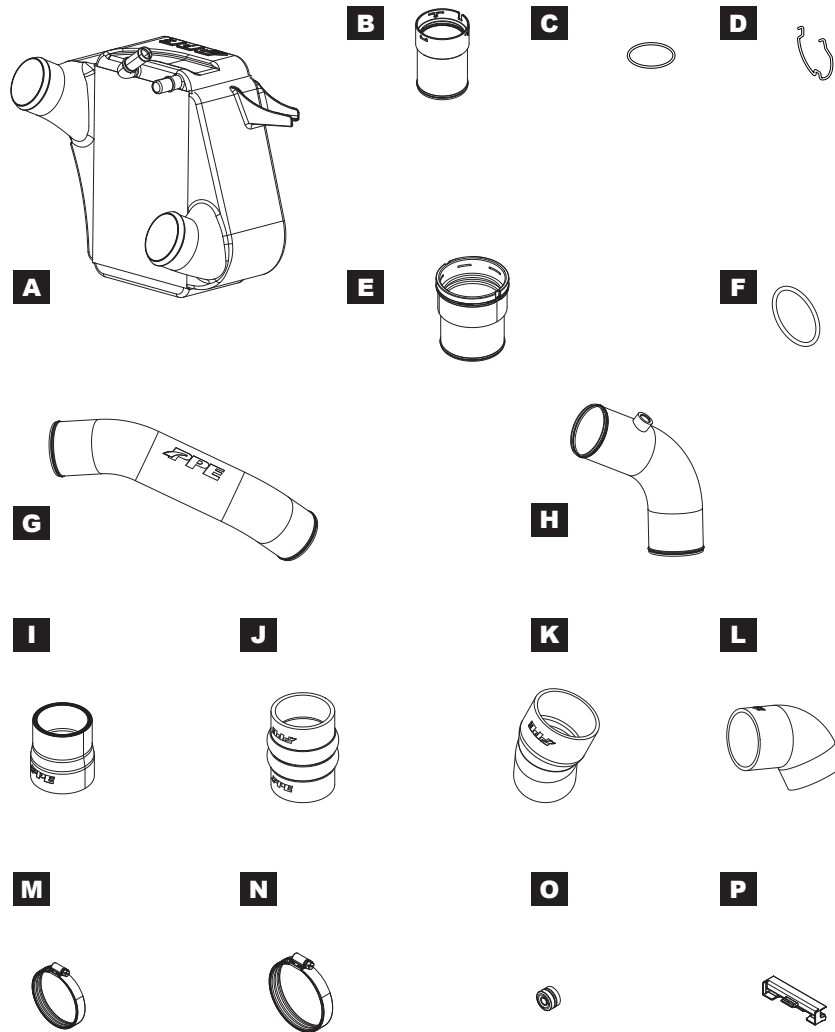


## **Intercooler Kit - Water to Air**

*2011-2023 Ford  
Super Duty  
6.7L Power Stroke*

*(315045100), (315045112), (315045120), (315045122)*

### ***Installation Guide***



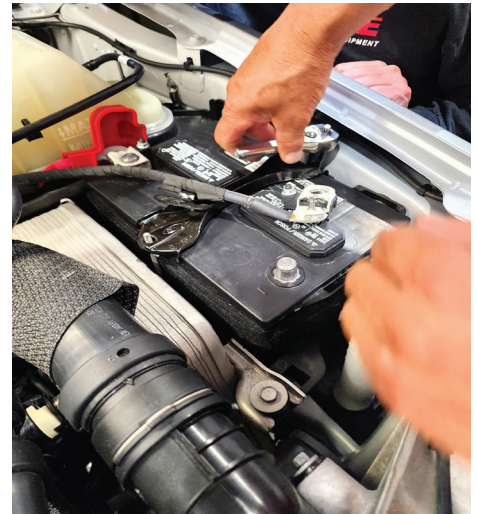
### CONTENTS:

- A** (1) Intercooler
- B** (1) Aluminum Turbo Adapter
- C** (1) O-Ring for Turbo Adapter
- D** (1) Clip for Turbo Adapter
- E** (1) Aluminum Throttle Body Adapter
- F** (1) Big O-Ring for Throttle Body Adapter
- G** (1) Hot Side Pipe
- H** (1) Cold Side Pipe
- I** (1) Turbo Coupler
- J** (1) Inlet Coupler
- K** (1) Throttle Body Coupler
- L** (1) Outlet Coupler
- M** (7) Constant Tension W-Clamp 65-89
- N** (1) Constant Tension W-Clamp 78-102
- O** (1) Rubber Grommet with Aluminum Insert
- P** (1) Rubber Bushing-Rear Intercooler

