



WHIPPLE 2.7/3.5L ECOBOOST CAI INSTRUCTION MANUAL 2018 AND UP FORD F150/RAPTOR

WHIPPLE PART NUMBER: EB-8152, EB-8157



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PREMIUM FUEL ONLY (91 OCTANE OR BETTER ALWAYS) RON+MON/2

CALIFORNIA AIR RESCOURCE BOARD EXECUTIVE ORDER #D-231-61

COMPETITION BASED PRODUCT MAY BE USED SOLELY ON VEHICLES USED IN SANCTIONED COMPETITION WHICH
MAY NEVER BE USED UPON A PUBLIC ROAD OR HIGHWAY

INTRODUCTION

Before beginning installation, please read this manual and important notes:

- Please read the installation manual and verify that all items are present. If you are missing hardware or have any questions, please contact your dealer or Whipple.
- **Premium fuel (US 91 octane) is required** to prevent spark-knock/detonation under certain operating conditions. Other countries must meet US 91 octane standards, RON+MON/2. If fuel of less than 91-octane is present in the vehicle fuel tank, the tank must be completely drained and refilled with 91 or higher octane to 1/8th of a tank.
- **91 octane should always be from Tier 1 fuel supplier such as Chevron, Shell, Unocal, Texaco, Sunoco. Bargain fuel (Example: Costco, Safeway, Sam's Club, Vons, Valero) does not perform well and will result in lower power and possible engine damage.**
- Running a CAI without a custom calibration may result in a CEL/DTC for crankcase ventilation.
- Operating your engine without the Whipple PCM recalibration can result in engine damage or failure and will void your warranty.
- COMPETITION BASED PRODUCT MAY BE USED SOLELY ON VEHICLES USED IN SANCTIONED COMPETITION WHICH MAY NEVER BE USED UPON A PUBLIC ROAD OR HIGHWAY, UNLESS PERMITTED BY SPECIFIC REGULATORY EXEMPTION (VISIT THE "EMISSIONS" PAGE AT [HTTP://WWW.SEMASAN.COM/EMISSIONS](http://www.semasan.com/emissions) FOR STATE BY STATE DETAILS.
- COMPETITION BASED PRODUCT IS LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.
- IT IS THE RESPONSIBILITY OF THE INSTALLER AND/OR USER OF THIS PRODUCT TO ENSURE THAT IT IS USED IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

RECOMMENDED TOOLS AND SUPPLIES

The following items are not included in this supercharger kit and it is strongly recommended that they're used for ease of installation or maximum performance.

Safety glasses, 5/16" nut driver, 5mm allen socket, 3/8" torque wrench, trim pad tool (for pushpin removal), floor jack.

SAFETY PRECAUTIONS



CAREFULLY READ THE IMPORTANT SAFETY PRECAUTIONS AND WARNINGS BEFORE PROCEEDING WITH THE INSTALLATION!

Appropriate disassembly, assembly methods and procedures are essential to ensure the personal safety of the individual performing the kit installation. Improper installation due to the failure to correctly follow these instructions could cause personally injury or death. Read each step of the installation manual carefully before starting the installation.

- Always wear safety glasses for eye protection.
- Place the ignition switch in the off position.
- Always apply the parking brake when working on vehicle.
- Block the front and rear tire surfaces to prevent unexpected vehicle movement.
- Operate the engine only in well-ventilated areas to avoid exposure to carbon monoxide.
- Do not smoke or use flammable items near or around fuel system.
- Use chemicals and cleaners only in well-ventilated areas.
- Batteries can produce explosive hydrogen gas which can cause personal injury. Do not allow flames, sparks or flammable sources to come near the battery.
- Keep hands and any other objects away from the radiator fan blades.
- Keep yourself and your clothing away from moving parts when the engine is running.
- Do not wear loose clothing or jewelry that can be caught in rotating or moving parts.



****NOTICE:** Installation of Whipple products signifies that you have read this document and have agreed to the terms stated within.

It's the purchaser's responsibility to follow all installation instruction guidelines and safety procedures supplied with the product as it's received by the purchaser to determine the compatibility of the product with the vehicle or the device the purchaser intends to install the product on.

Whipple assumes no responsibility for damages occurring from accident, misuse, abuse, improper installation, improper operation, lack of reasonable care or all previously stated reasons resulting from incompatibility with other manufacturer's products.

