

# advanced FLOW engineering

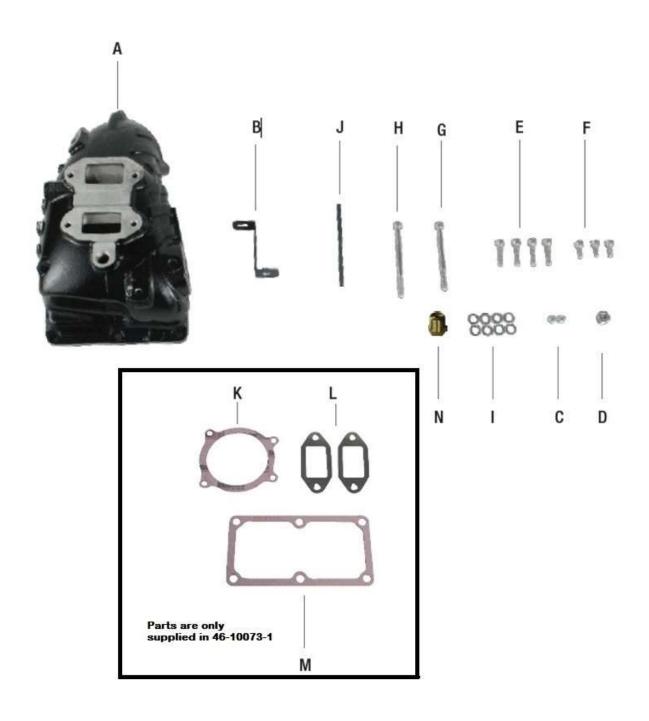
Instruction Manual P/N: 46-10071-1 / 46-10073-1

Make: Dodge/RAM Model: 2500/3500 Year: 2007.5-2018 Engine: L6-6.7L (td)



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7100.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.

Label	Qty.	Description	Part Number
Α	1	Manifold, Intake	05-60086
В	1	Bracket, Dipstick	05-60131
С	2	Plug, Hex Hd Socket: 1/8" NPT	03-50029
D	1	Plug, Hex Hd Socket: 3/8" NPT	03-50158
Е	4	Screw, Socket Hd Cap: M8 x 1.25 x 30	03-50225
F	2	Screw, Socket Hd Cap: M8 x 1.25 x 16	03-50171
G	1	Screw, Socket Cap: M8 x 1.25 x 90	03-50257
Н	1	Screw, Socket Cap: M8 x 1.25 x 100	03-50156
I	8	Washer, Flat S/S	03-50228
J	1	Tool (6mm Hexagon Rod, 6 in. length)	03-50161
K	1	Gasket, Throttle Body (46-10073-1 Only)	05-60209
L	2	Gasket, EGR Valve (46-10073-1 Only)	05-60208
М	1	Gasket, Manifold (46-10073-1 Only)	05-60146
N	1	Fitting, Brass 3/8" NPT	03-50434





Note: Let engine completely cool before working on it.

- 1. Disconnect both batteries.
- 2. Remove the oil dipstick and the four screws.
- 3. Remove the engine cover.



- 4. Disconnect the EGR air flow control valve.
- 5. Disconnect the EGR temperature sensor connector.

Note: The EGR temperature probe is in the intake manifold for 2007.5 – 2009 trucks.

6. Remove the wire retainer from the bolt using panel poppers.



- 7. Disconnect the MAP sensor connector.
- 8. Remove the bolt holding the wiring harness from the manifold.



- 9. Remove the bolt from the dipstick tube.
- 10. Remove the bolts which retain the dipstick tube bracket.
- 11. Loosen the EGR crossover tube clamp on the passenger side.
- 12. Loosen and remove the EGR crossover tube clamp. Remove the gasket. Save all parts for reinstallation.



13. Remove the four bolts from the EGR air flow control valve. Save the hardware for reinstallation.

Note: The bolts removed from the EGR flow control valve are a special length. It is important not to mix the hardware that you are removing and save for reinstallation.

