



## ***advanced FLOW engineering***

### **Instruction Manual P/N: 46-70270 / 46-70272**

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#### **Corporate 9.25 – 12 Bolt Rear Differential Cover**

Make: <b>Dodge</b>	Model: <b>1500</b>	Year: <b>1994-2010</b>	Engine: <b>V6 3.9L</b>
Make: <b>Dodge</b>	Model: <b>1500</b>	Year: <b>1994-2010</b>	Engine: <b>V8 4.7L/5.7L/5.9L</b>
Make: <b>RAM</b>	Model: <b>1500</b>	Year: <b>2011-2018</b>	Engine: <b>V6 3.0L</b>
Make: <b>RAM</b>	Model: <b>1500</b>	Year: <b>2011-2018</b>	Engine: <b>V8 4.7L/5.7L</b>



- 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.
- Ensure that your vehicle is cooled off before proceeding.
- 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	03-60096
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 aftermarket 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.**





1. Park your truck on level ground and apply the parking brake
2. Using a 15mm socket, remove the sway bar from the rear axle.
3. Using a 21mm socket and wrench, remove the rear Panhard bar.



4. Place a drain pan under the rear differential cover.
5. Using a 12mm 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.
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 the differential.
7. Allow all the oil to drain.
8. Using the gasket scraper, carefully remove the old gasket material until the sealing surface is clean.

**Note: Do not gouge the differential sealing surface.**

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





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



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



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





14. Apply Teflon pipe sealant tape on the threads of the NPT plug components before installing.

**When installing kit number 46-70270 only:**

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



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:**

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:**

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. If fluid is overfilled, it can be drained to the proper level through the side oil level port.**



19. Reinstall the rear Panhard bar using the factory hardware and tighten.
20. Reinstall the rear sway bar using the factory hardware and tighten.
21. Your installation is now complete. Drive at least 25 miles and check the oil level using aFe sight glass and sill if necessary.

# 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 Cover/Transmission Pan	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

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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