CCS OIL CATCH CAN KIT FOR 2015+ FORD F-150 3.5L V6, RAPTOR R 5.2L V8

PART NO. CCS-FR-100

MADE IN USA



Important: Read these instructions in their entirety prior to installation.

For contact information, visit www.improvedracing.com

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Rev 260721

PARTS CHECK

- Visit the website product page to confirm vehicle application and confirm all parts have arrived by checking the images:

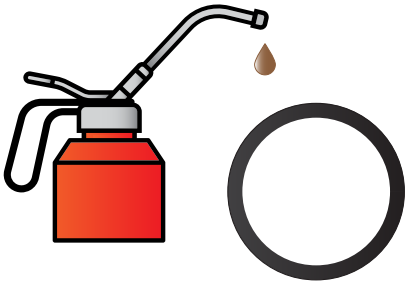
INSTALLATION INSTRUCTIONS

BEFORE YOU BEGIN

⚠ **WARNING: This product should be installed by a qualified mechanic.**

⚠ **WARNING: Improper installation could result in severe engine damage.**

- Lubricate all quick connect fitting barbs before connecting the hoses.
- Lubricate all visible O-rings prior to installation to prevent damage and ensure a leak-free seal.
- Use aluminum tools to avoid damaging the aluminum fittings.



REMOVING THE FORD PCV TUBE

⚠ **WARNING: Confirm the car is not hot prior to installation.**

1. Open the hood to access the engine compartment.
2. Use a 10mm tool to disconnect the battery and remove the engine cover.
3. Find the tube on the passenger side of the engine, shown in **Figure 1**.

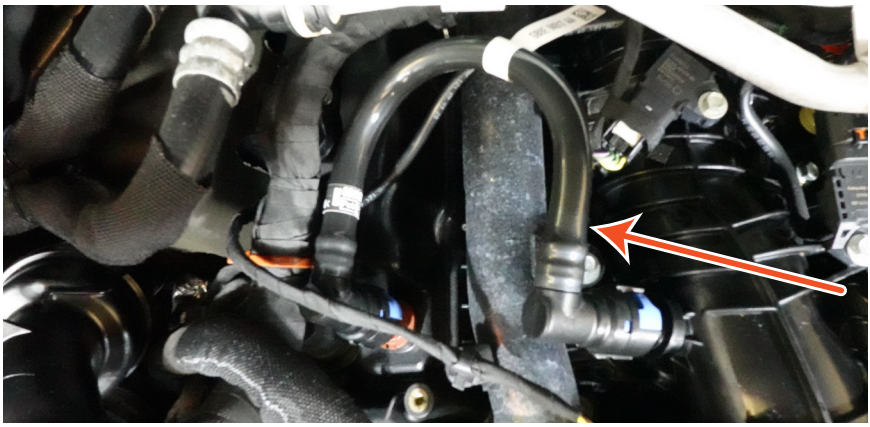


Figure 1 - PCV Tube Location on Engine

4. Remove the tube by lifting and rotating the tab, shown in **Figure 2**.

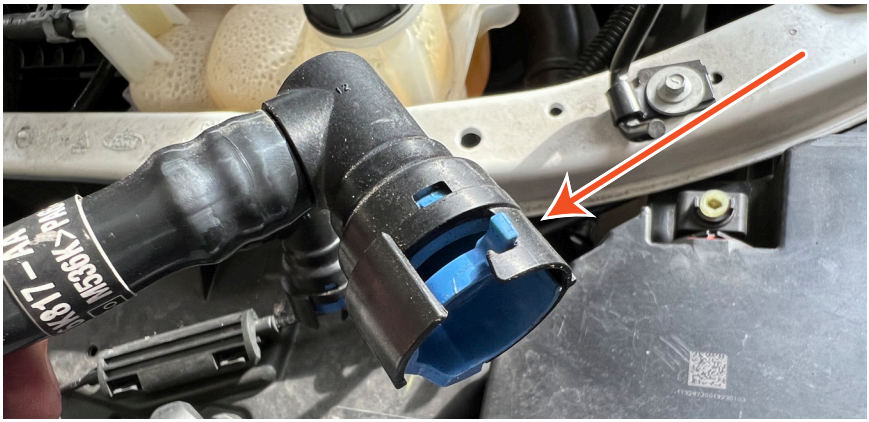


Figure 2 - PCV Tube Release Tabs

5. Set the tube aside: This part will no longer be used.

MOUNTING THE CATCH CAN BRACKET

1. Locate the ground wire stud on the firewall, shown in **Figure 3**, and remove the nut using a 15mm tool.
2. Leave the ground wire on the stud.
3. Carefully cut the zip-tie holding the ground wire to the plastic wire holder, then remove the plastic wire holder from the stud and set aside because it is no longer needed.

