



MAGNAGLIDE AIR OPERATOR VERTICAL MOUNT

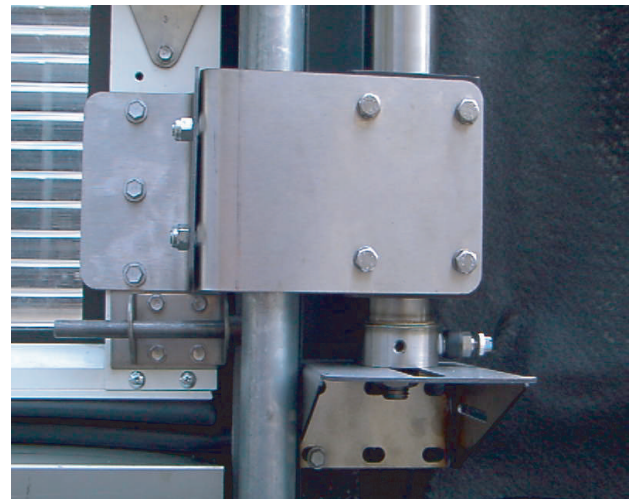
INSTALL GUIDE ● TROUBLE SHOOTING GUIDE ● MAINTENANCE MANUAL

AIRLIFT DOORS,™ INC. ▲ 4700 OSSEO ROAD ▲ MINNEAPOLIS, MN 55430
TOLL FREE: 888-368-4403 ▲ WWW.AIRLIFTDOORS.COM

VERTICAL MOUNT

2" STAINLESS STEEL CYLINDER

DIRECT DRIVE OPENER



MAGNETICALLY COUPLED PISTON

WON'T JUMP DOOR CABLES

30% MORE POWER THAN ANY OTHER AIR OPERATOR

3 YEAR WARRANTY

FEWER WEAR PARTS

LIGHTWEIGHT—EASY TO INSTALL

ALL STAINLESS STEEL TUBE AND HARDWARE

INSTALLATION GUIDE FOR MAGNAGLIDE AIR OPENER

(IMPORTANT: READ ALL INSTRUCTIONS BEFORE INSTALLATION)

PRE INSTALLATION INSPECTION:

- 1) Test the door for proper balance and smooth operation. If door is not balanced or is binding, the operator will not work properly. Note: counterweights and torsion springs are under extreme pressure and can cause serious injury or death. Adjustments and installation should be performed by a trained professional.
- 2) Check the clearance requirements for your operator. Horizontal mount operators need 4" above the highest portion of the door to the ceiling or the nearest obstruction on the ceiling such as lights, beams, pipes, etc. This measurement is taken with the door in the open position. Vertical mount openers need at least 5" from the side of the track towards the wall for clearance.
- 3) Make sure that you have compressed air available and 110 volt electricity for the air operator control box.
- 4) Check the packing list (included in your hardware box) for all necessary parts. Notify Airlift Doors immediately if anything is missing. Check your serial #'s stamped on the operator carriage to make sure the serial numbers match those listed on the packing list. Example: MG 104, MG 111, MG 135.

IMPORTANT SAFETY INFORMATION:

- 1) Air openers require high air pressures to operate. Make sure that any time you are installing or servicing your air openers you have the air turned off and all the air is drained out of the cylinders before connecting or disconnecting any air lines. Failure to do so can cause serious injury or death.
- 2) Torsion Springs and Counterweights are under extreme pressure. Do not attempt to install, adjust, or service unless you are a trained professional or are assisted by a trained professional. Do not attempt to service any counterbalance system without the proper tools. Improper handling of counterbalance systems can cause serious injury or death.
- 3) All openers must have safety devices such as electric eyes, reversing edges, etc. Failure to have them installed and working properly can cause serious injury or death. All safety devices must be checked regularly to ensure proper operation. Any damage to persons or objects caused by failure to install safety devices or properly maintain safety devices will not be the responsibility of Airlift Doors.
- 4) Open and close travel speeds can be manually adjusted with all air openers. Airlift Doors strongly recommends setting your close travel speed to a slow and safe travel speed. Closing any door too fast can result in the door closing on persons or objects and can cause serious injury or death.

