



# F3 TORQUE CONVERTERS



***Instruction Manual***



## ***Applications:***

### **DODGE:**

Part No.: **43-12011** Model: **Ram 2500/3500** Year: **1994-2002** Engine: **L6-5.9L (td)** Trans: **47RE**

Part No.: **43-12021** Model: **Ram 2500/3500** Year: **2003-2007** Engine: **L6-5.9L (td)** Trans: **48RE**

Part No.: **43-12031** Model: **Ram 2500/3500** Year: **2007.5-2013** Engine: **L6-6.7L (td)** Trans: **68RFE**

### **FORD:**

Part No.: **43-13011** Model: **Super Duty F250/350** Year: **1994-1997** Engine: **V8-7.3L (td)** Trans: **E40D - 6-Stud**

Part No.: **43-13021** Model: **Super Duty F250/350** Year: **1994-1997** Engine: **V8-7.3L (td)** Trans: **E40D - 4-Stud**

Part No.: **43-13031** Model: **Super Duty F250/350** Year: **1999-2003** Engine: **V8-7.3L (td)** Trans: **4R100 - 6-Stud**

Part No.: **43-13041** Model: **Super Duty F250/350** Year: **1999-2003** Engine: **V8-7.3L (td)** Trans: **4R100 - 4-Stud**

Part No.: **43-13051** Model: **Super Duty F250/350** Year: **2003-2007** Engine: **V8-6.0L (td)** Trans: **5R110**

Part No.: **43-13061** Model: **Super Duty F250/350** Year: **2008-2010** Engine: **V8-6.4L (td)** Trans: **5R110W**

Part No.: **43-13071** Model: **Super Duty F250/350** Year: **2011-2013** Engine: **V8-6.7L (td)** Trans: **6R140**

### **GM:**

Part No.: **44-14011** Model: **Silverado HD/Sierra HD** Year: **2001-2013** Engine: **V8-6.6L (td)** Trans: **A1000**

## ***Tools Required:***

3/8" and 1/2" drive ratchets

Metric sockets including 1/2" and 3/8" drive extension

T45 Torx bit (**Ford only**)

Multipurpose Grease

Metric combination or open-end wrench set

Standard and Phillips head screwdrivers

Standard and needle-nose pliers

Clean shop towels or rags

Transmission hoist

Floor jack

C-clamp

Drain pan

ATF (See manufacturers recommendations)

- Ford: **Mercon V (non-torq shift)**
- Ford: **Mercon LV (torq-shift)**
- Chevrolet: **Dexron VI (all models)**
- Dodge: **Mopar +4 (all models)**

320-400 grit sandpaper

Measuring ruler

Pry bar or channel lock pliers

Grease pen

Inch-pound and foot-pound torque wrenches

Barring Tool (**Dodge Only**)

## ***Materials Included:***

**Ford: 43-13011 / 43-13021 / 43-13031 / 43-13041 / 43-13051 / 43-13061 / 43-13071**

Plastic Hub Cap (for core return)

Instructions w/ core return Information

1 - Torque Converter

3/8 x 24 nuts (quantity depending on number of studs on torque converter; 4,6 or 8)

**Chevrolet: 43-14011**

Plastic Hub Cap (for core return)

Instructions w/ core return Information

6 - 10mm x 1.50 x 14mm bolts

1 - Torque Converter

**Dodge: 43-12011 / 43-12021 / 43-12031**

Plastic Hub Cap (for core return)

Instructions w/ core return Information

1 - Torque Converter

1 - O-ring (if required)

6 - 3/8 x 24 x 1/2" bolts

***Please read this entire manual before performing any work.***

## ***Important Notes:***

**aFe POWER RECOMMENDS THIS PRODUCT BE INSTALLED BY A PROFESSIONAL.**

**Ford: 43-13011 / 43-13021 / 43-13031 / 43-13041 / 43-13051 / 43-13061 / 43-13071**

SPECIFIED TORQUE FOR THE MOUNTING NUTS IS **36 – 38 FT. LBS.**

Failure and/or damage due to over-torqued mounting nuts is not covered by warranty repair or replacement!

**Dodge: 43-12031 (68RFE)**

The vehicle computer will need to be cleared as the 68RFE is an adaptive learn type unit.

The only transmission oil that should be used is **MOPAR +4**. Shift feel problems might occur if any other type of oil is used.

**Note:** OE bolts are M10 x 1.5mm. When upgrading this converter you will need to replace bolts with 3/8-24 bolts (supplied with each converter).\*\*

***IMPORTANT: If the aFe F<sup>3</sup> torque converter is installed incorrectly the transmission will be damaged and your warranty will be void.***



## **Transmission Removal:**

1. Block the tires on your vehicle so that it cannot roll.
2. Disconnect both battery cables from all batteries, remove dipstick, and place transmission shift lever to the neutral position. Raise and support the vehicle.
3. Remove any exhaust components required for transmission removal.