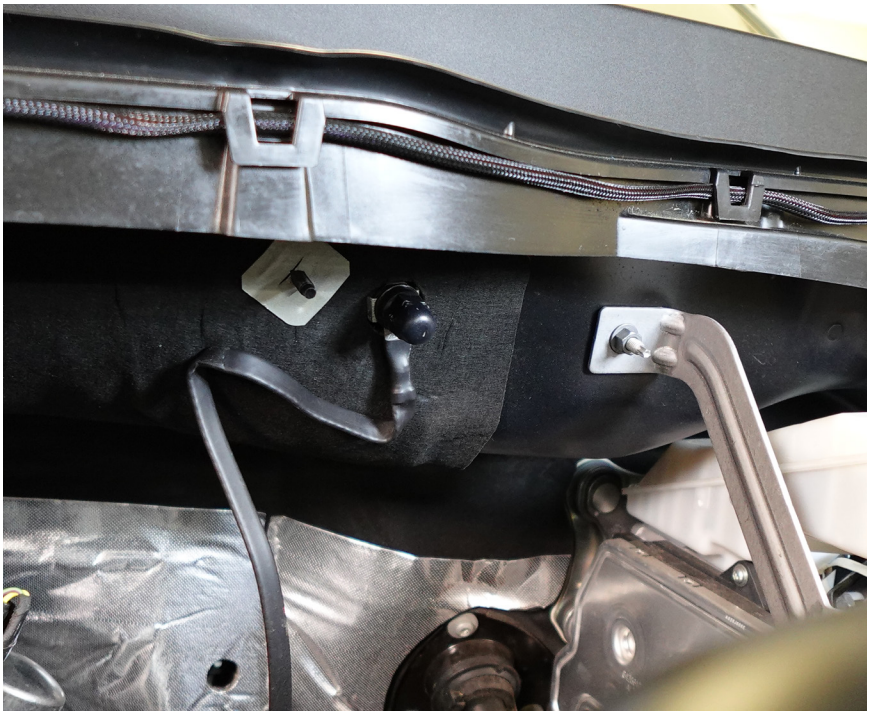


Figure 3 - Ground Wire Studs on Firewall

4. Confirm the ground wire is still on the stud, then install the carrier bracket onto the firewall studs as shown in **Figure 4**.

Verify the mounting studs are perpendicular to the firewall. If necessary, straighten the studs before installing the carrier bracket to ensure a proper fit.



Figure 4 - Carrier Bracket Installed onto Firewall

5. Use a 15mm tool to reinstall the ground stud nut and tighten to feel.
6. Use a 10mm tool to install the included M6 flange nut and tighten to feel.
7. Use a 10mm tool to install the included 90° catch can mounting bracket, wire lanyard and M6 flange screws.

The lanyard should be installed to the lower, driver-side screw.

8. Torque all three bracket screws to 100 lb-in (11 N-m).

MOUNTING THE CATCH CAN

1. Remove the nut from the catch can.
2. Insert the catch can through the large hole in the mounting bracket.
3. Position the pin into the bracket hole shown in **Figure 5**.

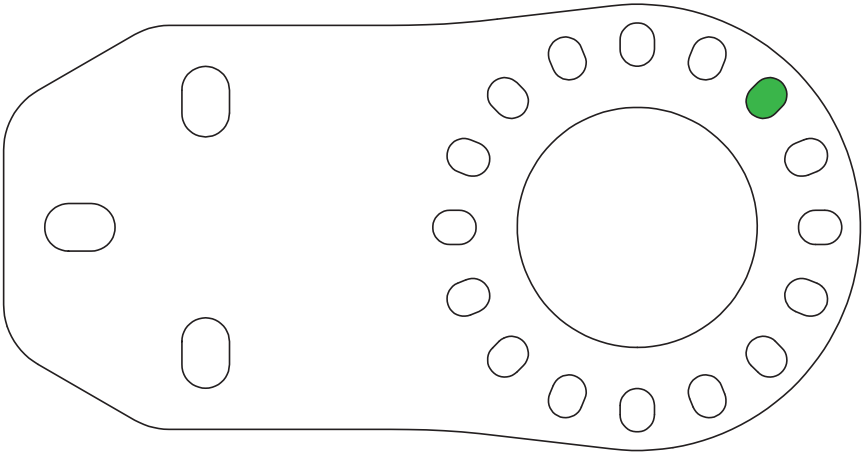


Figure 5 - Correct Bracket Hole for Pin on Top of Catch Can

4. Thread the nut onto the catch can and tighten with a $^{5}/_{8}$" wrench.

When hand tightening, smear a dab of anti-seize around the threads to guarantee the nut is properly tightened.

CONNECTING THE LINES

1. Install the straight adapter into the IN port on the catch can.
2. Torque the fitting between 13 to 16 lb-ft (17 to 22 N-m).
3. Install the 90° adapter fitting into the OUT port of the catch can:
   a. Confirm the O-ring is on the smooth part of the fitting.
   b. Turn the free spinning nut down flush to the O-ring.
   c. Install the fitting into the OUT port, confirming the nut remains flush and forces the O-ring completely inside the gland.
   d. Position as shown in **Figure 6**.
   e. Tighten the nut between 13 to 16 lb-ft (17 to 22 N-m).

