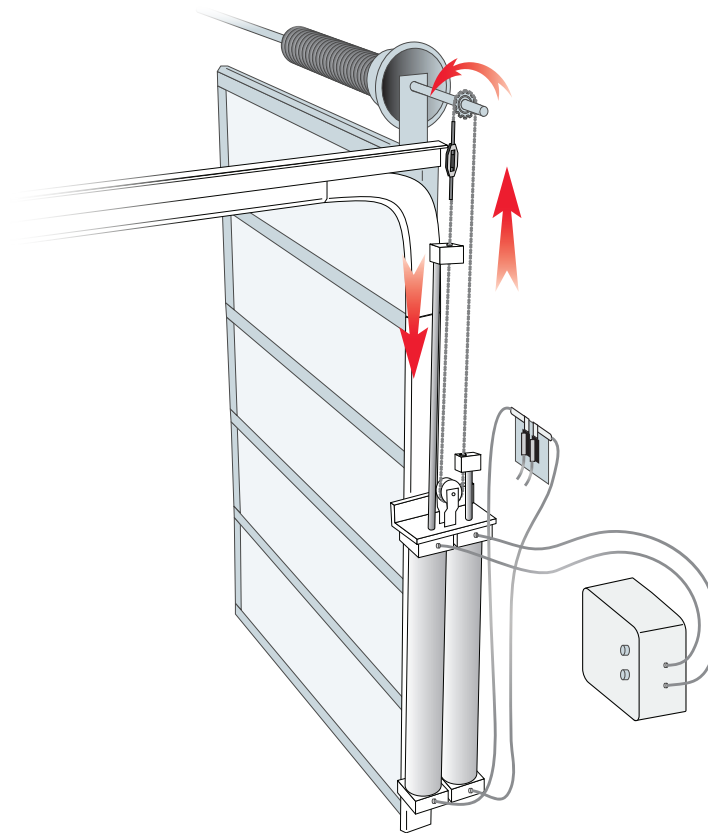




Air-Powered Operator



Installation Manual

3-1-26

 **American**TM
garage door supply inc.

1-800-233-1487

Supralift Air-Powered Operator Installation

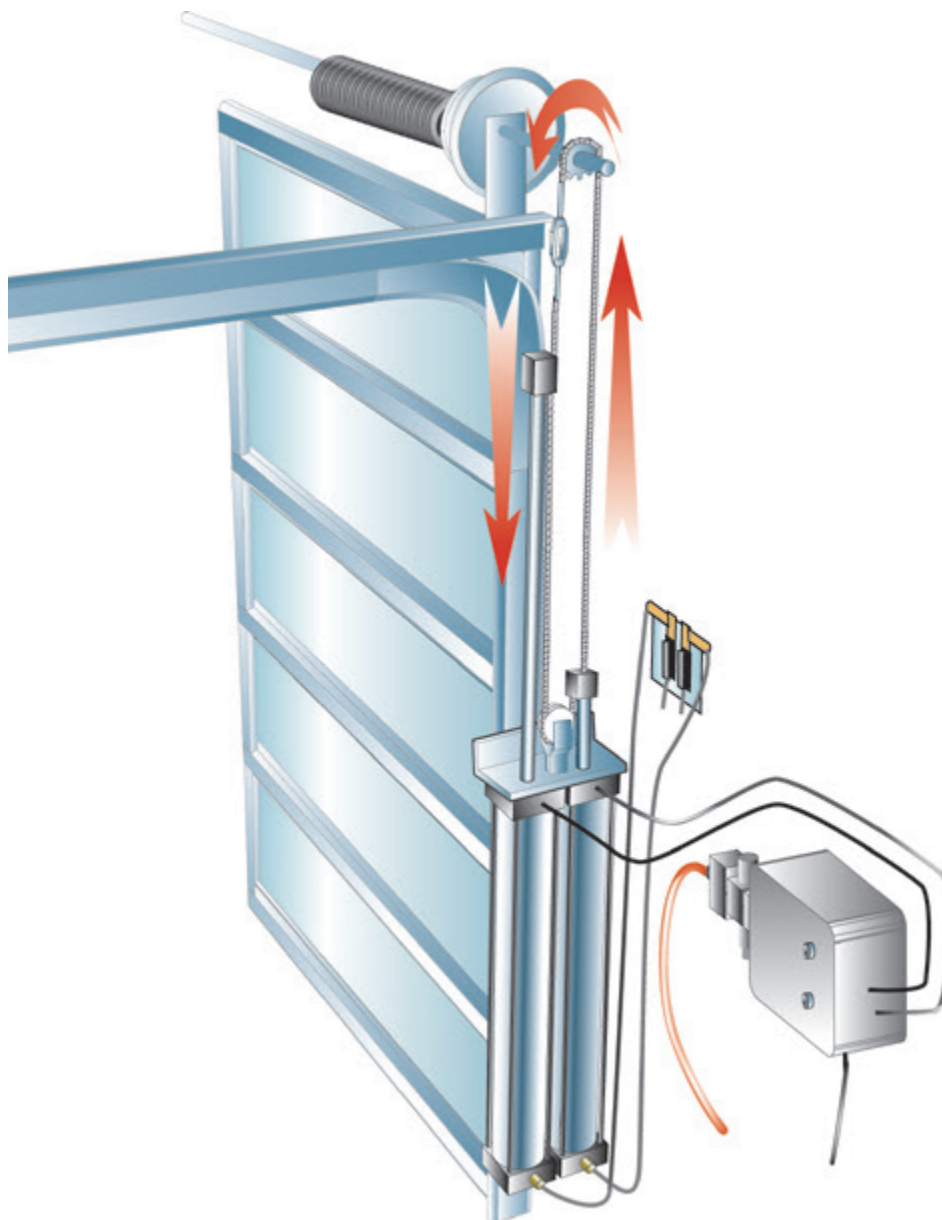
Please read Instructions completely before installation!

