



## Hydraulic Installation Instructions

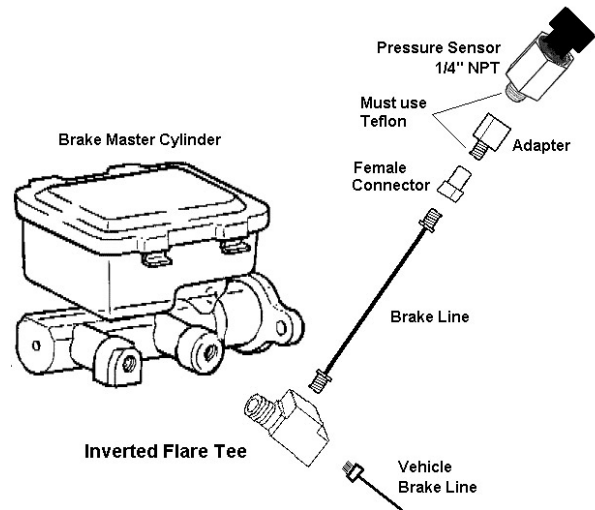
### 1. Hydraulic Pressure Sensor Installation

*Note: Do not contaminate the brake system by allowing moisture or debris to enter.*

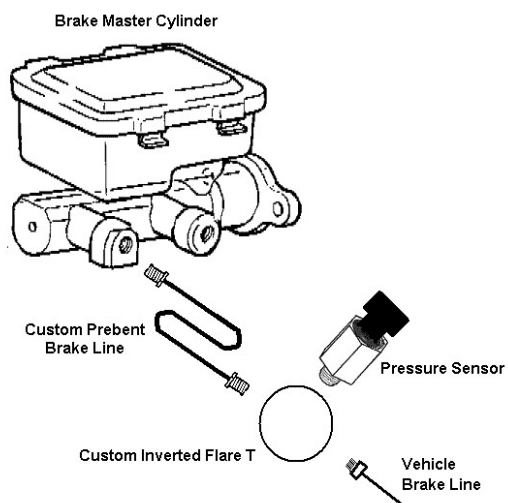
1. Park vehicle on level, flat ground. Turn off engine. Ensure that vehicle will not move.
2. Locate brake master cylinder. (See vehicle owner's manual) and always use proper tools.
3. Carefully disconnect brake line from brake master cylinder. (Front or back port)
4. Note: Different vehicles have different hydraulic fittings. Connect the hydraulic parts as shown on the appropriate figure for your vehicle. You may need to gently bend the brake lines to better fit your application. Be careful to prevent damage to your brake system.
5. Reconnect the vehicle brake line to the Tee adapter.
6. Attach the supplied pressure sensor to the remaining port on the Tee adapter.
7. Bleed air out at the pressure sensor. (see bleeding instructions)
8. Connect sensor cable and feed sensor cable through vehicle firewall. Caution: Do not pinch, crush, or damage the sensor cable.
9. Connect sensor cable to MaxBrake brake controller.
10. You will need to calibrate MaxBrake one time for your vehicle, unless you change the pressure sensor. If you have trouble, please contact MaxBrake at 1 (337) 542-4050.

**Continued.....**

#### 1/4" NPT Pressure Sensor Installation



#### SAE 37° Pressure Sensor Installation





## Hydraulic Installation Instructions

### 2. Bleeding the Sensor

*Note: Always safely handle, secure, and collect any brake fluid. Recycle or dispose using approved procedures in your area.*

- 1 Turn off engine and allow to cool. Ensure that vehicle will not roll or move.
- 2 Raise vehicle hood and have assistant take foot completely off the brake pedal. Note: Do not twist cable at the back of the pressure sensor. Unplug the pressure sensor cable.
- 3 Loosen the pressure sensor with a slight 1/4" turn. Be ready to collect brake fluid.
- 4 Have assistant very slowly begin to press brake pedal. Instruct the assistant in advance not to release the brakes until instructed to do so.
- 5 Look for brake fluid to begin escaping at the threads of the pressure sensor. As soon as brake fluid is observed, have assistant hold brake pedal steady.
- 6 Close the pressure sensor by tightening it. Plug in the pressure sensor cable.
- 7 Instruct the assistant to release the brakes. Note: Do NOT release the brake pedal while the pressure sensor is open (not tightened), as this will suck air back into the system.
- 8 Be sure to check the brake fluid level in the reservoir after bleeding the pressure sensor. Add fluid as necessary to keep the level above the fill line. Do not contaminate system.
- 9 Be sure to inspect the pressure sensor and other fittings for signs of leakage. Do not operate a leaking or malfunctioning brake system. Correct leaks as necessary.
- 10 Collect all tools and materials. Do not leave anything in the engine compartment.

### 3. Calibration

1. Make sure vehicle is at a complete stop.
2. Vehicle engine must be running.
3. Take foot completely off of brake pedal.
4. Press and hold the Cal button until message says release Cal button. (See front & rear illustration for location of Cal button)
5. You will see a message "Cal Mode".
6. Look at center of screen for the number next to "T".
7. Slowly apply pressure to brake pedal until the "T" number is between 40 and 45.
8. Take foot completely off of brake pedal.
9. Press and hold the Cal button until message says release Cal button.
10. MaxBrake is now trained. Test to ensure that MaxBrake tracks with the brake pedal.

