

advanced FLOW engineering

Instruction Manual P/N: 77-42008

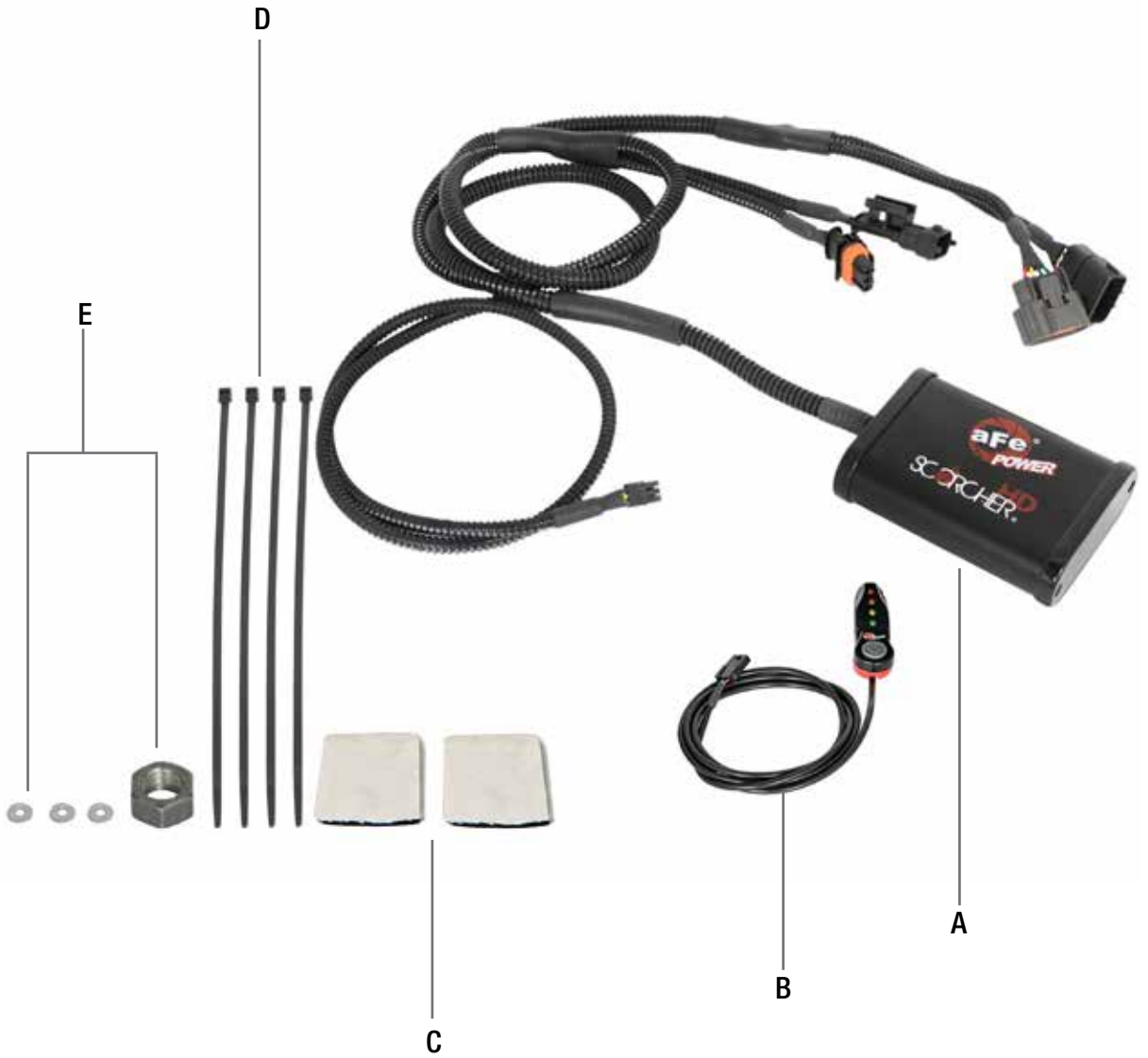
SCORCHER HD Module

Make: **Dodge/RAM** Model: **2500/3500 HD** Year: **2007.5-2012** Engine: **L6-6.7L (td) Cummins**



- 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.
- Disconnect the negative battery terminal before proceeding.
- Retain factory parts for future use.

