## Installation Instructions for 631400 & 631401 Mustang Manual Brake Conversion Kit

<u>WARNING:</u> It is the responsibility of the person installing any brake component or kit to determine the suitability of the component or kit for that particular application. If you are not sure how to safely use this brake component or kit, you should not install or use it. Do not assume anything. Improperly installed or maintained brakes are dangerous. If you are not sure, get help or return the product. You may obtain additional information and technical support by calling JEGS. Use of JEGS technical support does not guarantee proper installation. You or the person who does the installation must know how to properly use this product. It is not possible over the phone to understand or foresee all the issues that might arise in your installation. Racing equipment and brakes must be maintained and should be checked regularly for fatigue, damage, and wear.

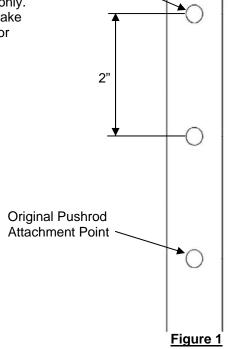
<u>WARNING</u>: This component is designed for use in custom brake systems on performance, racing, and other special purpose built off-road vehicles. It is not intended as a direct replacement for any OEM application.

## **Installation Instructions:**

- 1. Thread the two 5/16"-18 x 1-3/4" flat head screws through the back of the master cylinder mounting plate and tighten.
- 2. Prior to attaching the fluid lines, fill the reservoirs with fluid from a new, sealed container and purge any air from the master cylinder. Be sure the cylinder is level during the bleeding operation. If the cylinder is not level when mounted in the vehicle, you can perform this operation prior to attaching the master cylinder to its mount. Exercise care to not spill or spray brake fluid. Take all proper safety precautions including eye and skin protection and do not position your face directly above the reservoir. This process will assure a quick and effective full system bleed later.
- 3. Mount the master cylinder mounting plate in place of the power brake booster using the supplied 3/8"-16 x 1-1/2" socket head screws, 3/8" washers and 3/8"-16 Nylon lock nuts.
- 4. Install the master cylinder onto the 5/16"-18 x 1-3/4" flat head screws and secure with the supplied 5/16"-18 stainless nylon lock nuts.
- 5. Measure 2" down from pivot point of the pedal arm. Drill a 7/16" hole; this will be the new pushrod attachment point (See Figure 1). This new attachment position will yield the required 7:1 pedal ratio. The pushrod must be adjusted so there is only between 1/32" ~ 1/16" gap between the pedal arm and the positive stop on the pedal bracket assembly when the pedal is in the upright position. This gap is critical to the safety and proper function of the brake system. Any larger than 1/16" gap can allow the pushrod to fall from the master cylinder bore resulting in A TOTAL LOSS of BRAKING. Any less than 1/32" gap can cause preload on master cylinder resulting in brake drag. Be sure to tighten jam nut after final adjustments to ensure that the pushrod does not spin

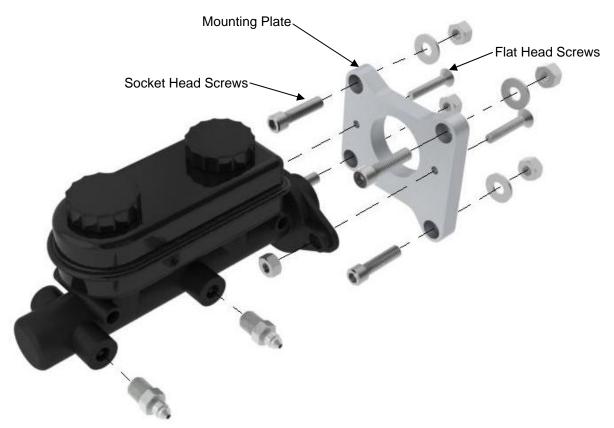
causing improper gap adjustments or even the pushrod from falling out of the rod end. Please remember this kit is intended for drag race use only. There is no provision for a brake light switch and if you wish to have brake lights it will require you to fabricate your own switch mounting bracket or add a pressure switch into the system.

DO NOT MODIFY PUSHROD IN ANY WAY! DO NOT SHORTEN PUSHROD!



Pivot Point





## **Plumbing Instructions:**

- 1. Use an adjustable proportioning valve to set the front to rear brake bias.
- 2. Flare nuts to fabricate double flared 3/16" diameter brake lines are included with each master cylinder. Use only double flared lines. Do not attempt to use single flared connections. Standard automotive double flared lines with the correct size fittings can be purchased pre-made from JEGS.
- Connect the primary outlet port "A" to the brakes at the end of the vehicle with the greatest total effective piston bore area. On most vehicles, this will be the front brake line.
- 4. Connect the secondary outlet port "B" to the brakes at the end of the vehicle with the lesser total effective piston bore area. On most vehicles, this will be the rear brake line.
- 5. On disc brake applications, where the fluid reservoir is mounted higher than the caliper bleeds, a residual pressure valve is usually not required.
- 6. On disc brake applications, where the fluid reservoir is B A mounted lower than the caliper bleeds, may require a 2 pound residual pressure valve to prevent fluid drain back and excessive pedal travel.
- 7. On drum brake applications, where the fluid reservoir is mounted lower than the drum bleeds may require an inline 10 pound residual pressure valve JEGS #555-631031 (not included).
- 8. Once all fluid connections have been made, the complete system must be bled and checked for leaks prior to any test of the vehicle.

<u>WARNING TO ALL USERS:</u> Do not attempt to race or operate any vehicle without a full test and inspection of the brake system. Bleed the system and check all fluid connections for leaks. Test the brakes under controlled conditions. Make several stops in a safe area from low speeds and gradually work up to operating speeds. Always utilize safety restraint systems and all other appropriate or required safety equipment during testing.



