



## advanced FLOW engineering

### Instruction Manual P/N: 77-63003

Make: **Ford** Model: **F-250** Year: **2017-2019** Engine: **V8-6.7L (td) Power Stroke**

Make: **Ford** Model: **F-350** Year: **2017-2019** Engine: **V8-6.7L (td) Power Stroke**

Make: **Ford** Model: **F-450** Year: **2017-2019** Engine: **V8-6.7L (td) Power Stroke**

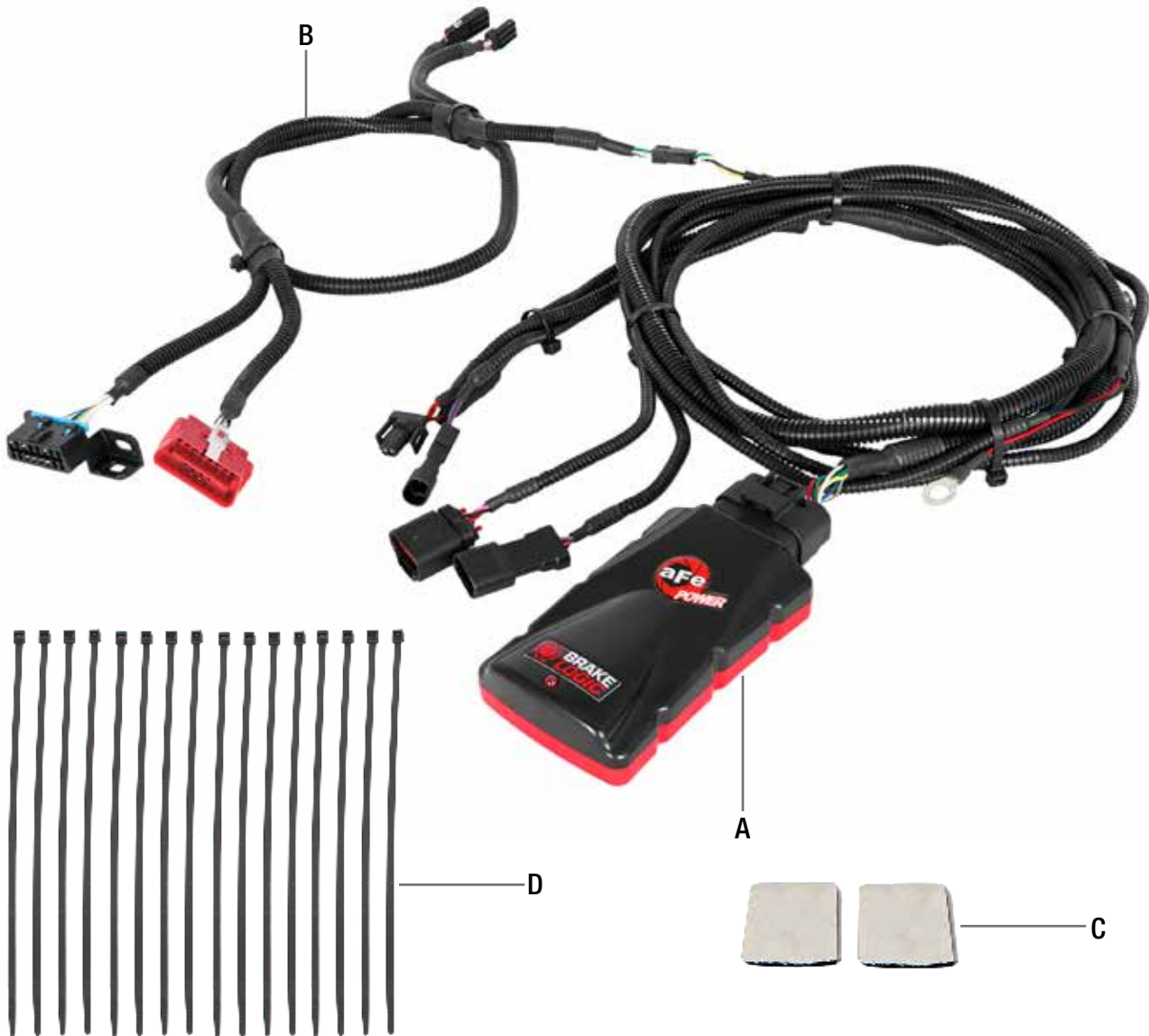
Make: **Ford** Model: **F-550** Year: **2017-2019** Engine: **V8-6.7L (td) Power Stroke**



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Disconnect the negative battery terminal before proceeding.
- Retain factory parts for future use.

