

PERRIN

2022+ WRX CVT Transmission Cooler For Base Models

2024-09-25

PSP-OIL-203

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:

- You will need capture all oil from OEM transmission cooler. If all oil is removed, proper CVT oil fill procedures must be followed. Follow factory service manual for proper procedure. The transmission can handle small oil level changes but if all oil from OEM cooler is removed, damage may occur to your CVT transmission.
- Make sure car has not been running for at least 3 hours to ensure oil has cooled off and drained from the OEM cooler.

Parts Included with the PERRIN WRX Oil Cooler:

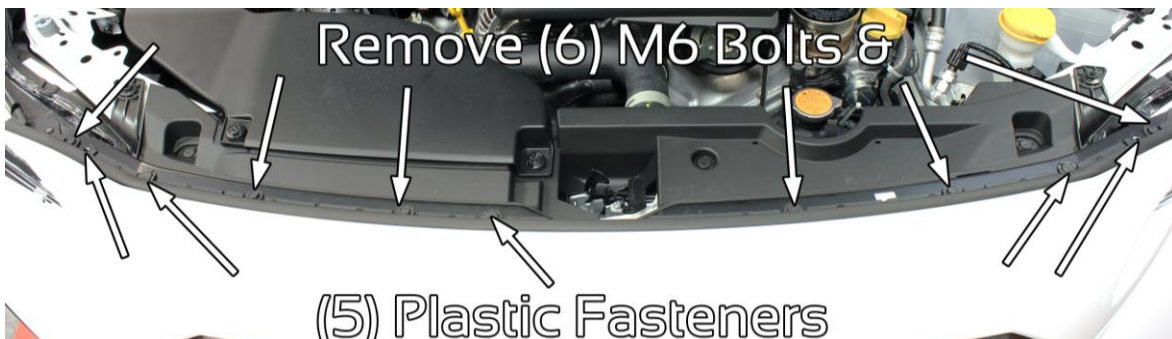
QTY	Part#	Description
1	X-PSP-OIL-013R	Bracket for Oil Cooler, Right Side for 2022+ WRX
1	X-PSP-OIL-201-2	Bracket for CVT Trans Cooler Upper/22+ WRX Oil Cooler Left
2	X-BLT-M8X10CSB-SS	M8 X 10 Button Head SS Screw
2	X-BLT-M8WF-SS	M8 Flat Washer Stainless Steel
2	X-BLT-M6X14CSB-SS	M6 x 14mm Button Head Socket cap screw SS
2	X-BLT-M618WF-SS	M6 x 18 Fender Washer SS
2	X-CON-M22PLO6-45	Fitting for M22 45 Degree x -6 Push On Type
1	X-PSP-OIL-005P	Oil Cooler Core PERRIN 8 Row x 250mm Wide w/ M22 Inlets
2	X-CON-013	Plastic 90 Degree 3/8"-3/8" Connector
2	X-CON-023	Plastic 3/8"-3/8" Straight
12.5	X-HOS-128	3/8"ID Transmission Oil Hose
8	X-CLAMP-002	Clamp Size 2 or 8-16mm
6"	XTRM-002	Door Edge Trim
1	X-PSP-OIL-100stencil	Stencil for all PERRIN Oil Coolers

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 Bumper and OEM Transmission Cooler

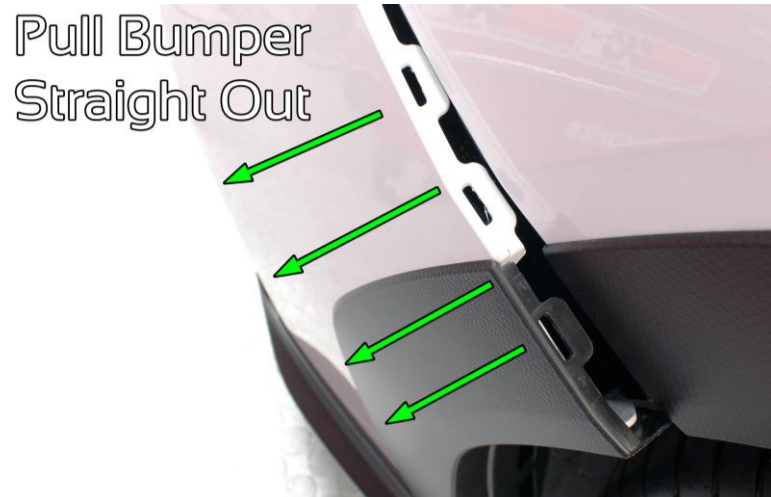
- Raise front of vehicle off ground using proper jack and jack stands. Never work under a car solely supported by a jack, death or injury may occur.
- Let vehicle cool off for at least 3 hours to ensure engine oil and coolant will not burn you. This also gives enough time for all the oil to drain out of the oil filter.