Label	Qty.	Description	Part Number
A	1	Module	R77-42008
B	1	LED Switch	05-70029
C	2	Velcro (2 Inches)	05-01244
D	4	Cable Ties	05-60167
E	1	Shim, Kit	03-50504





SLEEP MODE

Figure A

Refer to Figure A for Step 1.

Step 1: Before installing your aFe module, you will have to place your vehicles 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.



**Do NOT open the doors or start the vehicle when one of the sensors is disconnected.
This could create a check engine light.**



Figure B

Refer to Figure B for Steps 2-3.

Step 2: Locate the MAP sensor. ① The MAP sensor is on the side of the intake manifold just above the throttle valve.

Step 3: Locate the fuel pressure sensor ②. It is at the end of the fuel rail, near the firewall.

**Figure C****Refer to Figure C for Steps 4-5.**

- Step 4: Locate and disconnect the MAP sensor connector, by pressing down on the locking tab and sliding it out of the sensor.
- Step 5: Locate the MAP sensor jumper harness on the aFe POWER harness. This is the harness with a large gray connector. Plug the female connector of the aFe POWER harness to the MAP sensor, then take the male connector of the aFe POWER harness and connect to the female connector of the engine harness.



Figure D

Refer to Figures D for Step 6.

Step 6: Check with the pictures to make sure the connectors are correctly connected.



Note: Make sure connections are fully engaged and not reversed. Usually, connectors make a snapping sound when fully engaged.

**Figure E****Refer to Figure E for Steps 7-8.**

Step 7: Locate and disconnect the fuel pressure sensor connector by pressing down on the locking tab and sliding it out of the sensor.

Step 8: Locate the fuel pressure sensor jumper harness on the aFe module. This is the harness with an orange rubber seal on the female connector. Plug the female connector of the module into the fuel pressure sensor, then take the male connector of the module and connect to the female connector of the engine harness.



Figure F

Refer to Figure F for Step 9.

Step 9: Check with the pictures to make sure the connectors are correctly connected.



Note: Make sure connections are fully engaged and not reversed. Usually, connectors make a snapping sound when fully engaged.


Figure G

Refer to Figure G for Steps 10-11.

Step 10: Remove the engine cover by taking off the (4) 8mm screws (3) and taking out the oil dip stick.

Step 11: Remove the 10mm screw (4) holding the dip stick tube and tilt the tube away from the fuel rail to gain access to the fuel relief valve.

