Ford Model A Rear Disc Brake Installation

Warning: Improper installation may result in serious injury or death.

You must have an appropriate level of automotive technical skill in order to properly install a brake kit. If you do not have an appropriate level of skill, you will need to seek the support of a skilled automotive technician.

This kit is intended for stock Model A wheels and tires or 16" (1935) wheels with the 4" to 5" tire width. If you are building a hot rod with wide tires and offset wheels, you should be looking at one of the many hot rod kits available.

This kit is designed to be installed without permanently changing the stock parts of the Model A. It can be completely removed and the stock parts re-installed to return to the mechanical drum brakes.

Some of the standard procedures can be found in the book "Model A Ford Mechanics Handbook, Vol 1" by Les Andrews. This is a popular resource for general mechanics for the Model A, but not the only one.

Properly support the car with the rear wheels off the ground using appropriate jack stands or other supports.

Standard Model A Procedure: Remove the wheels, brake drum/hub assembly using a hub removal tool, parking brake shoes with its backing plate, brake shoes and backing plates, service brake actuator rods, grease baffle, etc, leaving the bare end of the axle. Clean the mounting surfaces and mounting holes.

The Stock Model A parking brake actuator rods will be reused for the parking brake used in the disc brake assembly. The stock Model A backing plate mounting bolts will also be reused (or replaced with new parts; 4X Long Bolt A-2248, 4X Short Bolt A-2249, 8X Castle Nut A-2250, cotter pins).

Included in the Rear Brake Kit:

Backing plate for parking brake assembly

Parking brake anchor with attachment screws

Parking brake actuator assembly

Parking Brake Shoe Mounting Pins with adpaters

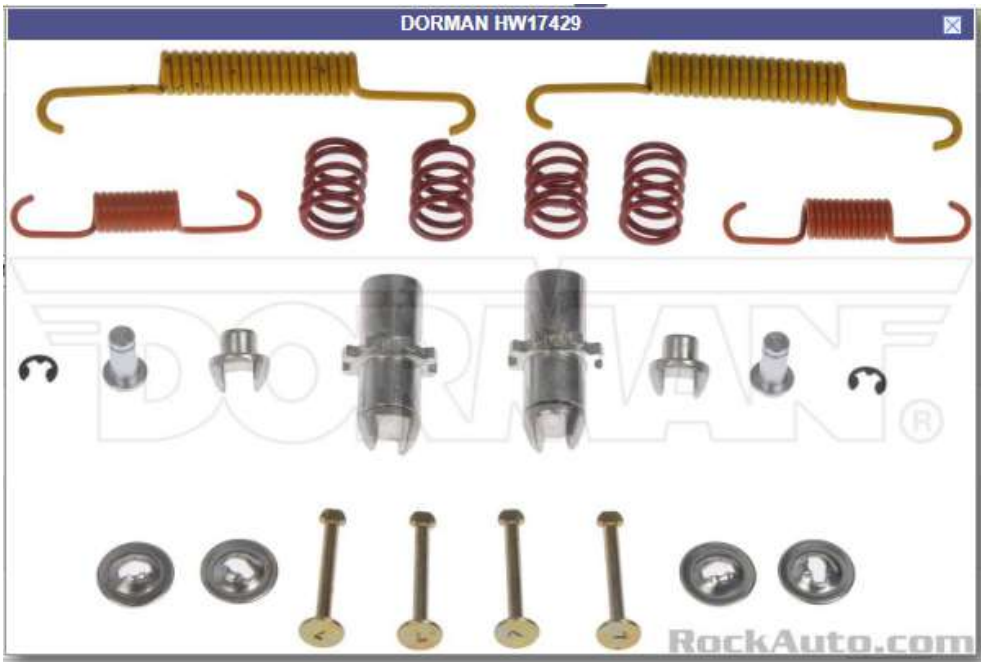
Caliper mounting bracket

Caliper mounting bracket spacers

Caliper bracket mounting bolts

2004 Kia Sorento Parking Brake Shoes

2004 Kia Sorento Parking Brake Hardware Kit (retaining springs, pins etc). Dorman HW-17429 kit is shown as an example below.



