

Disability Systems, Inc.
1-877-258-7423
<http://www.disabilitysystems.com>

Commercial Door Opener

“Commercial Gentleman” Door Operator Installation Instructions

SAFETY

THE COMMERCIAL GENTLEMAN IS A LOW ENERGY DOOR OPENER. PROPERLY ADJUSTED, THIS OPENER SHOULD BE EASY TO STOP WITH YOUR LITTLE FINGER. EXCESSIVE OPENING SPEED OR POWER WILL DAMAGE THE "COMMERCIAL GENTLEMAN" AND THE DOOR COMPONENTS. THESE ADJUSTMENTS CANNOT BE MADE AT THE FACTORY AND ARE YOUR RESPONSIBILITY.

NOTE: BEFORE INSTALLING THE OPENER, THE DOOR MUST OPEN & CLOSE MANUALLY WITH REASONABLE EFFORT. ANY BINDING, SAGGING, LOOSE HINGES, OR DAMAGED HINGES MUST BE REPAIRED BEFORE CONTINUING WITH THIS INSTALLATION!

PLANNING THE INSTALLATION

The commercial opener is straightforward to install (Figure 1) and adjust; this document covers the overall installation.

GENERAL INFORMATION

This opener is pneumatic and requires an air compressor (not included) that will provide 80-100 PSI of air pressure. Multiple openers can operate from a single compressor. If there is an existing system, it may be used if it meets the above criteria.

A quiet small tank mounted air compressor located in a remote location is desired. We can recommend a unit based on your installation, please contact **DSI at 1-877-258-7423**

The Commercial Gentleman is comprised of many precision pneumatic controls and requires a clean source of air with minimal moisture. Draining the air compressor tank periodically is essential to eliminate moisture in the air.

Please reference Figure 1 for basic installation notes, but read instructions thoroughly.

LOCATING THE AIR COMPRESSOR

The compressor can be located anywhere up to 125 feet from the opener when only using 5/32 inch tubing. If it is further away than this, a ¼ inch header line will need to be run. The tubing run from the compressor can be either in or out of a conduit; the tubing is durable nylon and can work in any setting or environment. (Figure 1)

NOTE: DURING INSTALLATION, DO NOT KINK, PINCH OR CRUSH TUBING.

