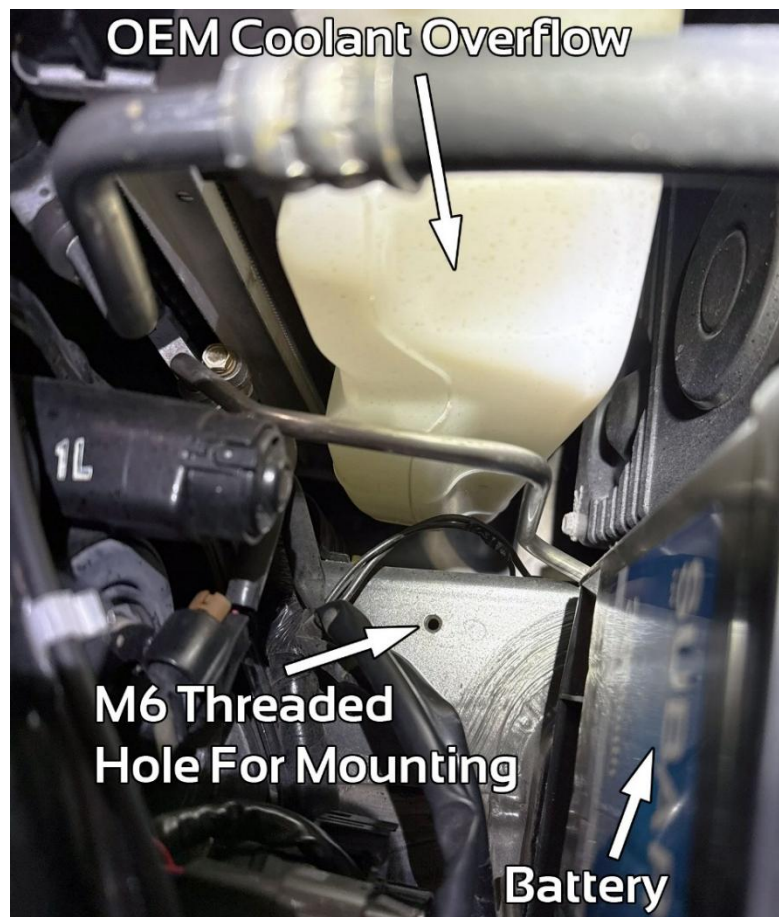


## Remove The OEM Coolant Tank (All Years and Models)

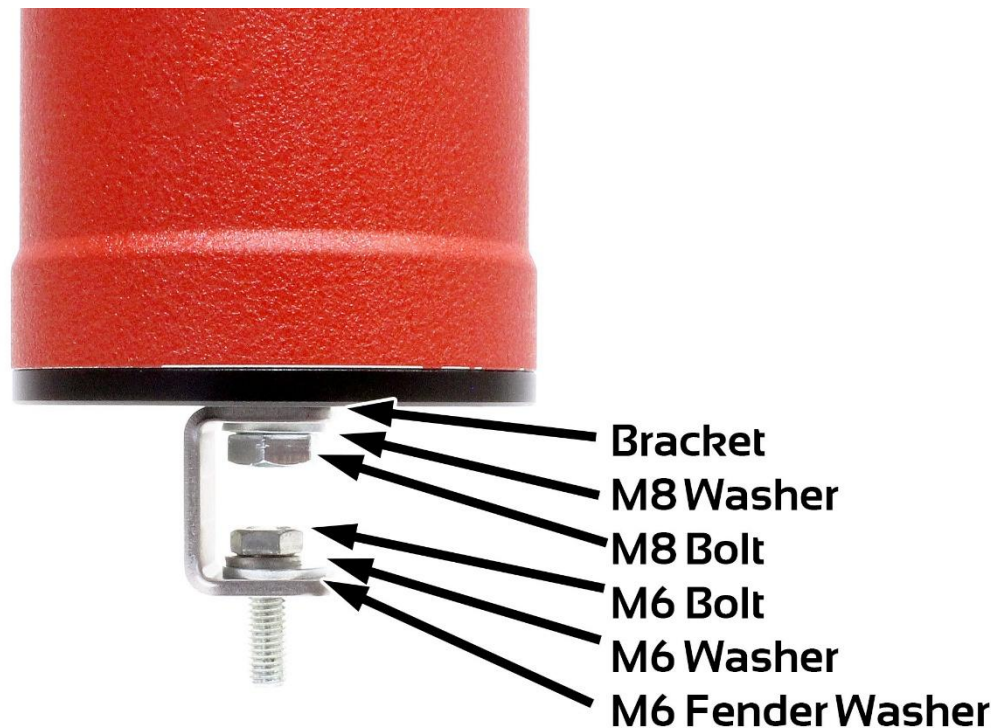
1. Remove rubber hose from coolant overflow tank, then remove hose from the coolant fill cap.
2. Remove OEM coolant overflow tank from radiator and make sure not to spill any coolant. There are two methods that are used to secured to the radiator. With clips and with bolts.
  - For all BRZ/FR-S/86/GR86 models, locate and remove (2) M6 bolts securing tank to right side of radiator, then lift tank from radiator bracket.
  - For 02-05 WRX/STI models, locate and remove (2) M6 bolts on left side of radiator, then lift tank from radiator bracket.
  - For 06+ WRX/STI models, Remove OEM coolant overflow tank from car by depressing small tab on left side of OEM coolant overflow tank, then sliding it out from the other side. Once free, lift tank from radiator bracket.

## 2002-2005 WRX/STI Installation

1. Disconnect both battery terminals and battery hold down bracket, then remove battery from car. This step is done to make it easier to access and tighten hardware. **NOTE: When removing battery make sure to not touch anything metal across terminals as this will result in large sparks and potentially fire!**
2. Locate M6 threaded hole in chassis just behind the left side headlight or in front of the battery tray. Before proceeding, test fit supplied M6 bolt into hole to ensure hole is free of debris and rust. Use penetrating oil or if hole is heavily corroded, use and M6x1.0 tap to help clear out hole.



