



**advanced FLOW engineering**

**Instruction Manual** P/N: 46-70370 / 46-70372

Make: **Chevrolet** Model: **Silverado** Year: **1999-2013** Engine: **V8-5.3L/6.0L/6.2L**

Make: **GMC** Model: **Sierra** Year: **1999-2013** Engine: **V8-5.3L/6.0L/6.2L**

**Fits: 9.5 - 14 Bolt Rear Axles Models Only! (Includes Denali Trim)**



- 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
A1	1	Diff. Cover - Black, Machined Fins; Pro Series (46-70372)	05-60758B
A2	1	Diff. Cover - Raw, Machined Fins (46-70370)	05-60758A
B	1	Porthole View Gauge (Included in 46-70372 )	03-50224
C	1	Plug, 3/4" -14 NPTF, 6" Deep Reach	03-50223
D	14	Socket Head Cap Screws, M8 x 1.25 x 30	03-50225
E	1	Plug, Hex Head Socket, 1/8" - 27 NPT (Zn Plt)	03-50029
F	15	Flat Washers	03-50228
G	2	Spacer, Aluminum: 5/8"OD x .319"ID x 1/4"L	03-50529
H	1	Plug, 1"-11.5 NPT (included in kit 46-70370)	03-50390
I	2	Screw, Hex Socket: M8 x 1.25 x 40 (S/S)	03-50245
J	1	Plug, M12 x 1.25	03-50385
K	1	Washer, Aluminum: M12	03-50384
L	1	RTV Silicone, Black	05-60096

Installation will require the following tools:

Oil Drain Pan, 3/8" Drive Ratchet, 13mm Socket, 3/16" Allen Wrench, Gasket Scraper, 10mm Socket, 3/8" Torque Wrench, 1/2" Torque Wrench, 6mm Allen Socket, 14mm Socket, 1/2" Drive Ratchet.

**Warranty Information available at: <https://afepower.com/contact#warranty>**

Attention:

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 aftermarket products, there may be clearance issues with 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 in contact with the aFe differential cover. Contact with any other vehicle component, or any modifications made to the aFe differential cover will automatically void the warranty. aFe assumes no liability, express or implied, for damage or injury to persons or property.

A1



B



C



D



H



E



F



K



J



A2



I



G



L



Figure A

### **Refer to Figure A for steps 1-4**

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

Step 2: Position a drain pan under the differential cover.

Step 3: Using a 13mm socket with 3/8" drive ratchet, begin loosening the lower 7 bolts on the differential cover.

Step 4: Loosen the upper 7 bolts to drain the old gear oil.

**NOTE: You may need to use a gasket scraper so the fluid can start draining. If so, start at the bottom of the cover and carefully (so as not to gouge the housing metal) insert and pry off stock cover.**



Figure B

**Refer to Figure B for steps 5-7**

Step 5: Remove all bolts and allow the last of the old gear oil to drain.

Step 6: Using a clean, lint free rag, wipe down the remaining oil from the housing and sealing surface.  
This surface must be clean for the new gasket to seal.

Step 7: Before installing the aFe differential cover, check the surface of the differential housing for any irregularities. Should there be any, carefully remove any high spots using a smooth flat file.

**DO NOT "ROUND OFF" THE FLAT SEALING SURFACE!**





**Refer to Figure C for steps 8-9**

Step 8: Apply teflon tape on the threads of all the plug components before installing.

Step 9: Install the M12 magnetic drain plug and washer into the bottom of the aFe differential cover and tighten.

**When installing kit number 46-70370 only:**

Step 10: Install the large 1" NPT plug into the large hole on the side of the differential cover (not shown).

**NOTE: Do not overtighten NPT plugs.**



Figure D

**Refer to Figure D for step 11**

Step 11: Using the silicone provided, lay a continuous bead around the cover.

**Figure E****Refer to Figure E for step 12**

Step 12: Install the aFe front differential cover by aligning the bolt holes and start one of the new 30mm socket head cap screws and washers in the top bolt hole. Continue around the bolt pattern until 12 screws and washers are installed and finger tight. Do not install screws in the two positions shown in Figure E.





Figure F

**Refer to Figure F for steps 13-14**

Step 13: Use the 40mm long shcs and spacers to secure the brackets at the top of the cover.

The emergency brake cable bracket requires two washers under the screw head.

**NOTE: If both brackets are not used on your vehicle, use the extra 30mm long bolts provided.**

Step 14: Using a 6mm hex bit and a 3/8 drive torque wrench, torque the socket head cap screws to 12 - 16 ft.-lbs. in a cross tight pattern.



Figure G

**Refer to Figure G for step 15-17**

Step 15: Fill the aFe differential cover using new oil. Fill until the oil runs out of the 1/8" NPT plug of the side of the differential cover.

Step 16: Install the 1/8" NPT plug in the side of the aFe differential cover.

**NOTE: If your vehicle has been modified or lifted and your axle is rotated, you will need to check if you have the correct level of oil in the differential for your vehicle.**

Step 17: Install the 3/4" NPT 6" deep reach magnet into the top of the aFe differential cover and tighten.

INSTALL



Figure H

**Refer to Figure H for step 18**

Step 18: Your installation is now complete.

**NOTE: Retighten all connections after approximately 100-200 miles.**



**advanced FLOW engineering, inc.**

252 Granite Street Corona, CA 92879

TEL: 951.493.7100 • TECH: 951.493.7100 x23

E-Mail: [Tech@aFepower.com](mailto:Tech@aFepower.com)