There are no warranties expressed or implied for engine failure or damage to the vehicle in any way, loss of use or inconvenience or labor reimbursement. This includes merchantability and fitness.

The information contained in this publication was accurate and in effect at the time the publication was approved for printing and is subject to change without notice or liability. Whipple reserves the right to revise the information presented herein or to discontinue the production of parts described at any time.

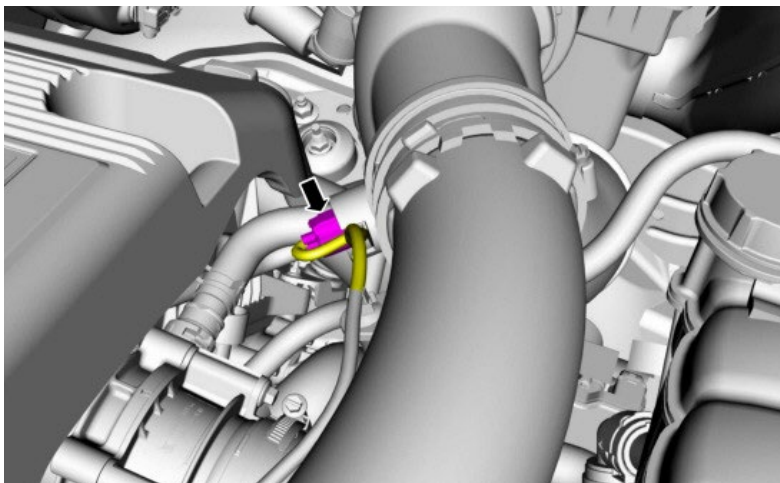
PCM CALIBRAITON NOTICE

Your Whipple Performance kit includes a PCM reflash. You must follow the included Tomahawk Flash Tool instructions to request your calibration. NOTE: Whipple does not offer custom tuning. **Calibrations are provided for 100% stock vehicles with an exception to cat-back exhaust systems. Long tube headers, high flow cats and other engine mods are not supported. Calibrations can take up to 48 hours to fulfill, request before starting installation.**

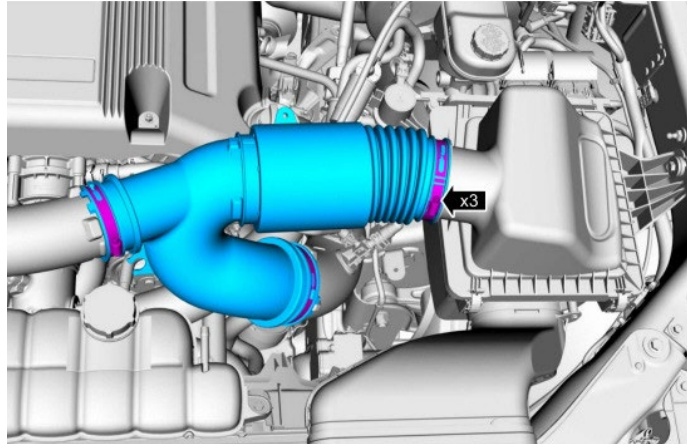
INSTALLATION INSTRUCTIONS

It is strongly recommended that you read through this guide **before** you begin installing the Whipple kit.