Label	Qty.	Description	Part Number
A	1	Module	R77-63003
B	1	Harness	AFE-10-316
C	2	Hook and loop fastener (2 inches)	05-01244
D	16	Cable Ties	05-60167

Note: Legal in California for use on race vehicles only. The use of this device on vehicles used on public streets or highways is strictly prohibited in California and others states that have adopted California emission regulations.





# SLEEP MODE

**Figure A**

## **Refer to Figure A for Step 1.**

Step 1: Before installing the aFe POWER Module you must place your vehicle's ECU in sleep mode. In order to place your vehicles ECU in sleep mode you will need to do the following:

- If the engine is cold, open the hood, close the doors, lock the car and wait 30 seconds
- If the engine is warm, open the hood, close the doors, lock the car and wait 20 minutes
- If the engine is warm and you can't wait 20 minutes, disconnect the battery



**Note: Do NOT open the doors or start the vehicle while one of the sensors is disconnected. This could cause a check engine light.**



Figure B

**Refer to Figure B for Step 2.**

Step 2: Separate the two halves of the harness at the small 4 wire connector. The harness attached to the module will be installed in the engine bay. The harness with the OBD2 connector will be installed inside the vehicle. Start with the engine bay harness first.





**Refer to Figure C for Steps 3-4.**

Step 3: Locate the MAF sensor on the intake tube. Disconnect the connector from the sensor by sliding back the red locking tab, then pressing down on the black tab and sliding the connector out of the sensor.

Step 4: Locate the MAF connectors on the aFe POWER harness, these are the only connectors on the aFe POWER harness that also have the red locking tab. Plug the female connector of the module to the MAF sensor, and then connect the male connector of the module to the female connector of the OE harness. Make sure the red locking tabs are secured.