*thank you to RockAuto.com for the image

Must be purchased separately:

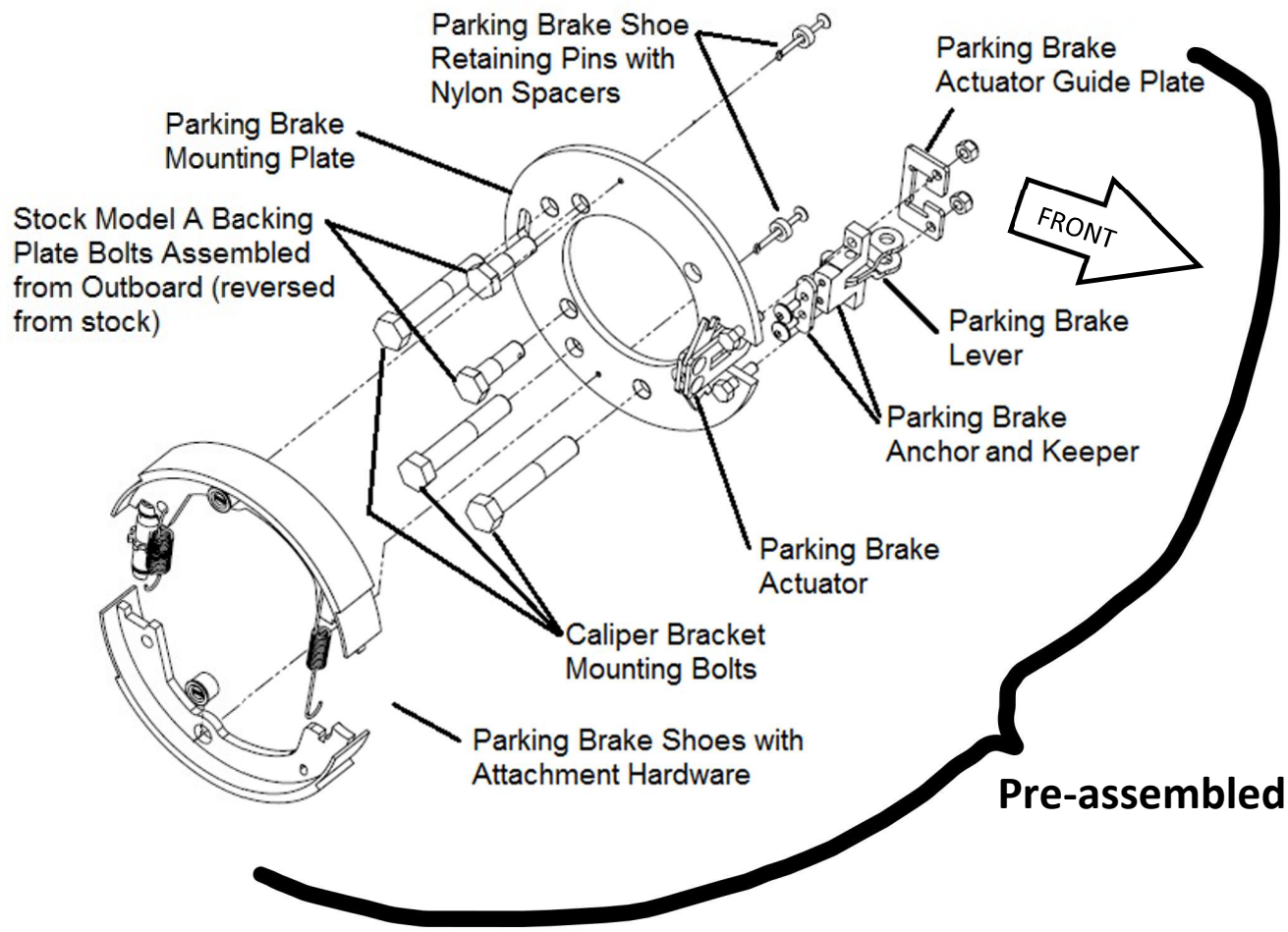
1980 Chevrolet Malibu Front Brake Calipers (Left and Right) and brake pads

