INSTALLATION INSTRUCTIONS FOR 5 ½" BOLT CIRCLE DISC BRAKE CONVERSION FOR 37-48 FORD PASSENGER CAR AND 37-56 FORD 1/2 TON PICKUP SPINDLES.

READ THESE INSTRUCTIONS COMPLETELY BEFORE ATTEMPTING THIS CONVERSION.

This conversion kit uses the following components:

	Rotors:	73-93 F100/F150 2WD 73-93 E100/E150 2WD
	Calipers: CK Supplied with:	(Includes pads, anti-rattle clips & mounting bolts) 79-87 Chevrolet 1/2 Ton Pickup, (10mm banjo bolt, 1.5 pitch) *Caliper bosses are already removed with our complete kit.
*You can also use these calipers (continued, see step 10)		: 71-76 Chevrolet - Impala, Bel Air & Biscayne (7/16"-20 banjo bolt) Buick - Electra, Lesabre, Roadmaster, Wildcat, Estate Wagon, Park Avenue & Centurion
	Bearings & Seals:	Outer - A2/Set 2 used on 64-77 GM Intermediate Cars - Camaro, Firebird, Chevelle, Monte Carlo, etc.
		Inner - A13/Set 13, Standard inner bearing used in Ford rotor.
		Seal - SKF #19743 Standard seal used in Ford rotor

NOTE: BEFORE PROCEEDING WITH INSTALLATION TAKE THE FRONT WHEELS THAT YOU ARE GOING TO USE AND MAKE SURE THEY FIT THE ROTOR BOLT PATTERN AND THAT THEY HAVE A LARGE ENOUGH CENTER HOLE. THESE ARE 11 ³/₄" ROTORS SO YOU WILL NEED 15" WHEELS.

- 1) Remove the stock Ford drums and backing plates. Retain the stock wheel bearing nut and washer for re-use later on. Clean spindle bearing surfaces and seal diameter.
- 2) Install the caliper mounting bracket on the back, (engine) side of the spindle wit the caliper opening towards the rear of the vehicle using the 1/2"-20 x 2" bolts, spacers and locknuts provided in the kit. Note that the spacers go between the bracket and the spindle and that the nuts must be inside the rotor. Also note that the shoulder on the spindle requires that the flat of the nut must be up against the shoulder in order for the nut to seat correctly. This is very important! MAKE SURE YOU DO IT RIGHT!
- 3) Before proceeding further, take the caliper for the side you are working on, (bleeder side up!) and slide it into the bracket. Note that the caliper bracket fits between the inner pad and the caliper mounting ears. You'll notice that it will not go all the way in because of the bump on the casting next to the piston bore. Grind off the bump using a bench grinder until it is removed flush with the housing. You'll need to remove about 3/4" off the length of the boss. Make sure that you plug the hose bolt inlet before you start grinding. Clean the grinding dust off the caliper when you're done.
- 4) Remount the caliper and install the mounting bolts. You'll need a 3/8" allen key for the bolts. Now turn the spindle full travel right and left and check for clearance on the axle, steering linkage and suspension, etc. The caliper bracket should clear the king pin lock bolt nut, if not remove the lock pin

and reverse it so the nut is on the front of the axle. Make sure you have adequate steering travel. If all is well remove the caliper assembly from the bracket.

- 5) Install the inner bearing adapter onto the spindle using a piece of 1 ½" steel plumbing pipe and a two or three pound hammer. Use a rag or duct tape on the pipe to protect the bearing adapter. POSITION THE PIPE ON THE BIGGER PART OF THE ADAPTER, NOT THE SMALLER PART! You can also do this by removing the king pin and taking the spindle and bearing adapter to your local hydraulic press. The bearing adapter must go all the way onto the spindle until it stops up against the shoulder where the original inner bearing stopped.
- 6) Take the inner bearing and make sure you can still slide it onto the bearing adapter. Due to machining tolerances required to compensate for worn spindles you may find that the bearing won't go on if you have real good spindles. If this is the case take a piece of emery paper and sand the adapter down a touch until the bearing will just slide on. *Don't get carried away!*
- 7) Remove the stock Ford truck outer bearing race from the rotor with a suitable punch and a hammer being very careful not to damage the bore in the rotor. Install the new race from the A2 outer bearing using a bearing race installation tool - NOT A HAMMER AND PUNCH!!
- 8) Before you grease the bearings and install the seal, mount the rotor onto the spindle with the bearings in place. Install the wheel bearing nut and washer to hold the rotor in place. Finger tight will do for now. Re-install the caliper and check for clearance one more time. You might want to mount your wheel and tire with a couple of lug nuts and make sure all is still well.
- 9) If everything is ok, remove the caliper and rotor. Grease the bearing real good, (lots of good clean bearing grease), install the seal in the rotor and re-mount the rotor onto the spindle. Install the wheel bearing washer & nut and adjust. Install a new cotter pin and the dust cover that Ford used on the F100 rotor.
- Install the caliper with the bleeder up and tighten the bolts. Use a hose hose of your choice and a 10mm banjo bolt. Check that the bolt is not long enough to hit the piston when you tighten it! Don't forget the copper washers on both sides of the hose banjo.

1971-76 Pontiac - Bonneville, Catalina

Oldsmobile - 88, 98, Delta 88, Regency 98

*These calipers all require 7/16"-20 banjo bolts and equivalent hoses.

11) Do the other the same way.

EC-731 Addendum

NOTE: Installation of this kit may require the relocation of the upper grease fitting on one or both of the front spindles to provide for caliper mounting bracket installation. If you prefer not to relocate the grease fittings you may remove them and plug the hole in the spindle with a 1/4" - 28 bolt or screw, but be sure that it is not long enough to touch the side of the kingpin when installed! If you choose not to relocate the grease fitting(s) and plug the holes you must remove the caliper mounting brackets and re-install the grease fittings to grease the kingpins as required. The manufacturer will not be responsible for damage caused by failure to grease the kingpins as required

There are two methods that can be used to relocate the grease fittings. The first method is preferred and is recommended if you are installing new kingpins and bushings at this time. Whichever method you choose make sure to clean out all the chips from the drilling and tapping operation.

- Remove the upper kingpin bushing from the spindle with a suitable arbor as needed so as not to damage the bushing, you'll need to re-use it. You must then drill a new hole approximately 45 degrees either side of the spindle centerline, (see illustration) at the same height as the original hole using a number 3 drill bit. Tap the hole 1/4"-28 and re-install the bushing so the hole in the bushing is aligned with the new hole, and the install the grease fitting. If you are installing new kingpins and bushings drill and tap the new hole before installing the bushing.
- 2) This method requires that you drill and tap a new hole in the spindle that will intersect one of the two existing vertical grooves in the kingpin bushing. This will allow for grease flow around the kingpin through the existing grease channels. Make sure that you are precise in your drilling so as to intersect the groove.