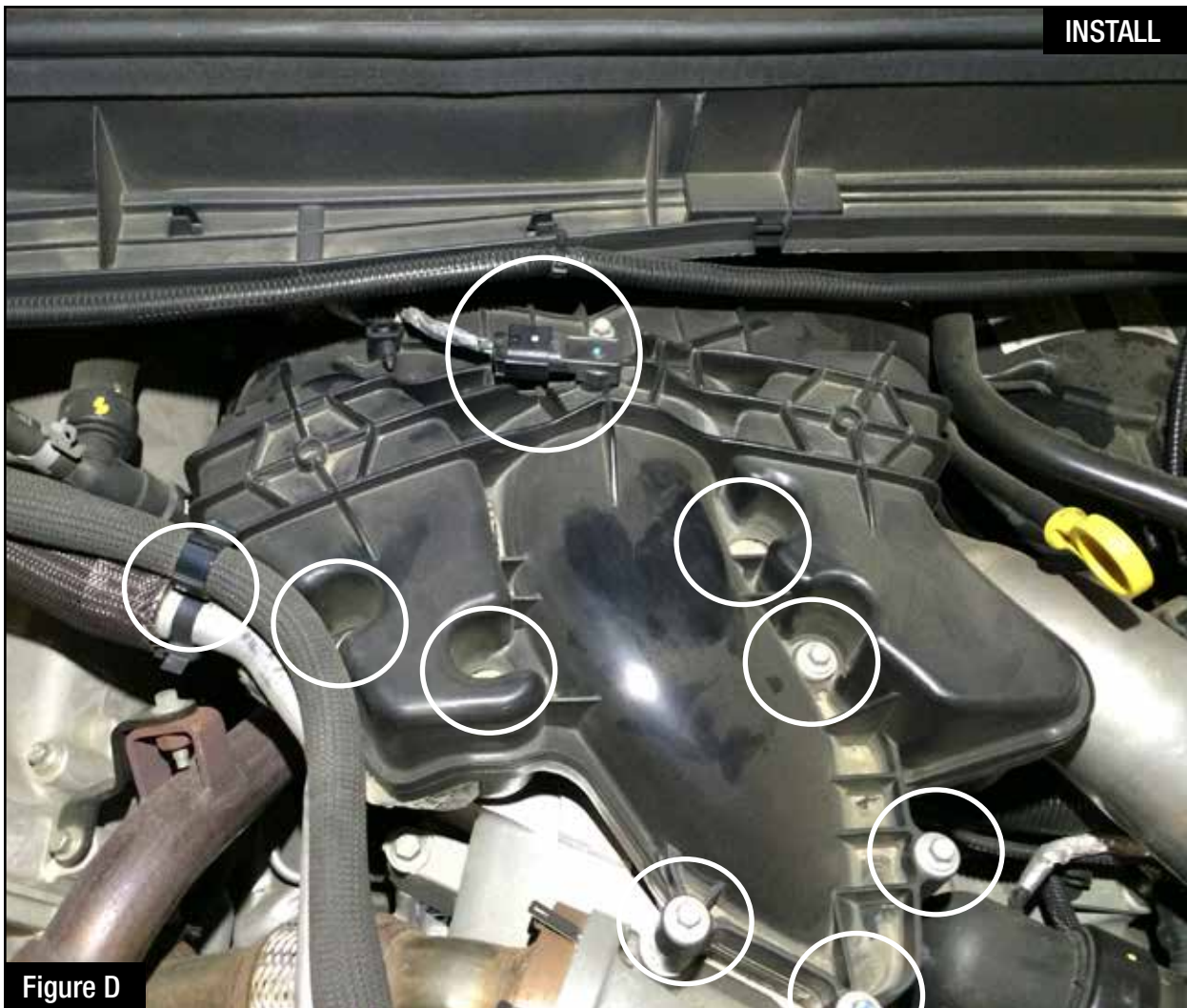


Figure D

**Refer to Figures D for Steps 5-9.**

Step 5: Unclip the coolant tubes from the plastic upper intake manifold.

Step 6: Unclip the harness and vacuum hose that are secured to the back of the intake manifold.

Step 7: Remove the 8mm bolt holding the engine and transmission dipsticks to the intake manifold.

Step 8: Disconnect the MAP sensor connector by pressing down the locking tab sliding it out of the sensor, and then remove the clip securing the MAP sensor harness to the manifold.

Step 9: Remove the (15) 8mm bolts securing the plastic upper intake manifold, then remove the upper manifold from the truck.



**Note: There are 2 different length bolts holding down the manifold, take note of their location upon removal to make sure they are reinstalled correctly.**

