



***advanced FLOW engineering***

**Instruction Manual** P/N: 46-71110A / 46-71110B

---

Dana 44 – 10 Bolt Differential Cover

Make: **Jeep** Model: **Wrangler** Year: **1997-2018**



- 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	Differential Cover – Raw, Machined Fins (46-71110A)	05-60877A
A2	1	Differential Cover – Black, Machined Fins (46-71110B)	05-60877B
B	1	RTV Silicone, Black Instant Gasket	05-60096
C	10	Screw, Socket Head Cap: 5/16-18 x 3/4"	03-50370
D	12	Washer, Flat	03-50228
E	1	Plug, Magnetic M12 x 1.25	03-50385
F	1	Crush Washer	03-50384
G	1	Plug, 1/8" NPT	03-50029
H	1	Plug, 1/2" NPT	03-50249



A1



A2



B



C



D



E



F



G



H



1. Park your vehicle on a flat, dry surface. You will need to block the tires to prevent the vehicle from rolling.
2. Place a drain pan under the differential cover.
3. If applicable, disconnect the electric locker wire loom from the bracket.
4. Remove the **bottom** 9 bolts from the differential cover.
5. Loosen, but do not remove the top bolt. Break the seal on the cover and the gear oil will begin to drain.





6. Allow all of the gear oil to drain from the differential.
7. Remove the one (1) remaining bolt from the top of the differential cover.
8. Remove the OEM cover from the housing.

**Note: If applicable, also remove the OEM gasket.**



9. Use a clean, lint free shop towel to wipe down the remaining gear oil from the housing.
10. Clean off the sealing surface with a gasket scraper. Be careful not to gouge the surface while cleaning.
11. Check the surface of the housing for any irregularities. If there are any, carefully remove high spots using a smooth flat file.

**Note: DO NOT "ROUND OFF" THE FLAT GASKET SURFACE**





12. Hold the supplied aFe differential cover up to the gasket surface to make sure you will be able to maneuver it into place easily.

**Note: If applicable, you can re-use the OEM gasket in place of RTV silicone.**

13. Spread the supplied RTV silicone across the gasket surface. Be generous when spreading the silicone across the surface, ensuring to follow along the inside of all the bolt holes.

**Note: Before moving on, make sure that the silicone will completely seal with the gasket surface.**



14. Hold the aFe differential cover into position, aligning the screw holes. Install four (4) of the supplied 5/16-18 x 3/4" socket head screws and flat washers into separate sides of the cover to hold it in place.
15. If applicable, use two (2) 5/16-18 x 3/4" socket head screws and four (4) flat washers to secure the electric locker bracket in place. Reinstall the electric locker wire loom onto the bracket.
16. Continue installing the remaining 5/16-18 x 3/4" socket head screws and flat washers finger tight.
17. Torque the mounting screws to 12-16 ft.-lbs. in a crisscross pattern.





18. Install the supplied M12 x 1.25 drain plug and crush washer into the bottom of the cover.



**Note: Wait at least 30 minutes for the RTV silicone to dry before proceeding.**

19. Fill the aFe differential cover using new gear oil. Fill until gear oil runs out of the 1/8" NPT port on the side of the cover (about 2 quarts).

**Note: If your vehicle is lifted and your axle has been rotated, you will have to verify you have the correct oil level for your vehicle.**



20. Apply Teflon pipe sealant to the threads of the supplied 1/8" NPT plug and install into the front of the cover.





21. Apply Teflon pipe sealant to the threads of the supplied 1/2" NPT plug and install into the fill port on the front of the cover.



22. Your installation is complete.

# 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.



This Page Was Left Intentionally Blank



***advanced FLOW engineering, inc.***

252 Granite Street Corona, CA 92879

TEL: 951.493.7100 • TECH: 951.493.7100 x23

E-Mail: Tech@aFepower.com

***06-81191  
1-18-2019 DR***