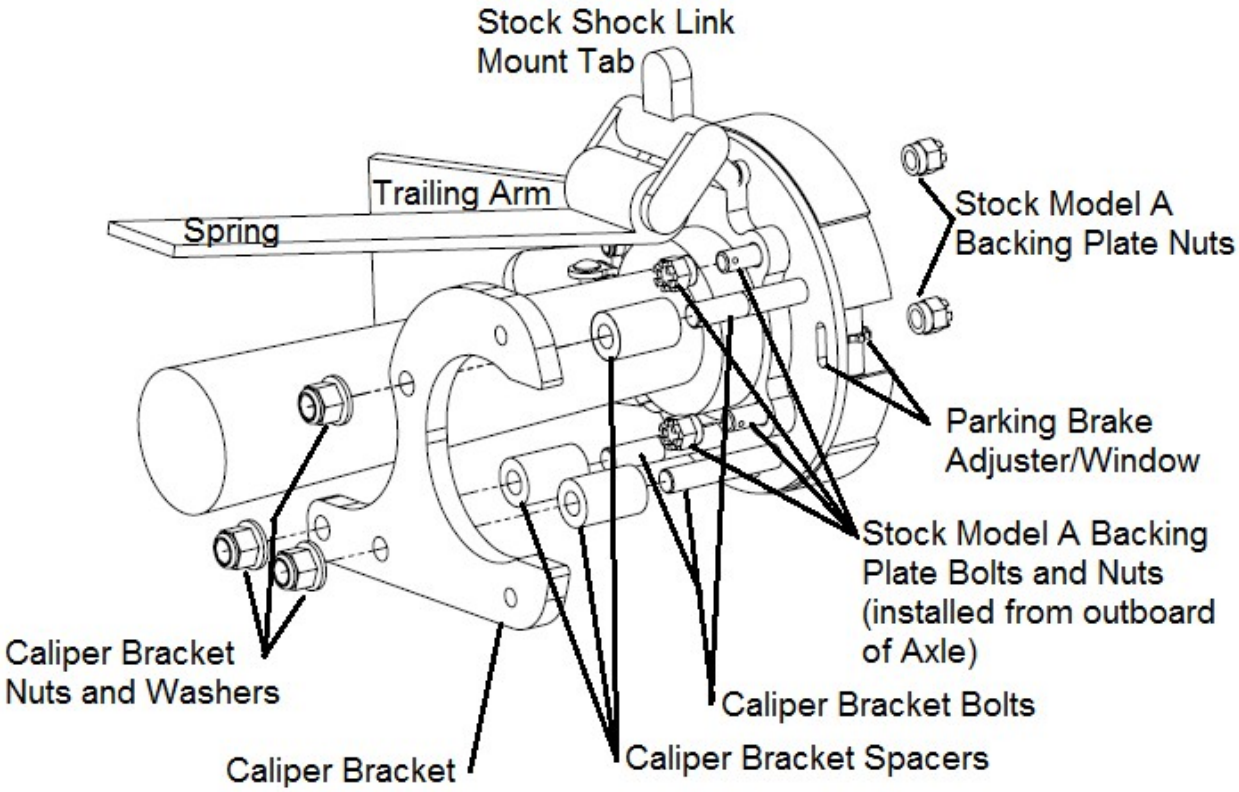
Appropriate brake hoses to attach to the brake calipers, brackets for brake hoses/tubing.

Install the Parking Brake Mounting Plate with the Parking Brake shoes and other components assembled to it before installing the Hub onto the axle. The Hub will block access to the mounting bolts.

