



## Electric Line Lock Kit

### INSTALLATION INSTRUCTIONS

#### IMPORTANT INFORMATION:

Carefully read instructions before installing kit. If you are not qualified or experienced in this type of installation, it is highly recommended to enlist the services of a qualified automotive mechanic. These instructions contain warnings that must be observed; otherwise the vehicle could be rendered unsafe, resulting in possible serious injury to car and driver.

The solenoid valve is designed for use in front brake systems for racing, but can be used in rear brake systems for momentary (maximum of 60 seconds) hill holding. In these conditions, the solenoid valve should not interfere with normal brake operation.

Additional fittings and brake lines which may be required are sold separately. Only SAE approved seamless steel brake lines with double flared ends should be used. Do not use copper tubing. Brake lines are available in a variety of lengths and come pre-assembled with tube nuts.

Use thread sealant on all NPT style threaded fitting. If thread sealant is used take extra care not to get any inside the lines; otherwise contamination and damage will occur.

To be street legal, the rear brake lights must operate anytime the brake system is under pressure. Therefore, a pressure-operated switch must be installed within the hydraulic system after the control valve.

See step #7 of Electrical Installation before proceeding. (Not required for off-road and drag race only use.)

#### SAFETY PRECAUTIONS:

This kit is designed primarily for high performance race cars to momentarily (maximum of 60 seconds) keep the front brakes engaged while staging for a drag race; it will not safely function as a long-term brake holding device. Kit should only be used on cars and light duty (¾ ton or less rated) trucks using a standard hydraulic braking system that is in a safe, operable condition. It should never be used as a temporary brake holding device in place of a parking brake or as a replacement for a driver depressing the brake pedal. This kit is not recommended for vehicles with anti-lock or split diagonal brake systems. It can, however, be made to work in racing conditions only.

The solenoid valve must be securely mounted to prevent flexing of brake lines. Unsecured mounting can cause premature failure. The solenoid must be mounted away from suspension components, steering components, headers, exhaust pipes and similar areas. An area such as the firewall is suggested as the mounting location and a line-fitting wrench is always recommended on all line fittings while installing the brake lines.

When working on brake system it is always important not to allow contaminants (dirt or foreign matter) to get into the lines or fluid. This may cause improper operation and failure.

Use a tube bender to avoid kinking or crushing if bending lines is necessary; there must be no leakage!

#### INSTALLATION INSTRUCTIONS:

Note: This kit includes fittings and adapters for use with 3/16" hard line but optional adapters are available for metric and other SAE line sizes.

**CAUTION:** Do not clamp kit in vise or damage will occur to motor and magnet. Do not over-tighten fitting.

1. Install a 1/8" N.P.T. male to 3/16" inverted flare fitting in the valve inlet port; this will be the connection from the pressure differential block or master cylinder. Install a 1/8" N.P.T. male to 3/16" inverted flare fitting in the outlet port of the solenoid valve. Elbow and or tee fittings may be used where necessary.

**Note:** To be street legal, the rear brake lights must operate anytime the brake system is under pressure. Therefore, a pressure-operated switch must be installed within the hydraulic system after the control valve. (This switch is not required for off-road and drag race only use.)

2. Mount solenoid valve close to the brake lines (away from headers, exhaust pipes, steering and suspension components), which you will be using for connecting the brake lock system. Valve may be mounted in any position (vertical-horizontal, etc.).

3. Install new steel brake lines if necessary and as needed.



**INSTALLATION INSTRUCTIONS:** *(Continued From Page 1)*

4. Additional brake lines may be connected to existing lines by using appropriate size inverted flare union fitting.
5. Be sure to use a top quality, factory-recommended, heavy-duty brake fluid that meets D.O.T.3 or D.O.T.4 specifications.
6. After installation, bleed all air out of the system. Follow vehicle manufacturer's brake bleeding procedures. Bleed air at wheel cylinders or calipers starting with wheel furthest from master cylinder and ending with closest. Be sure to check all connections for leakage under pressure.