## INSTALLATION:

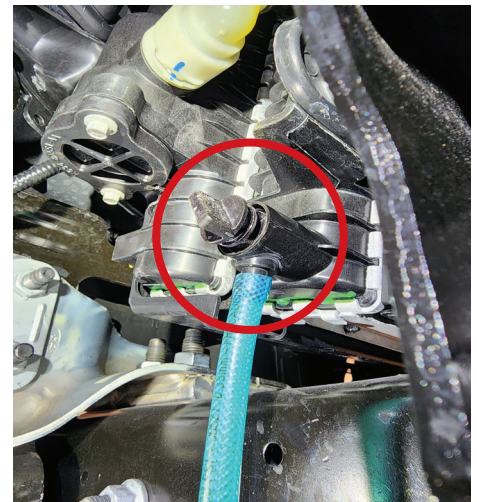
**Step 1:** Vehicle off and cool.

**Step 2:** Disconnect both batteries at the negative terminals. **(Fig.1)**



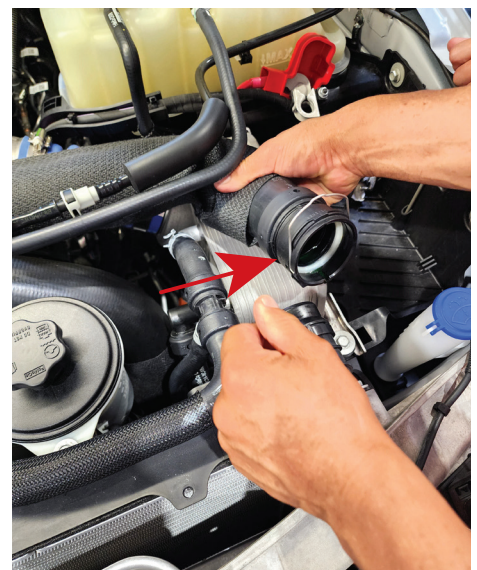
**Fig.1**

**Step 3:** Remove both the charge air coolant reservoir cap and coolant overflow tank cap. Drain coolant from the main radiator by locating the drain petcock on the lower driver side of the radiator. Next, drain coolant from the secondary radiator (Right in front of the main radiator) by locating the petcock located on the lower passenger side of the secondary radiator. **(Fig.2)**



**Fig.2**

**Step 4:** Disconnect the upper radiator hose and set aside. **(Fig.3)**



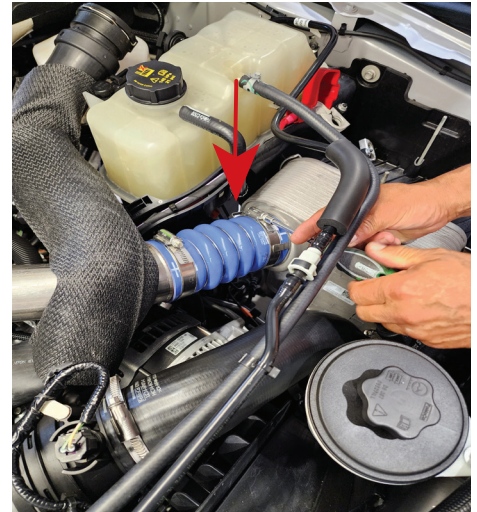
**Fig.3**



**Step 5:** Remove the hot charge pipe by disconnecting the retaining clip at the turbo, and the clamp from the factory intercooler. **(Fig.4, 5)**



**Fig.4**



**Fig.5**

**Step 6:** Disconnect the IAT (Intake Air Temperature) sensor from the cold side charge pipe and set aside. **(Fig.6)**

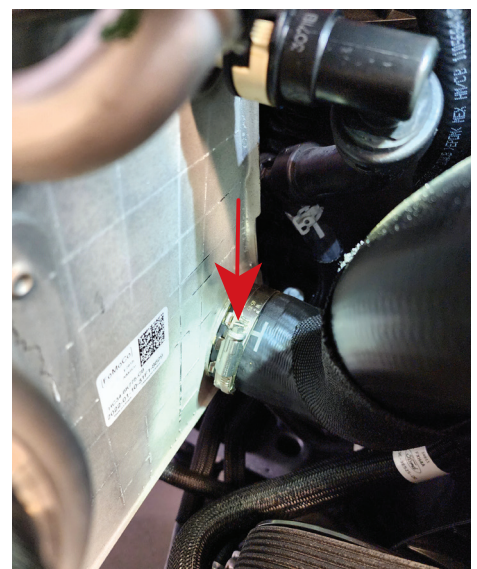


**Fig.6**

**Step 7:** Remove the cold charge pipe by disconnecting the retaining clip from the throttle body and the clamp from the factory intercooler. **(Fig.7,8)**