SPECIFICATIONS FOR MAGNAGLIDE™ AIR POWERED OPENER

Operator Type:

1. MagnaGlide™ Air Powered Opener
 - A. 2" Stainless Steel Tube
 - B. Chainless Direct Drive
 - C. 1/4 npt x 3/8 Poly Airline Fittings
 - D. Stainless Steel Brackets and Fasteners
 - E. Magnetic Coupled Piston to Drawbar Carriage
 - F. Sealed Stainless Steel Shock Absorbing Cylinder
 - G. **Three Year Unlimited Warranty**
 - H. Wiper Seal Built Into Carriage to Prevent Dust Accumulation
 - I. No External Seals
2. Control Box Consisting of the Following
 - A. Automatic Valve (Lifetime Warranty on the Coils)
 - B. 24 VAC Circuitry
 - C. Ten Place Terminal Strip for Easy Electrical Hookup
 - D. Nema 4 Up/Down Buttons on Cover
 - E. Fused Circuitry
 - F. Valve Mounted With Gasket, Not O-Rings
 - G. Fiber Glass Box—Nema 4 Rated
 - H. Noise Mufflers
 - I. Electric Eye Pin Sockets are Pre-Wired

Recommended Upgrades:

- A. Emergency Open Button—Opens the Door in Case of Power Failure
- B. Automatic Oiler—Performs Controlled Oil Drips Into Airlines
- C. Inline Airline Dryer—Eliminates Excess Water and Buildup From Your Compressor

MagnaGlide Vertical Mount Installation Guide



(REFER TO STEP 7...VERY IMPORTANT)

When Fastening lift bracket P/N MGV1014 to the door make sure that the operator carriage is slid all the way down. Before fastening, ensure that door is in the fully closed position. If either of these is not done, carriage will come uncoupled form the cylinder.

Step 1) Place the MagnaGlide cylinder on a flat surface and install top bracket and bottom bracket. (Part # MGV1012 and # MGV1011) Note that the bottom bracket is shorter than the top bracket. Fasten the brackets to the operator using $\frac{3}{4}$ " lock washer and nut, but do not tighten with a wrench at this time.

Step 2) Assemble the pusher spring (P/N # MG1002) to the back side, or side closest to the wall of the top bracket using $\frac{3}{4}$ " nut and lock washer. Do not tighten at this time.

Step 3) Install $\frac{1}{4}$ " NPT X $\frac{3}{8}$ " hose fitting (P/N # 35007) in both ends of the cylinder.

Step 4) Close the door completely and use a vice grip to lock the door down if it is not already equipped with a slide lock.

Step 5) Decide which side of the door the operator will go on. Measure 5" from the floor and make a mark next to the vertical track on the wall.

Step 6) Stand the operator up and align it as close to the vertical track as possible. Now lift the operator up so that the top of the bottom bracket is at your 5" mark and secure the operator to the wall and track. (Note: $\frac{1}{4}$ " track bolts go through the bracket and the track. Use wood lags, concrete anchors, or self tappers to anchor the brackets to the wall depending on what type of surface you are mounting on).

Step 7) Install the operator lift bracket (P/N # MGV1013 on diagram) to the carriage of the MagnaGlide using stainless steel $\frac{5}{16}$ " X $\frac{1}{2}$ " hex head bolts. (Note: bracket goes around the track towards the door).

Step 8) Install the other lift bracket (P/N # MGV 1014) to the door using $\frac{7}{16}$ " self tapping screws. Be sure that the slide holes on the two brackets line up. Secure the two brackets with $\frac{3}{8}$ " X 1" carriage bolts and nylon lock nuts. (Important: Tighten the nuts, but do not tighten all the way so the brackets can slide without causing any binding on the cylinder carriage).

Step 9) Adjust the operator in or out to make sure that the MagnaGlide cylinder is parallel to the track the entire way. This is very important to ensure that the operator will not bind. Tighten the $\frac{3}{4}$ " nut on both the upper and lower brackets to lock the cylinder into position.

Step 10) Adjust the pusher spring in or out to align the pusher cylinder knob with the carriage of the operator. Tighten the 3/4" nut to lock it into place.

Step 11) Mount the control box to the wall. Recommended height is approximately 4' off the ground so it is easily accessible. Note: Control box will need 110 volt power and compressed air run to the box.

