

Installation Instructions

TH-400 Cast Aluminum Deep Pan

Part No. 20280

(see www.bmracing.com for the latest vehicle fitment applications and model years)

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B&M Deep Oil pans provide several advantages over the stock factory oil pan.

The extra capacity ensures a large volume of oil for the transmission oil pump preventing oil pick-up starvation and added cooling.

The added feature of a drain plug allows regular transmission maintenance and oil changes without the usual mess of removing the oil pan. Also, an 1/8" NPT port has been added to allow for the addition of an automatic transmission temperature sensor.

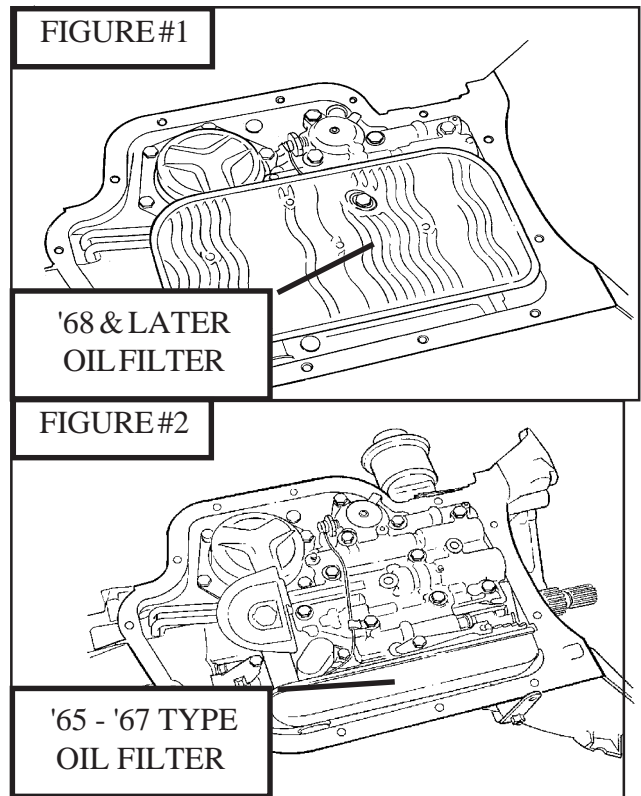
Aluminum oil pans have the added feature of additional cooling from inner and outer fins and provide improved case rigidity.

Before beginning, check the tools and parts list to make sure you have all the necessary parts and tools.

This kit can be installed in a few hours by carefully following directions. Read all instructions first to familiarize yourself with the parts and procedures. Work slowly and do not force any parts.

Automatic transmissions operate at temperatures between 150°F and 250°F. It is suggested that the vehicle be allowed to cool for a few hours to avoid burns from hot oil and parts. The vehicle should be off the ground for ease of installation. Jack stands, wheel ramps or a hoist will work fine. **Make sure vehicle is firmly supported!!** Try to raise it 1 - 2 feet so you have plenty of room to work easily. Also have a small box or pan handy to put bolts in so they won't be lost and a drain pan to catch oil.

STEP 1. Drain oil pan. Loosen and remove oil pan bolts one at a time, working toward the front of the transmission. (Note: some vehicles will require removal of the crossmember to remove the pan. Make sure you support the back of the transmission so you won't damage the distributor). Remove the last two bolts slowly and the pan will tilt down to allow the last of the fluid to drain. If the pan sticks to the old gasket pry it down slightly with a screwdriver before removing the last two bolts, to break the seal. After the last bolt is removed, the pan



can be lowered and set aside.

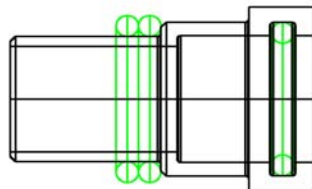
STEP 2. The oil filter will now be exposed . Two types are common:

'65-'67 - This filter is a long box-like unit which runs along the driver's side of the case (See Fig.2). Remove it by grasping both ends of the box and pulling straight down carefully, watching out for oil splatter. Remove the O-ring from the hole in the transmission case if it did not come out with the oil pick-up tube and discard it.

'68 - later - This filter is a large flat ripple-surface filter in the center of the case held in with a bolt (See Fig. 1). Remove the bolt and pull the filter straight down, watching out for oil splatter. If the pickup tube does not come out with the filter, pull it out of the case. Remove the O-ring from the hole in the transmission case if it did not come out with the pick-up tube and discard it.

STEP 3. Inspect your oil filter, if it has varnish on it, or the transmission has more than 20,000 miles, we recommend to replace the filter.

STEP 4. Install supplied (3) O-rings in supplied extension tube. Two of the O-rings fit on the end of the tube against the shoulder and one in the groove (See below).



STEP 5. Lubricate the O-rings with ATF and push the extension tube onto the transmission end of your stock oil pick-up tube. Push the extension tube onto the pick-up tube until it stops against the shoulder on the pick-up tube.

NOTE: The B&M filter extension must be used with the standard depth stock filter pick-up tube. Overall length including B&M extension is approx. 6". Factory GM deep pan filter pickup tubes measure 6" in length do not require B&M filter extension. (See below).



STEP 6. Install oil filter into case:

'65-'67: Push oil filter/extension tube into the hole until the O-rings on the extension tube stop against the case. The filter will hang in mid-air.

'68-later: Push the pick-up tube extension tube into the hole until the O-rings on the extension tube stop against the case. Install filter onto the end of the pick-up tube. Install supplied 5/16-18 x 1 1/2" bolt through hole in the filter. Thread 5/16 - 18 nut onto end of bolt. Thread bolt into tapped hole in valve body until filter is lever. Hold bolt in the position and tighten nut against valve body.

NOTE: If using the Factory GM deep pan filter pickup tube, you **must** use the B&M supplied 5/16-18 bolt and nut to attach the filter.

STEP 7. Scrape old gasket off surface of case. Old gasket material can cause leaks. Install deep pan and new gasket onto transmission. Install (11) 5/16-18 x 1" bolts and flat washers and tighten to 12-13 ft.-lbs.

NOTE: (2) 5/16 - 18 x 1 1/4" bolts are to be used to fasten the cable bracket to the deep pan. Do not use these bolts in any other location. Do not overtighten as this can damage pan. Install drain plug and tighten securely. Some shifter brackets may have to be modified slightly for clearance

STEP 8. If using a temperature sensor, install in provided 1/8" NPT port on driver's side, otherwise tighten 1/8" NPT plug.

STEP 9. Lower vehicle but try to keep rear wheels off the ground. Add 6 quarts of B&M Trick Shift ATF or equivalent fluid. If Trick Shift is unavailable, B&M recommends Ford Type F fluid over Dexron or Type A.

STEP 10. Start engine and place shifter in Neutral position. Add fluid until oil level is between the Add and Full marks. Shift transmission through all gear positions several times. Place shifter in Neutral and check fluid level. Do not overfill as this will cause foaming and overheating. Check for leaks.

PARTS LIST

1	Oil Pan
1	Pan Gasket
1	Drain Plug and Gasket
1	Filter Extension
3	O-rings
1	Filter Extension Screws
1	5/16 - 18 nut
1	5/16 - 18 - 1 1/2" bolt
2	5/16 - 18 - 1 1/4" bolts
13	5/16" Flat Washers
11	5/16 - 18 - 1" bolts

TOOL LIST

1	1/2" Socket - 3/8" Drive
1	Ratchet - 3/8" Drive
1	1/2" Wrench
1	Flat Blade Screwdriver
1	3/4" Wrench
1	Scraper
1	Torque Wrench 50 ft.-lbs. (optional)