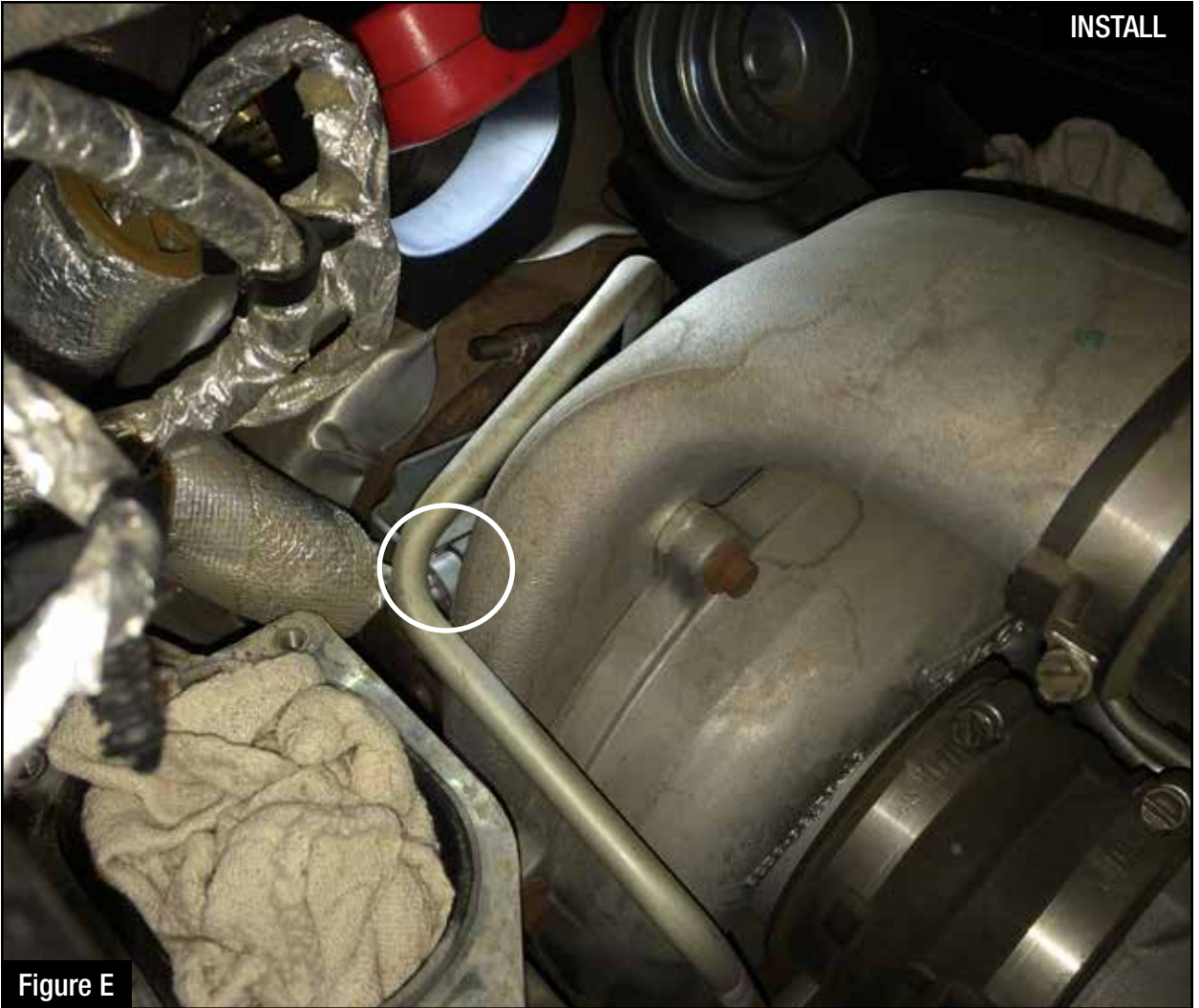


Figure E

**Refer to Figure E for Step 10.**

Step 10: Locate the turbocharger VGT solenoid connector. It is on the top passenger side of the turbo. The harness will be covered in silver heat reflective wrap, and the connector is covered with a heat sleeve. Disconnect the VGT connector by gently pulling the locking tabs outward, and then sliding the connector out of the solenoid.



**Note: Use caution when dealing with this connection, the plastic on the factory connector can be very brittle.**





Figure F

**Refer to Figure F for Step 11.**

Step 11: Plug the female connector of the module to the VGT solenoid and then connect the male connector of the module to the female connector of the OE harness.



**Note:** It is recommended to transfer the heat sleeve from the factory female connector onto the aFe POWER female connector.