NOTES: If the brake pedal is not pressed, MaxBrake should show 0 at the top left corner. If this is not the case, please recalibrate. You may adjust the gain setting knob at any time to your preference. We



## Hydraulic Installation Instructions

recommend an initial gain setting of “G 40”. The gain is adjustable from 0 to 100. Most customers use “G 35 to G 45” for all cargo loads. No trailer is necessary for calibration. Different trailers do not need calibration. Different cargo loads do not need calibration. Calibration “trains” the pressure sensor, not the trailer.

### FAQ's

#### **How do I change the gain?**

*The gain is changed by using the CVBC knob on the right front of the MaxBrake brake controller.*

#### **What does the CVBC knob actually do?**

*It allows the driver to adjust how hard or soft the trailer brakes respond (Gain). Adjust as needed.*

#### **Do I have to reset/calibrate for each trailer?**

*No. Once MaxBrake is calibrated it will work with any trailer. Recalibration is required if the number at the top left of the display is not 0 when the brake pedal is NOT pressed.*

#### **What does the LCD display actually show me?**

*Top Left - Trailer brake output level 0-999.*

*Top Middle - MaxBrake logo.*

*Top Right - Gain setting 0-100.*

*Bottom - Error messages (Trailer Unplugged, Check Trailer Wiring, Sensor Unplugged, High Current, Dead Short). When a good trailer is connected the bar graph will track with your pedal.*

*Bottom Right - Indicates how much current the trailer is drawing in Amps (+/- 1 Amp in most cases).*



## Air Installation Instructions

### 1. MaxBrake Air Pressure Sensor Installation General Instructions

*Note: Installation may vary by vehicle make, model, and year.*

1. Locate air line after brake pedal air valve. (See vehicle owner's manual)
2. Install tee downstream of brake pedal air valve using proper tools. Note: Refer to the figure for the air pressure sensor.
3. Apply Teflon Tape to pressure sensor threads and screw into the tee.
4. Check for air leaks, repair as needed. Do not operate vehicle with a defective brake system.
5. Plug in sensor cable at the MaxBrake pressure sensor.
6. Plug in sensor cable at the MaxBrake brake controller box.
7. MaxBrake is now ready to be calibrated.

### 2. Calibration

1. Make sure vehicle is at a complete stop.
2. Vehicle engine must be running.
3. Take foot completely off of brake pedal.
4. Press and hold the Cal button until message says release Cal button. (See front & rear illustration for location of Cal button)
5. You will see a message "Cal Mode".
6. Look at center of screen for the number next to "T".
7. Slowly apply pressure to brake pedal until the "T" number is between 40 and 45.
8. Take foot completely off of brake pedal.
9. Press and hold the Cal button until message says release Cal button.
10. MaxBrake is now trained. Test to ensure that MaxBrake tracks with the brake pedal.

#### **NOTES:**

If the brake pedal is not pressed, MaxBrake should show 0 at the top left corner. If this is not the case, please recalibrate.

You may adjust the gain setting knob at any time to your preference. We recommend an initial gain setting of "G 40". The gain is adjustable from 0 to 100. Most customers use "G 35 to G 45" for all cargo loads.

No trailer is necessary for calibration. Different trailers do not need calibration. Different cargo loads do not need calibration. Calibration "trains" the pressure sensor, not the trailer.



## Air Installation Instructions

### FAQ's

#### **How do I change the gain?**

*The gain is changed by using the CVBC knob on the right front of the MaxBrake brake controller.*

#### **What does the CVBC knob actually do?**

*It allows the driver to adjust how hard or soft the trailer brakes respond (Gain).  
Adjust as needed.*

#### **Do I have to reset/calibrate for each trailer?**

*No. Once MaxBrake is calibrated it will work with any trailer. Recalibration is required if the number at the top left of the display is not 0 when the brake pedal is NOT pressed.*

#### **What does the LCD display actually show me?**

*Top Left - Trailer brake output level 0-999.*

*Top Middle - MaxBrake logo.*

*Top Right - Gain setting 0-100.*

*Bottom - Error messages (Trailer Unplugged, Check Trailer Wiring, Sensor Unplugged, High Current, Dead Short). When a good trailer is connected the bar graph will track with your pedal.*

*Bottom Right - Indicates how much current the trailer is drawing in Amps (+/- 1 Amp in most cases).*

#### **Why won't the "T" number increase in CAL mode when I press the brake pedal harder to calibrate MaxBrake?**

*First, make sure the air sensor is installed and plugged in.*

*Second, you may have installed the tee upstream of the brake pedal valve. If so, you need to move the tee downstream of the brake pedal valve because MaxBrake is monitoring your compressor air pressure instead of your air brake pressure, and this will not work correctly. The air pressure sensor needs to be placed inline downstream (after) the brake pedal valve in order to work correctly. When the tee is installed correctly, the "T" number will increase when you press the brake pedal harder.*