

advanced FLOW engineering

SCORCHER HD Module

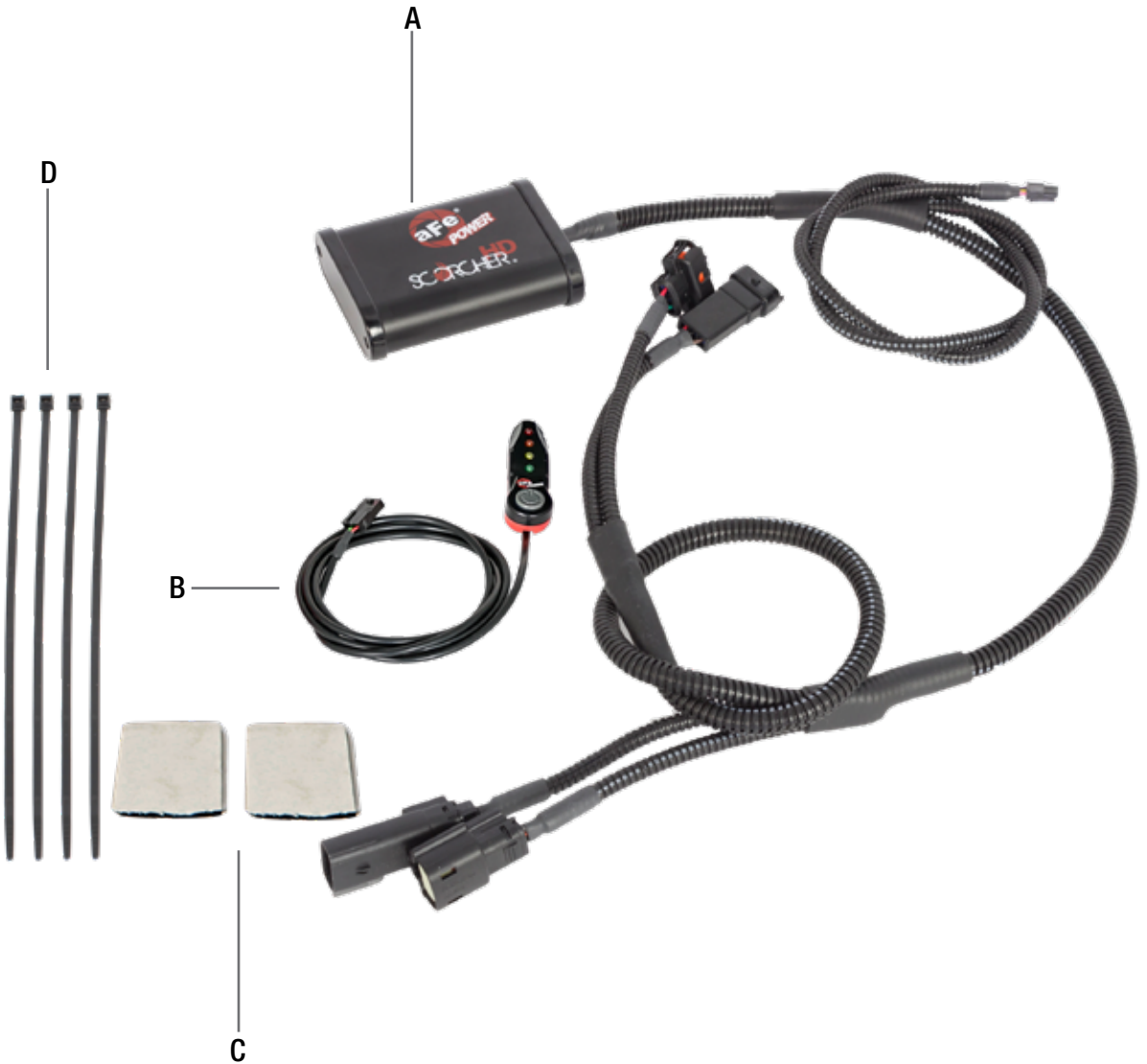
Instruction Manual P/N: 77-42009

Make: **RAM** Model: **2500/3500 HD** Year: **2013-2018** 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.
- 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	R77-42009
B	1	LED Switch	05-70029
C	2	Hook and loop fastener (2 Inches)	05-01244
D	4	Cable Ties	05-60167





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 do this 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.