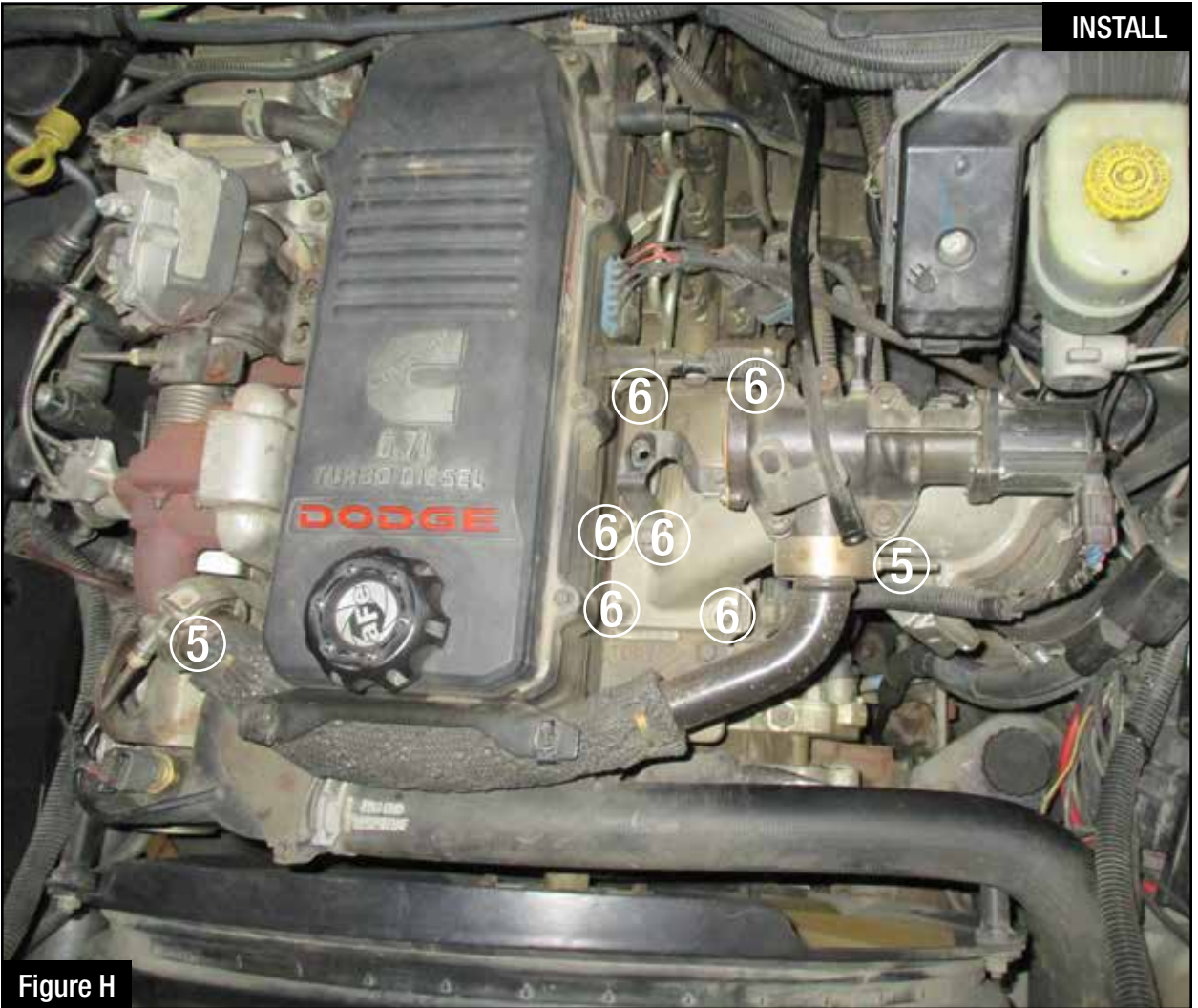


Figure H

Refer to Figure H for Steps 12-13.

Step 12: Remove the v-band clamps (5) off the EGR tube in front of the valve cover and rotate away from the intake manifold.

Step 13: Remove the (6) 10mm bolts (6) securing the intake manifold and move away from the fuel rail to gain access of the fuel relief valve.



Figure I

Refer to Figure I for Step 14.

Step 14: With an 18mm wrench remove the fuel relief valve. ⑦

**Figure J****Refer to Figure J for Steps 15-17.**

Step 15: Thread the removal tool onto the fuel relief valve.

Step 16: Place the tip of the fuel relive valve on the edge of a vise and tighten.

Step 17: Turn the removal tool clockwise towards the vise to split the fuel relief valve.

Note: Be cautious and hold the end of the fuel relieve valve, it is spring loaded and NOT mixing the components alignment is very important. Located behind the 3 hole washer is a very small pin that should NOT be moved or lost, losing it will cause the vehicle to NOT start.



Figure K

Refer to Figure K for Step 18.

Step 18: Remove the small spring (8) and place the 3 shims in the fuel relief valve, and then re-insert the spring.

**Figure L****Refer to Figure L for Steps 19-23.**

Step 19: Assuring no components were lost or misaligned reinsert the tip into the fuel relief valve.

Step 20: Place the fuel relief valve into the vise and compress back together.

Step 21: With a small punch re-punch the 3 small indentations securing the tip of the fuel relive valve to the body.