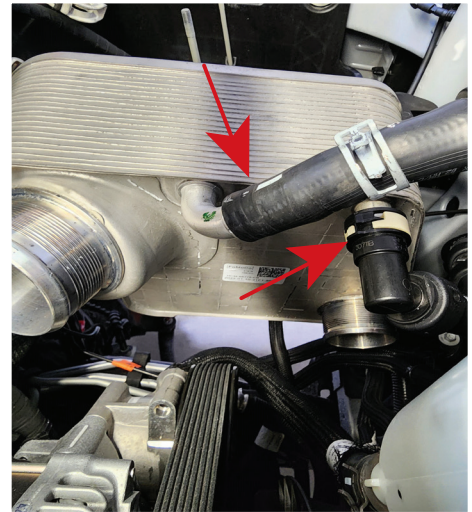
**Fig.7**



**Fig.8**

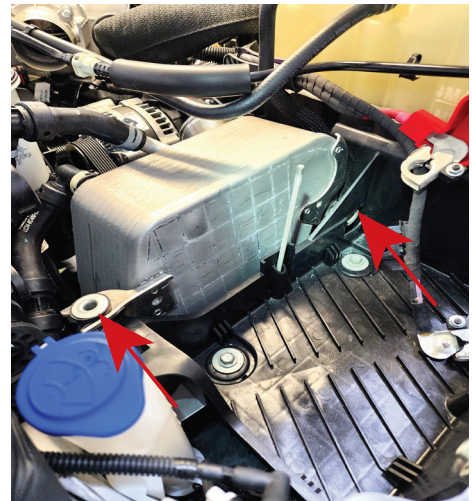


**Step 8:** Remove the coolant lines from the factory intercooler. **(Fig.9)**



**Fig.9**

**Step 9:** Begin the removal of the factory intercooler by taking out and safely storing the two 13mm bolts that are currently securing it to the battery tray. You'll need these bolts in a later step of the installation process. **(Fig.10)**. Carefully drain out any remaining coolant.