**ELECTRICAL INSTALLATION:**

Kit is designed for 12 Volt DC operation only.

To assure good electrical connections use 18-gauge standard insulated automotive wire or equivalent and solder all splices together. Always wrap each splice/connection with quality grade electrical tape or heat shrink sleeve.

1. Disconnect negative (-) cable from battery.
2. Mount line lock activation switch in a convenient and easy to reach position. Switch is design to mount around shifter handle but may be modified for most applications.
3. Mount indicator lamp in convenient location under dash, or drill a 7/16(.4375)" diameter hole in instrument panel, if so desired, for in-dash mounting. Use caution when drilling. Check for obstructions behind instrument panel before drilling any holes.
4. Connect black wire from indicator light to a good chassis ground, clear any paint from painted surfaces as needed for proper connection.
5. Connect one of the wires from the solenoid valve to a proper chassis ground or directly to the negative side of the battery. Both wires may be black but either wire can be used for the ground wire.
6. Join the red wire from the lamp, one of the wires from the switch (either will work) and the remaining black wire of the solenoid valve.
7. Using a length of 18-gauge wire, splice one end to the remaining wire of the switch and connect the other end to a switched positive terminal so that the brake lock is only operable with the ignition turned on. A fuse holder with 4-amp fuse is provided and should be incorporated into this wire. The fuse will protect your electrical system in the event of a short circuit. Note: Fuse holder has a looped pigtail that will require cutting for proper connection.
8. Reconnect battery and turn ignition switch on. Depress the switch several times, an audible clicking from the solenoid valve should be heard. If fuse is burned, check all electrical connections for a short.

**CAUTION:** Before driving vehicle, completely check the brake system for proper operation. Check all connections under pressure for leaks and be sure that you have a good, solid brake pedal. Test the system several times to be sure that it operates correctly. Be sure that the proper two wheels have the brakes engaged when the brake lock is actuated and that all four wheels are free when the switch is released.

**OPERATING INSTRUCTIONS:**

With the ignition in the "on" position, fully depress brake pedal to firmly engage brakes, and then depress the switch button. The indicator lamp should light up when switch button is depressed, indicating that the solenoid valve is actuated. The operation of the brake lock will now allow you to release the brake pedal and maintain an engaged front brake system for racing applications. This will allow you to preload the drive train without roll out.

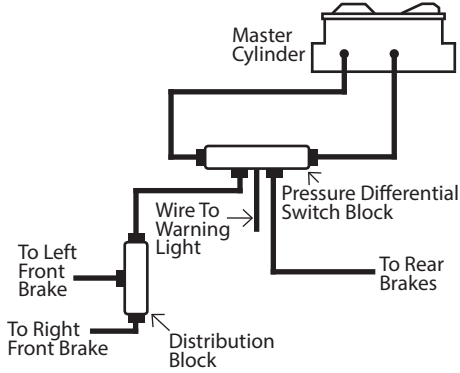
To disengage the line lock, release the switch button.

