

## Instructions

# Cast Aluminum Differential Cover for Chevy 8.2", 8.5" & 8.6" 10 Bolt

Part Number 70502, 71502

This **B&M Cast Aluminum Differential Cover** has been designed to work on most GM vehicles equipped with a Chevy 8.2", 8.5" & 8.6" 10 bolt style rear axle. The **B&M Cast Aluminum Differential Cover** provides several advantages over stock factory covers. The extra capacity provides increased oil volume and added cooling, while the thick aluminum construction increases case rigidity. The reinforced center bar, along with the load bolts, prevents bearing cap deflection under severe loads. The magnetic drain plug feature allows regular gear oil changes without the usual mess, and limits ferrous debris from circulating in the axle.

### INTRODUCTION

This differential cover can be installed in about an hour by carefully following the instructions. It is suggested that the vehicle be allowed to cool off 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 - DO NOT WORK UNDER A VEHICLE IF IT IS SUPPORTED BY ONLY A JACK!**

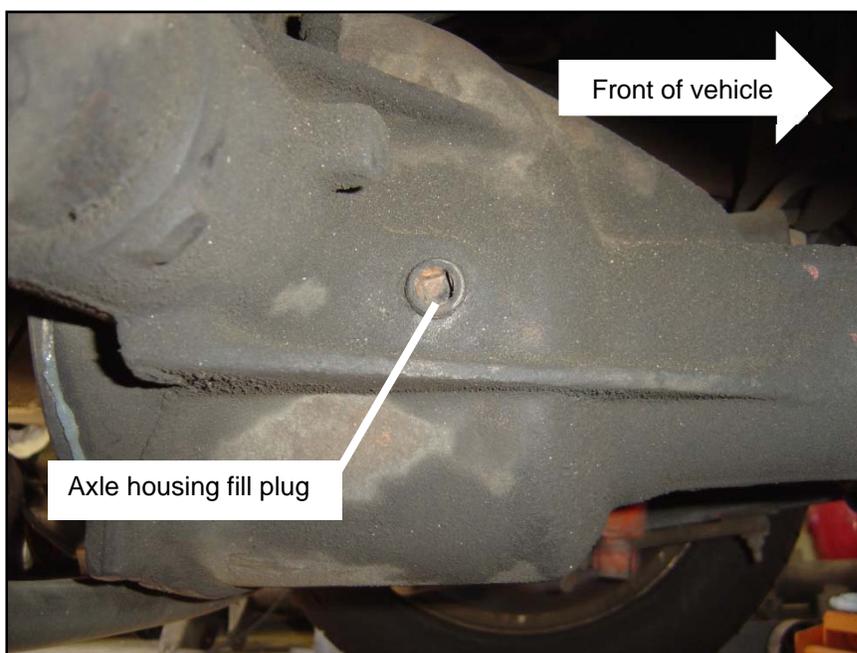


Figure 1

Try to raise the vehicle 1-2 feet so you will have plenty of room to work. Also, have a small box to put bolts in and a drain pan to catch oil.

### INSTALLATION

**STEP 1.** Clean axle housing cover area from dirt and other debris.

**NOTE:** On some vehicles it

might be necessary to remove some parts (e.g. sway bar, panhard rod) to make the installation of the cover easier.

**STEP 2.** Place a drain pan underneath the axle housing.

**STEP 3.** Remove the axle housing fill plug with a 3/8" square ratchet and extension (**See Figure 1**).

**NOTE:** The fill plug is on the cover on newer vehicles with an

**8.6" axle.**

**STEP 4.** Remove all the bolts except one at the top. Loosen the remaining bolt but do not remove.

**STEP 5.** Carefully pry the cover loose with a flat head screw driver, being careful not to damage the surface, and allow the oil to drain.

**STEP 6.** Remove the last bolt and the cover once completely drained.

**STEP 7.** Using a dry lint free rag, clean the accessible areas of the axle housing and check internal components for visible excessive wear or other problems.

**STEP 8.** Clean all gasket material from the axle housing surface (See Figure 2).

**STEP 9.** We recommend running a 5/16"-18 or M8x1.25 (some applications have metric fasteners) tap through each threaded cover hole on the axle housing to ensure an accurate torque on all bolts.

**CAUTION!: Never loosen the load bolts past this point on the outside of the cover. Loosening the load bolts past this point will strip the swivel-pad off of the load bolt, causing the bolt to break. Always ensure that the swivel-pad swivels freely on the end of the bolt.**