Step 12) Using 3/8" poly air line, run enough line to reach from the control box to the cylinder. The top hole on the right side of the box goes to the front (nearest to the door) fitting of the operator (P/N # 35007). The airline from the bottom valve or hole of the control box goes to the air line connection at the top of the operator. Note: Both the operator and control box have quick connect air line fittings. Once measured and cut to desired length, the ends of the air line can be easily connected by pushing them into the fitting. Lines can be removed by pushing in on the very end of the fitting while pulling on the air line.

Step 13) Once all your connections are made, you can charge the air line from your compressor to your regulator. You can adjust your air pressure through the top knob on your regulator. By turning the knob, you can increase or decrease your air pressure. To decrease your pressure, you should turn the knob counterclockwise. To increase your air pressure, you should turn the knob clockwise. To start, you should set your gauge to read 40 lbs of air pressure. If your door opens too slowly, turn your air pressure up. Note: You should never exceed 80 p.s.i. If the door will not operate under 80 p.s.i. you have a mechanical problem and should check over all door hardware.

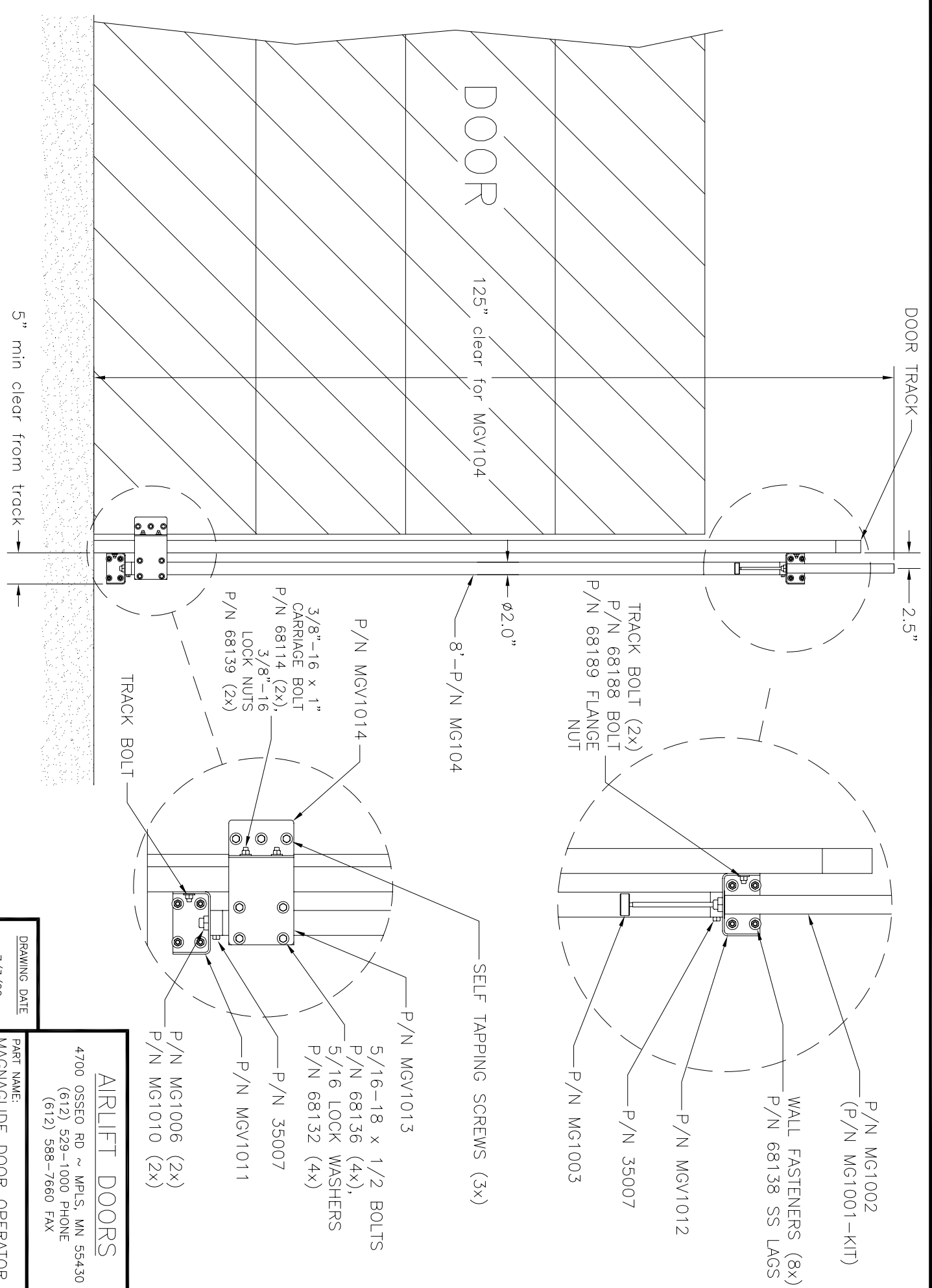
Step 14) You can easily adjust the speed of the door by using the flow controls located on the side of the operator control box. There is an exhaust port on the top of the main air intake line as well as one on the bottom. The bottom flow regulator controls the speed of the open travel while the top flow regulator controls the speed of the down travel. The speeds of either travel can be adjusted by turning the flow regulator clockwise to slow the door down or counter clockwise to speed it up. Note: It is very important to have your door close at a very slow and safe operating speed. Failure to do so may result in the door striking objects or persons and may result in serious injury or death.