Step 22: Place the fuel relief valve back into the fuel rail and tighten to 75 ft-lbs of torque, or fuel can leak out.

Step 23: Refer to previous steps to re-install all the components removed to access the fuel relief valve.

Note: Using a piece of wood between the tip and the vice will insure the tip does NOT get damaged.

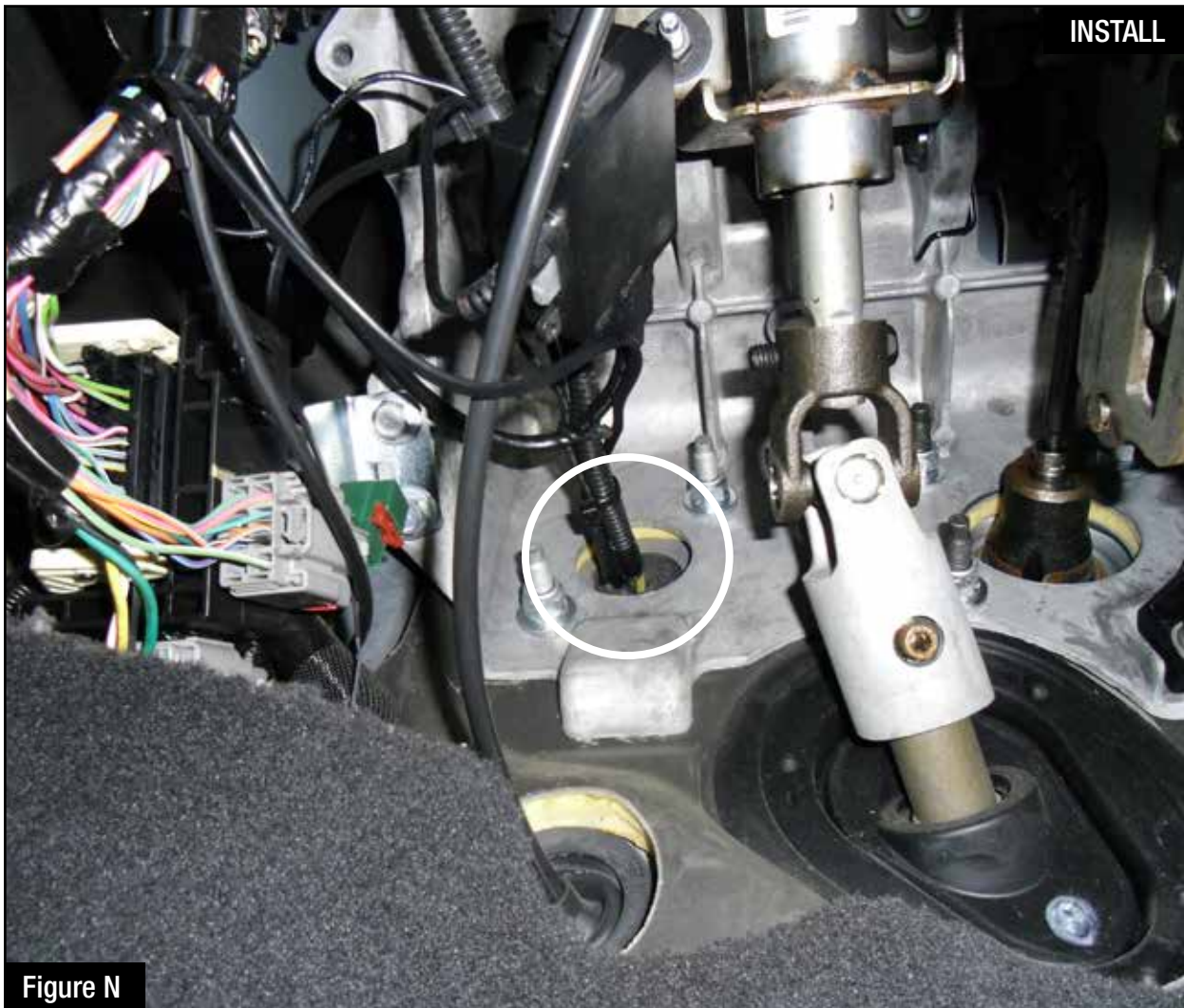


Figure M

Refer to Figure M for Steps 24-25.