### **Remove the engine to transmission struts (if applicable).**

4. Mark drive shaft(s) and yoke for reassembly reference with a paint pen. Remove drive shaft(s).
5. Disconnect the shift linkage, wiring harnesses, vent hoses, and control cables from the transmission.
6. On 4WD models, remove any shift linkage, vent hoses, wiring harnesses, control cables, brackets and braces from the transfer case.

**Use caution when disconnecting wiring harnesses. Do not pry the connectors with a screwdriver. Wiggle the connectors while pulling. Do not pull the wires.**

**On 4WD models, it is not necessary, but will make it easier to remove the transmission if you remove the transfer case.**

**If your vehicle is equipped with a Power Take Off (PTO) unit, disconnect controls and remove it.**

7. Remove the starter.
8. Remove the access cover to the torque converter (if applicable).

**Some vehicles have rubber plugs that will allow you to access the torque converter.**

9. Rotate the crankshaft clockwise and remove torque converter bolts (nuts).
10. Remove the drain plug (if equipped) from the transmission. Drain transmission fluid. Remove the transmission pan. Change the transmission filter. Replace the transmission pan (Do not refill at this time).

**aFe recommends flushing the transmission cooler lines.**

11. Disconnect transmission cooler lines at the transmission and disconnect transmission fill tube. The fill tube may come out at the same time as the transmission. Be careful not to damage the seal.
12. With a transmission jack, secure the transmission to the jack with safety straps or chains.
13. Raise the transmission slightly. Remove bolts (nuts) from the transmission mount and remove the transmission cross member.
14. Remove the remaining bolts (nuts) that are attaching the transmission to the engine.
15. Pull the transmission back away from the engine 2-3 inches. Secure the torque converter to the transmission using a clamp.
16. Remove the transmission slowly, a few inches at a time. Make sure you don't get it hooked on any wires, cooler lines, exhaust tubes, etc..
17. Once the transmission is removed, remove the clamp from the torque converter and record the distance from the pilot to the front of the transmission bell housing.

**Record distance here:** \_\_\_\_\_

**IMPORTANT: Verify that the transmission is secured to the transmission lifting device. When the torque converter is removed, the transmissions center of gravity WILL shift and the transmission may become unstable.**

18. Pull the torque converter out of the transmission.

**Transmission fluid will leak from the torque converter when you remove it.**

**IMPORTANT: Some torque converters have an o-ring on the drive hub. Replace with the supplied o-ring (if applicable).**

Inspect the oil seal on the front of the oil pump on the transmission. Now would be a good time to replace if it is damaged.

19. Fill the aFe torque converter with one quart of the required transmission fluid for the vehicle.

**IMPORTANT: Make sure that there is no paint on the aFe torque converter pilot. If the pilot has paint on it, clean it off with sandpaper or a scotch brite pad.**

20. Install the aFe torque converter onto the transmission input shaft.

**IMPORTANT: When installing, hold the pilot or use two long studs that fit the threads on the face of the converter. Turn the aFe torque converter while pushing lightly. You will hear or feel three “clicks” as the converter splines into each of its positions.**

21. Measure the distance from the pilot hub to the front of the transmission bell housing. Use the measurement that was recorded in Step 17. If the measurement is not the same, the aFe torque converter is not installed correctly and needs to be reinstalled correctly.

**IMPORTANT: If the aFe torque converter is installed incorrectly the transmission will be damaged and your warranty will be void.**

22. You can use a small clamp or other holding device on the edge of the transmission bell housing to secure the aFe torque converter during installation.

23. Lift the transmission into place and align with the back of the engine block. Remove the holding device for the aFe torque converter and push the transmission up to the 2 dowel pins on the back of the engine block. Start two bolts, one on either side of the transmission, closest to the dowel pins. Slide the transmission all the way up to the engine block. Do not use the bolts to pull the transmission into place. It can damage the transmission. Make sure the aFe torque converter pilot seats in the crankshaft bushing. Some vehicles fill tube will slide back in the transmission while installing it. Be careful not to damage the seal. Watch for any wires, cables, hoses or brackets that can be pinched between the transmission and the engine block.

24. Tighten the two bell housing bolts by hand that are closest to the dowel pins.

25. Check to see if the aFe torque converter is installed correctly. The torque converter will move easily if it is installed correctly. If it feels tight, the aFe torque converter is not installed correctly on the front pump of the transmission. Remove the transmission. Remove the aFe torque converter. Reinstall the aFe torque converter and repeat steps 20 -25 for direction

26. When the torque converter moves easily and the transmission is attached to the engine block, install the remaining transmission bell housing bolts and tighten.

