

## **UPR Oil Catch Can Installation**

# 2021-23 Ford F150 Powerboost Hybrid 3.5L

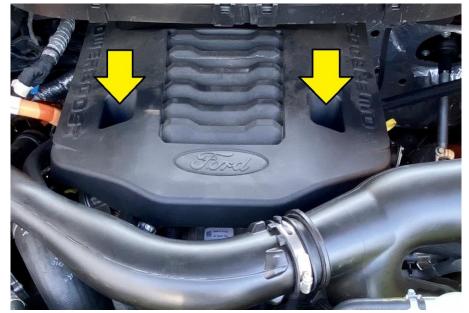
1. Remove the factory air filter box or cold air box inlet to gain access to the catch can mounting point.



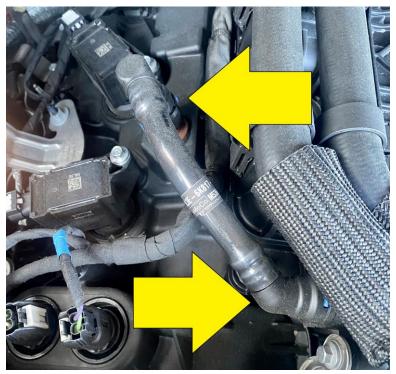
2. Locate the Square hole to the rear of the oval shaped hole on the flat portion of the frame on the driver side directly below the air inlet. Install the 90 degree mounting bracket to the frame with the supplied hardware as shown. The bracket should be facing upwards. Install the catch can onto the bracket with the supplied hardware. You can adjust the angle of the catch can by loosening the screws on the can and clock it into the best position.





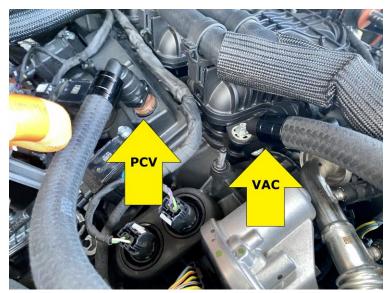


3. Remove the engine cover to gain access to the PCV fittings. It will have two 10MM nuts holding the cover on. Use a 10mm deep socket and extension to remove them, then lift the cover off.



4. Locate the factory PCV tube on the passenger side of the engine. It runs from the PCV valve on the valve cover to the intake manifold vacuum port. Remove the tube by releasing the factory fittings.





5. Time to start routing hoses. Connect the hose with **no check valve** in it to the passenger side valve cover PCV valve and route it to the catch can center inlet port. Be sure to route hoses so they will not contact any belts, pulleys or other hazards.



Find the longest hose in the kit with a check valve in it. Route the hose so that the arrow printed on the check valve faces away from the catch can, towards the engine. Connect the hose to the intake manifold vacuum port, and the other end to the outlet port that is furthest forward on the catch can. We found it easiest to route the PCV hose along the intake tubes going to the air box, and the vacuum hose forward and along the coolant bottle.





6. On the 2021-up 3.5L Ecoboost F150s, the driver side CCV (Crankcase Vent) hose is secured with special orange fittings. There is no tool available through Ford to remove this fitting. To Install the Clean side catch can, and WOT (Wide Open Throttle hose) you will need to remove these fittings.

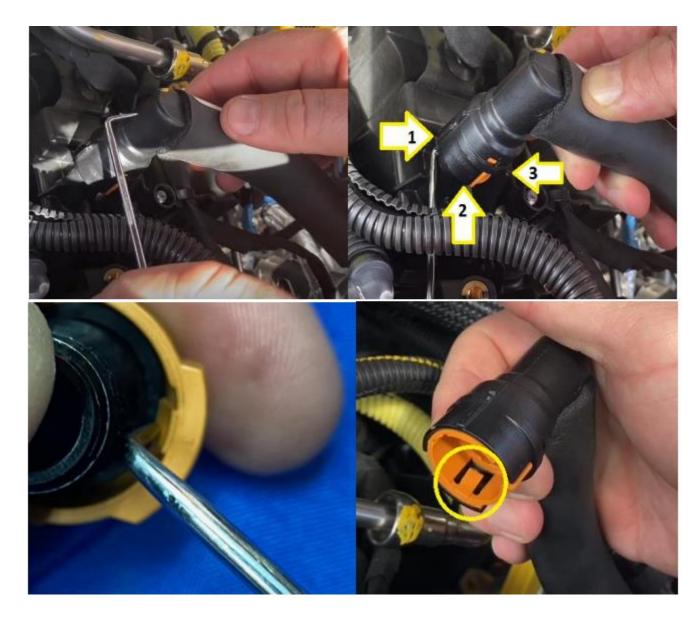
You can use a 90 degree pick or hook pick to either disassemble the fitting or attempt to release the 3 tangs in the fitting, which is not easy. Most likely, you will break the orange fittings. That's ok, because UPR supplies replacement quick release fittings in the kit if you want to put your truck back to stock.

