



Jeep Heavy-Duty Dual Diaphragm Brake Booster & High-Pressure Master Cylinder INSTALLATION INSTRUCTIONS

Part #DDBXJ1 & DDBXJ2

This Heavy-Duty power brake conversion kit is designed for 1987/2001 Jeep® XJ Cherokee and 1987/1992 Jeep® MJ Comanche.

The setup is unique because it is a dual diaphragm Brake Booster and a high-pressure Master Cylinder. This assembly converts a single diaphragm setup to a dual diaphragm configuration, which creates more stopping power with less pedal pressure.

Start by securing the vehicle with chock blocks to prevent it from rolling. Remove the original brake assembly using a reliable service manual as a guide.

88/91 XJ, MJ w/ ABS

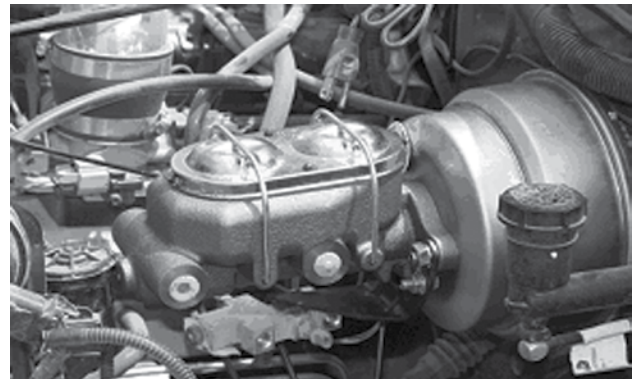
- Depressurize the pressure vessel by firmly pumping the brake pedal 50 times with the key in the OFF position.
- Remove the original brake lines from the original master cylinder to the proportioning valve. Plug these lines. Be careful to protect any painted surfaces from any brake fluid that escapes.
- Remove the retaining clip attaching the brake pushrod to the brake pedal.
- Remove the brake pump, lines, wiring, accumulator/modulator assembly, and computer (located under the rear seat), and finally the brake master cylinder assembly.

- Remove the original foam gasket from behind the master cylinder assembly. You will re-use this on the new booster.
- The new Master Cylinder will require bench bleeding prior



to installation. Take care that the rear plug insert of the Master Cylinder does not fall out.

- Test-fit the booster with the foam gasket on the firewall. The firewall pinch seam may need to be massaged and wiring/hoses may need to be relocated above the pinch seam in order to achieve proper fitment of the booster.
- Install the new Booster using the factory holes in the firewall.



- Install the pedal push rod and adjust free play from pedal assembly. Use the factory retainer clip to affix the push rod to the pedal.
- Attach the new Master Cylinder to the new Booster.
- Once adjusted, properly tighten the jam nut.
- Attach a new vacuum line to the brake booster using the large open vacuum port on the side of the intake manifold.
- Attach the brake lines. You will need to obtain and modify some more replacement steel brake lines. The recommended NAPA #'s and size lines to have available are:

Qty. 1: 3/16 x 9/16-20 fitting (641-3322)

Qty. 2: 3/16 x 1/2-20 fitting (641-3321)

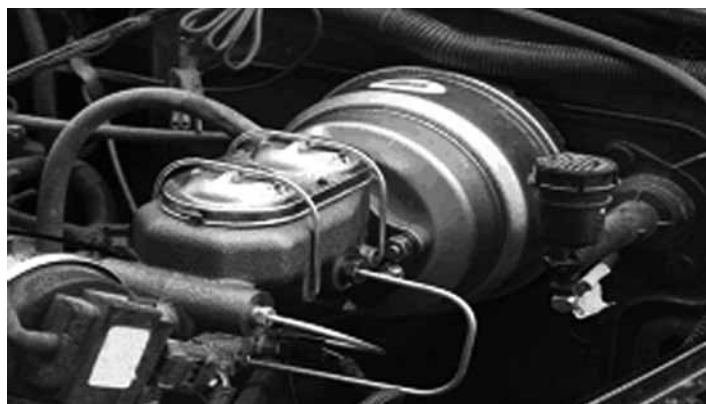
Qty. 1: 3/16 x 7/16-24 fitting (641-3296)

Qty. 2: 3/16 steel brake line (813-1203)

NOTE: The front port of the master cylinder (for front brakes) goes to the rear port on the proportioning valve. The rear port of the master cylinder (for rear brakes) goes to the front port of the proportioning valve.

**88/91 XJ, MJ w/o ABS or
92/01 XJ, MJ (w/ or w/o ABS)**

- Carefully remove the original brake lines from the original master cylinder to the brake proportioning valve. Plug these lines. Be careful to protect any painted surfaces from any brake fluid that escapes.
- Loosen, but do not remove the nuts attaching the master cylinder to the booster.
- Remove the retaining clip attaching the original booster pushrod to



the brake pedal.

- Remove the vacuum hose
- Remove the nuts holding the booster to the firewall.
- Remove the Master Cylinder and Booster.
- Remove and save the original foam gasket from behind the booster. You will re-use this on the new booster.
- The new Master Cylinder will require bench bleeding prior to installation. Take care that the rear plug insert of the Master Cylinder does not fall out.
- Test-fit the booster with the foam gasket on the firewall. The firewall pinch seam may need to be massaged and wiring/hoses may need to

be relocated above the pinch seam in order to achieve proper fitment of the booster.

- Install the new Booster by reversing the procedure used in removing the original.
- Install the pedal push rod and adjust free play from pedal assembly. Use the factory retainer clip to affix the push rod to the pedal.
- Attach the new Master Cylinder to the new Booster.
- Once adjusted, properly tighten the jam nut.
- Install the vacuum line.
- Attach the brake lines. You will need to obtain and modify some more replacement steel brake lines. The recommended NAPA #'s and size lines to have available are:

Qty. 1: 3/16 x 9/16-20 fitting (641-3322)

Qty. 2: 3/16 x 1/2-20 fitting (641-3321)

Qty. 1: 3/16 x 7/16-24 fitting (641-3296)

Qty. 2: 3/16 steel brake line (813-1203)

NOTE: The front port of the master cylinder (for front brakes) goes to the rear port on the proportioning valve. The rear port of the master cylinder (for rear brakes) goes to the front port of the proportioning valve.

NOTE II: If the vehicle has 4-wheel disc brakes we recommend eliminating or modifying the stock proportioning valve in order to ensure that there is adequate pressure to the rear brakes. You may want to consider an aftermarket adjustable proportioning valve.

-When all components are installed and tightened, the entire brake system needs to be bled properly.

Product Disclaimer:

While every attempt is made to ensure that the information contained in these instructions are correct, no liability can be accepted by the authors for loss, damage or injury caused by errors in, or omissions from the information given. All service should be performed by qualified mechanics. Crown Automotive Sales Co., Inc. cannot be held responsible for any mechanical work performed. Standard and accepted safety precautions and equipment should be used in every procedure. This modification will cause the vehicle to handle differently than with stock suspension. Usual maneuvers could cause loss of control. Care must be taken at all times.

Warranty:

All merchandise is warranted to be free of defects in material and workmanship prior to installation. Any alteration or improper use will void this warranty. Because this item is intended for heavy-duty applications, it is not possible to warranty or guarantee the performance of this product.