**WARNING:** Never depress switch button while applying brakes and the vehicle is in motion.

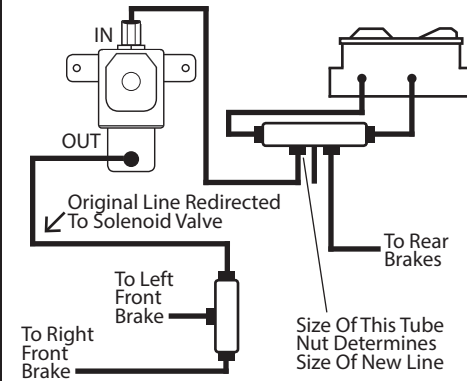


### System 1

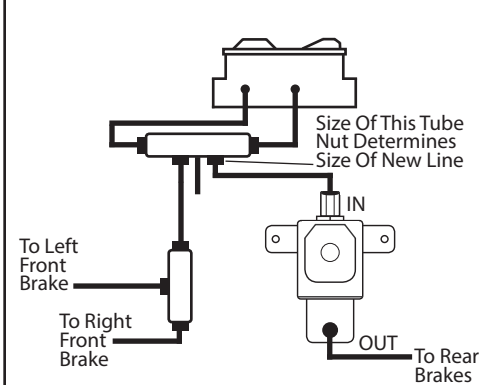
Dual Master Cylinder



Roll Control Installed Front Brakes Only

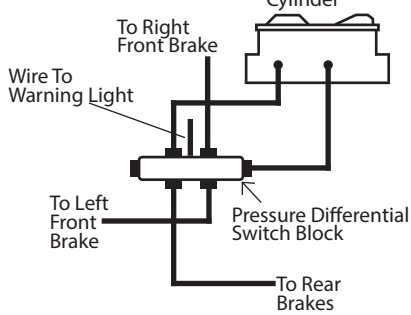


Roll Control Installed Rear Brakes Only

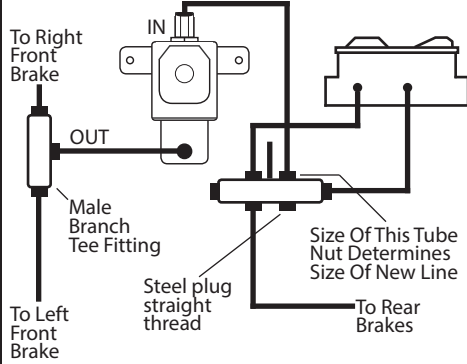


### System 2

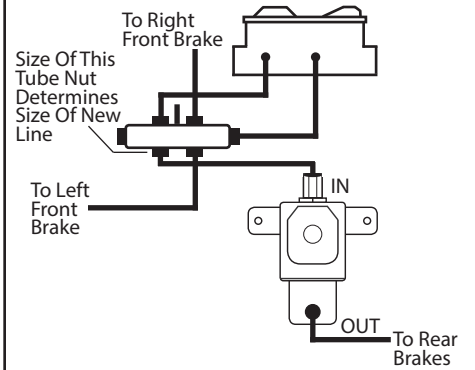
Dual Master Cylinder



Roll Control Installed Front Brakes Only

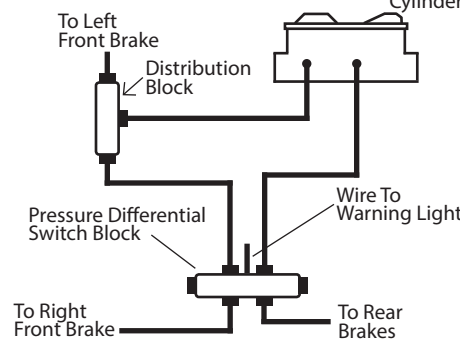


Roll Control Installed Rear Brakes Only

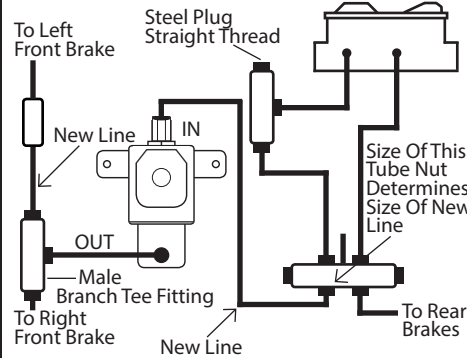


### System 3

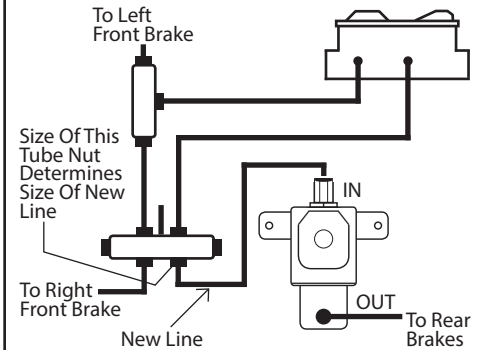
