

INSTALLATION INSTRUCTIONS

BACK-UP BRAKE

FULLY AUTOMATIC



Providing Mobility for the Physically Challenged Since 1952

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1. Open hood of vehicle.
2. Locate main vacuum hose from engine to the brake booster.
3. Cut hose to allow the insertion of the check valve assembly in the hose. Arrow of check valve MUST point towards engine.
4. Mount accumulator (canister) to vehicle using 3/8" hardware (can be mounted inside or outside vehicle).
5. Mount electric vacuum pump (in vehicle if possible).
6. Route blue pushlok hoses as follows: One line from check valve assembly fitting to pushlok fitting on the accumulator. The other line goes from the other fitting on accumulator to the pushlok fitting on the electric vacuum pump. No clamps are necessary for pushlok fittings. Push hose fully onto pushlok barbs (Carefully heating the hose with a heat gun or spraying with WD-40 will ease installation of hose on the barb.)
7. Install vacuum gauge in dash area to allow unobstructed view by customer. Route hose from gauge to check valve assembly. (If hose is run through firewall, a grommet must be used.)
8. Illumination of vacuum gauge:
 - Red = 12 v parking light
 - Black = ground
9. Vacuum pump wiring:
 - A. The orange wire is 12v ignition. Run wire to normally open position on the microswitch at the electric vacuum pump. The orange wire must be soldered into an ignition hot source from the ignition switch. Attach to a 20 AMP breaker per diagram.
 - B. The red wire is 12v Hot (constant). Attach to a 20 AMP breaker and on/off toggle switch. The other end goes to common terminal on microswitch at the electric vacuum pump per diagram.
 - C. The L.E.D. is tapped into the switched side of the toggle switch. Red is the 12v Hot and white is Ground. See diagram

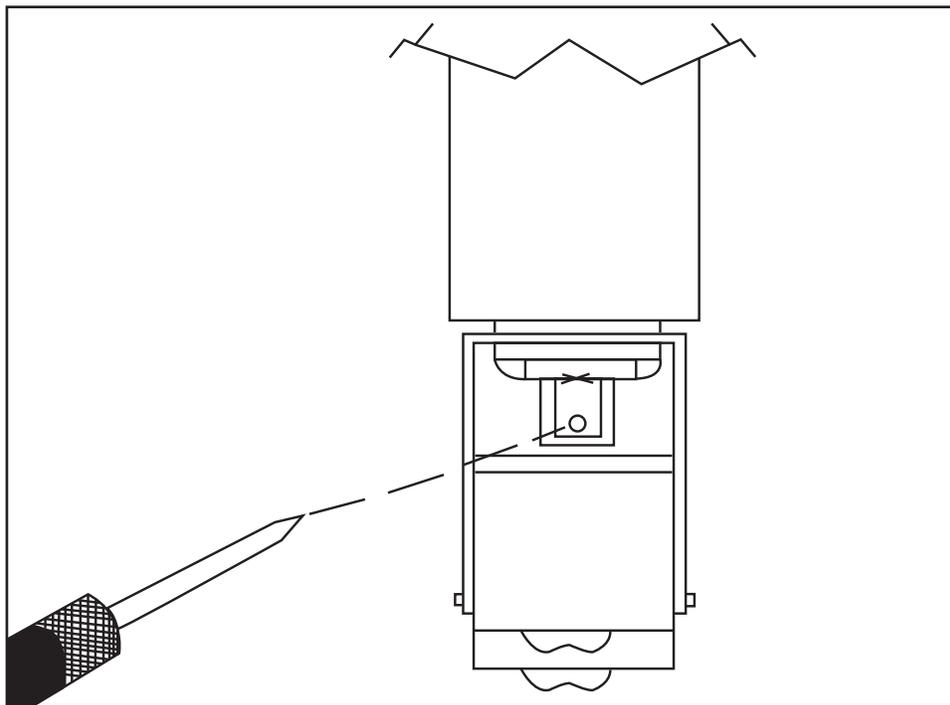
10. Test system. Turn on the ignition switch. Back-up vacuum pump will activate and the L.E.D. will light up until vacuum reaches approximately 13 inches of mercury. The pump and L.E.D. should shut off. Pump brakes and the back-up pump and L.E.D. should come back on and run until vacuum reaches approximately 13 inches of Hg (mercury), and then shut off. If adjustment is necessary see Illustration #1 (below). Next, run the vehicles engine. The vehicles operating vacuum should be between 17 and 20 inches of mercury. Shut engine off. Vacuum reading should be maintained for 20 minutes. If not, check for leaks and repair.

If you have questions or need help for any reason, please call: 1-973-808-9709 and ask for technical assistance.

OPERATION: Under normal running conditions, engine running properly, the 3 (three) gallon reserve tank will always have full vacuum. The dash gauge will show normal operating engine vacuum approximately 17 inches of Hg (mercury). If, while driving, the engine should stall, there will be vacuum in the system to reach the side of the road. When vacuum drops below 12 inches of Hg, the electric back-up pump and L.E.D. will come on to maintain your low or zero effort braking. You must pull to side of road immediately and re-start vehicle or summon help. NEVER OPERATE VEHICLE WITH BACK-UP PUMP RUNNING FOR EXCESSIVE TIME PERIODS (15 MINUTES OR MORE). THIS IS EMERGENCY BACK-UP ONLY. CONTACT YOUR ADAPTIVE EQUIPMENT DEALER IF ENGINE STALLS AND BACK-UP BRAKE COMES ON.

Vacuum switch preset to turn on at 12 in. and turn off at 13/15 in. If adjustment necessary, insert scribe into hole on adjustment nut and turn to proper setting.

ILLUSTRATION #1



BADMO2

INSTALLATION INSTRUCTIONS

MAIN ASSEMBLY

1. 1 Vacuum Pump

2. 1 Vacuum Accumulator with Tee (Canister)

3. 1 Vacuum Gauge with Hose

4. 1 Vacuum Switch with Tee

5. 1 Check Valve Assembly with 1 Small Barb and 3 Large Hose Barbs

INSTALLATION HARDWARE

1. 20 feet of 3/8" Push-lok Hose

2. 12 feet of 14 Gauge AWG Red Wire

3. 12 feet of 14 Gauge AWG Orange Wire

4. 1 Warning Light (L.E.D.)

5. 1 Toggle Switch (for emergency use)

6. 4 Eyelets

7. 3 Female Connectors

8. 2 Butt Connectors

9. 1 Wire Grommet

10. 6 Hose Straps

11. 4-10-32x1" Screws with Washers

12. 2-3/8"-16x1" Bolts with Washers and Stop Nuts

13. 2-20AMP Circuit Breakers

PACKED BY _____

DRIVE-MASTER AUTOMATIC BACK-UP BRAKE SYSTEM