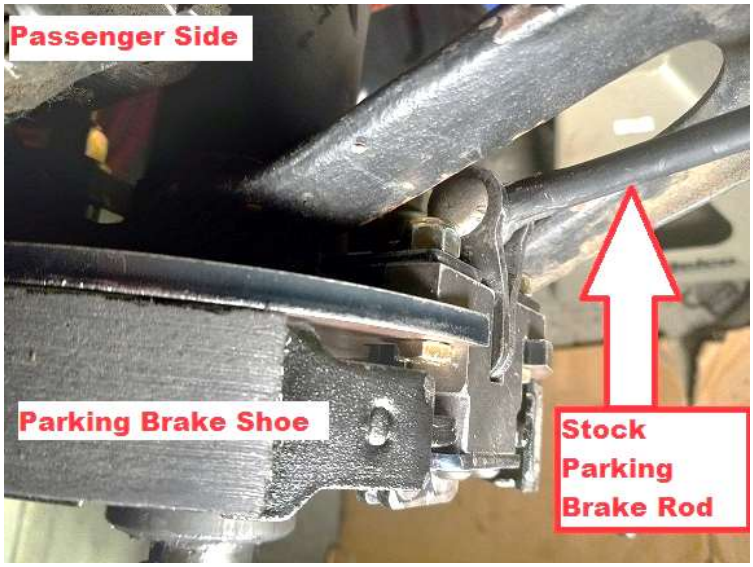
The parking brake anchor (with levers), keeper, actuator and guide plate are mounted onto the backing plate in the kit.

The Parking Brake Lever is already assembled to the Parking Brake Anchor. This combination will be mounted forward of the axle. The short side of the lever should point to the rear of the car and the stock parking brake actuator rod connects to the yoke of the lever using a stock 5/16" diameter clevis pin. The stock actuator rods must be freed from the anti-rattle springs under the running board in order to re-route them to the new Parking Brake Actuator Lever. Because the connection is located in the opening of the trailing arm, it is easier to put the clevis pin into place before the Parking Brake Mounting Plate is bolted to the flange on the end of the axle housing. Insert a cotter pin through the 5/16" diameter clevis pin and deform to secure.




Stock Shock Link
Mount Tab
Trailing Arm
Spring
Stock Model A
Backing Plate Nuts
Parking Brake
Adjuster/Window
Stock Model A Backing
Plate Bolts and Nuts
(installed from outboard
of Axle)
Caliper Bracket
Nuts and Washers
Caliper Bracket Bolts
Caliper Bracket
Caliper Bracket Spacers

The Grade 8, ½”-20 Caliper Mounting Bolts must be installed through the Parking Brake Mounting Plate before the shoes and hardware are installed. This may be done on the workbench or on the car. There are no washers under the bolt heads.



The stock Model A Backing Plate bolts that are inserted through the trailing arms are retained in their original location and need not be removed. The Parking Brake Shoe Retaining Pins and their nylon spacers must be placed through the Parking Brake Mounting Plate before assembling onto the end of the axle housing because the stock spring/shock mount on the axle housing will block the hole for the pin. The stock Model A Backing Plate bolts on the rear half of the axle housing are removed and re-installed with the Parking Brake Backing Plate from the outboard end of the axle to retain the Parking Brake Mounting Plate. Install the nuts and torque to 24 ft-lbs. Insert cotter pins and deform to secure.