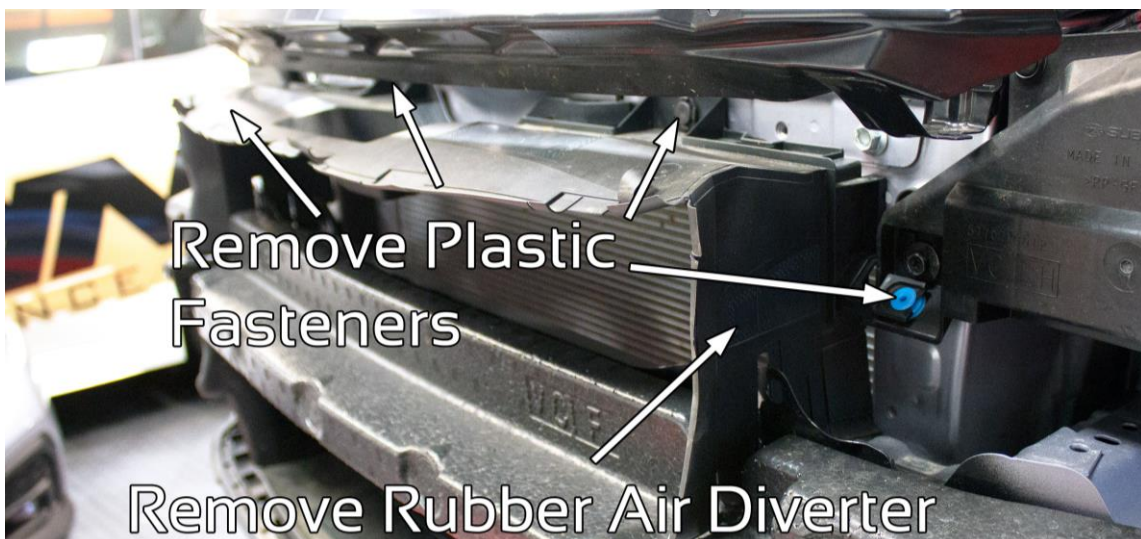
3. Remove front bumper skin from vehicle.
 - a. Remove (5) plastic fasteners and (6) M6 bolts securing the upper portion of the bumper to the car on upper portion of grill. Remove black steel hood trim bracket after these are removed. See diagram above.
 - b. Locate and remove (2) plastic fittings on inside of each fender well.



- a. Under the car, remove (8) plastic fasteners as shown above. Take note that not all of the plastic fasteners need to be removed.
- b. Starting at outer edges of bumper where it meets the steel fender, pull straight out. Do this on both sides.



- c. Pull bumper from around each headlight to be able to unplug each fog light/blinker. **Note: There are two plugs, one at the fog light and one toward the chassis. Unplug only the one at the chassis as this is easier to reinstall.**
 - d. Carefully remove bumper from car and place in a safe area.
4. Locate and remove (2) plastic fasteners securing rubber air diverter to car. With fittings removed, unsnap corners from headlight brackets and remove rubber air diverter from car.



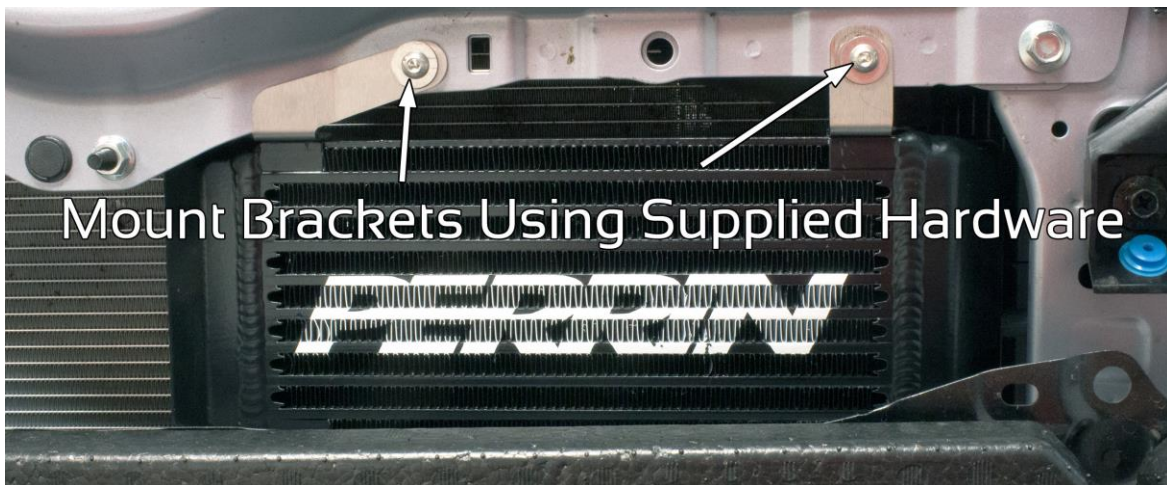
5. Remove (3) M8 bolts securing OEM transmission cooler to radiator support.
6. Pull OEM core up and away from bumper area to make for easier access of the hoses and clamps, then pinch the clamps and slide down hose in preparation for installation of PERRIN Oil Cooler.