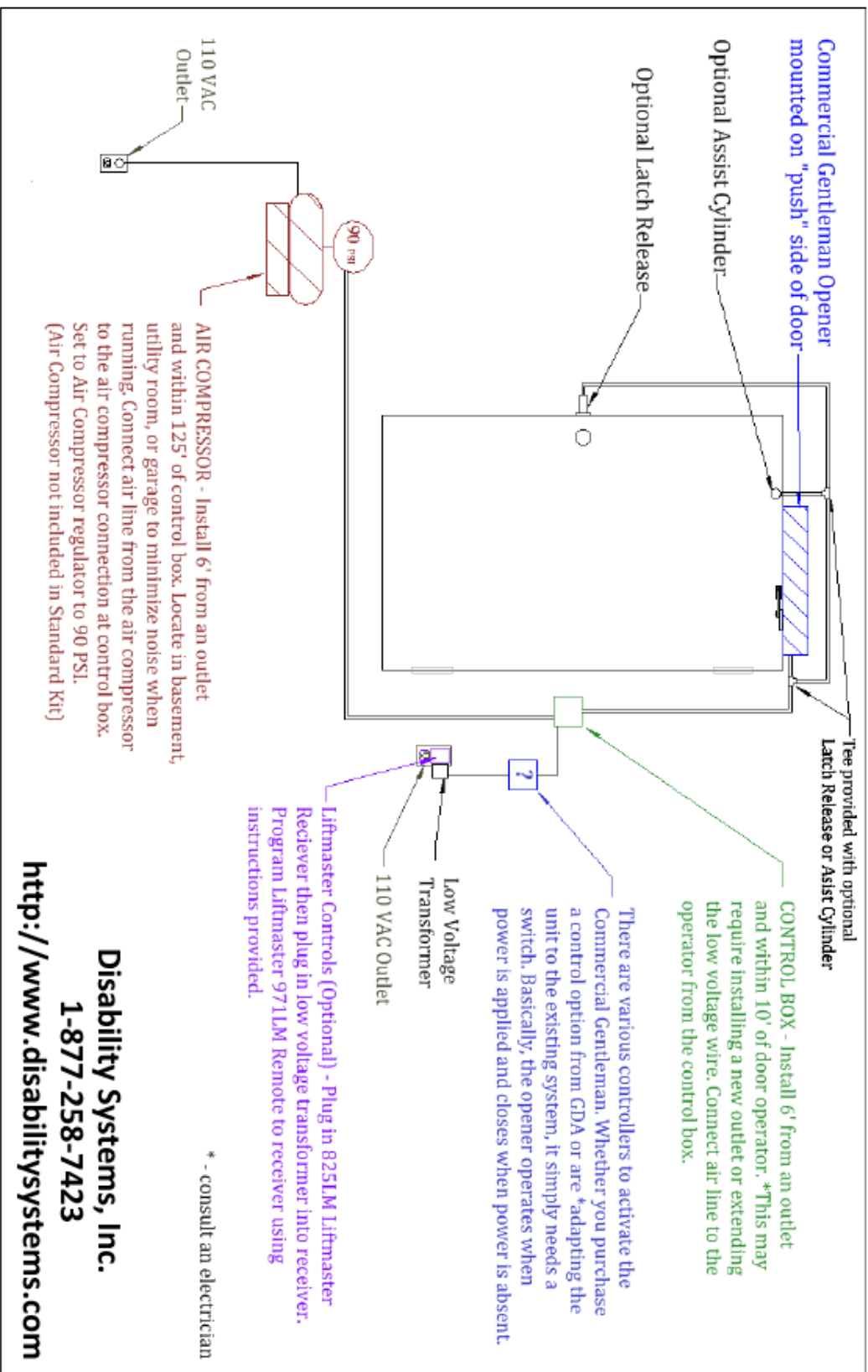


Figure 1

CONTROLLING THE OPENER

The switch or controls for your opener may or may not have a timing feature, but most all of the systems use an electric signal to a low voltage solenoid to send compressed air and operate the opener.

Unless you are adapting the opener controls to your own system, our control systems are plug-and-play and do not require an electrician.

MOUNTING OF THE OPENER

- Remove the cover from the opener, there are 4 machine screws.

NOTE: THE OPENER MOUNTS ON THE "PUSH" SIDE OF THE DOOR.

- Use the enclosed template for mounting, but you may need to mount the opener lower for adequate arm clearance.
- Mount the closer low enough for the opener arm to clear the door frame and door stop during operation. NOTE: A drop down aluminum angle may be necessary to support the opener if it is over 1 1/2" below door frame. You may fabricate a support or purchase the support from GDA. 800-525-7078.
- Secure the opener to the door frame installing the necessary screws in the mounting holes of the closer and through the mounting plate (there are a total of three holes) add more holes and fasteners if necessary.

ATTACHING THE CLOSER ARM

- The main closer arm is the flat metal piece that attaches to the closer. Attach the main closer arm to the closer body using the mounting bolt. The main closer arm should be perpendicular (90 degrees) to the small arm that the actuator is attached to at the top of the closer and air cylinder. (See template)

ATTACHING THE SHOE MOUNT TO DOOR

- The center of the shoe arm is attached 1 1/2" below the closer body and 2" from the arm attachment point. See the enclosed template for alignment. Use the necessary fasteners to mount the shoe arm.

ATTACHING THE SHOE ARM TO SHOE MOUNT

- The shoe arm is the section of closer arm that will attach to the shoe mount and connects to the Main arm at an elbow joint.
- Adjust the length of the shoe arm until it is 1/2" from the mount. Pull the arm the last 1/2" to preload the closer to the door and insert the smooth pin and install retaining screw.
- This preload is sufficient to keep the door closed. Open the door all the way and release it. If necessary, refer to the enclosed closer instructions to adjust the door closer.

ADJUSTING THE DOOR OPENER FOR AUTOMATIC OPERATION

Once you have the door closing properly, you can connect the air and electric power to the solenoid and adjust it for automatic operation.

Disability Systems, Inc.