- Using Supplied M8 bolt and washer, bolt "C" shaped bracket to one of (3) holes on bottom of coolant tank. We recommend the center hole as this will provide the best fit on most cars. Other holes can be used to help with clearance with other aftermarket parts.

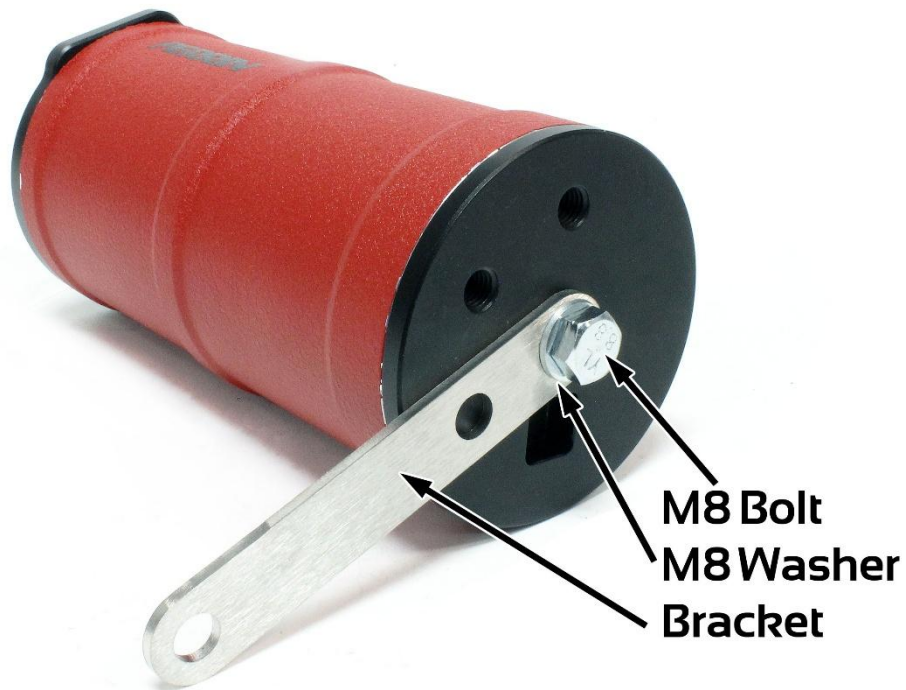


- Place tank and bracket over hole in chassis and install M6 bolt with small washer and large fender washer through bracket into chassis. Rotate tank to desired position, then tighten both M8 and M6 bolts to secure tank to chassis.
- After coolant overflow tank is installed, firmly grasp tank, and gently bend tank/bracket until it is sitting vertically in the engine bay.
- Place tank over hole in chassis and install M6 bolt with washer through bracket into chassis. Tighten both M8 and M6 bolts to secure tank to chassis.
- Push supplied 5/16" silicone hose into hole on top of tank until it touches the bottom, then pull it out 1/2" so hose doesn't touch bottom of tank. **NOTE: It is important to leave space between hose and bottom of tank to ensure system works properly.**
- Remove OEM rubber hose from small tube on back of radiator, then route 5/16" silicone hose to tube and cut hose to length.
- Remove top from PERRIN Coolant Overflow Tank and fill tank 50-75% full with coolant from OEM tank or fresh water. **NOTE: We recommend applying a small amount of grease (any kind will do) to the upper section of the PERRIN Coolant Overflow Tank. This will make for easier top removals in the future.**
- Carefully reinstall battery back to chassis, making sure not to touch anything metal across terminals.
- Start engine and take car for test drive until engine fully warms up. Park car and let the engine cool off.
  - Lift the cap up and check the level of the coolant in the tank.
  - Refill tank to at least 50% full. **NOTE: It is not abnormal after the first test drive to see a little coolant come out of the top of the can. This is the system balancing the amount of coolant needed for the engine. Cars with larger aftermarket radiators may experience larger fluctuations.**
- Follow the factory service manual for periodic checks of the coolant level. If the coolant level fluctuates between 20-90% full, then it is not necessary to add more coolant.

