



advanced FLOW engineering
Instruction Manual P/N: 46-70270 / 46-70272

Make: **Dodge/Ram** Model: **1500** Year: **1994-Present**



- 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.



Retain factory parts for future use.

Label	Qty.	Description	Part Number
A1	1	Diff. Cover - Machined Fins (Un-Painted)	05-60445A
A2	1	Diff. Cover - Machined Fins	05-60445B
B	1	Plug, Hex Hd Socket: 1/8 NPT (Zn Plt)	03-50029
C	1	Plug, 3/4-14 NPTF, 6" Deep Reach (46-70272)	03-50223
D	1	Plug, 3/4-14 NPTF (46-70270)	03-50391
E	1	Plug, M12 x 1.25 (46-70272)	03-50385
F	1	Plug, 1"-11.5 NPT (46-70270)	03-50390
G	12	Screws, Socket Head Cap: 5/16-18 x 1.0 S/S	03-50227
H	1	Washer, Aluminum: M12	03-50384
I	12	Washer, Flat: 5/16 AN S/S	03-50228
J	1	RTV Silicone, Black Instant Gasket	05-60096
K	1	Porthole View Gauge (Installed in 46-70272)	03-50224

Installation will require the following tools:

13mm socket / wrench, 15mm socket / wrench, 21mm socket / wrench, Socket driver, 14mm socket / wrench, 5/16 Allen, Gasket Scraper, Oil Drain Pan and Lint free rags.

Attention installer / Vehicle owner:

The aFe differential cover is designed to fit the factory axle supplied as original equipment. For some applications, or due to the use of certain factory options and / or after market equipment, there may be clearance problems between the aFe differential cover and other vehicle systems.

It is the responsibility of the installer / vehicle owner to ensure that no other vehicle component come into contact with the aFe differential cover. Contact with any other vehicle component, or any modification made to the aFe differential cover, automatically voids the warranty. aFe assumes no liability, expressed or implied, for damage or injury to persons or property.

C



G



I



F



D



H



E



B



J

A1



A2



**Figure A****Refer to Figure A for steps 1-3**

Step 1: Park your truck on level ground and apply the parking brake.

Step 2: Using a 15mm socket, remove the sway bar from the rear axle.

Step 3: Using a 21mm socket and wrench, remove the rear panhard bar.