See the diagram labeled "Control Box Features" for further details

VERTICAL MAGNAGLIDE SHIELD INSTALLATION

1. COMPLETE VERTICAL MOUNT MAGNAGLIDE INSTALLATION GUIDE COMPLETELY BEFORE MOUNTING THE OPERATOR SHIELD.
2. SPREAD THE SHIELD APART AND PLACE IT AROUND THE VERTICAL MAGNAGLIDE. ALLOW IT TO REST ON THE BOTTOM MOUNTING BRACKET OF THE CYLINDER.
3. POSITION GAP IN THE SHIELD SO THAT WHEN THE DOOR IS IN OPERATION, THE DOOR BRACKET RIDES NEXT TO THE PLASTIC EDGE RATHER THAN THE RUBBER FLAP.
4. MOUNT THE SHIELD MOUNTING BRACKETS TO THE WALL NEAR THE TOP AND BOTTOM OF THE SHIELD.
5. USING THE SLOT IN THE BRACKET AS A GUIDE, DRILL A 1/4" HOLE THROUGH THE SHIELD, AND ATTACH THE SHIELD TO THE BRACKET USING THE BOLT AND NUT PROVIDED. REPEAT FOR OPPOSITE END OF SHIELD.
6. RUN OPERATOR TO ENSURE THE MOVING PARTS OF THE OPERATOR DO NOT BIND AGAINST THE SHIELD.





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DRAWING DATE	7/3/02
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PART NAME: MAGNAGLIDE DOOR OPERATOR -VERTICAL		4700 OSSEO RD ~ MPLS, MN 55430 (612) 529-1000 PHONE (612) 588-7660 FAX
ASSEMBLY NUMBER: MGV1	REV: A	

AIRLIFT DOORS

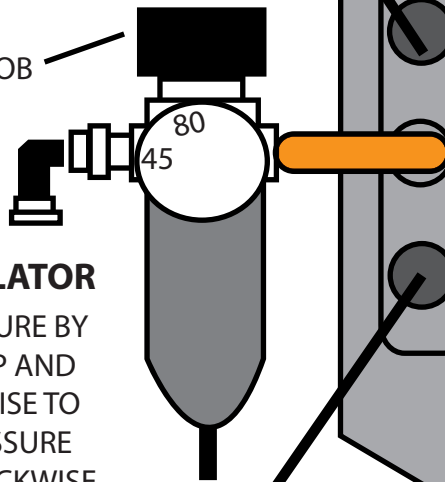
CONTROL BOX FEATURES

(ADJUSTMENT FOR OPEN AND CLOSE TRAVEL SPEED)

DOWN TRAVEL SPEED CONTROL.

