

# INSTALLATION - SERVICE INSTRUCTIONS

765 South Pierce Avenue Louisville, Colorado 80127

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Bulletin #35 page 1 of 2 **Brake Kits w/Steel Rotors** December '02

**PART NUMBERS:**

**DESCRIPTION**

- 71025 / 71050.....Olds/Pontiac Disc Brake Kit (ends rotated 90 degrees).
- 71125 / 71150.....Olds/Pontiac Disc Brake Kit (ends in stock position).
- 71225 / 71250.....Symmetrical Disc Brake Kit.
- 71525 / 71550.....Large Ford Disc Brake Kit.
- 71625 / 71650.....Mopar Disc Brake Kit.
- 71725 / 71750.....GM Passenger Car Disc Brake Kit (stock ends).
- 71825 / 71850.....Small Ford Disc Brake Kit (Mustang).
- 71925 / 71950.....GM Passenger Car Disc Brake Kit (with MW "C"-clip kit).

*(Kits ending in 25 have solid steel rotors. Kits ending in 50 have drilled steel rotors)*

**PARTS INCLUDED:**

- 2 - 81100.....MW 4 piston brake calipers.
- 4 - 81130.....Brake lining for MW calipers.
- 2 - 71005.....Drilled steel brake rotor (kits ending in 50)
- 2 - 71007.....Solid steel brake rotor w/cleaning grooves (kits ending in 25).
- 1 - 58570.....Backing plate bolt kit (all kits except 71525 & 71550).
- 1 - 58575.....Backing plate bolt kit (71525 & 71550 kits only).
- 4 - AN10-6A.....3/8-24 x 1.015" caliper attachment bolts.
- 4 - AN122584.....Hardened washer for caliper attachment bolts.
- 2 - 71XXX.....Caliper mounting brackets (to suit each kit).
- 16 - 215.05.12NC.....5/16-18 x 3/4" rotor attachment bolts.
- 2-71022.....Rotor adapter hat with 4-1/2", 4 3/4" and 5" x 5 bolt patterns.

**PRIMARY APPLICATIONS:**

*Drag racing applications.*

**INSTALLATION OVERVIEW:**

Prior to actual installation three important dimensions need to be checked (see Diagram A). The axle flange diameter must be 6.248" (J) or less. The brake drum register must be no larger than 3.060" diameter (K). The third and most critical dimension is the axle standout. (G) This measurement is taken from the outside face of the axle flange to the outside face of the housing end with the axle fully seated in the housing. This should be measured as accurately as possible. After measuring and identifying the type of housing end and brake kit being used, compare to the chart below. Dimension should match one given below +/- .020. If the dimensions are slight less (up to .062" shallow) than the value shims can be placed against the axle flange to increase to the required distance. The shim, P/N 71009, has three patterns for the 11/16" diameter drive studs and is .015 thick.

**Axle Standout Dimensions:**

- Olds/Pontiac.....2.834"
- Symmetrical.....2.834"
- Large Ford.....2.500"
- Small Ford.....2.500"
- GM 10/12 Bolt.....2.812"
- Mopar.....2.500"

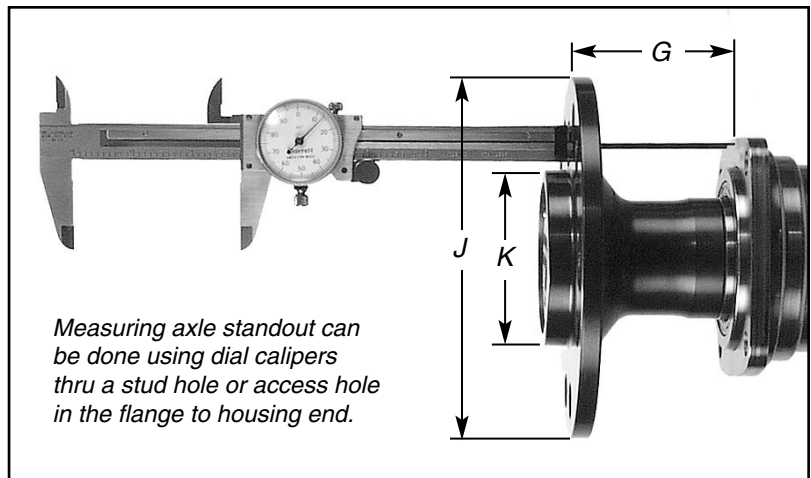


Diagram A

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## INSTALLATION OVERVIEW continued:

After the axle standout and diameters have been verified install the axles in the housing in the normal manor. If the rear is using stock Mopar ends or a c-clip eliminator kit see the special note below before proceeding.