Note: 2013 – 2018 trucks have a heat shield near the charge air cooler tube.

- 14. Remove the heat shield.
- 15. Disconnect the charge air cooler tube from the intake manifold.



- 16. Disconnect the wiring connector which is connected to the throttle valve.
- 17. Disconnect the MAP sensor wiring connector.
- 18. Remove the five bolts from the intake manifold and remove the manifold.



- 19. Remove the MAP sensor from the manifold. Save this part as it will be reused.
- 20. Remove the stud from the manifold. On some manifolds there will be two studs. Remove both. Save these parts as they will be reused.
- 21. Remove the four bolts on the throttle valve from the intake manifold. Save these parts as they will be reuse.

Note: aFe recommends the use of new gaskets.



- 22. Install the stud(s) that retain the wiring in the supplied aFe intake manifold.
- 23. Install the stock throttle valve to the supplied aFe intake manifold using a gasket (supplied in 46-10073-1) and the stock bolts. Torque the bolts to factory specs.
- 24. Apply teflon tape to the two (2) supplied 1/8" NPT plugs and install them into the aFe Intake manifold and tighten.
- 25. Install the MAP sensor using the stock hardware. Tighten to factory specs.



26. Clean and prep the mating surface on the engine.



Note: Read this instruction carefully before installation

27. Install the gasket (supplied in 46-10073-1) to the aFe intake manifold.

Note: The bolt shown in the picture will not fit down thru the top of the manifold. The bolt needs to be installed thru the bottom of the manifold.

28. Place one (1) supplied M8x1.25x30mm and one (1) supplied washer in the aFe Intake Manifold before installation. Insert the bolt and the washer through the top of the center hole of the manifold (as shown).

Note: You can use the supplied 6mm allen key to control the bolt that was inserted prior to installation.

Note: aFe recommends the use of new gaskets.



- 29. Use the 6mm allen key to start the bolt installed in Step 28. Install the aFe intake manifold in the truck using the supplied:
  - (3) M8x1.25x30mm screws
  - (1) M8x1.25x90mm screw
  - (1) M8x1.25x100mm screw
  - (5) washers
- 30. Tighten all six bolts to factory torque specs.
- 31. Plug the electrical connector back on to the throttle valve.
- \*For 2007.5-2009 trucks please read Steps 32, 33 and 34
- \*For 2010-2018 please skip to Step 35



For 2007.5- 2009 trucks please read these instructions

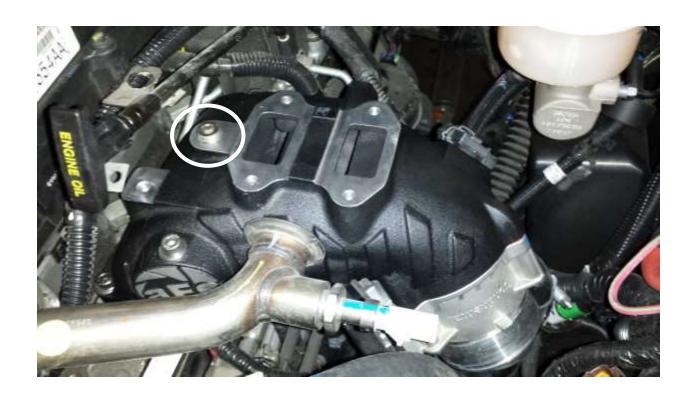
32. Remove the EGR temperature probe from the factory intake manifold.



### For 2007.5- 2009 trucks please read these instructions (continued)

Note: This picture represents what the intake will look like with the EGR temperature probe install in the intake manifold.

- 33. After you have tightened all the hardware in Step 29, apply teflon tape to the supplied brass 3/8 NPT fitting and install into the manifold and tighten (shown above). Install the EGR temperature probe removed from the stock manifold into the brass fitting and tighten.
- 34. You may need to lengthen the wires for the EGT temperature probe by removing them from the factory wiring harness. Pull them back to the y-intersection in the split loom.