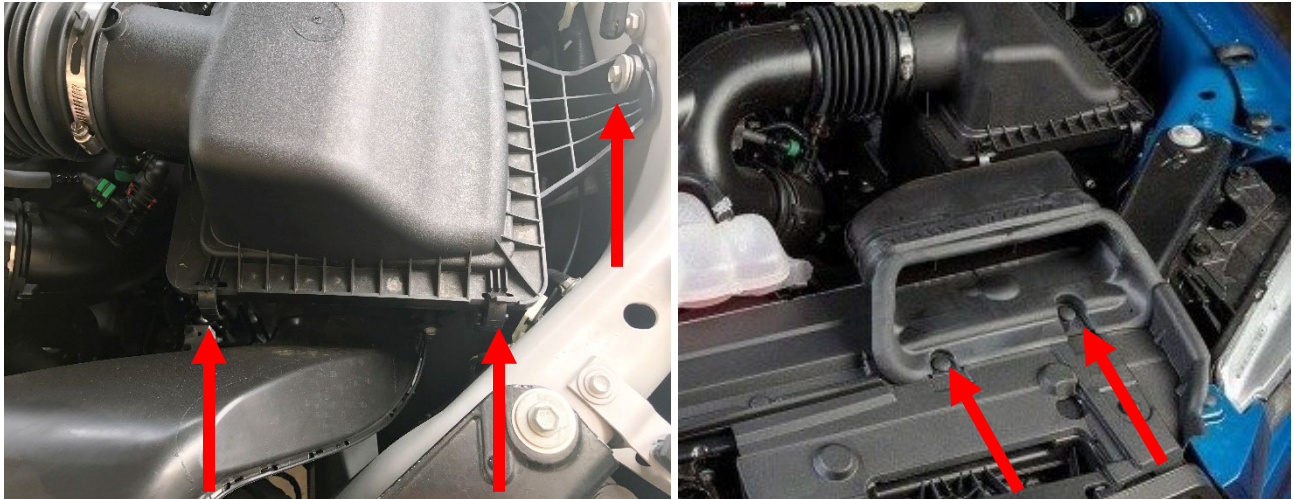
1. Using an air hose, blow off any loose dirt or debris from engine compartment. If really dirty, then steam clean the engine compartment before proceeding to the next step.
2. Disconnect the factory IAT sensor connector by squeezing the tab and pulling back away.



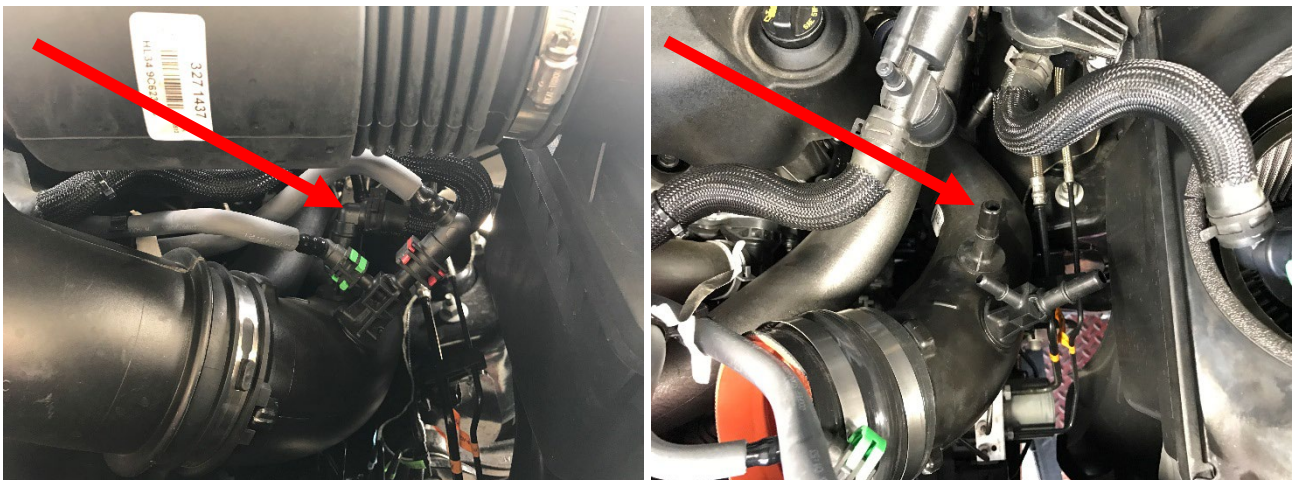
3. Loosen the (3) clamps from the factory air tube and remove the air tube from the engine.