- 1) Slide caliper mounting brackets over axle shaft and on to backing plate bolts and install washers and nuts. Brackets are designed to position the calipers at 3 or 9 o'clock for ease of bleeding the system. Caliper brackets also serve as bearing retainers in most applications and have a counter bore on the inboard side of the bracket that goes over the bearing that stick out of the housing. Brackets should fit flat against the housing end and not have to be drawn down (bending the bracket)
- 2) Slide assembled hat and rotor over the axle flange. Make sure the hat seats flush against the axle flange, if it does not check the chamfer on the axle flange (must be at least .060 x 45 degree). With hats held in place with lug nuts and washer, check brake rotor run-out by mounting an indicator to the caliper bracket and indicating the disc face (.005" maximum). If the run out is excessive check the axle flange run-out and correct. MW kits are designed to use the 11/16" diameter shoulder "Drive Studs". If you are using 1/2" diameter wheel studs a bushing is available (p/n 71016) that goes into the adapter
- 2) Bolt caliper to mounting bracket with the supplied 3/8-24 x 1.015" AN bolts and hardened washer. Torque to 35-ft/lbs. Center parting line of caliper should be directly over the center of the rotor. .015 thick shims are available if disc needs to be moved outboard.
- 3) Remove 5/16" bridge bolt and bushing and install brake lining. Re-install bushing and bolt and torque to 20-25 ft/lbs.
- 4) Attach brake lines and bleed the system.
- 5) Install wheel and check clearance between inside of the wheel and the caliper (1/8" minimum).

### **Special note for 71625 / 71650 Mopar kits.**

When using stock Mopar housing ends you must use the 56001 axle bearings. The steel retainer that is attached to the bearing must be removed before installing the bearing. This does not create a problem when MW 53185 housing ends are used, but when using stock ends some method of keeping the axles from moving inboard must be used. One option, when using a spool, is to place a spacer between the ends of the two axles (a stock carrier has this spacer). This will keep both axles in the proper position but sometimes is not very practical. The other option is to place a spacer ring in the housing ends prior to installing the axles and bearings. The O.D. of these spacers must be 2.875" and I.D. 2.500". The thickness may vary with depth of the stock housing ends. We produce a spacer (p/n 56001-3) that is extra long and can be trimmed to the proper length (.820" from the housing end flange to the spacer). Also when using MW 53189 ends that utilize a large OD (3.150") axle bearing the counterbore in the bracket must be enlarged from 2.875" to 3.150" +.002" -.000" to a depth of .135"

### **Special note for 71925 / 71950 GM kits.**

The 72900 kit is designed to be used with a MW "C" clip eliminator kit with a minor modification to the bearing housing in the "C" clip kit. With the bearing housing removed the inner face (the side next to the backing plate) must have .212" removed. This will bring the thickness of the bearing housing down to 0.980" +/- .002". This modification assures caliper alignment and that the overall width of the rear remains the same.

## TORQUE SPECS:

- Rotor attachment bolts (5/16-18 ) 25 ft/lbs.
- Caliper mount nuts (3/8-24) 30 ft/lbs.
- Caliper attachment bolts (3/8-24 AN) 35 ft/lbs.

## MAINTENANCE REQUIREMENTS:

Periodic visual inspection of entire system for leaks and damaged parts. Check rotors for excessive heat (metal moving) warpage (saucer shaped) and run-out (excess of .010" TIR). Any of the rotor conditions require replacement of the rotors. We do not recommend re-surfacing the rotors. Check torque on disc attachment and caliper mounting bolts. Check pads for excessive or uneven (tapered) wear. Pads should be changed when friction material is down to approximately 3/16". If pads are run thinner than 3/16" pistons can become cocked from extending out of bore and not retract properly. Also thin pads cause excess heat transfer to the caliper causing brake fluid to boil and complete loss of pedal. When changing pads, calipers should be thoroughly cleaned, especially the pistons before they are pushed back into the bores to accept new pads. Yearly overhaul of calipers is highly recommended to eliminate piston sticking.