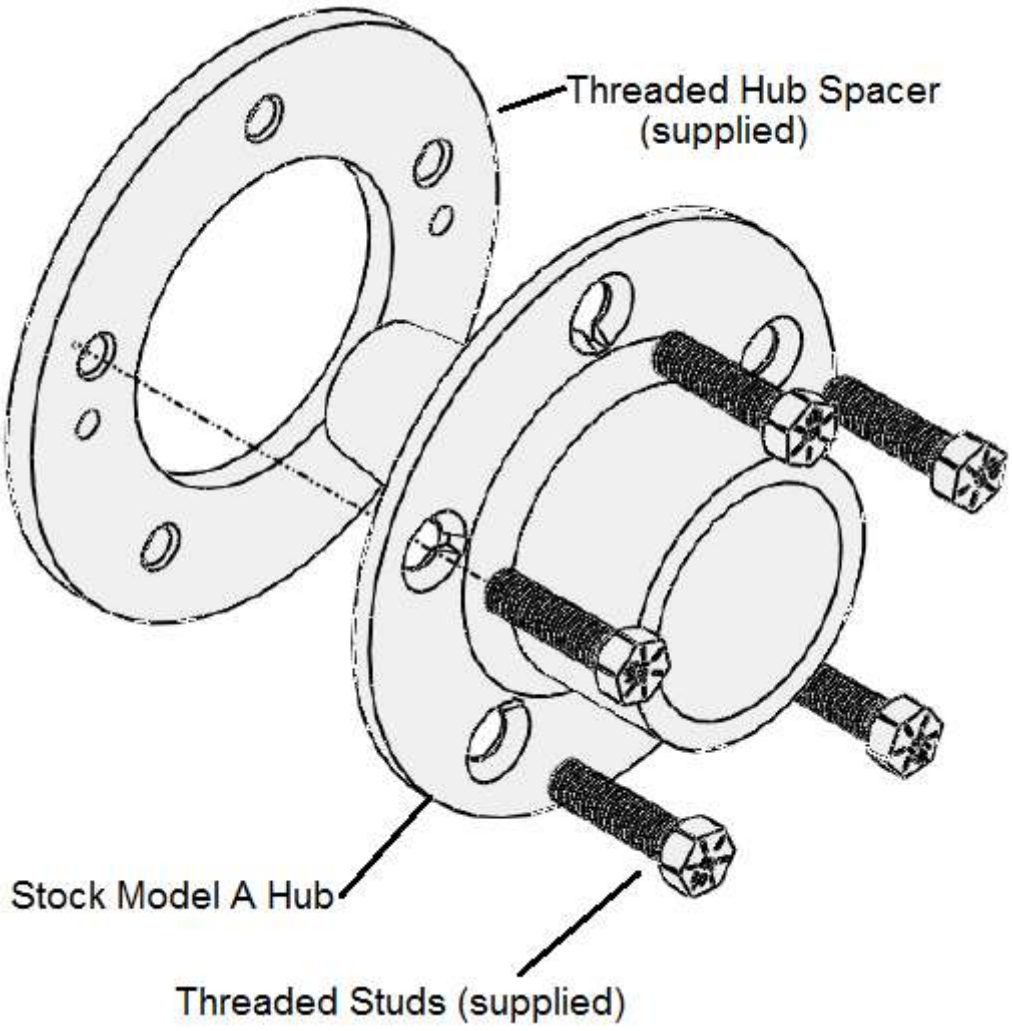
The Parking Brake Mount Plate must be installed using the stock Model A bolts through the axle flange prior to mounting the Caliper Bracket. The Caliper Bracket Spacers are installed onto the inboard end of the Caliper Bracket Bolts followed by the Caliper Mount Bracket, Flat Washers and Nuts. Torque nuts to 90 ft-lbs.

Now to prepare the hub and rotor for installation:

HUB TO BRAKE ROTOR MOUNTING

Remove the drums from the hubs. This may be accomplished by using a stud cutting tool (Goodson ST-500) or by using a 5/8" hole saw. The hole saw will require some grinding on the inside diameter with a Dremel tool to clear the threads on the original studs. Be sure to lube the cutting tool when cutting the swaged portion of the original studs. (If you are careful in your cut, the drums can be re-used if you decide to do that.) Once the cut is deep enough, a sharp blow with a hammer will knock the studs through. Be sure to support the hub flange when driving out the studs to avoid deforming the flange.

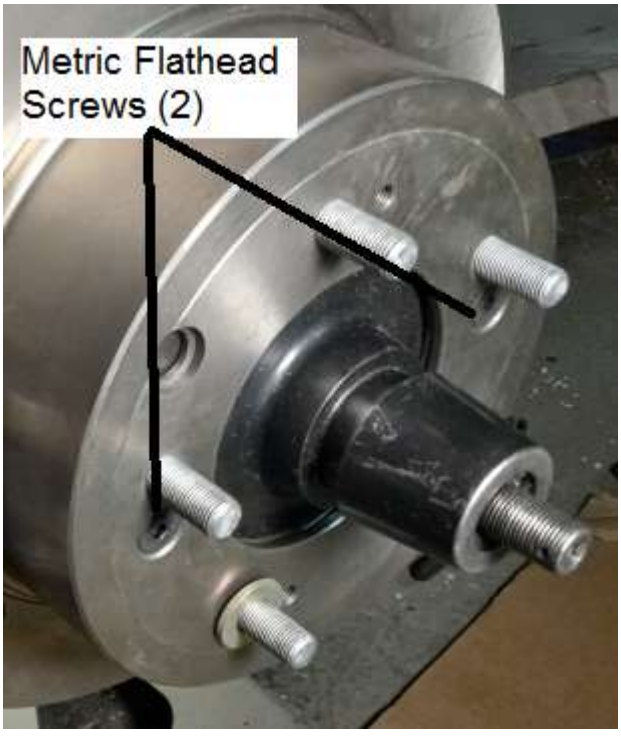
After applying red Loctite to the base of the provided Lug Stud threads install the studs through the lug holes in the hub and thread through the Threaded Hub Spacer. Install all 5 studs before tightening in a star pattern. Tighten in increasing torque levels of approximately 15 ft-lbs until fully torqued to 65 ft-lbs.