**Fig.10**

**Step 10:** Prepare the PPE intercooler installation with the following:

Install the supplied rubber grommet **O** **(Fig.11)**

Install the supplied rubber bushing **P** **(Fig.12)**



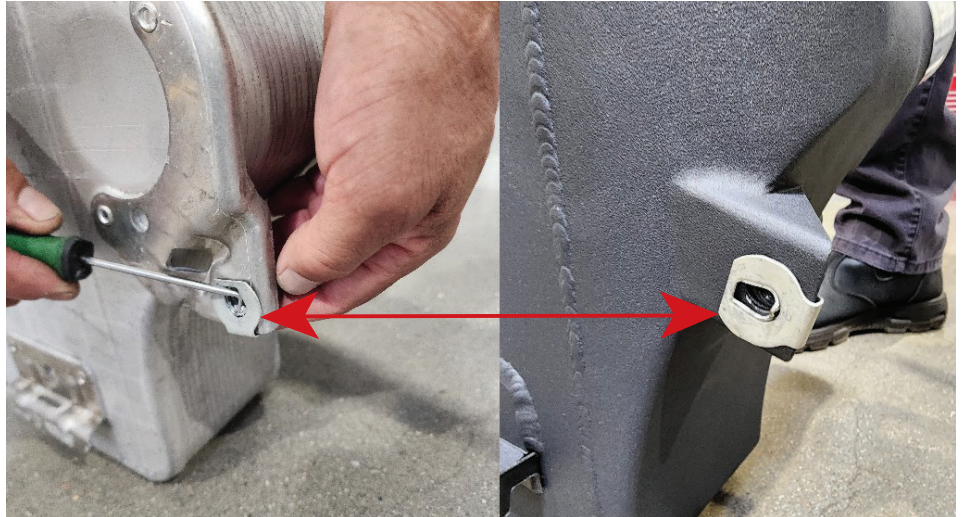
**Fig.11**



**Fig.12**

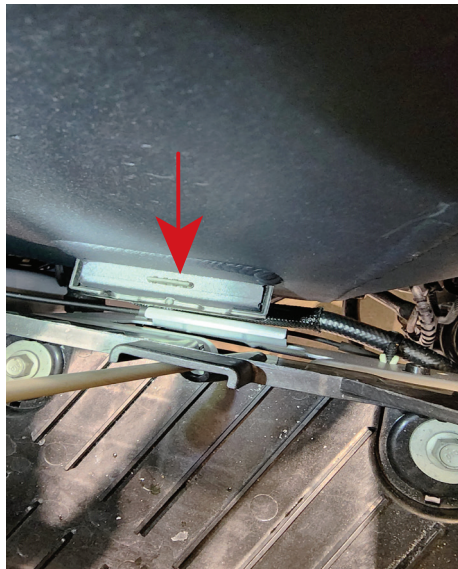


**Step 10: Continued:**  
Transfer the U-nut (**Fig.13**).



**Fig.13**

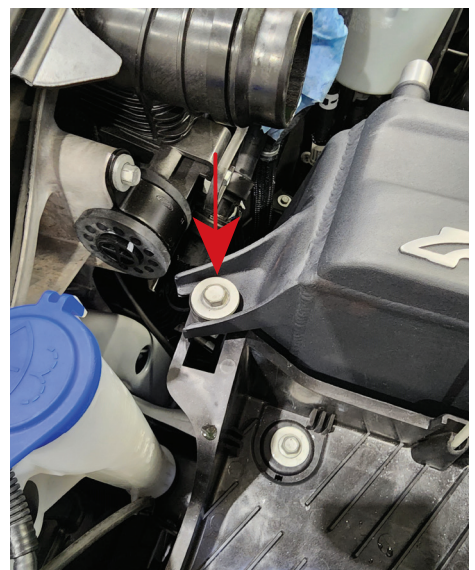
**Step 11:** Carefully position the PPE intercooler, making sure the rubber bushing is securely in place on the support bracket located behind the battery tray (**Fig.14**). Reattach and tighten the intercooler using the two factory 13mm bolts to the battery tray. (**Fig.15, 16**)



**Fig.14**



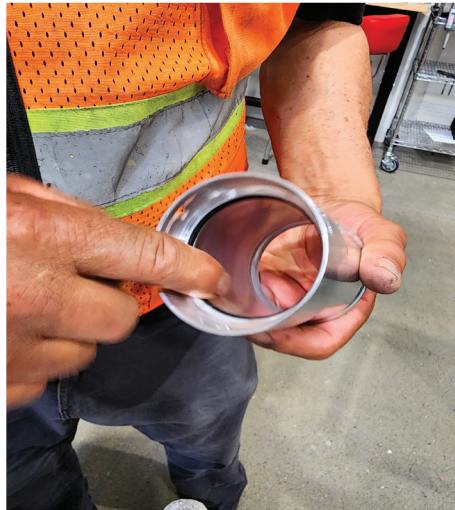
**Fig.15**



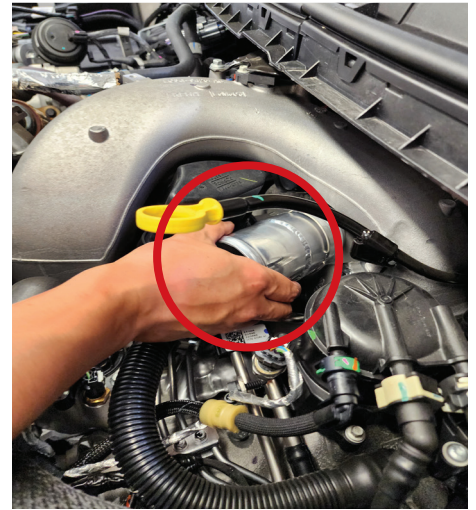
**Fig.16**



**Step 12:** Begin the hot charge pipe installation by ensuring that the clip **D** is securely attached to the turbo adapter **B**. Apply a thin layer of silicone lubricant to the O-ring **C**, (**Fig.17**) and then gently slide the adapter onto the turbo (**Fig.18**).