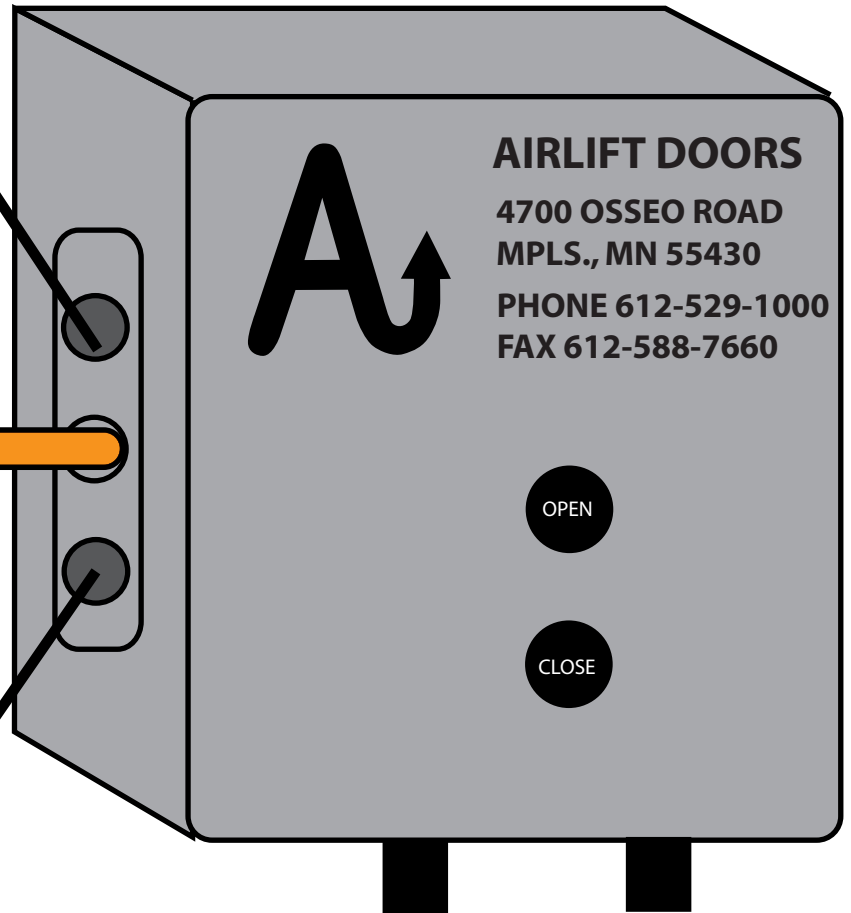
DOWN TRAVEL SPEED SHOULD BE SET TO A VERY SLOW SPEED. FAILURE TO DO SO GREATLY INCREASES THE RISK OF VEHICLE DAMAGE OR PERSONAL INJURY!

ADJUSTMENT KNOB



AIR FILTER REGULATOR

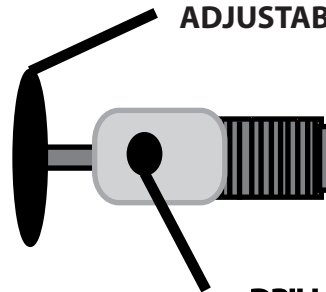
ADJUST AIR PRESSURE BY PULLING KNOB UP AND TURNING CLOCKWISE TO INCREASE AIR PRESSURE AND COUNTERCLOCKWISE TO DECREASE AIR PRESSURE. (OPERATE BETWEEN 45-80 P.S.I.)



OPEN TRAVEL SPEED CONTROL.

TURN BLACK KNOB CLOCKWISE TO DECREASE OPEN TRAVEL SPEED OR COUNTER CLOCKWISE TO INCREASE OPEN TRAVEL SPEED.

ADJUSTABLE FLOW CONTROL



DRILLED EXHAUST PORT



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Trouble Shooting For MagnaGlide Air Powered Openers

Scenario: The operator is sliding with jerky motions

Solution: Spray WD-40 or JB-80 on the outside of the stainless steel tube. Also add oil to the inside of the cylinders to lubricate the piston seals. (See maintenance guide for details)

Scenario: Door opens too slowly

Solution: Check the air pressure. The pressure should be between 40 and 80 p.s.i. If the air pressure on the regulator gauge reads o.k., then adjust the flow control on the side of the control box. Note: There are two flow controls in the box. The bottom flow control adjusts the open travel speed. To speed up the travel, turn the flow control counterclockwise a full turn and test the door. Repeat until door operates at desired speed.