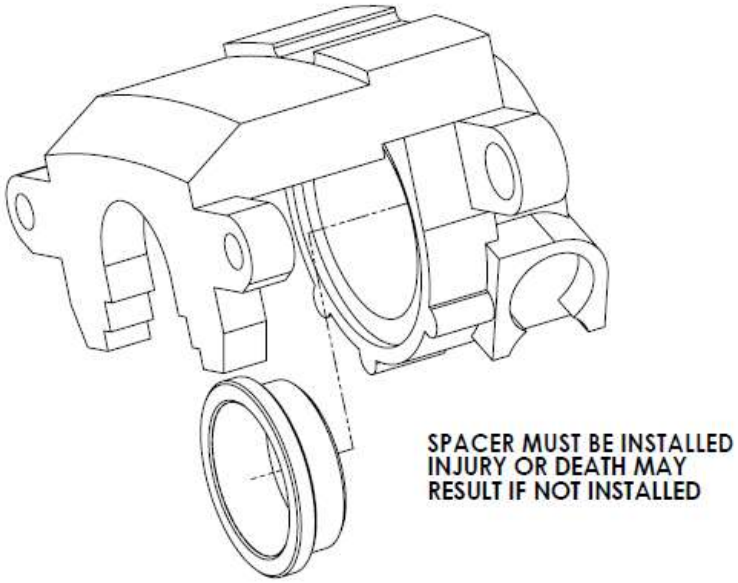


Install the Hub onto the end of the axle. Ensure the axle drive key is properly inserted into the keyway on the axle and inside the hub. Install the felt washer, flat washer and axle nut and torque to recommended value per Ford specifications or a good mechanics reference like the Les Andrews book.

Install Brake Rotor onto the Hub. Be sure to align the two (2) countersunk holes in the rotor with the threaded holes in the threaded hub spacer for the flat head screws that retain the rotor. Torque the flathead screws to 120 **in**-lbs [10 ft-lbs]. The Parking Brake Shoes may need to be moved a little to get the rotor over them.

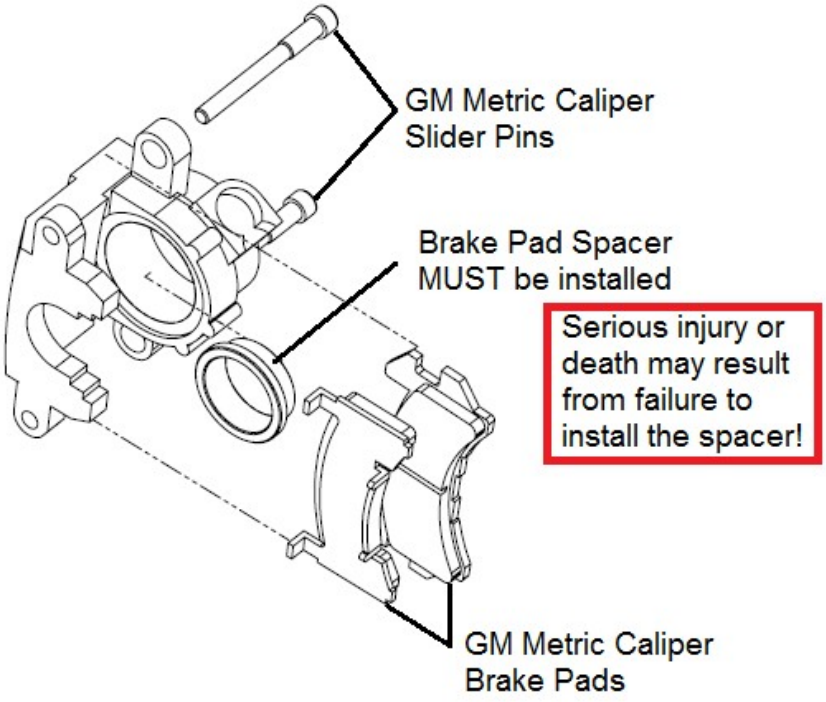
This is a good time to adjust the parking brake star adjusters between the brake shoes as the adjusting window is not accessible when the brake caliper is installed. Adjust both sides evenly until a telltale sound of drag is heard from the shoes. Apply and release the brake lever in the cab of the car 2 or 3 times and release. Readjust the shoes and repeat the application and release of the parking brake. This will help ensure that the shoes are centered inside the drums.