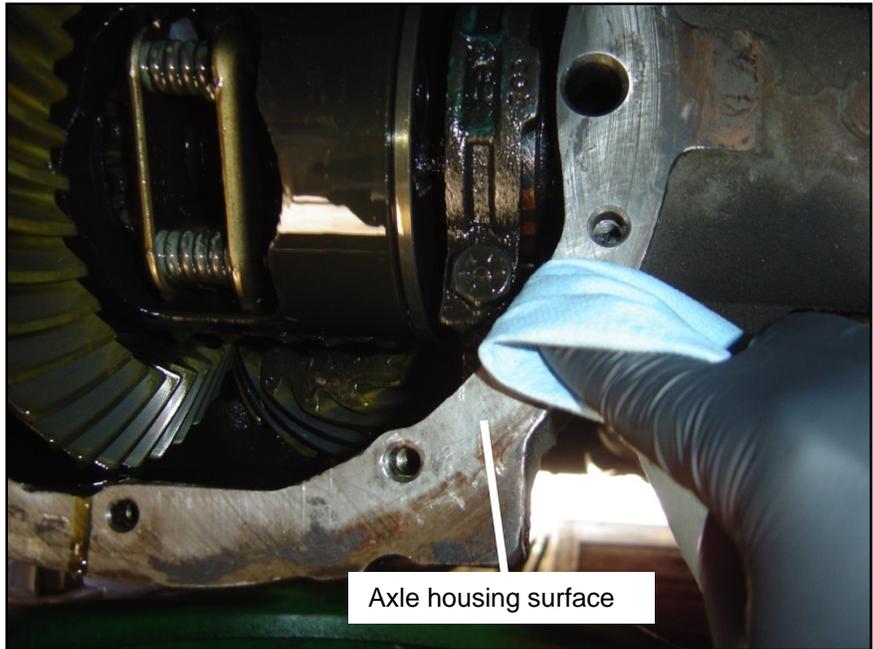
**STEP 10.** Install the supplied load bolts in each boss from the inside of the B&M Cast Aluminum Differential Cover until they bottom out (See Figure 3 & 4).

**STEP 11.** Apply a bead of RTV silicone gasket maker to the B&M Cast Aluminum Differential Cover. Run the bead inside the bolt holes (See Figure 4).

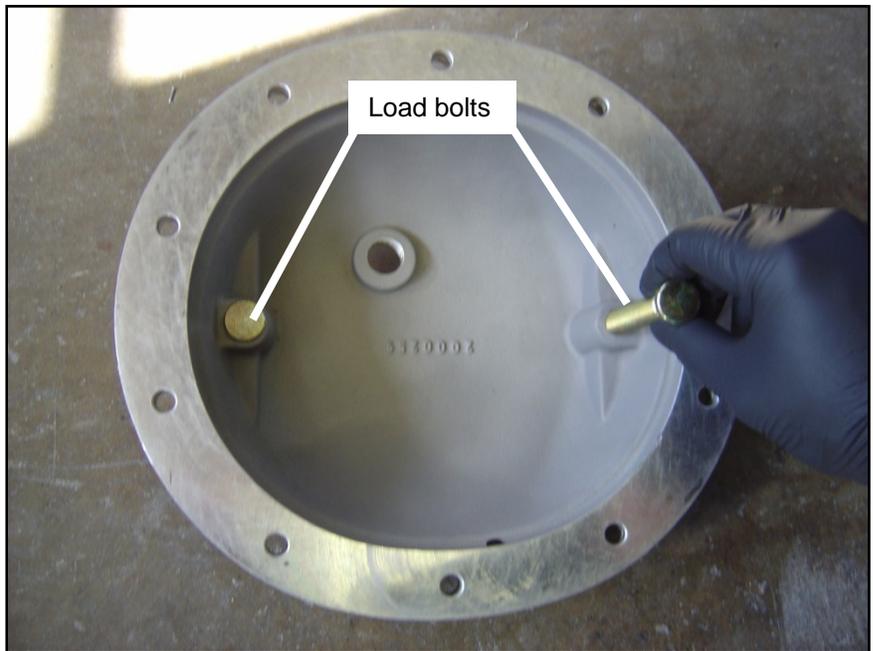
**STEP 12.** Install the B&M Cast Aluminum Differential Cover on the axle housing using a supplied bolt and washer at a bottom hole on the cover so it can be used as a guide.

**STEP 13.** Install the rest of the supplied bolts and washers and torque to 15 ft/lb in a crisscross pattern.

**STEP 14.** Screw in the two load bolts by hand until they just touch the bearing caps. Torque the load bolts to 5 ft/lb MAXIMUM (this is equivalent to finger-tight without using any tool (hex-wrench)).



**Figure 2**



**Figure 3**

**CAUTION!: DO NOT over torque the load bolts as you run the risk of breaking the load bolt (they are designed to break if over torqued), distorting the bearing caps, creating abnormal wear and premature failure.**

**STEP 15.** Apply a very small amount of RTV on the threads of the load bolts and install on the two supplied jam nuts on the load bolts.

Torque the jam nuts to 5 ft/lb. Again, do not over torque the jam nut – a light to snug (finger-tight no-tool) fit is good. Over tightening will cause premature failure.

**STEP 16.** Install the supplied magnetic 1/4" NPTF drain plug on the B&M Cast Aluminum Rear End Cover and tighten (See Figure 5).

**STEP 17.** Fill with factory recommended gear oil using the

**B&M Cast Aluminum Rear End Cover** fill plug hole (See Figure 5). Add gear oil until oil runs out of the axle housing fill hole.

**NOTE:** Add the correct amount of fluid as listed on your owners manual plus an extra 0.4 quarts on vehicles with the fill plug on the cover. Overfilling can cause differential problems.

