Disc Brake Installation Instructions:

Raise the vehicle and support it with jack stands. Keep your jack handy and extended in case you need to move the jack stands. Remove the front wheels.

Remove the cotter pin and loosen the upper spindle nut (ball joint nut). If the nut spins, make sure the control arm is on the jack stand. This will hold pressure on the stud so it will loosen. Do not take the nut completely off (just loosen at this point), now loosen the lower nut. If it spins, put the jack under the control arm, take out the jack stand and lower the weight of the car onto the jack. This will put pressure on the joint so it will not spin (again just loosen the nut). Now put the car back on the jack stand and place the jack back under the control arm. This will hold the spring in the pocket. With the ball joint nuts loose, hammer on the flat of the spindle until the ball joints pop. This will take a few good blows, but do NOT HAMMER THE TOP OF THE NUT OR BALL JOINT STUD. This will destroy the threads. There is no need to unbolt the shock.

Take out the cotter pin and loosen the outer tie rod end nuts (again, leave the nut in place). To get the the tie rod off, take a hammer and hit on the side of spindle arm, NOT THE TOP OF THE NUT OR TIE ROD STUD. This will destroy the threads.

This is also a good opportunity to remove the sway bar link.

Loosen the upper ball joint nut and pry the upper control arm up. Loosen the lower and lift off the stock spindle assemblies.

Inspect all ball joints and tie rod ends for wear. If any parts are worn out, replace them. Replacement parts are available from Camaro Central.

Remove steering arms from the stock spindle assemblies and install them on the new spindle assemblies according to the attached diagram using the supplied hardware. The rotor and caliper will need to be removed in order to tighten down the steering arm. On some applications, it may be necessary to drill steering arm and spindle mounting holes out to ½ inch inside diameter.

After the steering arm has been installed, re-install the rotor and caliper on the spindle (take a large c clamp and make sure the piston is pushed completely into the caliper - this will eliminate air from the system and make final bleeding much easier). Install provided spindle nut. Torque to 12ft.-lbs. While turning the rotor, loosen the spindle nut one flat. Install cotter pin and dust cap.

Install the new spindle assemblies. Torque lower ball joint to 65ft.-lbs., upper ball joint to 50ft.-lbs. and tie rod end to 35ft.-lbs. Be sure to use supplied cotter pins where needed.

Remove the single master cylinder and rod. Under the dash, the rod comes through the firewall and connects to the brake pedal assembly with a spring clip. Remove the spring clip and the assembly will come out.

The single master will only use the upper 2 brake pedal studs, when installing the booster you will use all 4 mounting studs. Slide the booster into place and bolt down. When connecting the clevis to the brake pedal, use the lower hole in the brake pedal. This may affect the brake light switch location. There is usually a second set of holes for disc brake cars to align the switch in the correct position. The brake

light switch will have to be readjusted. The clevis may have to be adjusted several times before the clip is put in place.

The booster will need a vacuum source. Usually a fitting off the back of the carburetor or intake manifold will provide vacuum. Connect the hose from the fitting to the booster. Make sure the hose is not pinched or restricted. You will need at least 18-20 lbs. of vacuum to actuate the booster.

It is very important to bench bleed the master to get the air out. This will save a huge amount of time when bleeding the brake system. To bench bleed the master, make 2 lines that go from the port of the master to the bowl below fluid level or use the supplied kit. Clamp the master in a vice, fill with fluid, and with a Philips screw driver push the plunger from the back of the master until all air is out of the master. This will take about 15 full strokes. Put the cap on the master and install on the car.

Install all components loose on the car, get all brake lines routed and tightened up, and now tighten up all components. Make sure all brake line fittings, hoses, and fluid connections are tight. Now is a good time to start looking for leaks. If a fitting is leaking, loosen and re-tighten several times so the line forms a seat with the component to stop the leak. At the hoses, do the same for leaking banjo crush washers. If the master at the base of the booster seams to be wet, it is a leak at one of the lines that is running down the master to look like a master leak. It is rarely a problem with the master cylinder.

It is now time to bleed the brakes - this will take 2 people, one to pump up the brake pedal and one to do the bleeding. You will need a short piece of clear tubing and a cup. The person in the car will pump until a firm pedal is achieved and then hold pressure on the pedal while the other person loosens the bleeder so the air (and some fluid) can escape. The pedal will be pushed to the floor and the bleeder tightened while the pedal is held to the floor. This process is done at the furthest wheel first and several times until no more air is in the system. Once a firm pedal is achieved, go around the car one last time and bleed again. Tighten all bleeders on final inspection, but do not over tighten. Make sure to check the master constantly during the process. If the master runs out of fluid you will have to start the entire process over again. Never press the pedal while the lid is off the master.

Final note – mechanical work can be frustrating. It is important to have the right tools, experience, and most of all patience. Nothing gets done in 10 minutes, mistakes happen, bolts get rounded off, fluid leaks and things go wrong. It happens to even the most experienced. Think through what went wrong and what are realistic solutions. Be prepared for what can go wrong by also using a service manual for reference or rely on a professional mechanic to help with the installation.

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## Choosing a fluid

Standard DOT 3 brake fluid will work just fine in your new system. Be sure it has not been exposed to moisture. An open container of DOT 3 fluid will collect moisture from the atmosphere. DOT 3 fluid will also damage your paint, so do not spill on any on your vehicle.

DOT 5 (silicone fluid) repels moisture, and will not harm your paint. Under extreme braking conditions (constant drag racing) or excessive braking, DOT 5 does not perform as well as DOT 3. When DOT 5 fluid heats up, performance decreases. When changing a system over to DOT 5, be sure to flush out all reused components, blocks, cylinders, and lines. DOT 5 & DOT 3 fluids should never be mixed.

Any brake fluid can hold air bubbles so never shake the container. If it has been shaken, pour it into a container that may be heated. Place the container over low heat for 10-15 minutes. If it appears to boil, it is just the air coming out of the fluid. Allow the fluid to cool and pour it back into it's container. It is now ready to be used.

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## Consult your mechanic

This page is intended for use as a basic guide to help install new brake and fuel lines. If you are unsure about any part of the installation procedure please consult a certified professional mechanic for assistance. Camaro Central assumes no responsibility or liability for improperly installed lines.

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## Quick Tip: Conversion Installation

Installation - Refer to the disassembly photos. There are many holes in the frame and it is impossible to remember which are the correct holes for line clip mounting. If you do not have photos, we offer for sale factory assembly manuals that show in detail where each of the clips are located in the frame.