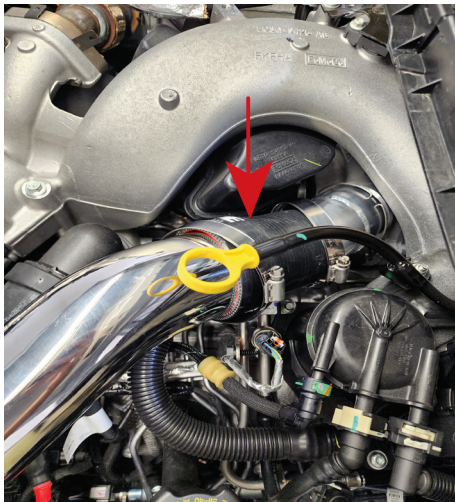


**Fig.17**

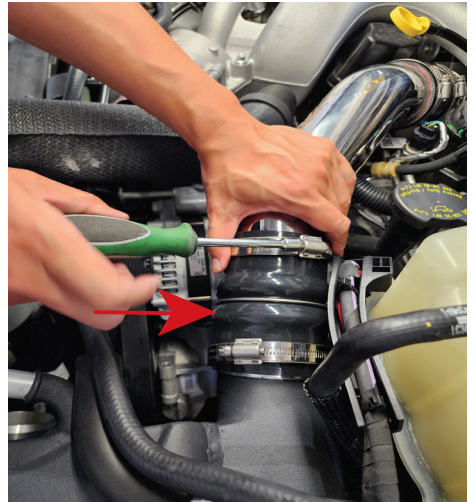


**Fig.18**

**Step 13:** Place the coupler **I** with two 65-89mm clamps **M** onto the turbo adapter, securing it in position. Next, attach the hot side pipe as shown in (**Fig.19**). Afterward, slide the coupler **J** and the two 65-89mm clamps over the hot pipe and onto the inlet of the PPE intercooler (**Fig.20**).



**Fig.19**



**Fig.20**

**Step 14:** Begin the cold charge pipe installation by pre-assembling tube **H**, couplers **K L**, throttle body adapter **E**, and aligning them according to the configuration and orientation depicted in (**Fig.21**). This section will require one 78-102mm clamp **M** & three 65-89mm clamps **N**.



**Fig.21**



**Step 15:** Transfer the factory throttle body adapter clip over to the PPE adapter **E** along with installing the supplied O-ring **F** (**Fig.22**), then apply a thin layer of silicone lubricant to the O-ring.



**Fig.22**

**Step 16:** Lower the cold side tube assembly until the coupler is fully seated on the PPE intercooler outlet (**Fig.23,24**).



**Fig.23**



**Fig.24**

**Step 17:** Slide the PPE adapter **E** over the throttle body ensuring the clip is fully locked. Note the PPE logo on the coupler for proper orientation (**Fig.25**).



**Fig.25**

**Step 18:** Carefully adjust the positioning of couplers and charge pipes to achieve optimal fitment, ensuring there is no interference with surrounding components. Once aligned correctly, securely tighten all clamps.

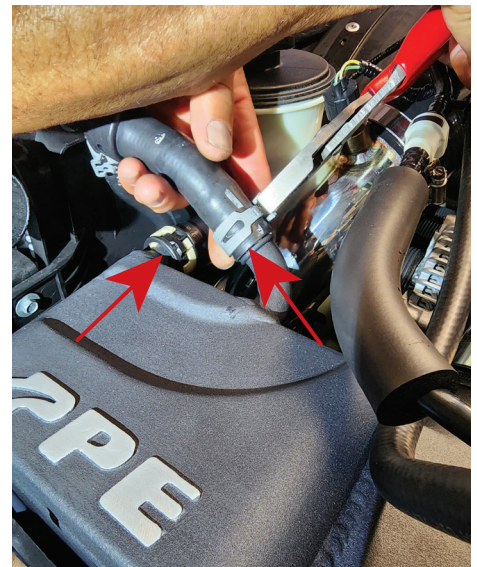
**Step 19:** Install the IAT (Intake Air Temperature) sensor (**Fig.26**).

**Step 20:** Reconnect the coolant lines to the PPE intercooler (**Fig.27**).

**Step 21:** Reconnect the upper radiator hose (**Fig.28**).



**Fig.26**



**Fig.27**



**Fig.28**



**Step 22:** Reinstall and connect the batteries along with the hold down bracket.

**Step 23:** Fill both radiator coolant reservoir and charge air coolant reservoir with manufacturer recommended coolant.

**Step 24:** Place the supplied CARB E.O. label on a clean, visible location under the hood.

**Installation Complete**



**Fig.29**



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## **DISCLAIMER OF LIABILITY**

Performance products can increase horsepower above and beyond factory specifications. Additional horsepower creates more stress on the drive-train components, which could result in drive-train failure.

Note regarding emissions-related, non-E.O.-legal products: THESE PRODUCTS ARE LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES THAT MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR HIGHWAY OR OFF-ROAD USE.

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The Seller gives Limited Warranty as to description, quality, merchantability, and fitness for a particular purpose, productiveness, or any other matter of Seller's product sold herewith. The Seller shall not be responsible for the products proper use and service and the Buyer hereby waives all rights other than those expressly written herein. This warranty shall not be extended, altered or varied except by a written instrument signed by Seller and Buyer.

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