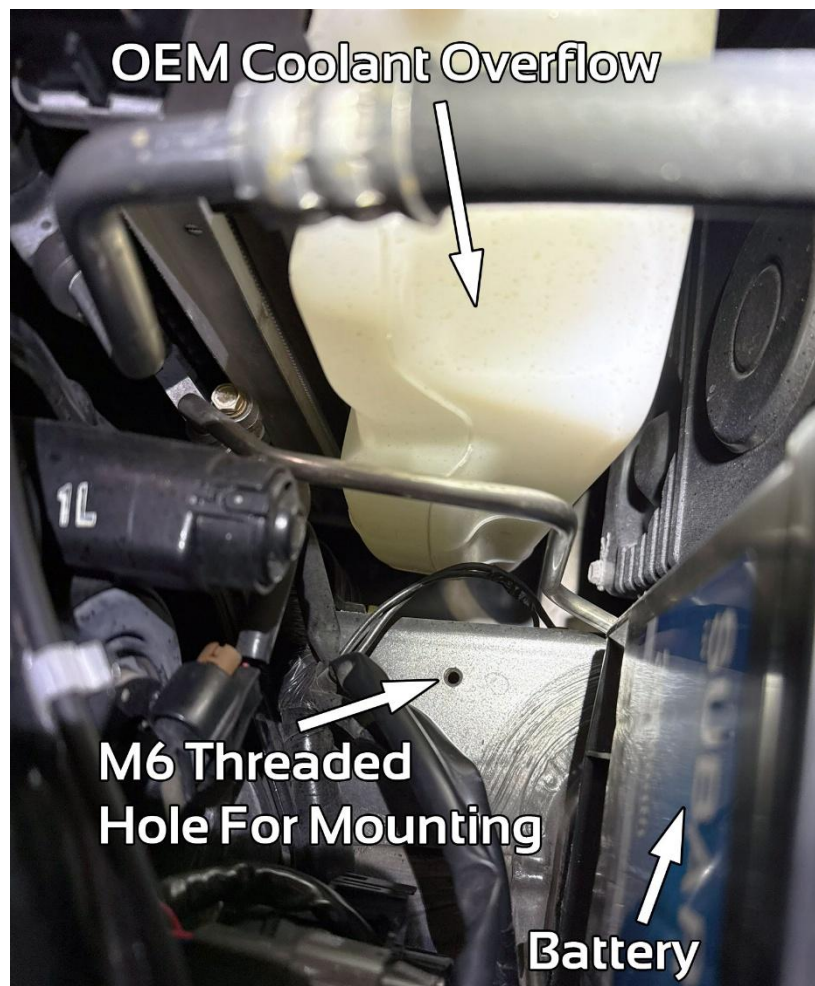
## Installation for 2006-2007 WRX/STI

- Disconnect both battery terminals and battery hold down bracket, then remove battery from car. This is done to make it easier to access and tighten hardware. **NOTE: When removing battery make sure to not touch anything metal across terminals as this will result in large sparks and potentially fire!**
- Locate M6 threaded hole in chassis just behind the left side headlight or in front of the battery tray. Before proceeding, test fit supplied M6 bolt into hole to ensure hole is free of debris and rust. Use penetrating oil or if hole is heavily corroded, use an M6x1.0 tap to help clear out hole.





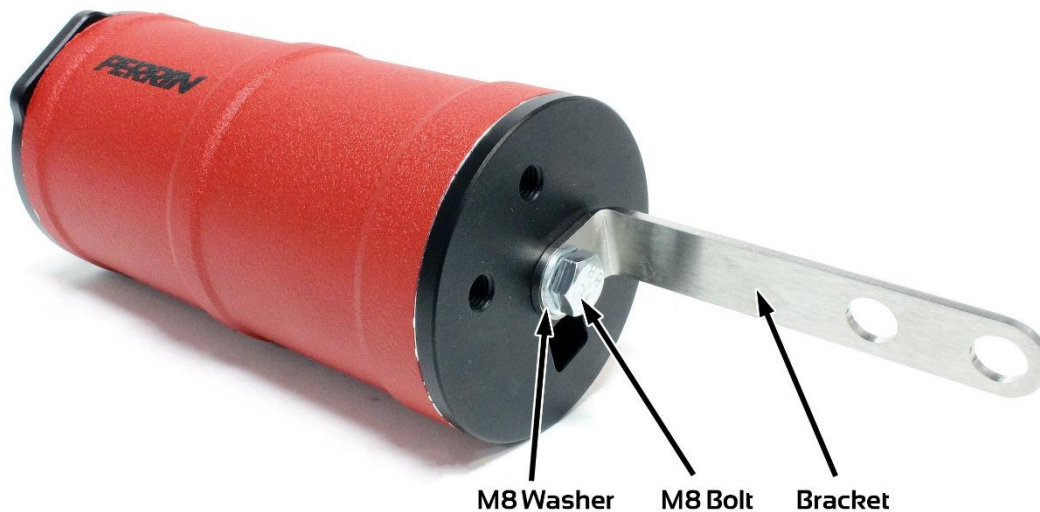
3. Using Supplied M8 Bolt and washer, bolt flat 3-hole bracket to one of (3) holes on bottom of coolant tank. We recommend the centered hole as this will provide the best fit on most cars. The other holes can be used in cases where different intercoolers are used or other aftermarket parts are installed.
4. Using supplied M6 bolt and washer, secure tank and flat bracket to threaded hole behind headlight. Tank will rest in roughly the same place as the OEM coolant tank when bolted in properly.
5. Place tank and bracket over hole in chassis and install M6 bolt with small washer and large fender washer through bracket into chassis. Rotate tank to desired position, then tighten both M8 and M6 bolts to secure tank to chassis. **NOTE: Slight bending of AC piping may be needed to clear tank. Take great care in bending these pipes as they can be fragile.**
6. Depending on the aftermarket parts installed, slight bending of bracket may be desired. This is acceptable and will not hurt the bracket.