## For 2010 – 2018 trucks:

35. After you have tightened all the hardware in Step 29, apply teflon tape to the supplied 3/8" NPT plug and install it into the intake manifold (shown above) and tighten.



- 36. Reconnect the electrical connector for MAP sensor.
- 37. Slide the factory wire harness retainers over the studs on the aFe intake manifold.

### Note: aFe recommends the use of new gaskets.

38. Using two (2) gaskets (supplied in 46-10073-1) and stock hardware, install the EGR air flow control valve onto the aFe intake manifold. Tighten to factory specs.

# NOTE: The clamp must be orientated as shown in the photo for the engine cover to fit properly.

- 39. Install the gasket pulled out in Step 12 on the EGR crossover tube. Slide the EGR crossover tube back on the EGR flow control valve. Reinstall the clamp and tighten the clamp to factory specs.
- 40. Tighten the EGR crossover tube clamp on the passenger side.
- 41. Plug in the EGR temperature sensor (2010-2018) or EGR temperature probe (2007.5-2009).
- 42. Plug in the EGR flow control valve connector.



- 43. Install the supplied dipstick bracket on the aFe intake manifold using:
  - two (2) M8x1.25x16mm screws
  - two (2) M8 washers

Tighten the bolts. Do not install the dipstick.

44. Reconnect the charge air cooler tube. Tighten the clamp to factory specs.



- 45. Install the engine cover. Use the four stocks bolts and tighten to factory specs.
- 46. Install the oil dipstick.
- 47. Reconnect the batteries.
- 48. Your Installation is now complete. Please check all electrical connections and all hardware.



To purchase any of the items above, view airflow charts, dyno graphs, photos, and video; please go to aFepower.com.

## Warranty

#### **General Terms:**

- aFe warrants their products to be free from manufacturer's defects due to workmanship and material.
- This warranty applies only to the original purchaser of the product and is non-transferrable.
- Proof of purchase of the aFe product is required for all warranty claims.
- Warranty is valid provided aFe instructions for installation and/or cleaning were properly followed.
- Proper maintenance with regular inspections of product is required to insure warranty coverage.
- Damage due to improper installation, abuse, unauthorized repair or alteration is not warranted.
- Incidental or consequential damages or cost, including installation and removal of part, incurred due to failure of aFe product is not covered under this warranty.
- All warranty is limited to the repair and/or replacement of the aFe part. To request Return Goods Authorization ("RGA"), email RGA@afepower.com or call (951)493-7100. Upon receipt of the RGA, you must return the product to the address provided in the RGA, freight prepaid and accompanied with a dated proof of purchase and the RGA. Upon receipt of the defective product and upon verification of proof of purchase, aFe will either repair or replace the defective product within a reasonable time, not to exceed thirty days.

Product Category	P/N Prefix	Warranty Duration
Direct OE Replacement Filters	10,11,30,31,71,73	Life of the vehicle
Racing Filters	18	1 year
Universal	21,24,72	2 years
Air Intake Systems	50,51,54,55,75	2 years
Exhaust Systems	49	2 years
Intercoolers & Intercooler Tubes	46-2	2 years
Intake Manifolds	46-1	2 years
Differential Covers/Transmission Pans/	46-7	Life of the vehicle
Oil Pans	40-7	
Exhaust Manifolds	46	2 years
Throttle Body Spacers	46-3	2 years
Fluid Filters	44	90 days
Pre-Filters	28	2 years
Heavy Duty OE Replacement	70	2 years
PowerSports OE Replacement	81,87	2 years
PowerSports Intake Systems	85	2 years

No other warranty expressed or implied applies nor is any person or advanced FLOW engineering authorized to assume any other warranty. Some States do not allow the exclusion or limitation of incidental or consequential damages or do not allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

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