**STEP 18.** Install the axle housing fill plug and torque to 20 ft/lb.

**STEP 19.** Install the supplied 1/2" NPT fill plug on the **B&M Cast Aluminum Rear End Cover** and tighten.

**STEP 20.** Install and tighten any other parts (e.g., sway bar, panhard rod) if removed.

**Owner's Manual/Maintenance Booklet recommends replacing axle lubricant anytime axle is submerged in water. (Refer to Owner's Manual/Maintenance Booklet for details).**

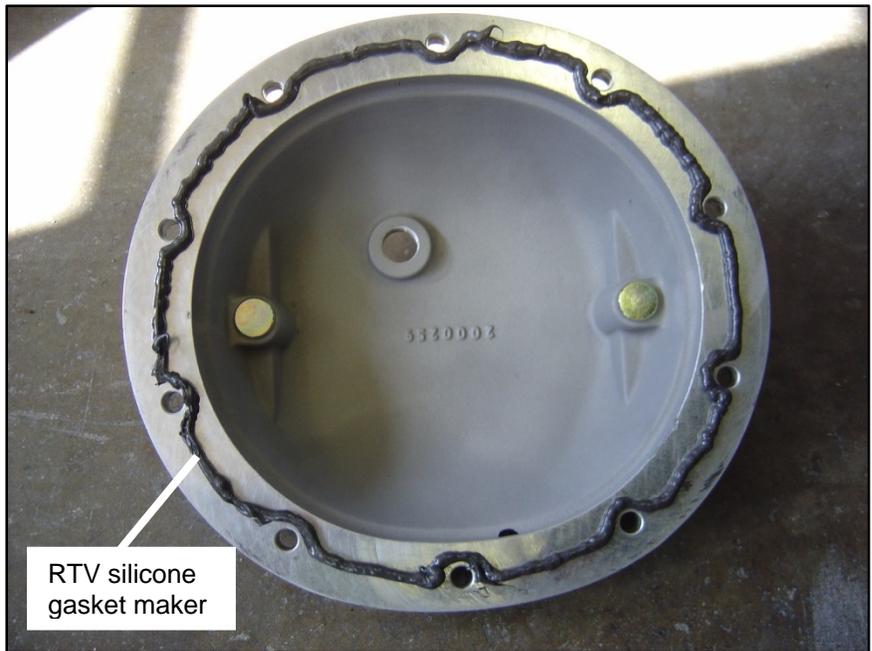


Figure 4

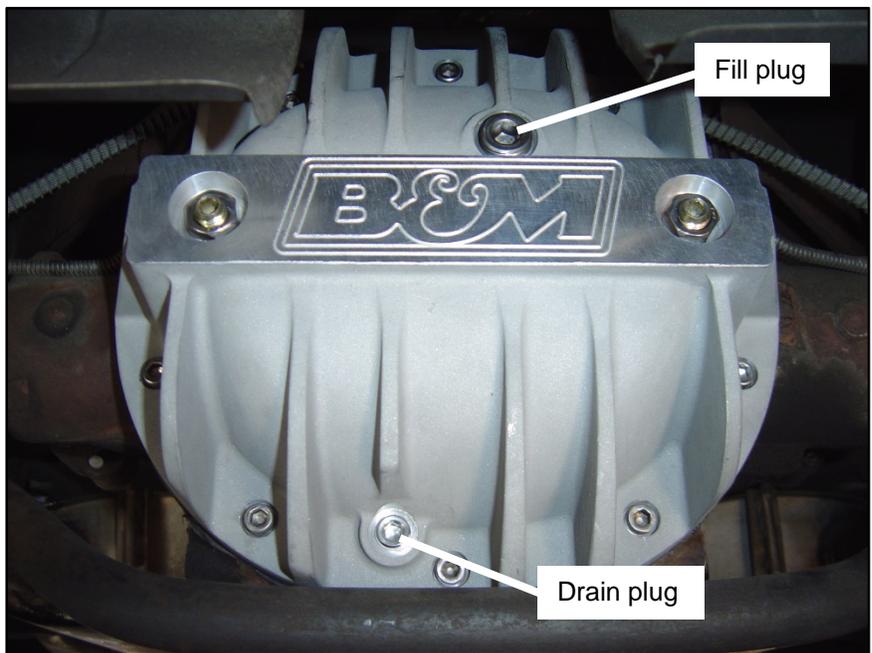


Figure 5

#### Parts List

- (1) Cast Aluminum Cover
- (2) Load Bolts
- (2) Jam Nuts
- (1) 1/4" NPTF Drain Plug
- (1) 1/2" NPT Filler Plug
- (10) 5/16"-18 Bolts
- (10) 5/16" Washers
- (10) M8-1.25x30mm Bolts  
(used on some applications)

#### Tools List

- Jack & Jack Stands
- Drain Pan
- Rags
- RTV Silicone Gasket Maker
- Gear Oil
- Gear Oil Pump
- Torque Wrenches
- 3/8" Ratchet & 3" Extension
- 1/4" Allen
- 3/8" Allen
- 3/4" Socket
- 1/2" Socket
- Flat Blade Screwdriver