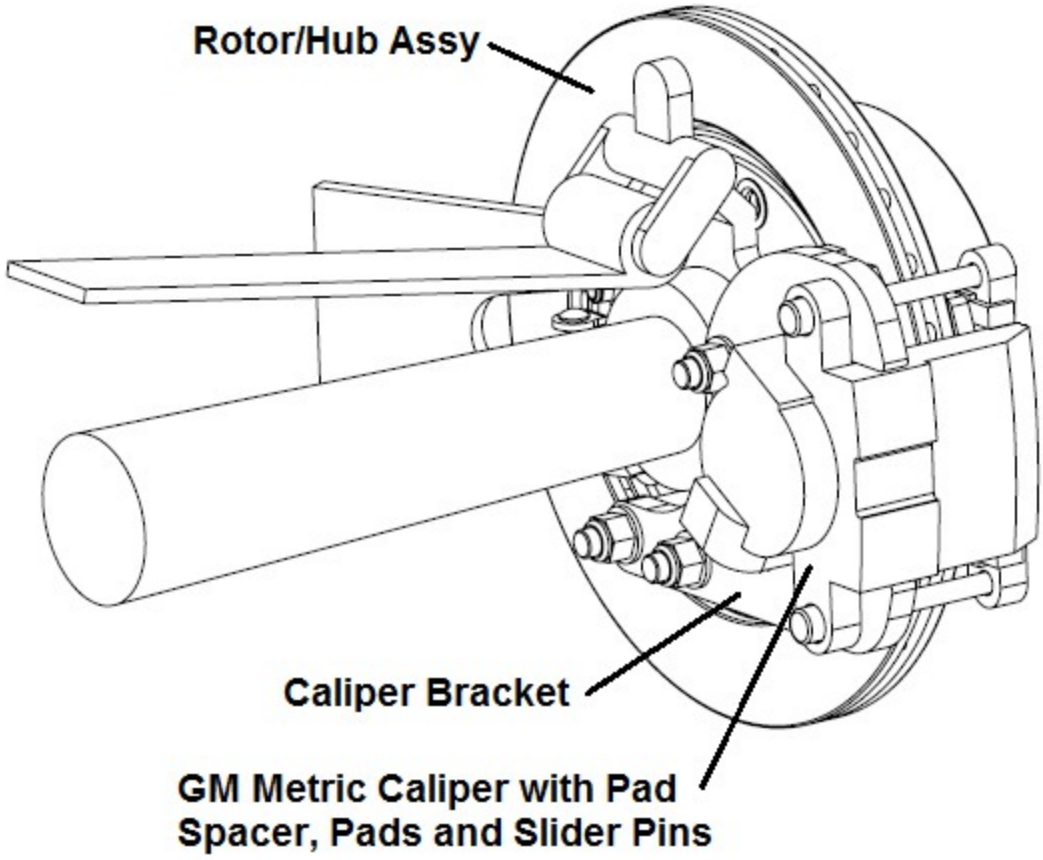


Install the brake pad spacer into the piston in the caliper.

IMPORTANT: THE BRAKE PAD SPACER MUST BE INSTALLED! SERIOUS INJURY OR DEATH MAY RESULT IF THIS IS NOT PROPERLY INSTALLED.



Install the GM Metric brake caliper with the **Brake Pad Spacer** and the brake pads onto the rotor and adjacent to the Brake Caliper Bracket. Install the Brake Caliper Slider Pins (along with their sleeves) through the caliper and bracket, thread them into the bracket. Torque to 35 ft-lbs.