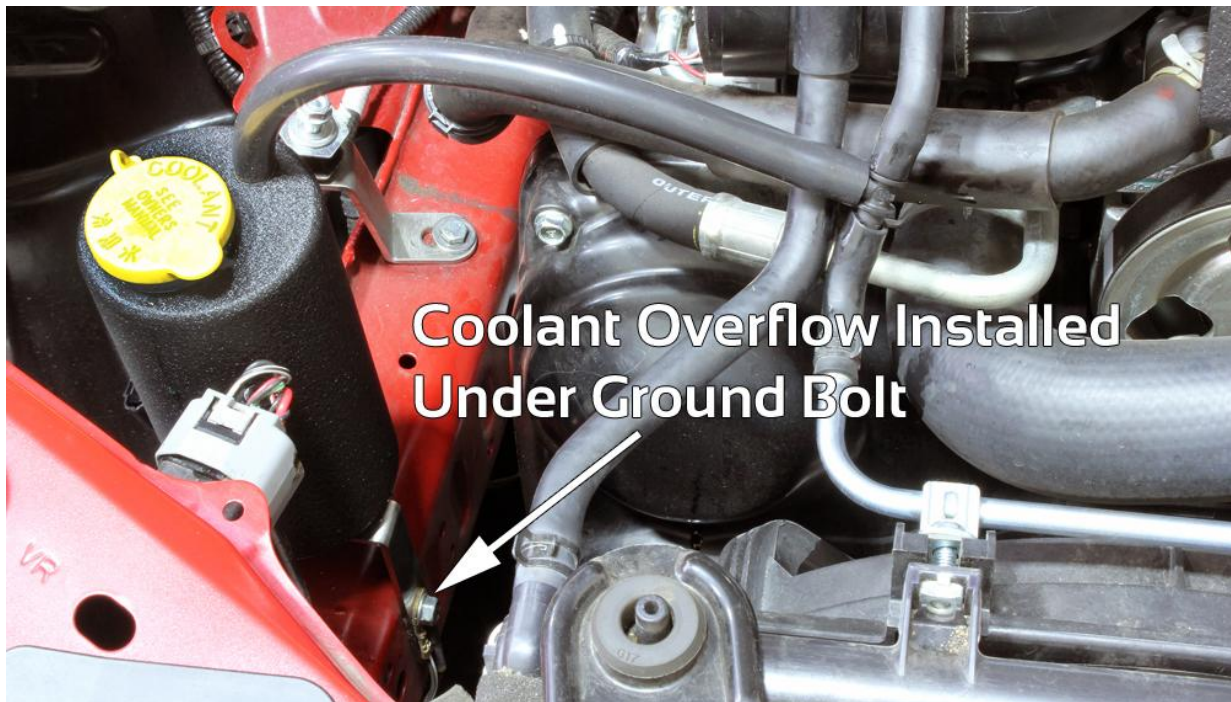
7. Push supplied 5/16" silicone hose into hole on top of tank until it touches the bottom, then pull it out 1/2" so hose doesn't touch bottom of tank. **NOTE: It is important to leave space between hose and bottom of tank to ensure system works properly.**
8. Remove OEM rubber hose from small tube on back of radiator, then route 5/16" silicone hose to tube and cut hose to length.
9. Remove top from PERRIN Coolant Overflow Tank and fill tank 50-75% full with coolant from OEM tank or fresh water. **NOTE: We recommend applying a small amount of grease (any kind will do) to the upper section of the PERRIN Coolant Overflow Tank. This will make for easier top removals in the future.**
10. Carefully reinstall battery back to chassis, making sure not to touch anything metal across terminals.
11. Start engine and take car for test drive until engine fully warms up. Park car and let the engine cool off.
  - Lift the cap up and check the level of the coolant in the tank.
  - Refill tank to at least 50% full. **NOTE: It is not abnormal after the first test drive to see a little coolant come out of the top of the can. This is the system balancing the amount of coolant needed for the engine. Cars with larger aftermarket radiators may experience larger fluctuations.**
12. Follow the factory service manual for periodic checks of the coolant level. If the coolant level fluctuates between 20-90% full, then it is not necessary to add more coolant.

## Installation for 2008-2014 WRX and 2008-2021 STI

1. Remove rubber coolant pickup hose from small coolant pipe on back of radiator, then install supplied 5/16" cap over end of pipe.
2. On the right side of the car, locate then remove the M6 bolt securing a ground wire on side of frame rail.



3. Using Supplied M8 Bolt and washer, bolt short leg of "L" bracket to one of the (3) holes on bottom of coolant tank. The hole used for this can vary depending on aftermarket parts installed.
4. Install supplied M6 fender washer to M6x20 bolt, place bolt and washer through middle hole on the bracket and then secure tank to frame rail. **NOTE: On vehicles that have the ground wire mounted here, make sure to put ground wire under head of bolt before tightening down. Once installed twisting or bending of bracket can be done to move tank to desired position.**