Figure B

Refer to Figure B for Steps 2-3.

Step 1: Locate the MAP sensor (1). The MAP sensor is on the firewall side of the intake manifold and the connector is gray.

Step 2: Locate the injector plug connectors (2). These are the 2 connectors that are next to the engine valve covers, and have long light blue connectors.

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

Step 4: Locate and disconnect the MAP sensor, by pressing down on the locking tab and sliding the connector out of the sensor.

Step 5: Locate the MAP sensor jumper harness on the aFe POWER harness. This is the longer jumper harness with gray connectors. Plug the female connector of the aFe POWER harness to the MAP sensor, then take the male connector of the aFePower harness and connect to the female connector of the engine harness.



Figure D

Refer to Figure D for Step 9.

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



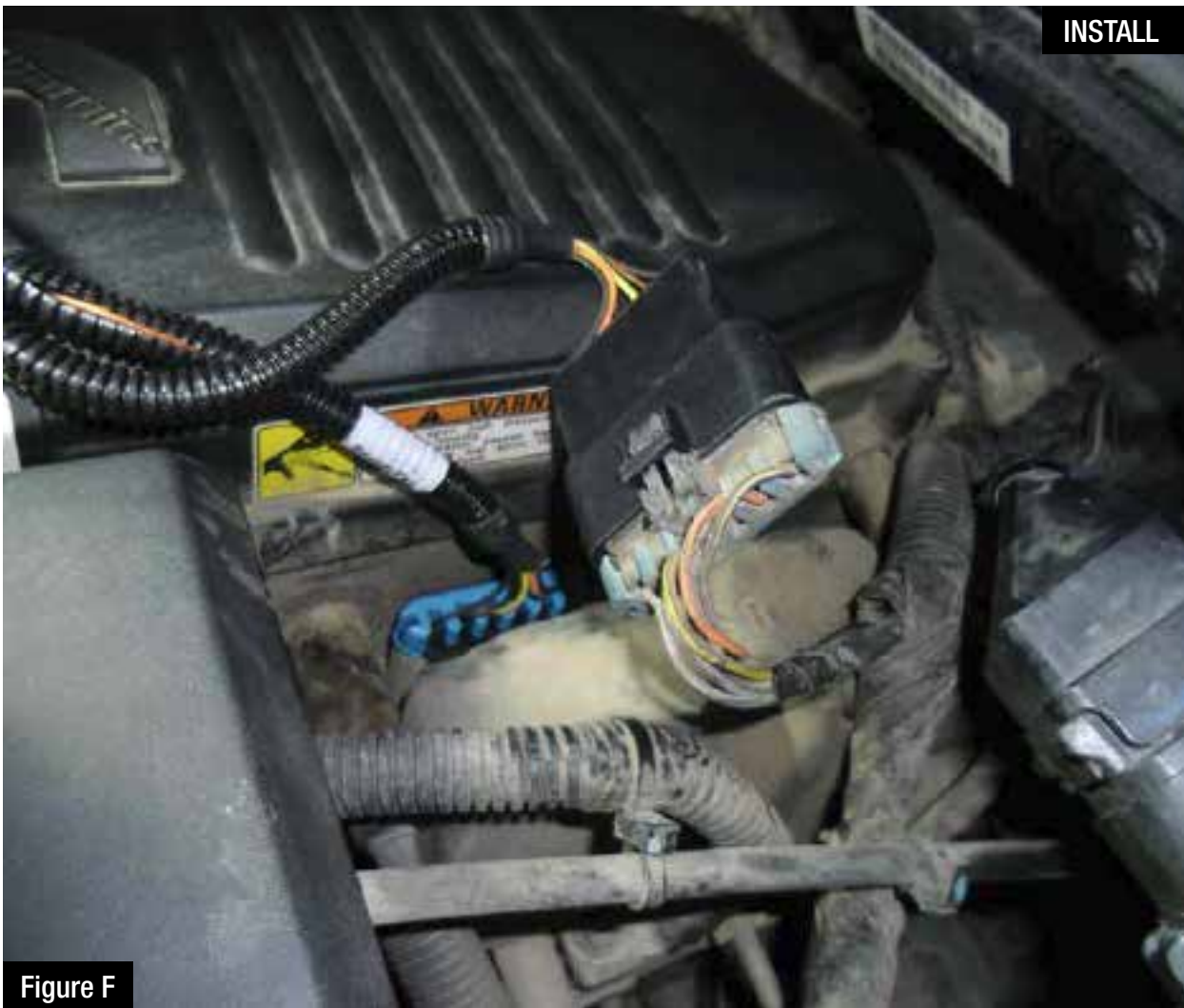
NOTE: Make sure connections are fully engaged. Usually, connectors make a snapping sound when fully engaged.