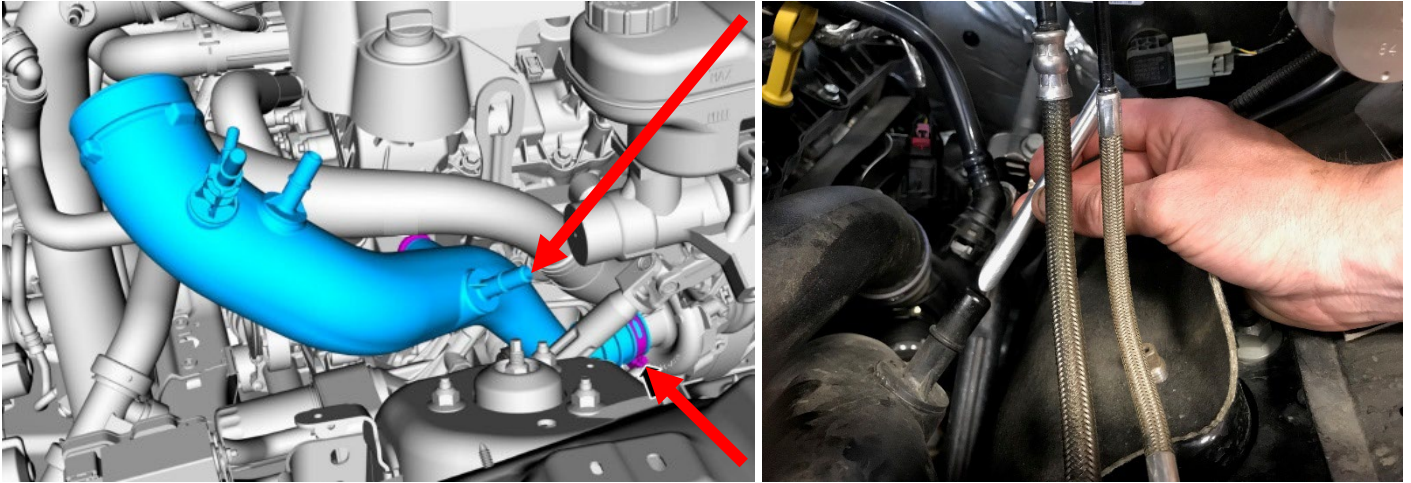
4. Unsnap the airbox retaining clips (2) and remove the factory filter, neither will be reused. Using a 10mm socket, remove the bolt securing airbox to body. Using a push pin removal tool, remove the 2 pins holding the airbox snorkel in place.



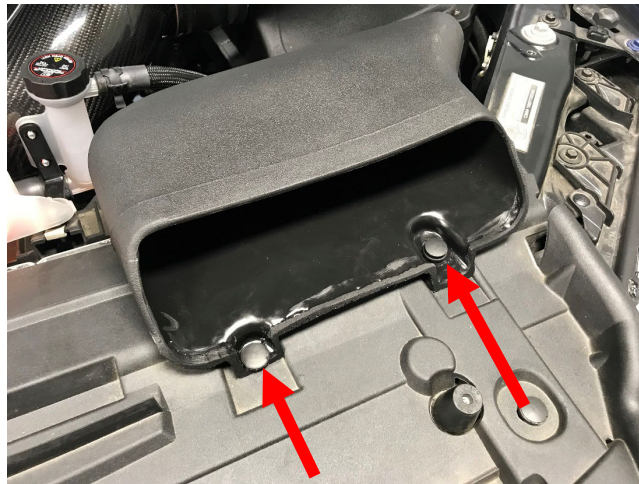
5. Locate the crank case vent line, disconnect quick connector.



6. Install the supplied vent tube to the vent fitting that was connected to the driver side valve cover, its direction is critical, the slash cut must face the turbo inlet. This is a tight fit, it cannot rotate after installation. Ensure that the tube is fully seated against vent fitting shoulder. Reconnect the vent fitting.



7. Install the lower airbox section to factory location. Using the supplied (2) 1" Christmas tree plastic tabs to snorkel section to secure airbox.



8. Install the supplied filter in the lower airbox. Install the supplied lid to filter and lower airbox. Secure using the supplied (6) 6mm x 16mm BHFCs. Torque to 50 in-lbs or snug. NOTE: Over torque can rip the brass insert out.



9. Remove the factory IAT sensor from the stock air tube by turning the sensor a ¼ turn, then lifting out of tube. Make sure the oring is still on the sensor and un-damaged.
10. Install the rubber grommet into the Whipple air tube.



11. Install the air temp sensor into the air tube, use light amount of grease or silicone to help sensor install. Note: 18-20, install IAT extension harness.



12. Install the supplied silicone hose to the Whipple air tube using the supplied clamps. Use the #64 clamp on the 4" hump hose and #56 on the 3.5" hose reducer hose.



13. Start the vehicle, check for any leaks or check engine lights.