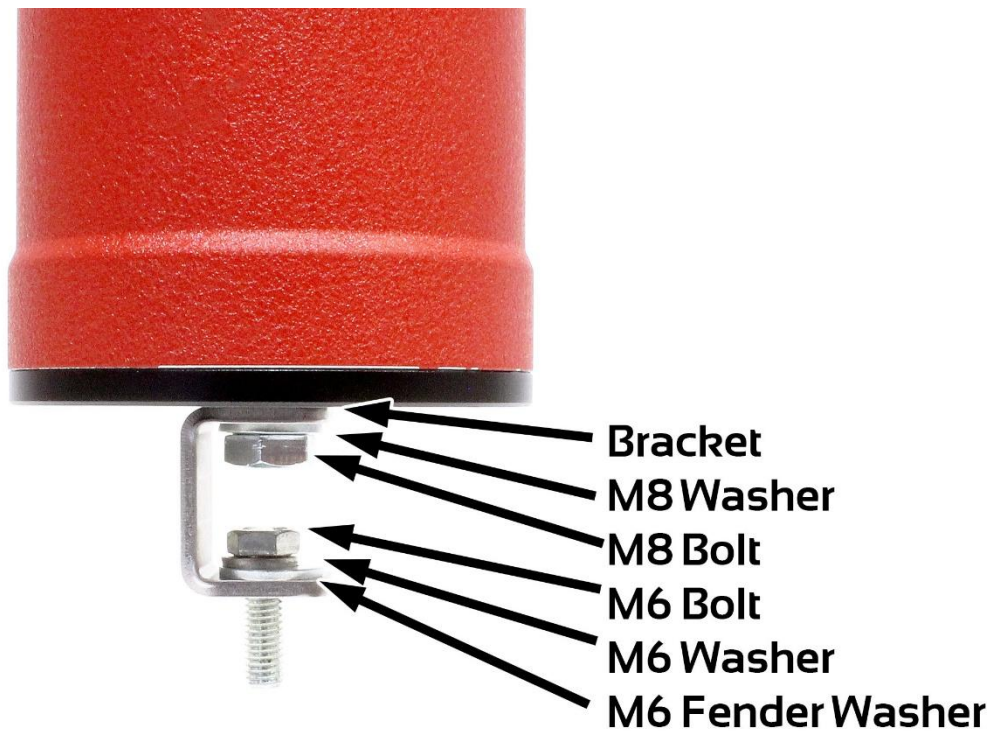


5. Push supplied 5/16" silicone hose into hole on top of tank until it touches the bottom, then pull it out 1/2" so hose doesn't touch bottom of tank. **NOTE: It is important to leave space between hose and bottom of tank to ensure system works properly.**
6. Locate OEM coolant overflow hose on right side of radiator. This is the thinner hose that connects to the pipe that was previously capped off with the 5/16" rubber cap. Cut this hose roughly halfway between the radiator and engine and join both ends to supplied 5/16" tee.
7. Connect 5/16" silicone hose from coolant overflow tank to the open leg of the tee and cut hose to length.
8. Remove top from PERRIN Coolant Overflow Tank and fill tank 50-75% full with coolant from OEM tank or fresh water. **NOTE: We recommend applying a small amount of grease (any kind will do) to the upper section of the PERRIN Coolant Overflow Tank. This will make for easier top removals in the future.**
9. Carefully reinstall battery back to chassis, making sure not to touch anything metal across terminals.
10. Start engine and take car for test drive until engine fully warms up. Park car and let the engine cool off.
  - o Lift the cap up and check the level of the coolant in the tank.
  - o Refill tank to at least 50% full. **NOTE: It is not abnormal after the first test drive to see a little coolant come out of the top of the can. This is the system balancing the amount of coolant needed for the engine. Cars with larger aftermarket radiators may experience larger fluctuations.**
11. Follow the factory service manual for periodic checks of the coolant level. If the coolant level fluctuates between 20-90% full, then it is not necessary to add more coolant.

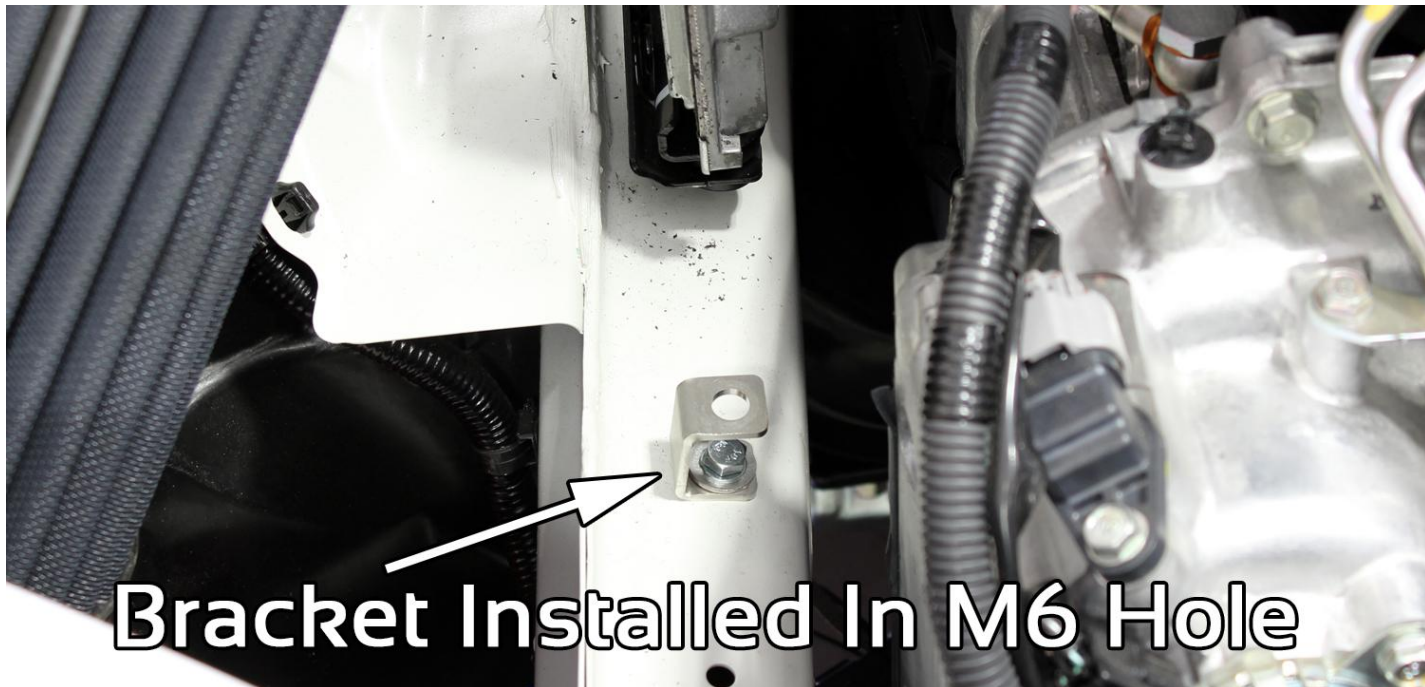
## Installation for 2015-2021 WRX (see 2022+ installation for an alternative if stock intake is installed)

1. Locate M6 threaded hole on the top of the right-side chassis frame rail. This is d (used to secure OEM intake system). Before proceeding, test fit supplied M6 bolt into hole to ensure hole is free of debris and rust. Use penetrating oil or if hole is heavily corroded, use an M6x1.0 tap to help clear out hole.
2. Using Supplied M8 bolt and washer, bolt "C" shaped bracket to one of (3) holes on bottom of coolant tank. We recommend the centered hole as this will provide the best fit on most cars. Other holes can be used to help with clearance with different aftermarket parts.