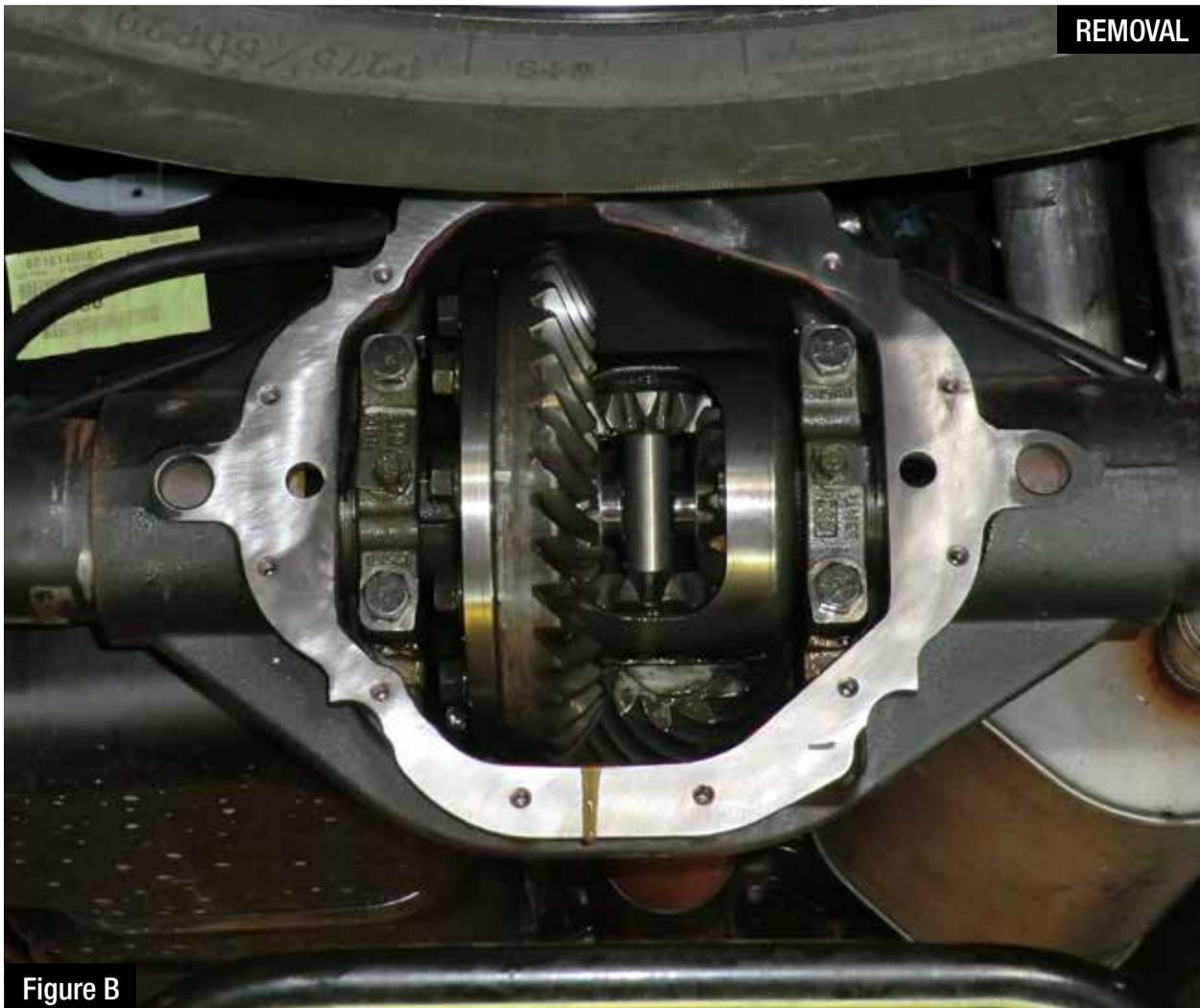


Figure B

Refer to Figure B for steps 4-9

Step 4: Place a drain pan under the rear differential cover.

Step 5: Using a 13mm socket, remove all but 1 of the bolts from the differential cover leaving the last bolt in one of the top holes. Loosen but do not remove the last bolt.

Step 6: Using a gasket scraper, start at the bottom and carefully insert between the cover and the differential housing. Pry the cover off. Remove last bolt and cover from differential.

Step 7: Allow all the oil to drain.

Step 8: Using a gasket scraper, carefully remove the old gasket material until the sealing surface is clean.

Do not gouge the differential sealing surface.

Step 9: Using a lint free rag, wipe all remaining oil and old gasket from differential housing.



Figure C

Refer to Figure C for step 10

Step 10: Using the silicone provided lay a continuous line around the cover (as shown in the photo above).

INSTALL



Figure D

Refer to Figure D for steps 11-12

Step 11: Position the cover by aligning the bolt holes. Start one of the new allen head bolts at the top bolt hole. Continue around the cover until all bolts are started.

Step 12: Using a 5/16 allen socket, torque all allen head bolts to 12-16 ft. lbs.in a cross tightening pattern.



Figure E

Refer to Figure E for step 13

Step 13: Using a 14mm socket, install the drain plug and crush washer into the aFe differential cover.

**Figure F****Refer to Figure F for steps 14-15**

Step 14: Apply teflon pipe sealant tape on the threads of the NPT plug components before installing.

When installing kit number 46-70270 only:

Step 15: Install the 1" NPT plug in the passenger side of the aFe differential cover.



INSTALL



Figure G

Refer to Figure G for steps 16-18

Step 16: Fill the aFe differential cover with new gear oil. Gear oil will run out of the 1/8 NPT hole on the driver's side of the aFe differential cover when it is filled. Install the provided 1/8 NPT plug in the oil level hole and tighten.

When installing kit number 46-70272 only:

Step 17: Install the supplied 6" deep reach magnet in the top fill hole and tighten using 1/2" ratchet torque wrench. **DO NOT OVER TIGHTEN.**

When installing kit number 46-70270 only:

Step 18: Install the supplied 3/4" NPT plug in the top fill plug hole and tighten using 1/2" ratchet torque wrench. **DO NOT OVER TIGHTEN.**

NOTE: If your vehicle has been modified or "lifted" and the axle has been rotated, you will need to establish the correct oil level for your vehicle. NOTE: if fluid is overfilled, it can be drained to the proper level through the side oil level port.



Figure H

Refer to Figure H for steps 19-21

Step 19: Reinstall the rear panhard bar using the factory hardware and tighten.

Step 20: Reinstall the rear sway bar using the factory hardware and tighten.

Step 21: Your installation is now complete. Drive at least 25 miles and check oil level using aFe sight glass and fill if necessary.



Magnum FORCE Air Intake



P/N: 54-12012

Magnum FORCE Air Intake



P/N: 54-11992

Stage-1 Intake System



P/N: 54-10381

Stage-2 Intake System



P/N: 54-10502

Air Intakes



P/N: 30-10071

Oil Filter



P/N: 44-LF006

Throttle Body Spacer



P/N: 46-32002

Throttle Body Spacer



P/N: 46-32004

Cat-Back Exhaust



P/N: 49-42008-1

Twisted Steel Header



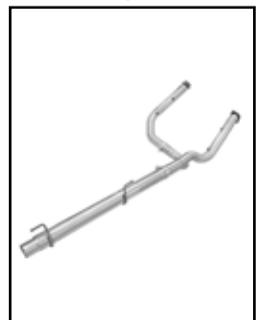
P/N: 48-42001

Cat-Back Exhaust



P/N: 49-42013-P

Atlas Y-Pipe Exhaust



P/N: 48-02004