

Mag-Hytec

07/08/17

Installation Recommendations

FORD

4R100 / E4OD TRANSMISSION PAN

Please read these instructions and parts list completely before installing this new transmission pan. Consult your owner's or shop manual for transmission fluid requirements.

TOOLS REQUIRED

13 MM socket wrench and driver (for removing the old cover)
6 MM allen bit with a 3/8 ratchet drive (6 MM allen key is furnished)
3/16 allen bit with a 3/8 ratchet drive (3/16 Allen key is furnished)
5/16 allen bit with a 3/8 ratchet drive (5/16 Allen key is furnished)
3/8 drive torque wrench
Gasket scraper
Smooth flat file by 8 to 12 in. long
Oil drain pan (minimum 12 Qt. capacity)
LE 1150 Mercon approved or ("LE" 7500 Monolec Power Fluid for sever service and HD use) or Equivalent.

PARTS CONTENT

<u>Number</u>	<u>Quantity</u>	<u>Item</u>
1.	1	Mag-Hytec Transmission pan with <u>O-ring ARP 568-284</u> (installed)
2.	22	8 MM x 25 MM zinc plated allen head cap screws (<u>Torque 12-16 ft. lbs</u>)
3.	7	8 MM x 20 MM zinc plated allen head cap screws (<u>Torque 12-16 ft. lbs</u>)
4.	25	5/16 stainless AN washers
5.	1	Drain plug assembly with magnet and <u>O-ring ARP 568-910</u> (installed)
6.	1	1/8 pipe plug SS (for optional temperature sender not included) Drain plug and 1/8 pipe plug (<u>Tighten with two fingers using the short side of allen wrench</u>)

A word of caution to the installer / vehicle owner:

The Mag-Hytec pan is designed to fit the factory Ford E4OD / 4R100 transmission as supplied as original equipment. However, in some applications, or because of the use of certain factory options and/or after market equipment, there may be clearance problems between your Mag-Hytec pan and other vehicle components. It is the responsibility of the vehicle owner / installer to ensure that there is no contact between the pan and other moving or fixed vehicle components **Contact with any vehicle component, or the modifying of the Mag-Hytec pan voids the warranty. Mag-Hytec assumes no liability, expressed or implied, for damage or injury to persons or property.**

FORD 4R100 / E4OD TRANSMISSION PAN**Installation:**

1. **Park your vehicle on level ground and apply the parking brake.** Use jack stands if the vehicle must be raised.
2. Position a large drain pan under the transmission to catch the fluid.
3. Starting at the rear, remove the 18 existing pan bolts, loosen last 2 carefully to keep fluid spills to minimum.
4. Using a gasket scraper, start at the rear of the pan and carefully (so as not to gouge the transmission case) insert between the existing pan and transmission housing and pry the old pan off. Remove last 2 bolts.
5. Allow all of the old oil to drain.
6. Using a gasket scraper, carefully remove all of the old gasket material (dried silicone) from the transmission case.
7. Use clean lint free rags to clean the transmission case gasket surface. The surface must be clean and flat for the gasket to seal.
8. Before installing the new Mag-Hytec pan, check the gasket mating surface on the transmission case for dents, irregularities, or gouges. Should any exist, carefully remove the high spots using a smooth flat file. **BE CAREFUL NOT TO "ROUND OFF" THE FLAT GASKET SURFACE.** Fill any holes with silicone or equivalent.
9. **Check to make sure the threads in the case are deep enough by screwing the 8mm X 25 mm bolt in the case with the washer in place. Measure the threads that stick through; it should be a minimum of 3/8" and a maximum of 1/2".** The front two bolts in the center of the bell housing, 3 bolts in the rear of the case and one by the shift arm is where the 8mm X 20 mm bolts go if needed. These are flat bottom holes and some times they are not drilled and tapped deep enough and if they are forced in the two front bolts will put a dimple in the ID of the pump bore **A BIG NO NO!!!**
10. Remove the filter and replace it with the filter for a 4 wheel drive truck applications (Ford Part #F6TZ7A098BB) or (Purolator Part # 1214). At every change, the 4X4 filter must be used with the Mag-Hytec pan.
11. Apply a thin layer of LE 1150 Mercon oil, (or equivalent) trans fluid to the Mag-Hytec pan O-ring.
12. Align the bolt holes and install the 18 cap screws 8mm X 25mm and six cap screws 8mm x 20mm with washers and tighten "finger tight." A dab of RTV on threads will help keep bolts from vibrating out. See page 4 for diagram of bolt locations.
13. Using a 6MM hex bit and 3/8 drive torque wrench, torque the zinc plated allen cap screws to **(12-16 ft. lbs.)** in a "cross tight" pattern. If you don't have a torque wrench this is a snug hand tightness. **Use only hand tools only, NO AIR TOOLS.**
14. **Check** the drain plug and 1/8 pipe plug for tightness. If you are going to install a temperature sender, do so at this time. Remove the 1/8 pipe plug and install the sender in its place. **Be Sure To Use LPS All Purpose Anti-Seize or equal On The Sender's Pipe Threads. "TIGHTEN" both the DRAIN PLUG and 1/8 PIPE PLUG TO (Tighten with two fingers using the short side of allen wrench) DO NOT OVER TIGHTEN.**
15. Remove the dipstick and add in the new LE 1150 Mercon or **(“LE” 7500 Monolec Power Fluid for sever service and HD applications)** or equivalent. The Mag-Hytec pan will hold approximately 16 quarts of fluid or 7.5 quarts of fluid over a stock 4 x 4 pan, when the torque converter and cooler are both drained the total capacity is now about 24 quarts. See service bulletin for proper fill instructions.