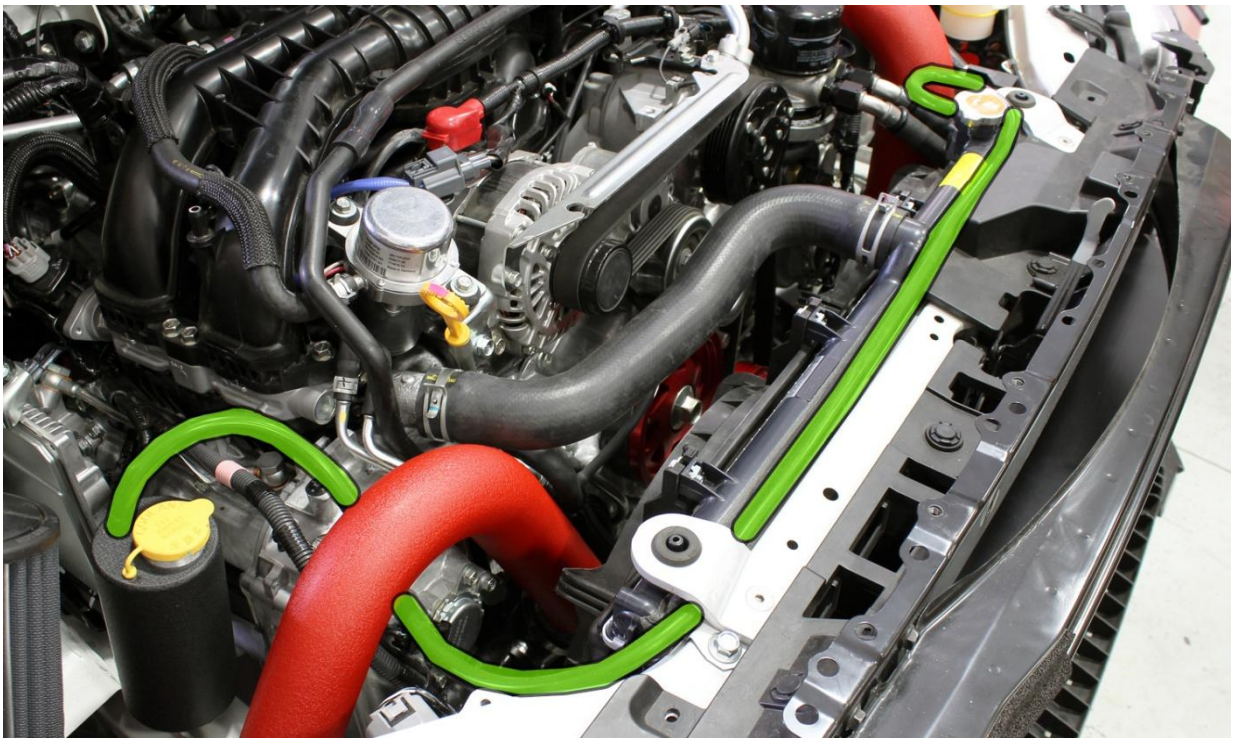




- Place tank and bracket over hole in chassis, and install M6 bolt with small washer and large fender washer through bracket into chassis. Rotate tank to desired position, then tighten both M8 and M6 bolts to secure tank to chassis. **NOTE: Above picture shows how bracket is mounted to frame rail with coolant tank removed only for visual purposes. If you choose, you can mount bracket first, then tank to bracket.**



- After coolant overflow tank is installed, firmly grasp tank and gently bend tank/bracket until it is sitting vertically in the engine bay.
- Push supplied 5/16" silicone hose into hole on top of tank until it touches the bottom, then pull it out 1/2" so hose doesn't touch bottom of tank. **NOTE: It is important to leave space between hose and bottom of tank to ensure system works properly.**

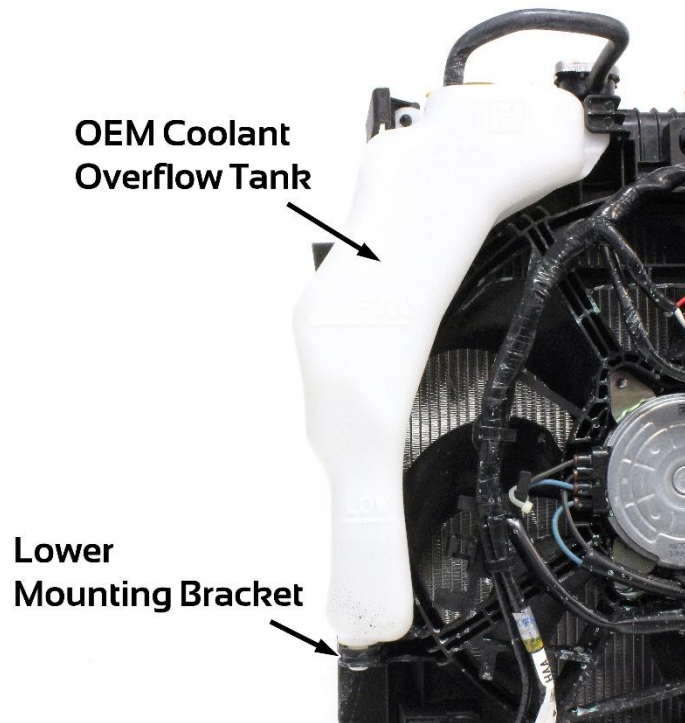


6. Route 5/16" silicone hose to tube toward engine, then in front of radiator as shown. Continue with routing hose under each of the radiator mounting brackets, then looping back to fitting below radiator fill cap. Trim hose to length and make sure hose is not pinched after it is routed.
7. Remove top from PERRIN Coolant Overflow Tank and fill tank 50-75% full with coolant from OEM tank or fresh water. **NOTE: We recommend applying a small amount of grease (any kind will do) to the upper section of the PERRIN Coolant Overflow Tank. This will make for easier top removals in the future.**
8. Carefully reinstall battery back to chassis, making sure not to touch anything metal across terminals.
9. Start engine and take car for test drive until engine fully warms up. Park car and let the engine cool off.
  - Lift the cap up and check the level of the coolant in the tank.
  - Refill tank to at least 50% full. **NOTE: It is not abnormal after the first test drive to see a little coolant come out of the top of the can. This is the system balancing the amount of coolant needed for the engine. Cars with larger aftermarket radiators may experience larger fluctuations.**
10. Follow the factory service manual for periodic checks of the coolant level. If the coolant level fluctuates between 20-90% full, then it is not necessary to add more coolant.