Install PERRIN Oil Cooler

1. Using supplied M8x10 bolts and M8 washer, secure supplied brackets to oil cooler as shown. Make sure taller/longer leg of 90 degree bracket is NOT mounted to the core. Lightly tighten bolts so the brackets can just barely move with force. **NOTE: Using any other size bolt will cause damage to oil cooler. Only use supplied M8x10 bolts!**



2. Apply a small amount of oil or grease to threads on a 45 degree bent swivel fitting and inside of oil cooler, then install fittings into core and tighten to 30ft-lbs. **NOTE: Take time while threading it in to ensure it does not get cross threaded. The fitting seals using an O-ring and will seal as soon as the fitting is bottomed out. Given that info, and that the fittings are hard to get an actual torque wrench on, as long as the fittings are tightened slightly more than hand tight, they will not leak or come loose over time.**
3. Apply a small amount of grease or oil to barbed fittings, then install entire loop of supplied 3/8" transmission hose to each fitting. Secure each hose to fitting using supplied hose clamp. **NOTE: Hose must be pushed onto fitting until they completely stop at the small floating washer, or they will not be properly sealed.**
4. Locate upper radiator support and the (2) threaded holes where brackets will be mounted to. Drop oil cooler and hoses behind bumper beam and install oil cooler to core support using supplied M6 bolts and fender washers.



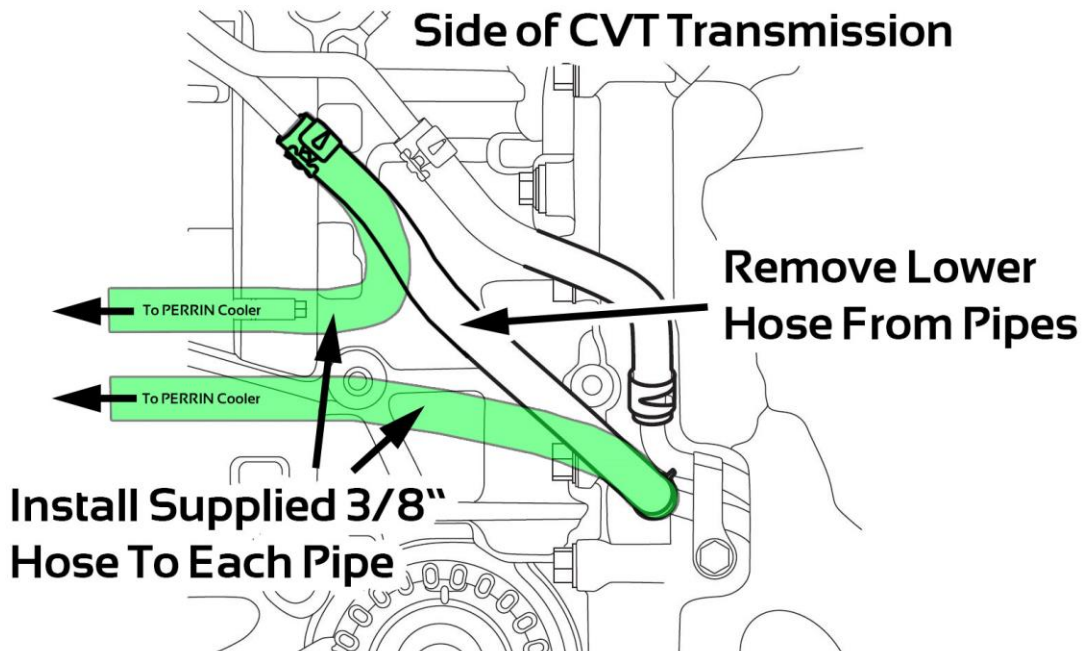
5. Before tightening any of the bolts, align brackets to oil cooler and radiator support to achieve the desired position. Carefully remove oil cooler with brackets from radiator support and tighten M8 bolts to 15ft-lbs to secure brackets to oil cooler. This step may take a few times until oil cooler is in its desired position.



6. Route hose (continuous loop of it) smoothly from the PERRIN Oil Cooler toward the open area under the headlight. Make sure there are no kinks or pinched off areas as it is routed through here.
7. Continue routing hose along frame rail down toward left side of transmission. Make sure to route hose away from moving parts such as the steering rack. A few notes about routing the hoses:
 - Do not secure hose at this time as you may need to re-route hose after connecting them to the transmission.
 - Hose may become slightly rotated in an undesirable way. This can be fixed after the hose is first cut to length in follow steps.
 - We recommend following the path of the AC pipe that is mounted on the frame rail as the hose can be secured to this in later steps.
 - Included is some edge trim that can be used to protect hose from sharp edge that it may pass by.

