

# FORD EXCHANGE ACCUMULATOR BODY

1999 - 2002 4R100 1989 - 1997 E4OD

Part # 1060442 2wd 1060444 4wd

#### **Installation Manual**

(Manual Part# I1060442)



**Quicker Shifts** - Less Heat - Reduced wear on Clutches

- **Accumulator Body** lapped to ensure the sealing surface is flat.
- **Re-Sized Switch Valve Bores** prevents valves from sticking, which has become a common complaint.
- Steel Line Mod Valve with O Ring replaces stock Aluminum Valve
- **Valve Size Increased** which provides faster oil delivery to the Clutch Plates
- **Increased Accumulator Springs** from one to three, with different rate and length to provide firmer shifts under load with NO harsh shifts at low speed.

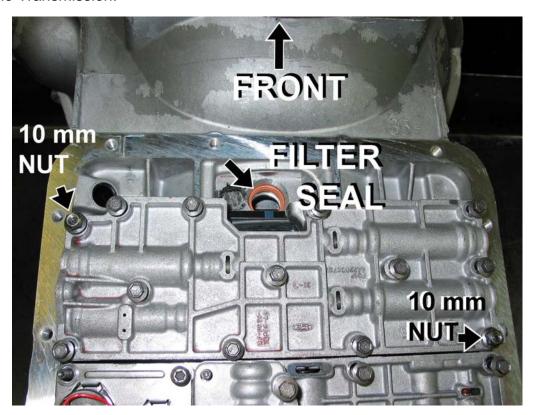
<u>Kit Contents</u>: 1 − 1600037 Accumulator Body

2 – 1600038 Shim 0.100 2 – 1600039 Shim 0.200 1 – 37170X Pan Gasket

1 – 37600 Filter (1060442 2wd kit only) 1 – 37601 Filter (1060444 4wd kit only)

#### **INSTALLATION INSTRUCTIONS**

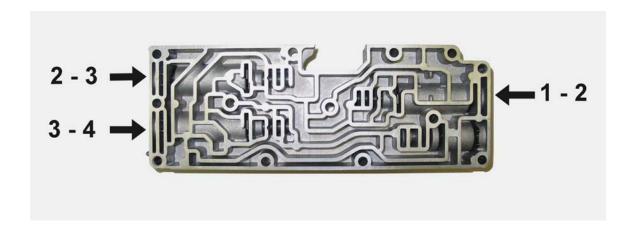
- 1) Remove Transmission Dip Stick
- 2) Raise the Vehicle on a Hoist
- 3) Drain Transmission (If equipped with a Drain Plug) and remove Transmission Pan
- 4) Remove Transmission Filter, pull down gently and twist to remove from the Transmission.



- 5) Remove Filter Seal from Bore in Pump
- Remove 2-10 mm nuts & 11-8mm bolts holding the Accumulator Body and remove Accumulator Body carefully. CAUTION: If there is damage to the gasket, you will have to replace the entire valve body gasket.
- 7) Install BD Exchange Accumulator Body and tighten 11-bolts and 2-nuts to 10 ft. lbs.
- 8) Install new Filter (with new seal), Pan & Drain Plug (if equipped) and torque Transmission Pan bolts to 10–12 ft. lbs.
- 9) Re-fill the Transmission with Mercron III on 1989-1997 E4OD Models or Mercron V on 1997- 2002 4R100 Models through dipstick tube and insert dipstick.

#### FIRMER / SOFTER SHIFTING ADJUSTMENTS

The Accumulator Body can be adjusted to give firmer or softer shifts for any of the shifts (1-2, 2-3, 3-4). To do this, the Accumulator Body will have to be removed from the transmission and shims added or springs taken out of the appropriate accumulator port for the desired shift you wish to change. Each time you remove the Accumulator Body, care must be taken not to damage the gasket under the body, filter seal removed and a new filter (with new seal) & pan gasket be used.





### **Firmer Shifts**

- Remove Clip and Plug from Accumulator to be changed
- Install 0.100 Shim (Slightly Firmer Shifts)
- Install 0.200 Shim (Firmer Shifts)



#### **Softer Shifts**

 Remove Shortest Spring for Softer Shifts on 1-2 or 3-4 Shifts

These adjustments are based upon the configuration of the Accumulator Body as it was shipped. Make note of any shims added to or springs removed from each accumulator for any future adjustments or technical support.

BD Engine Brake Inc. 800-887-5030 / 604-853-6096 Fax: 604-853-8749

http://www.transmissionperformance.com/

## BD ENGINE BRAKE, INC. LIMITED WARRANTY STATEMENT

BD Engine Brake, Inc. (BD) warrants to the original purchaser that any parts purchased shall be free from defects in material workmanship. A defect is defined as a condition that would render the product inoperable. BD limits the liability to the repair or replacement, at BD's option, of any warrantable product, returned prepaid with a complete service history and proof of purchase to the factory. A valid proof of purchase is a dated bill of sale. Repaired or replaced product will be returned to the customer freight collect. Accepted warranty units, which have been replaced, become the sole property of BD.

A Return Authorization (RMA) number obtained in advance from a BD customer service representative must accompany product returned for warranty determination. BD will be the final authority on all warranty decisions.

This warranty shall not apply to any unit that has been improperly stored or installed; or to misapplication, improper operation conditions, accidents, or neglect, or which has been improperly adjusted, repaired, altered, or otherwise mistreated by the owner or his agent or if the transmission that this product is installed in is not within OEM recommended specifications at the time of installation.

This parts warranty shall terminate at the end of 1 year in service with the original user. Labor costs incurred by the removal and replacement of the BD product, while performing warranty work, will be covered for 1 year with proof of installation.

Except as set forth in our parts outline, BD disclaims any implied warranties of merchantability and fitness for a particular purpose. BD also disclaims any liability for incidental or consequential damages including but not limited to, freight, repair labor, rental vehicles, hotel cost or any other inconvenience costs. This warranty is in lieu of all other warranties or guaranties, either expressed or implied, and shall not extend to any consumer or to any person other than the original purchaser residing within the boundaries of the continental U.S. or Canada.