1-877-258-7423

<http://www.disabilitysystems.com>

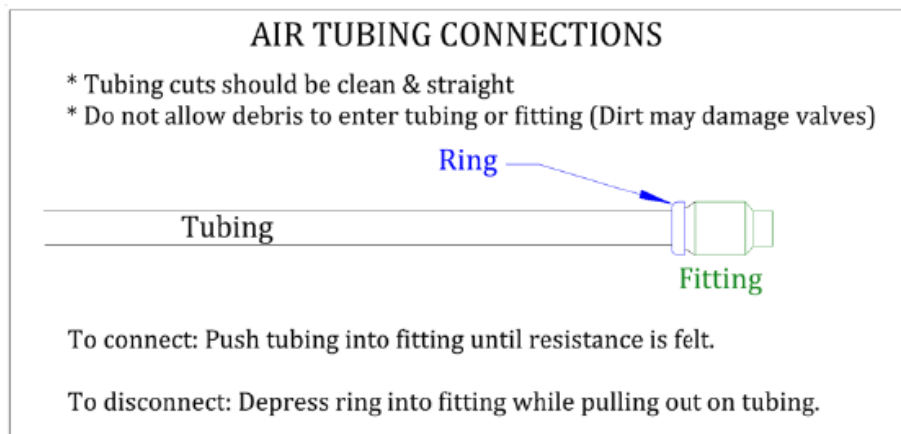


Figure 2

AIR TUBING CONNECTIONS (FIGURE 2)

- The compressor fitting will thread into any standard compressor port.
- Connect the 5/32" line at the compressor connector fitting
- Run the tubing to the solenoid location and connect into Port 1 on the solenoid
- On the opposite side of Port 1 is Port 2, connect Port 2 to the opener.

NOTE: IF YOU ARE USING THE OPTIONAL LATCH RELEASE, INSTALL TEE INTO THE TUBING BETWEEN PORT 2 AND THE OPENER TO POWER THE LATCH RELEASE. (FIGURE 1)

After you have made all airtight connections, activate the compressor and adjust output pressure to 90-100 PSI. You are now ready to adjust the opener.

OVERALL SPEED OF THE DOOR

The Commercial Gentleman is a low energy door opener; the opening cycle time must be a minimum of 5 seconds.

MAIN ADJUSTMENTS - REFER TO TEMPLATE CONTROL LOCATIONS

Power – Adjust the regulator by turning the knob clockwise to increase pressure and counter clockwise to decrease pressure to the opener.

If it does not or only opens partially then deactivate the air pressure or wait for the timer to deactivate the system and turn the knob on the regulator another half to full turn. Then activate the system again.

Continue to do this until the door opens 90 degrees.

Do not worry about the speed of the door opening at this point just that the door opens all the way. If the door slams open, decrease the pressure by turning the knob on the regulator counter clockwise.

CAUTION! If the mounting plate is flexing from the wall during operation, the screws are not adequately holding the opener to the wall. Use a longer screw/bolt or drill additional holes in rear plate to secure the opener.

Once the door opens properly you can now adjust the speed.

Speed adjustment – adjust the opening speed by turning the screw on the flow control (on the outflow port of the regulator, see template). Turn in clockwise to slow the door down, turn counter clockwise to speed up the opening.

If the door speed is adjusted properly but the door reaches the end of its travel abruptly, adjust the exhaust flow control on the cylinder to cushion door at full open.

Exhaust Flow Control Adjustment – Adjust the exhaust flow control screw (near cylinder mount, see template) to cushion and decelerate the door as it reaches full open. Closing the valve will slow the door as it moves to full open. Make small adjustments and cycle door until the cushioning effect desired is reached.

CAUTION! Never close the exhaust flow control completely! The opener will not function with the flow control fully closed!

REINSTALLING CLOSER COVER

- Install the bottom screws first loosely then install the side screws loosely.
- Tighten the bottom screws and only tighten the side screws until they touch the cover.

NOTE: Do not over tighten the side screws or install them first, this will deflect the cover and cause a misalignment of the bottom screws.

INSTALLING A DOOR STOP (1)

The opener will be damaged if pressure is applied to open the door further than the opener's maximum swing. Most commercial doors swing out and are also subject to wind damage also. Therefore, a door stop (not included) is recommended to control the door and should be installed so the opener will not exceed full travel.

CONTROLLING THE OPENER

There are various controllers to activate the Commercial Gentleman. Whether you purchase a control option from GDA or are adapting the unit to the existing system, it simply needs a switch. Basically, the opener operates when power is applied and closes when power is absent.

OPTIONAL LATCH RELEASE CYLINDER

The pneumatic Latch Release Cylinder installs into the jamb and will depress the door lock latch when the opener is activated. This will unlatch the door knob, even if it is locked, to allow the opener to open the door.

OPTIONAL ASSIST CYLINDER (Tee can be located inside opener- Figure 1)

If the door requires a higher initial force for magnetic weatherstrip, stack pressure, or electric strike, the assist cylinder kit will overcome these issues.

CONGRATULATIONS AND ENJOY YOUR NEW AUTOMATED DOOR!

Disability Systems, Inc.
1-877-258-7423
<http://www.disabilitysystems.com>