Dual Master Cylinder



Roll Control Installed Front Brakes Only



Roll Control Installed Rear Brakes Only



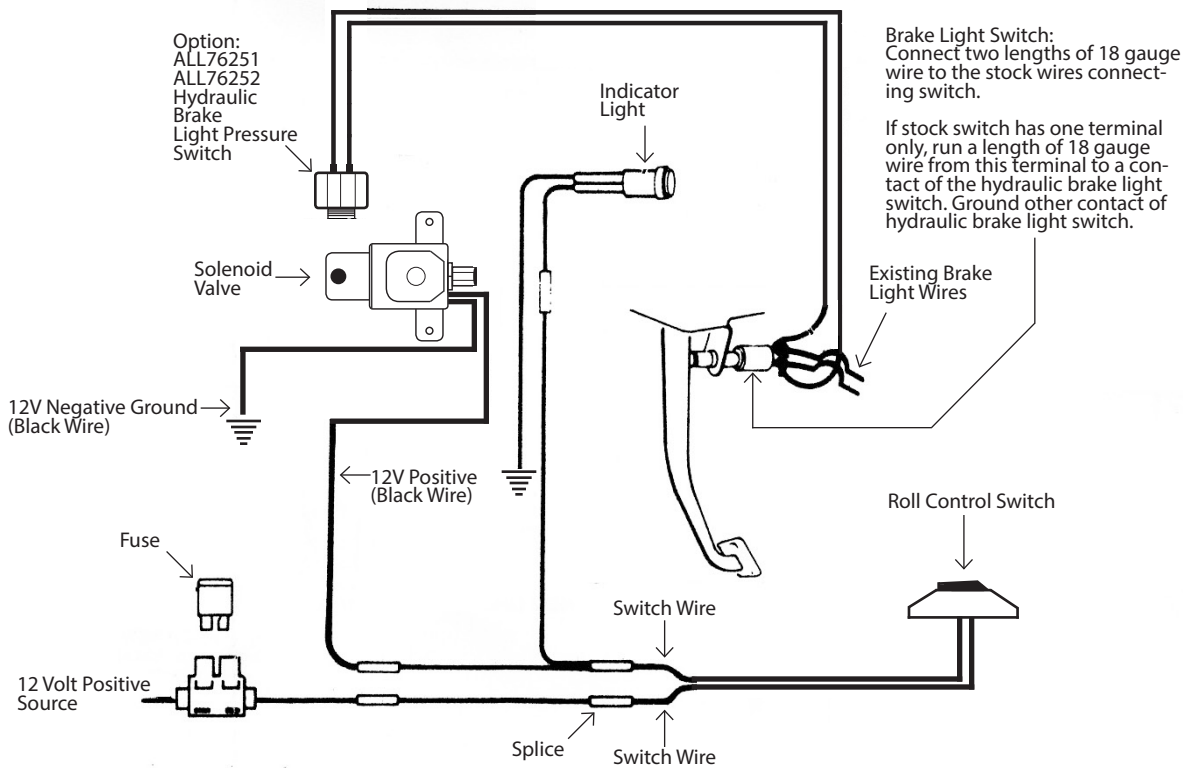


Line From Master Cylinder  
(Inlet)



FIGURE 1

Outlet Port



Optional Components	Description	Qty. Per Package
ALL50120	1/8" NPT To 3/16" Inverted Flare	4
ALL50121	1/8" NPT To 1/4" Line	4
ALL50130	3/16" Inverted Flare Union	4
ALL50182	1/8" NPT Brass Plug	4
ALL50183	3/16" Inverted Flare Steel Plug	4
ALL50138	1/8" NPT Tee	2
ALL50139	1/8" NPT Tee	2
ALL76251	1/8" NPT Brake Light Switch - Pressure (Male Bullet Terminals)	1
ALL76252	1/8" NPT Brake Light Switch - Pressure (6-32 Screw Terminals)	1