Scenario: Door closes too fast or slow

Solution: See steps to above scenario. Note: Top flow control adjusts the down travel speed.

Scenario: Door goes down when you push the up button or vice versa

Solution: Switch the airlines coming out of the right side of the control box

Scenario: Door does not sit level on the ground

Solution: This is not an operator problem. Check your door cables to make sure they have not slipped off of the drum.

Scenario: Door does not shut all the way to the floor

Solution: Adjust the length of your drawbar arm by removing the bolts holding the straight piece and the 90 degree bend and placing them in new holes.

UNLIMITED

Three Year Warranty Certificate

MagnaGlide

All Models

Three Year Warranty

Airlift Doors, Inc. warrants to the original purchaser or original user that all MagnaGlide Operators sold by Airlift Doors, Inc. and all parts thereof are free from defects in material or workmanship under normal use and service. The company's sole obligation under this warranty shall be limited to furnishing replacement parts or a complete operator F.O.B. Minneapolis, Minnesota for 36 Months from date of shipment by Airlift Doors, Inc.

If the MagnaGlide operator has been proven to be inoperative due to defects in material or factory workmanship, a rebuilt operator will be provided to original purchaser in exchange. The original warranty date will continue on with exchange operator.

General Conditions

The warranties set out in this certificate are the exclusive remedy of the original owner or user in lieu of all other warranties written, oral or implied (including any warranty or merchantability or fitness for the purpose) and all other obligations or liabilities on the part of the Company, and the Company neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale, installation or use of the MagnaGlide Operator or any parts thereof.

The Company will not be responsible for labor or shipping and handling charges for the analysis of a defective condition or for the replacement and installation of defective parts.

The warranties herein shall be null and void if the MagnaGlide Operator is not installed by a competent contractor and/or if MagnaGlide Operator is not installed according to Company instructions.

The warranties herein shall be null and void if the MagnaGlide Operator is subjected to misuse, frozen, negligence, accidental, or physical damage.

Airlift Doors, Inc.TM

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MAGNAGLIDE MAINTENANCE GUIDE AND SCHEDULE

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

A. Check Air Regulator (monthly)

B. Check Flow Controls (monthly)

C. Clean Cylinder (1-2 months)

D. Add Oil To Cylinder (2 months)

E. Drain Compressor (monthly)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
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INSTRUCTIONS TO PERFORM MAINTENANCE

A. Check the air regulator for proper flow. The pressure gauge should be between 45 psi. and 80 psi. If air pressure exceeds 80 psi. to operate the door contact your service provider to determine cause of resistance.

B. Check your flow controls located on the valve exhaust ports located on the side of your control box. Test open and close travel speeds. The top metering screw adjusts the closing speed. The bottom screw adjusts your opening speed. It is highly recommended that you have your door close slowly to prevent damage or death to person or vehicle.

C. Clean your cylinder with a non abrasive cloth and a cleaning solution. WD-40, JB-80, or any other non stick agent works best. Do not use grease or oil on the outside of the cylinder. The carriage of your operator has a built in wiper seal that will remove any buildup on the cylinder and oil or grease will cause excess buildup counteracting its performance.

D. Airlift strongly recommends automatic oilers with your operator. An automatic oiler will release a gradual flow of oil to keep the inside piston seals lubricated. One drop per cycle is the recommended setting for your automatic oiler. If you do not use an oiler it is very important to add oil on a regular basis (every two months). If you do not use an automatic oiler, follow these instructions for the type of operator you have. If you have a **horizontal mount** operator run the door to the closed position. Remove the front air line from the push fitting (closest to the wall) and add 6-10 inches of oil in the line. Push the airline back into the fitting and run the door to the open position. Remove the back airline and add oil to the line and replace into fitting. Cycle door. With a **vertical mount** operator place 6-10 inches of oil into the bottom airline when the door is in the closed position. Replace airline and open door. Add oil into the top fitting with door open, replace into fitting and cycle door. Use Airlift cylinder lubricant or contact factory for recommendations. Once all steps are completed, cycle your door multiple times to ensure the seals are properly oiled.

E. You should drain your compressor as often as possible. However, with any pneumatic system it is impossible to remove all water from lines. In addition to regular compressor draining, Airlift recommends using an inline air dryer to eliminate water built up from condensation from entering into your operator.

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