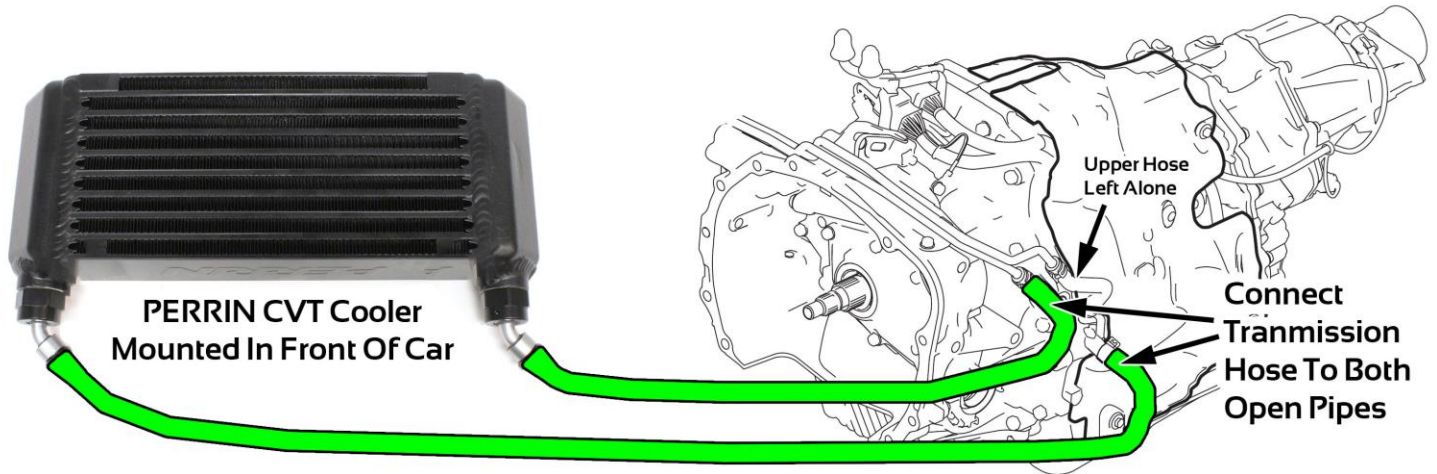
Connecting Hoses To Transmission

Under the car, locate the upper and lower transmission oil lines on the left side of the transmission. The lower hose is the one that the PERRIN CVT Cooler will be joined to. The PERRIN CVT Cooler is installed so it creates a loop from one pipe to the cooler and back to the remaining pipe.



1. Using the picture above, locate and remove lower transmission hose from the left side of the transmission and be prepared to catch oil (roughly ½ cup) as it comes out of the hose.
2. Route hose from PERRIN CVT Cooler toward the (2) left open pipes on transmission. Make a rough cut in looped 3/8" hose to split hose into (2) pieces. **NOTE: Make sure that the rough cut of the hoses will allow each hose to easily connect to pipes on transmission.**

3. Connect either hose from the PERRIN CVT Cooler to the lower pipe on the transmission.
4. Run hose toward lower pipe connection and cut hose to best fit. **NOTE: When cutting hose it's always better to cut it long and have to remove additional hose later on. We recommend leaving a few extra inches of length little extra length to this hose to ensure**
5. Included are (2) straight and (2) 90 degree connectors that can be used to make sure hose is not kinked or pinched. If these are used, make sure and secure hoses with supplied hose clamps.
6. Included with this kit are (2) straight hose connectors and (2) 90 degree connectors. These can be used to help with routing hoses around parts of the car and be used to keep hoses from being kinked or pinched off. If these are used, make sure and secure hoses with supplied hose clamps.



First Start After Installation

1. Reinstall intake tube that was removed earlier. Start your car like normal and let it run for 5 seconds, then shut engine off. **Thoroughly inspect all oil lines and connections for leaks.** If no leaks are found, start engine, let it run for at least 5 minutes. During this time check all hoses and fittings for leaks. If any are found, stop the engine and fix, then retest.
2. If no leaks are found, reinstall bumper back to car in the reverse order it was removed.
3. Take car for 15min test drive and check to make sure that there are no visible oil leaks. If any leaks are found, stop and repair.
4. The PERRIN CVT Cooler will require the CVT oil to be topped off. Follow factory service manual as to the procedures how to check the oil level and properly fill it up. Do not drive car under high loads or for extended periods of time without having this procedure done.

Questions, Comments and Suggestions Contact: Tech@PERRIN.com
Visit Our Website for Instant Chat Options at www.PERRIN.com
Call Our Tech Team at 503-693-1702