Step 24: Select the desired location of the LED switch. Route the cable on the back of the switch to exit toward the top or bottom.

Step 25: Use the provided double sided tape to secure the LED switch in the desired location.

**Figure N****Refer to Figure N for Step 26-27.**

Step 26: Carefully route the switch cable behind steering wheel cover or cabin trim cover.

Step 27: Route the switch cable through firewall and into the engine bay. Follow the main harness through the grommet into the firewall.

**Figure 0****Refer to Figure 0 for Steps 28-30.**

Step 28: Plug the end of the switch cable to the harness inside the engine compartment.

Step 29: Mount the module in a secure location using the provided Velcro.

Step 30: Secure the wires away from any extreme heat and moving parts with the provided ties.



Note: Make sure connections are fully engaged and not reversed. Usually, connectors make a snapping sound when fully engaged.



Figure P

Refer to Figure P for Step 31.

Step 31: When turning on the vehicle, each LED will flash. It will stop at its last setting. The LED on the switch represents the different level of power.

- Green LED: Stock
- Yellow LED: Sport
- Orange LED: Sport+
- Red LED: Race

Use the grey button to select the desired setting. Power adjustments can be done at any moment.

NOTE: Place enclosed CARB EO sticker on or near the device on a smooth, clean surface.

EO identification label is required to pass the smog test inspection.



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Intercooler w/ Tubes



P/N: 46-20032 ('07.5-'09)
46-20132-B ('13-'16')

Rear Differential Cover



P/N: 46-70012-WL (w/ Oil)
46-70012 (Blk)
46-70010 (RAW)

Diesel Fuel System



P/N: 42-12031 (Full-time)
42-12033 (Boost Act.)

Air Intake System



P/N: 50-72005 (P10R)
51-72005 (PDS)
75-72005 (PG7)

Air Intake System



P/N: 50-72003 (P10R)
51-72003 (PDS)

Exhaust System



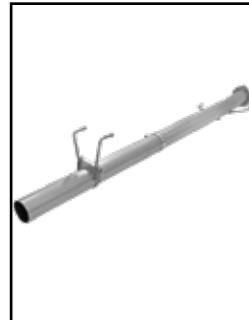
P/N: 49-42054-B (Blk Tip)
49-42054-P (Pol Tip)

Exhaust Manifold



P/N: 46-40054

Exhaust Race Pipe



P/N: 49-42055

Intercooler Tubes



P/N: 46-20034-B ('07.5-'09')
46-20084-B ('10-'12)
46-20134-B ('13-'15)

OER Air Filter



P/N: 30-10102 (P5R)
31-10102 (PDS)
73-10102 (PG7)

Intake Manifold



P/N: 46-10073-1

Fuel Filter



P/N: 44-FF016

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

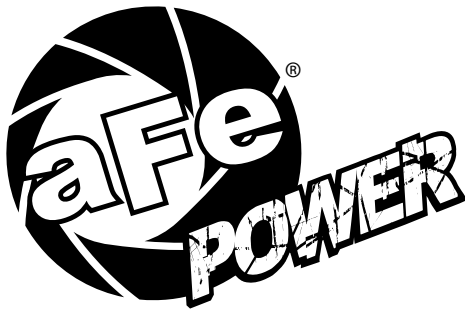
Warranty

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, TF	2 years
Air Intake Systems	50, 51, 54, 55, 75, TR, TA, TL	2 years
Exhaust Systems	49	2 years
Intercoolers & Intercooler Tubes	46-2	2 years
Intake Manifolds	46-1	2 years
Differential Cover	46-7	Life of the vehicle
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
Tuners	77	1 year

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.



advanced FLOW engineering, inc.
252 Granite Street Corona, CA 92879
TEL: 951.493.7100 TECH: 951.493.7134
E-Mail: Tech@aFepower.com