See below for instructions on how to remove the fittings, repair your factory CCV tube, and install the Clean Side Catch Can and WOT fitting.



7. Use a 90-degree pick or hook pick to release the fitting. There are 3 little tabs securing the female end of the fitting onto the valve cover fitting.



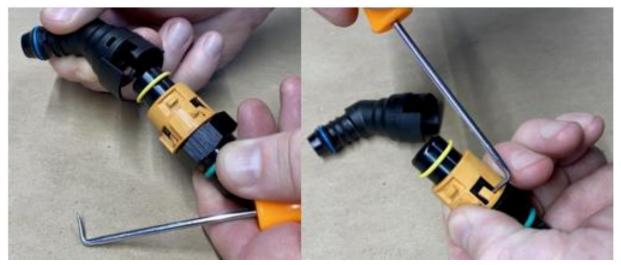


8. While holding the hose and applying slight upward pressure, run the pick under the fitting to release the tabs. If the fitting or tabs break, the fitting can be replaced with a standard UPR Plug and Play fittings P/N 2025-39 (straight), 2025-40 (90 degree) or 2025-41 (45 degree). Repeat the process to remove the fitting at the other end of the tube.





9. Another Method to remove the fitting is to separate the orange portion of the fitting from the outer cover. Using a pick or flat screwdriver, find the small orange 'window' on each side of the fitting. Slide the pick or screwdriver up between the black outer portion of the fitting and the orange inner portion. Pry up on each side to pop the outer portion off.



10. Now that you can see the 3 tangs, while applying upward pressure, use a pick or small screwdriver to release them.





11. To replace the fittings on your factory CCV tube, use a heat gun or lighter to gently warm the plastic tube – do not melt or burn the tube. Pull the fitting out of the tube once it is warm, (Be careful, it will be HOT) and insert the new fitting into the tube while it is still warm. The tube will conform to the fitting as it cools. To assist, you can wrap a small zip tie around the tube ends while it cools.

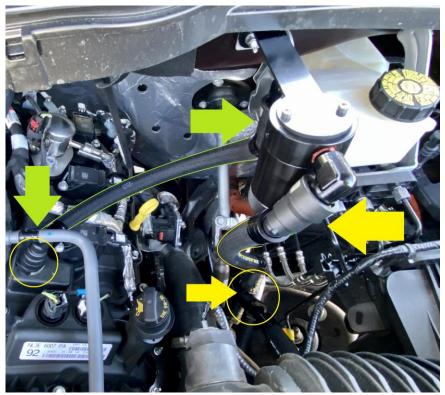


12. Install the 3-way Plug N Play Wide Open Throttle adapter fitting onto the driver side turbo inlet tube so that the female leg of the Tee is facing forward. Route the last hose (the Wide Open Throttle or WOT hose) from the catch can to 3 way fitting. Connect the male fitting on the WOT hose from the catch can to the female fitting on the Tee.





13. Remove the 10MM nut on the ABS brake controller bracket. Install the UPR Clean Side Catch Can bracket and reinstall the nut. You may bend the bracket slightly to allow the catch can to sit level.



14. Install the longer of the 2 hoses onto the driver side valve cover fitting, and connect it to the rear fitting on the catch can. Connect the front fitting of the catch can to the top of the 3 way fitting on the turbo inlet tube.





15. Secure the hoses to ensure they do not encounter any hazards like hot components, fans or belts. A good tip is to zip tie the vacuum hose along the coolant hoses on top of the intake manifold.



16. Reinstall the engine cover and tighten the 10mm nuts. Be sure the hoses clear the cover and do not interfere with other engine components.

Check your catch can every 1000 miles to get a feel for how much your engine will expel. Most will be able to go to 5000 miles before having to empty the catch can.

Always check and drain the catch can more often in winter / freezing weather. If the water/oil mixture in the catch can is allowed to freeze it will cause damage to the catch can and internal components. Any damage due to freezing is NOT WARRANTY. You must dispose of the liquid collected in the catch can properly (with used waste oil) properly according to your local laws.

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