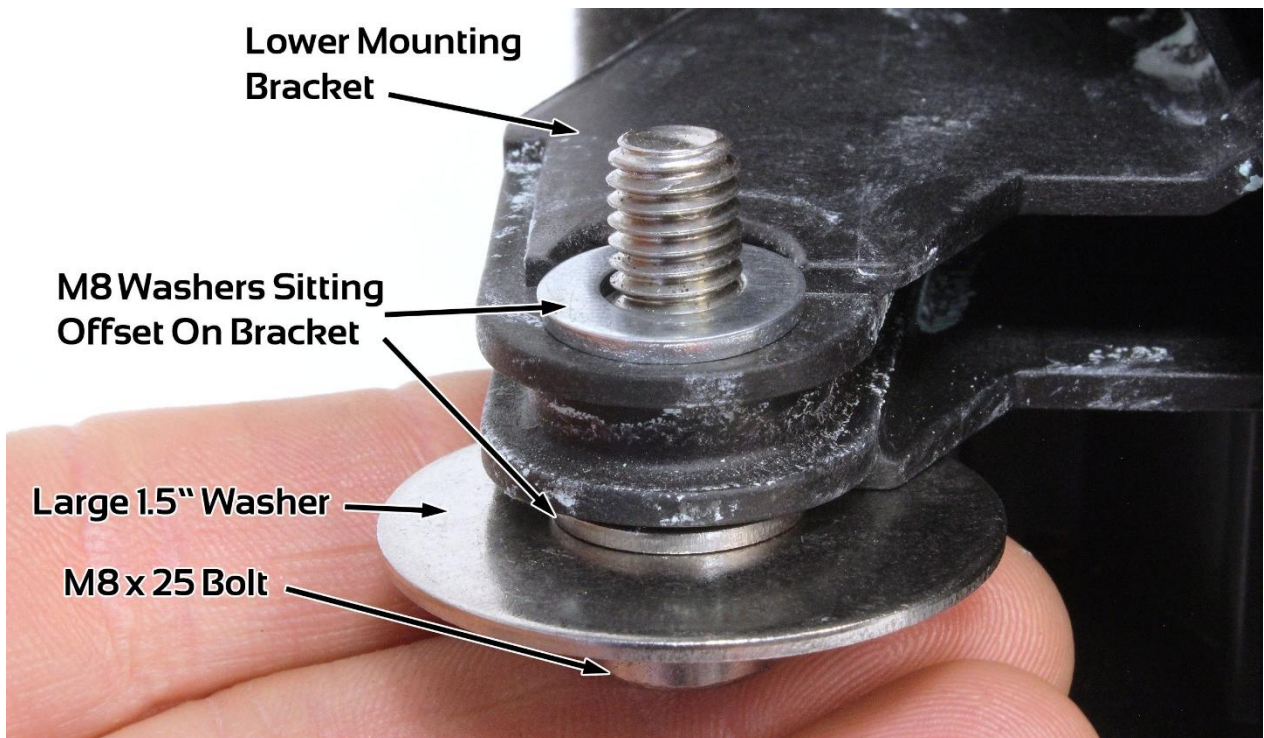
## Installation for 22+ WRX

1. Set (1) supplied M8 washer over flange on lower radiator mounting bracket as shown in picture below.
2. Install large 1.5" fender washer over supplied M8x25 screw, then install the standard M8 washer over bolt.
3. Install bolt with washers up from the bottom of the OEM coolant overflow mounting bracket as shown in picture below.



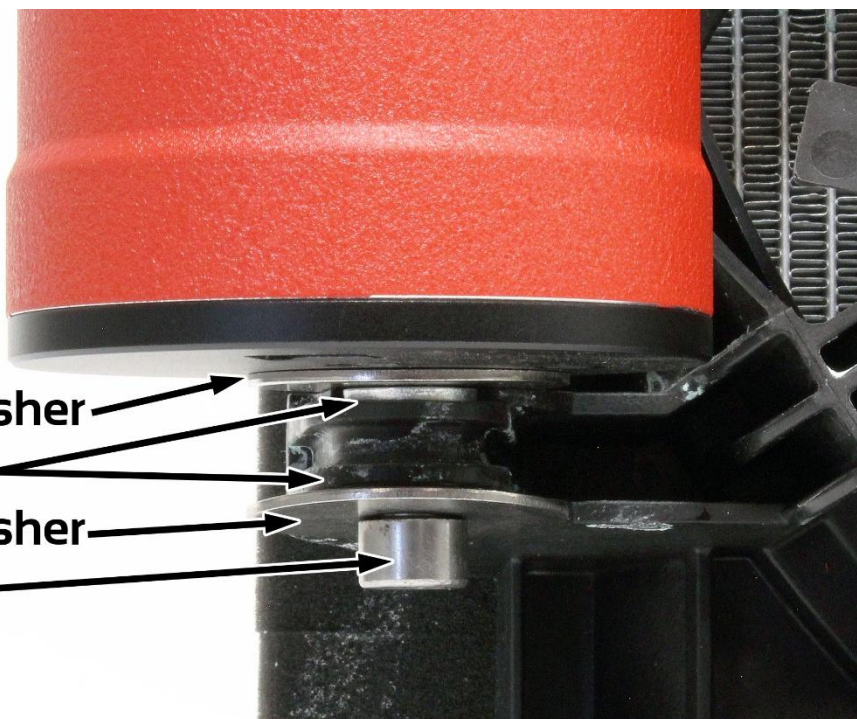


4. Install remaining large 1.5" fender washer over bolt, then make sure both M8 washers are offset before proceeding. **NOTE: Both M8 washers are using to create a flat spot for the large washers to sit flat on the plastic mounting bracket. If these are not oriented correctly, the coolant overflow may sit crooked and come loose over time.**
5. Set coolant overflow over M8 bolt and thread into one of the (3) holes in the PERRIN Coolant Tank Bottom until hand tight.
6. Rotate PERRIN Coolant Overflow Tank until its in the desired position. Tighten M8 bolt to secure coolant tank to radiator bracket.
7. Push supplied 5/16" silicone hose into hole on top of tank until it touches the bottom, then pull it out 1/2" so hose doesn't touch bottom of tank. **NOTE: It is important to leave space between hose and bottom of tank to ensure system works properly.**