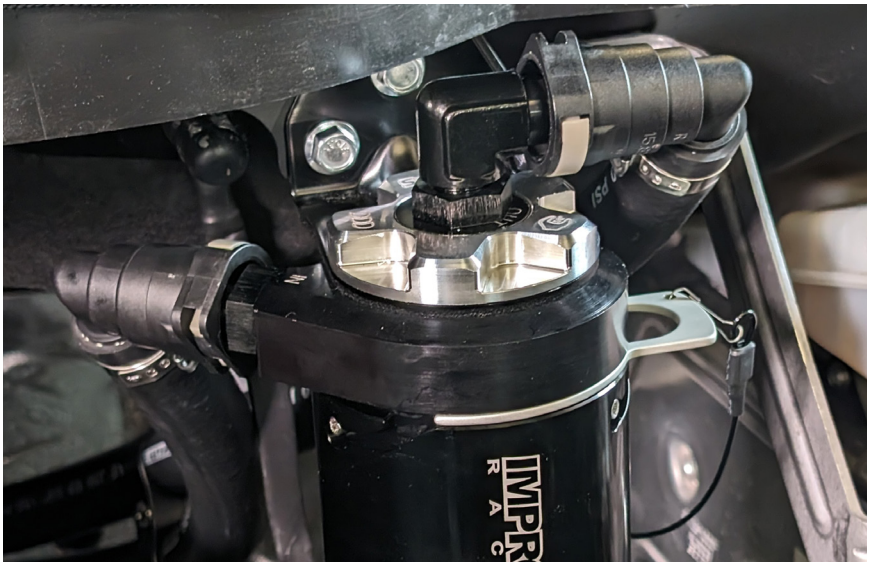


Figure 6 - OUT Adapter Fitting Placement

4. Connect the shorter hose as follows:
   a. 90° fitting to the blue/brown PCV valve.
   b. 90° fitting to the catch can IN port.
5. Connect the longer hose as follows:
   a. 90° fitting to the catch can OUT port.
   b. 45° fitting to the intake manifold.

COMPLETING THE INSTALL

1. Confirm all mounting hardware is properly fastened.
2. Confirm all hoses are properly connected.
3. Confirm the hoses are routed behind the engine as shown in **Figure 7**.

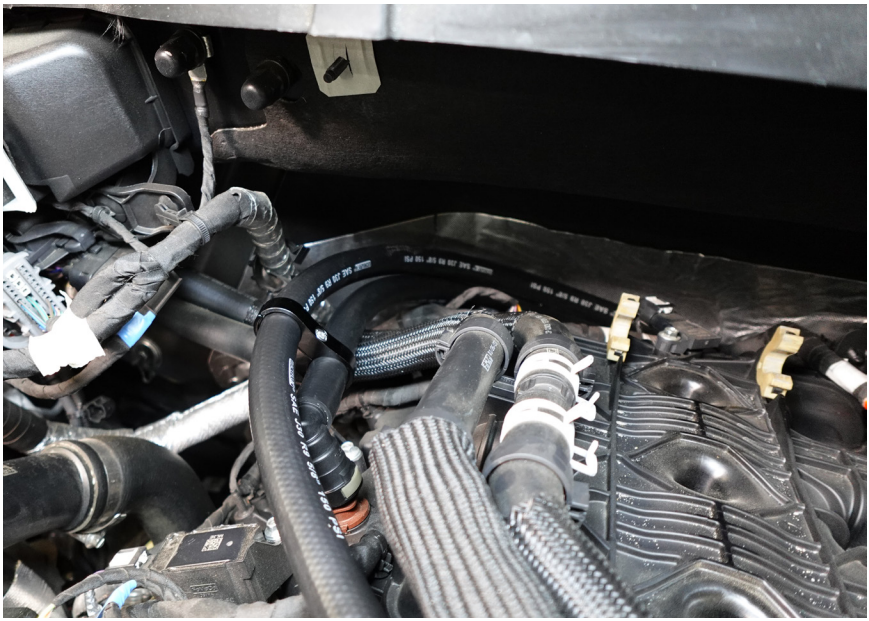


Figure 7 - Hose Routing Behind Engine

4. When not installed, install the included hose separators and tighten using a 3⁄16" hex tool.

- Use the web listing pictures for placement.
- Use Loctite 243 if you prefer to not fully tighten the clamp.

5. Confirm the lanyard is attached to the safety lock clip and the safety lock clip is installed in the can before closing the hood.
6. Use the included zip-tie to fasten the ground wire to the engine harness as shown in **Figure 8**.



Figure 8 - Hose Routing Behind Engine

7. Reconnect the battery.
8. Reinstall the engine cover.
9. Start the vehicle and check for signs of a vacuum leak.
    a. Troubleshoot and check connections if necessary.

Installation is now complete. Thank you for purchasing an Improved Racing product!