FORD 4R100 / E4OD TRANSMISSION PAN

Maintenance:

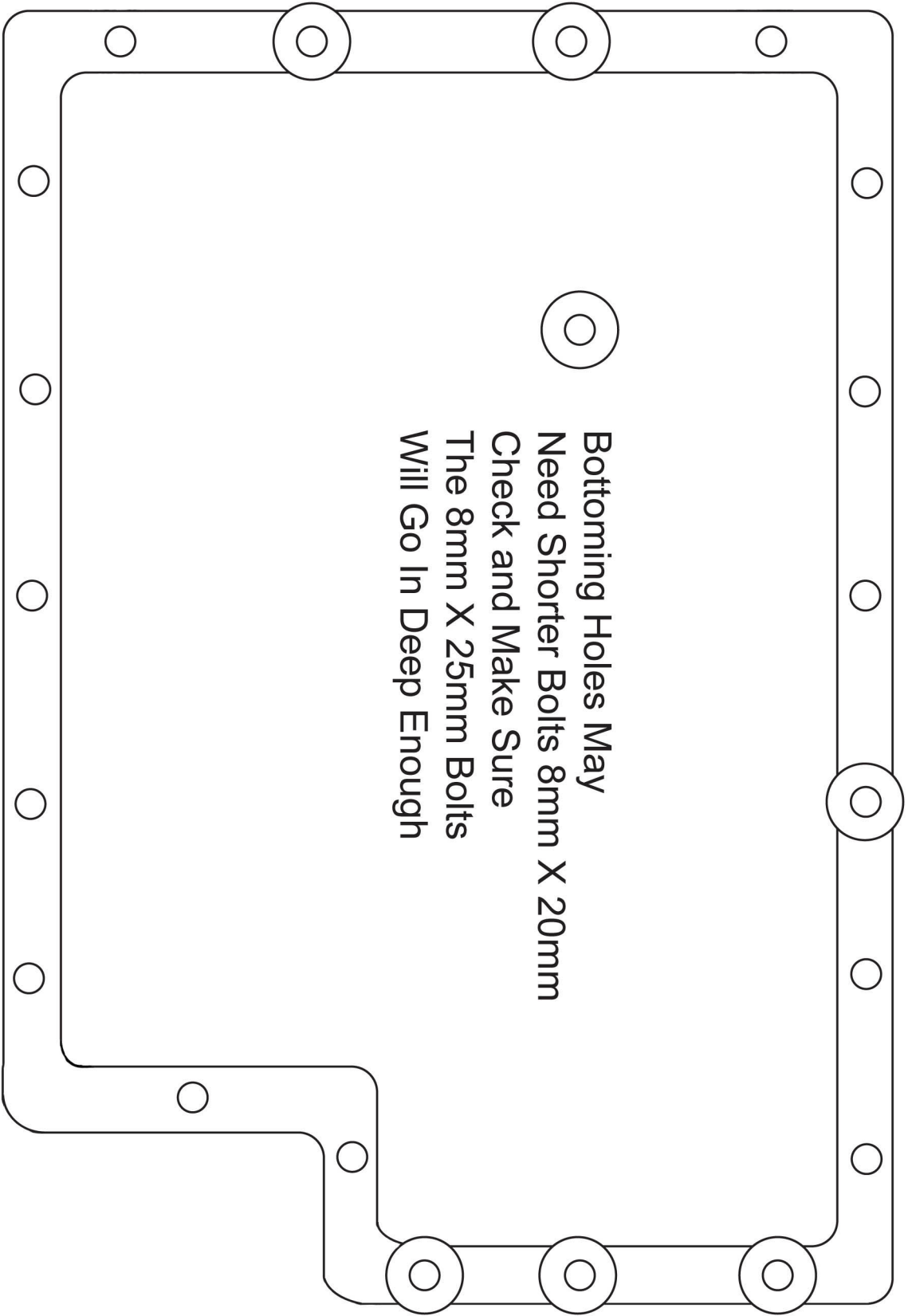
The Mag-Hytec pan is constructed of high quality aircraft aluminum and has a powder-coated finish. The bolts are zinc plated allen head screws and the washers are stainless steel. These components require no maintenance.

We suggest you follow the manufacturer's recommendations for the transmission service intervals. You may drain your transmission oil without removing the Mag-Hytec pan. However, we recommend you remove the pan and change the filter at every transmission oil change. You may notice "fuzzy" metallic particles on the magnetic drain plug. This is normal wear. (If you notice any larger chips of metal on the magnetic portion of the plug, further inspection should be performed. We suggest that this inspection be performed by a professional mechanic who specializes in automatic transmissions.) Remember to clean the drain plug assembly prior to reinstallation. Apply a thin layer of oil to the drain plug O-ring and reinstall. **(Tighten with two fingers using the short side of allen wrench) DO NOT OVER TIGHTEN.** Follow the procedure for filling the transmission.

When it's time to service your transmission, **DO NOT USE ANYTHING TO "PRY" THE PAN FROM THE TRANSMISSION CASE that will damage the gasket surface. If you do damage the surface, use a mill smooth file carefully.**

We at Mag-Hytec invite your comments and suggestions. We are continually looking for better ways to provide the highest level of products and service for our customers. You may submit your comments and suggestions by writing or calling our office at:

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FORD E4OD / 4R100

Service Bulletin #F5R110 / #F4R100

Attention: Fluid Level Very Important

To check Fluid level **two people** will be needed and follow these instructions to insure **no over filling.**

1. Make sure vehicle is level and fluid is cold.
2. One person start vehicle **KEEPING ONE FOOT ON BRAKE,**
3. Shift transmission into drive then into neutral.
4. Second person check fluid right away.
5. Fluid level should be at lower full mark.

Overfilling will cause transmission to overheat, causing fluid to be expelled from vent located at top of case towards rear of transmission.