8. Route 5/16" silicone hose back to fitting just below radiator fill cap. Trim hose to length and make sure hose is not pinched after it is routed.
9. Remove top from PERRIN Coolant Overflow Tank and fill tank 50-75% full of coolant from OEM tank or fresh water. **NOTE: We recommend applying a small amount of grease (any kind will do) to the upper section of the PERRIN Coolant Overflow Tank. This will make for easier top removals in the future.**

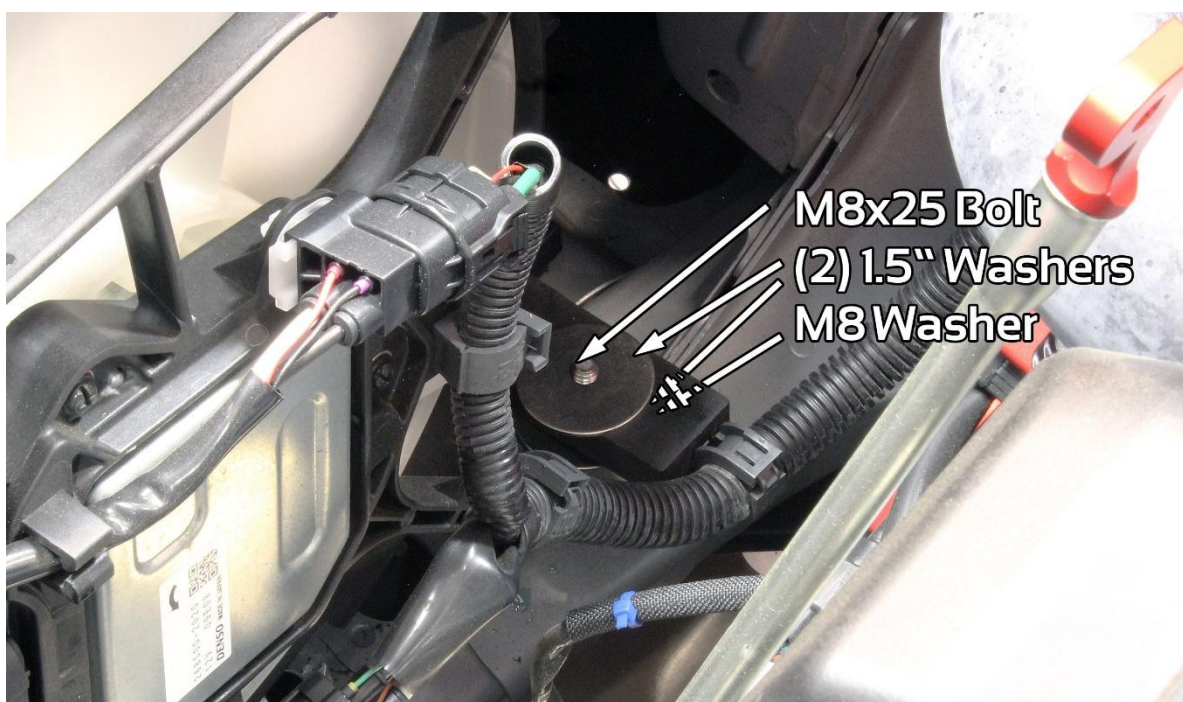
Large 1.5" Washer  
M8 Washers  
Large 1.5" Washer  
M8 x25 Bolt



10. Carefully reinstall battery back to chassis, making sure not to touch anything metal across terminals.
11. Start engine and take car for test drive until engine fully warms up. Park car and let the engine cool off.
  - Lift the cap up and check the level of the coolant in the tank.
  - Refill tank to at least 50% full. **NOTE: It is not abnormal after the first test drive to see a little coolant come out of the top of the can. This is the system balancing the amount of coolant needed for the engine. Cars with larger aftermarket radiators may experience larger fluctuations.**
12. Follow the factory service manual for periodic checks of the coolant level. If the coolant level fluctuates between 20-90% full, then it is not necessary to add more coolant.

## Installation for BRZ/FR-S/86/GR86

1. Install (1) supplied M8 washer, then large 1.5" fender washer over M8x25 hex headed bolt. Place bolt with washers through lower radiator bracket hole as shown below, then place a second 1.50" washer onto bolt.



2. Install PERRIN Coolant Overflow Tank to bolt, making sure to thread bolt into one of the outside most holes on bottom of tank.
3. Align coolant overflow tank to your desired position, then tighten M8 bolt to 10ft-lbs. During this step, the wire harness, as shown, will be compressed and move down slightly. This is normal and will not cause any issues.





4. Push supplied 5/16" silicone hose into hole on top of tank until it touches the bottom, then pull it out 1/2" so hose doesn't touch bottom of tank. **NOTE: It is important to leave space between hose and bottom of tank to ensure system works properly.**
5. Route 5/16" silicone hose back to fitting just below radiator fill cap. Trim hose to length and make sure hose is not pinched after it is routed.
6. Remove top from PERRIN Coolant Overflow Tank and fill tank 50-75% full of coolant from OEM tank or fresh water. **NOTE: We recommend applying a small amount of grease (any kind will do) to the upper section of the PERRIN Coolant Overflow Tank. This will make for easier top removals in the future.**
7. Carefully reinstall battery back to chassis, making sure not to touch anything metal across terminals.
8. Start engine and take car for test drive until engine fully warms up. Park car and let the engine cool off.
  - Lift the cap up and check the level of the coolant in the tank.
  - Refill tank to at least 50% full. **NOTE: It is not abnormal after the first test drive to see a little coolant come out of the top of the can. This is the system balancing the amount of coolant needed for the engine. Cars with larger aftermarket radiators may experience larger fluctuations.**
9. Follow the factory service manual for periodic checks of the coolant level. If the coolant level fluctuates between 20-90% full, then it is not necessary to add more coolant.

**Questions, Comments and Suggestions Contact: [Tech@PERRIN.com](mailto:Tech@PERRIN.com)**  
**Visit Our Website for Instant Chat Options at [www.PERRIN.com](http://www.PERRIN.com)**  
**Call Our Tech Team at 503-693-1702**