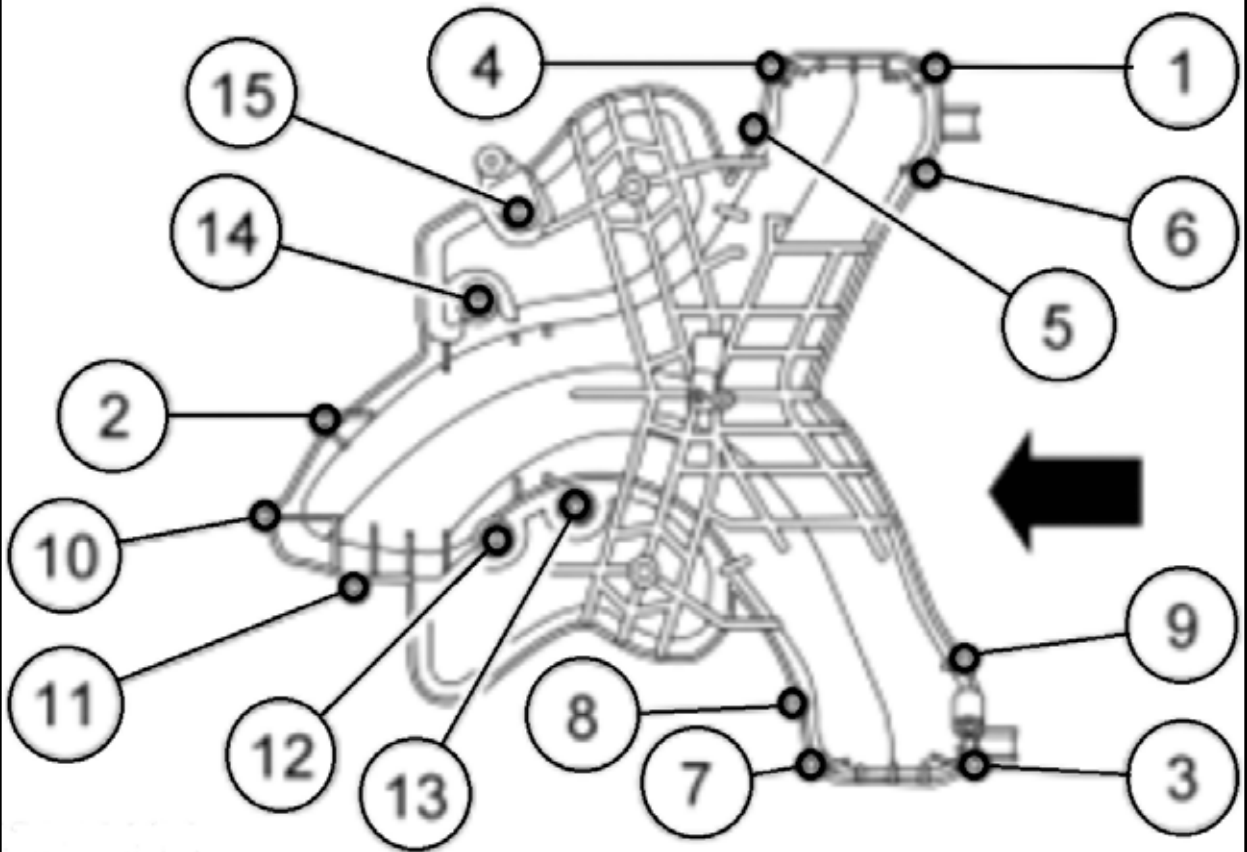


Figure G

**Refer to Figure G for Steps 12-13.**

Step 12: Re-install the intake manifold. Follow the torque sequence above and tighten bolts to 89 lb.-in. (10 Nm)

Step 13: Re-install the vacuum hose, coolant lines, harnesses, and MAP sensor on the manifold.



Figure H

**Refer to Figure H for Steps 14-15.**

- Step 14: Connect the black ground terminal cable on the aFe POWER module to the negative battery post by removing the 8mm nut and placing the terminal, and then reinstall the nut.
- Step 15: Connect the red power terminal cable on the aFe POWER module to the positive battery post by removing the 8mm nut and placing the terminal, and then reinstall the nut.



Figure 1

**Refer to Figure 1 for Steps 16-17.**

Step 16: Mount the BrakeLogic module in a safe location such as on top of the fuse box near the master cylinder.

Step 17: Connect the aFe POWER harness to the BrakeLogic Module, if you have not already.





Figure J

**Refer to Figure J for Steps 18-19.**

Step 18: Grab the other half of the aFe POWER harness that was separated in Step 1 to proceed with installation inside the cabin.

Step 19: Remove the (3) 5.5mm screws from the bottom of the steering column cover, then separate the top and bottom halves, and remove the covers.

**Figure K****Refer to Figure K for Step 20.**

Step 20: Locate the shift lever connector, on the right side of the steering column. Disconnect it by pressing down on the locking tab and sliding the connector out.



Figure L

**Refer to Figure L for Steps 21-22.**

Step 21: Locate the shift lever connectors on the aFe POWER harness. This is the smaller black connector. Plug the female connector of the module to the stock male connection, then take the male connector of the module and connect to the female connector of the OE harness. Secure the aFe POWER harness using the provided zip ties.

Step 22: Re-install the steering column covers.



**Note: It is recommended to feed the wires up from the bottom of the dash, closely following the OE wire harness.**



Figure M

**Refer to Figure M for Step 23.**

Step 23: Locate the factory OBD2 port.





Figure N

**Refer to Figure N for Steps 24-25.**

Step 24: Locate the red male OBD2 connector on the aFe POWER harness and install into the factory OBD2 port.

Step 25: Using zip ties, secure the aFe POWER female OBD2 connector under the dash. Make sure to leave it in an accessible location for future use.



**Refer to Figure 0 for Steps 26-27.**

Step 26: Route the harness with the small, square, 4 wire connector, from the engine bay into the cab, through the main firewall grommet. Connect it to the other half of the aFe POWER harness that was installed inside the cab.

Step 27: Secure all wiring harnesses in the engine bay and under the dash with the provided ties, keeping them away from extreme heat or moving parts.

**The installation of the BrakeLogic module is complete. Keep reading to learn how to use the module.**



Figure P

**Refer to Figure P for Steps 28-29.**

Step 28: To turn the BrakeLogic module on, simply activate Tow/Haul mode with the button at the end of the shift lever.

Step 29: When you want to activate engine braking, such as when driving down a hill while towing, tap the brake pedal, you will notice increased engine braking as well as the transmission down shifting to help maintain a lower speed.