Figure E

Refer to Figure E for Steps 7-8.

Step 7: Locate and disconnect the front injector connector. Release the connector by sliding a small flat head screwdriver to press and hold down the locking tab, and then wiggle the blue half of the connector up and out of the black half.

Step 8: Locate the front injector plug jumper harness on the aFe module. This is the harness labeled "engine fan." Plug the female connector of the module to the stock injector plug connector, then take the male connector of the module and connect to the female connector of the engine harness.



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. Usually, connectors make a snapping sound when fully engaged.


Figure G

Refer to Figure G for Steps 10-12.

Step 10: Locate and disconnect the rear injector connector. The process is the same as the front connector, but you may have to move the foam insulation to help access this connector.

Step 11: Locate the rear injector plug jumper harness on the aFe module. This is the harness labeled “fly wheel.” Plug the female connector of the module to the stock injector plug connector, then take the male connector of the module and connect to the female connector of the engine harness.

Step 12: Check with the pictures to make sure the connectors are correctly connected.



Figure H

Refer to Figure H for Steps 13-14.

Step 13: Connect the black ground terminal cable on the aFe module to the negative battery post by removing the 13mm nut and placing the terminal and reinstalling the nut.

Step 14: Connect the red power terminal cable on the aFe module to the positive battery post by removing the 10mm nut and placing the terminal and reinstalling the nut.



NOTE: Make sure connections are fully engaged. Usually, connectors make a snapping sound when fully engaged.



Figure I

Refer to Figure I for Steps 15-16.

Step 15: 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 16: Use the provided double sided tape to secure the LED switch in the desired location.



Figure J

Refer to Figure J for Steps 17-18.

Step 17: Carefully route the switch cable behind steering wheel cover or cabin trim cover.

Step 18: Route the switch cable through firewall and into the engine bay. Follow the main harness through the grommet into the firewall.

**Figure K****Refer to Figure K for Steps 19-20.**

Step 19: Connect the LED switch wire to the aFe Power harness.

Step 20: Secure the Scorch HD module on top of the fuse box near the battery, or any other desired location using the provided Hook and loop fastener. Then, secure the wires away from any extreme heat and moving parts with the provided ties.



NOTE: Make sure connections are fully engaged. Usually, connectors make a snapping sound when fully engaged.



Figure L

Refer to Figure L for Step 21.

Step 21: When turning on the vehicle, the switch will go through the light. 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.



Intercooler w/ Tubes



P/N: 46-20132-B

Rear Differential Cover



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

Diesel Fuel System



P/N: 42-12035 (Full-time)
42-12036 (Boost Act.)

Air Intake System



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

Exhaust Race Pipe



P/N: 49-42055

Exhaust System



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

Exhaust Manifold



P/N: 46-40054

Fuel Filter



P/N: 44-FF016

Intercooler Tubes



P/N: 46-20134-B (Blk)
46-20134-R (Red)



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

aFe T-Shirt



P/N: 40-30382 (M)
40-30383 (L)
40-30384 (XL)