27. Install the aFe torque converter bolts (nuts) and torque to manufacturer’s specifications.

**IMPORTANT: Use red Loctite® on the bolts (nuts) holding the torque converter to the flex plate.**



28. Reinstall the fill tube.
29. Reinstall the starter.
30. Reinstall the access cover to the torque converter (if applicable).
31. Reinstall the transmission oil cooler lines and tighten.
32. Reinstall transfer case back on to the transmission. This may require new gaskets (not supplied).
33. Reinstall the wiring harness, cables, linkages, brackets and braces to both the transmission and the transfer case.
34. Reinstall the transmission cross member and tighten. Tighten the bolts (nuts) on the transmission mount.
35. If any exhaust or exhaust brackets were removed, reinstall them and tighten.
36. Reconnect both battery cables to all batteries.
37. Reinstall the drive shaft(s). Make sure that you line up the marks on the yokes and tighten.
38. At this point your installation is complete. Go back through and re-torque all bolts and nuts removed during installation. Check all wiring connections.
39. Make sure the vehicle is on level ground and pour 6 quarts of the manufacturer's recommended transmission fluid into the transmission. Start the truck and allow to run.  
**IMPORTANT: Allow time for the transmission fluid to run down the fill tube. The fluid can coat the fill tube and give you a false reading.**  
Check for leaks as you fill. If you see a leak, stop and repair before continuing.  
**IMPORTANT: Transmission fluid expands when it is hot. Make sure transmission is at operating temperature while adding transmission fluid.**
40. Fill the transmission with fluid until you see the fluid on the dipstick. Apply the vehicle's brakes. Shift the truck through all the gears three times. Allow the transmission to warm up completely. Fill the fluid to the fill mark. Do not overfill.
41. Make sure vehicle is in PARK. Remove the blocks from the tires so that the vehicle can roll.
42. You are now ready for a test drive.

# F<sup>3</sup> Torque Converter Core Return Policy

Thank you for your purchase of a F<sup>3</sup> torque converter from aFe Power. You were charged a refundable core charge during your purchase of your F<sup>3</sup> torque converter. In Order to receive a refund on the core charge, you must follow the core return steps below.

1. Do not throw away or destroy the F<sup>3</sup> torque converter packaging. You will be returning your old torque converter in this box. **Note:** The old torque converter outer housings must be in good condition. Any torque converter that has obvious physical damage (chips, cracks, holes, ect.) will not qualify for a core refund.
2. Drain all of the old transmission fluid from your old torque converter. Sit the unit upside down in a drain pan or container for 12-24hrs. **Note:** Failure to properly drain the torque converter may result in your return not being shipped due to hazardous material.
3. Install supplied plug on used torque converter input hub. **Note:** Core MUST match unit purchased. Cores returned that are not the same application as the F<sup>3</sup> torque converter purchased WILL NOT be refunded.
4. Pack the old torque converter into the F<sup>3</sup> torque converter box. Reseal the container and verify the package is secure and ready for shipping.
5. Contact the aFe Power authorized dealer you purchased the product from and schedule the return of the product. They will usually give you a return goods authorization (RGA) number.
6. Ship the core to the original place of purchase with the RGA number clearly listed on the box.
7. Once the old unit is received and passes inspection, you will receive your core charge refund.

Thank you for your purchase and support of aFe Power. If you have any questions or concerns, please contact the aFe Power Professionals at 888.901.7693.



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aFe Power Diesel T-Shirt



P/N: 40-30222 (L)  
P/N: 40-30223 (XL)  
P/N: 40-30224 (2XL)  
P/N: 40-30225 (3XL)

aFe Power Hat



P/N: 40-10114 (S/M)  
P/N: 40-10115 (L/XL)

aFe Power Ladies Hat



P/N: 40-10112

aFe Power Backpack



P/N: 40-33203

To purchase any of the items above, view airflow charts, dyno graphs, photos, and video; please go to [aFepower.com](http://aFepower.com).

# F<sup>3</sup> Torque Converter Product Warranty Policy

Please read this warranty policy before proceeding with the installation of this advanced FLOW engineering, Inc. (aFe) product.

All warranty is limited only to the repair and/or replacement of the aFe product. **Under no circumstances will the obligation or liability of aFe exceed the purchase price of the product as indicated on the original bill of sale.** aFe excludes and disclaims any liability or obligation for incidental or consequential damages and cost related to such damages including but not limited to installation, removal or repair labor, rental vehicles, hotel costs or any other inconvenience costs. Such costs will be the responsibility of the vehicle owner.

By proceeding with the installation, you acknowledge that you have read our warranty policy and accept the terms above. If you do not wish to proceed, please contact Customer Service and request a Return Goods Authorization (RGA) by emailing [RGA@afepower.com](mailto:RGA@afepower.com) or calling (951) 493-7100.

## 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 were properly followed.

Damage due to improper installation, abuse, unauthorized repair or alteration is not warranted.

To request Return Goods Authorization ("RGA"), email [RGA@afepower.com](mailto: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

F<sup>3</sup> Torque Converter

## P/N Prefix

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## Warranty Duration

Life of the vehicle

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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