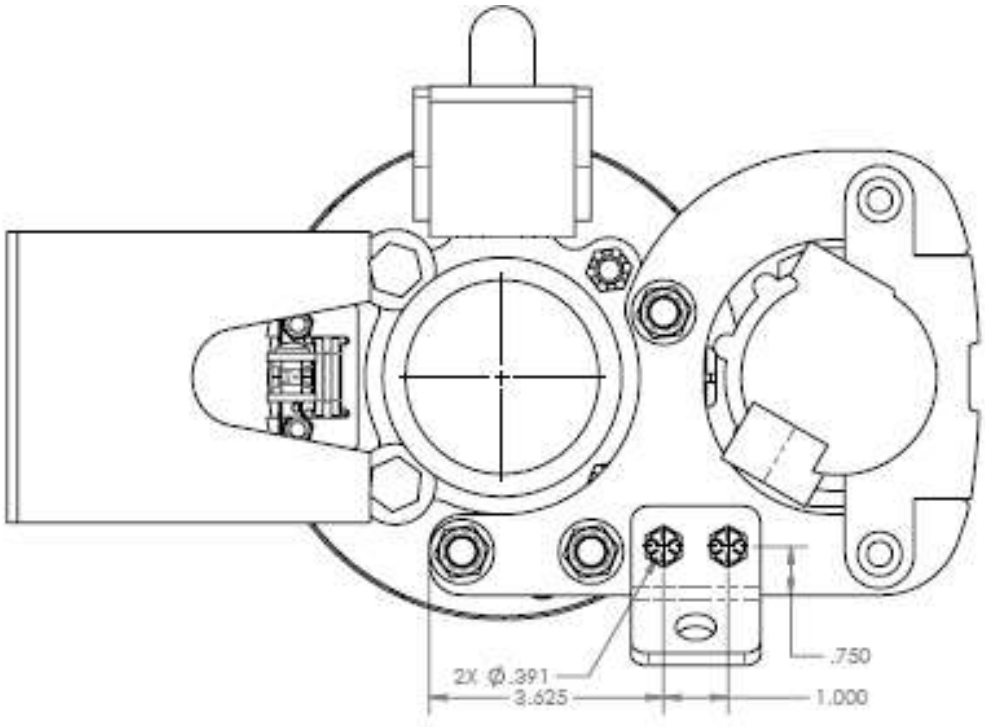
Install the appropriate brake hose from the caliper to a mounting location on the axle that will allow sufficient hose motion for removal of the caliper when the pads need replacement. Install appropriate brake lines to a properly sized master cylinder to complete. Brake line tubing and hoses must be supported in an appropriate manner to keep them secure during operation.

Wheel spacers MUST be used with the disc brake kit. Failure to use the correct wheel spacer may result in damage to the wheels that can lead to serious injury or death.

The builder is responsible for installing an appropriate master cylinder and tubing/hoses to the calipers.

If you have modern shocks installed:

Replacement brackets are available for attaching the lower end of your modern shock absorbers.



Modern shock adapter bracket installation.

Rear Disc Brake

Included in Kit

Part	Kit Qty
Rear Caliper Mount Bracket	2
Rear Mounting Plate	2
Rear Rotor to Hub Spacer	2
A-660-1-1/2" Custom Spacers	6
Parking Brake Anchor	2
Parking Brake Anchor Keeper	2
Parking Brake Lever 2	4
Parking Brake Actuator Subassy	2

Hardware	Kit Qty
1/2-20 X 3-1/4 Bolts	6
#10-32 Button Head X .38"	4
1/2-20 Lock Nuts	6
1/2 Flat Washers	12
M8X1.25 X 12mm long	4
Lug Nuts	10
Red Locktite Single App	1
Cotter Pins	2
Dorman 610-351 (Rockauto)	10

Included Parts	Kit Qty
GM Piston Spacer	2
Kia Rear Parking Brake Shoes	1
Kia Rear Parking Brake Hdw Kit	1
Wire Wheel Spacers	2

Purchased Separately by Customer	
Kia Rear Discs	2
GM Metric Caliper	2
GM Metric Pads	1
Brake Hose to Caliper	2