Recommendations

1. Before you begin the installation of the Supralift product; test your door for proper operation - your door must operate smoothly without binding and also be balanced equally from the close to the open position. An out of balance door will cause problems with the operation of the air operator.
2. You will need a minimum of 5" of shaft protruding through the bearing plate for the sprocket and chain assembly. A 1" solid keyed shaft is necessary. The use of an extra bearing plate to stabilize the end of the shaft is recommended on longer shafts to prevent deflection and improper operation.
3. All Supralift operators used with standard lift or doors with minimal high lift (under 16") doors should utilize a pusher spring to keep constant pressure on the door in a downward direction to prevent cable spooling.
4. All air-powered operators should have an inline dryer located before the control box to eliminate moisture in the airlines. Units installed without "point of equipment" (POE) inline dryers may void the warranty.
5. Do not use an oiler with your Supralift system. Lubricant will attract dirt and contaminants and can cause damage to the valve and operator seals.
6. The Supralift piston rod surfaces should be kept clean and should not be dented, scratched or marred in any manner. Damage of this type will cause damage to the seals.
7. When repairing or servicing a unit. Use anti-seize on any stainless steel fasteners that are threaded into aluminum.
8. Use teflon tape on any threaded airline components to prevent air pressure leakage. Tighten all for the best seal.
9. Do not use airline larger than 3/8" between the control box and the operator. Using larger line will slow the unit down.
10. Stopping the door more than 6" before it's intended end travel (door height) will slow down the unit. Order the correct size for your desired opening height of the door.
11. **Oversized Openers:** Using an opener designed for a 10-foot-high door on an 8-foot-high door can cause delayed, inconsistent, or improper operation.

Safety

1. **Use the shut-off valve in the off position until installation is complete. To turn the valve to the off position turn the handle of the lockout so it is 90 degrees to the valve.**
2. **Torsion springs and counterweights on overhead type doors are under extreme torque and if handled improperly could cause serious injury, even death. Always use extreme caution when working with or near torsion springs, counterweights or any counterbalance system. Installation should be performed by a trained professional.**
3. **Follow equipment manufacturer's recommendations on tools, ladders and other equipment used for installation.**
4. **Any air-powered opener must be equipped with a safety reversing device that operates reliably. Failure to install workable safety devices such as photoeyes, reversing edges and etc. may cause the door to strike an object or person causing serious damage, injury or death.**
5. **Use precaution when installing or servicing air-powered openers. Air-powered openers utilize high pressure air for a power source and can cause equipment damage, serious injury or death if used improperly.**



How Supralift Works

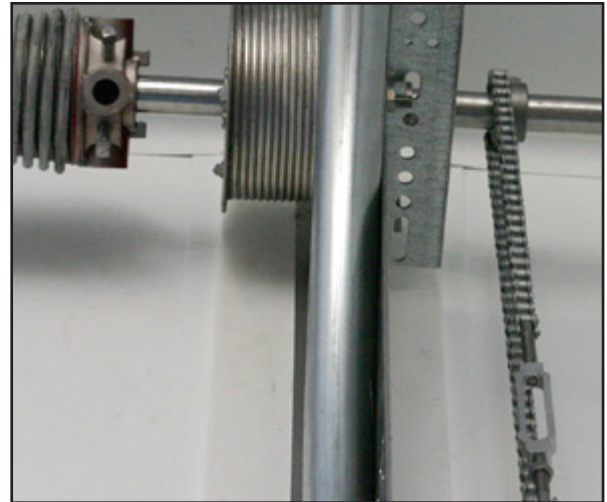
Supralift air-powered operators utilize a dual cylinder/piston assembly mounted to the door track. The regulator and air valve located between your compressor and the operator directs air to either the open or the close cylinder which pushes the piston/rod assembly down. The drive chain is attached to the top of each piston rod and loops over the sprocket on the doors' torsion shaft.

On the "open" signal, compressed air drives the "open" piston/rod downward. The chain rotates the sprocket, rotating the torsion shaft. The door responds with a smooth, fast motion to the open position. On the "down" signal the door closes with a cushiony stop, preventing cable spooling and unwanted door jerking.

Sample Installation Images



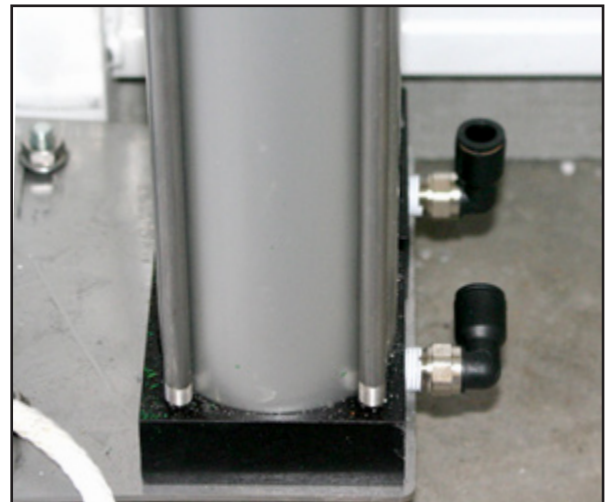
Top Assembly View



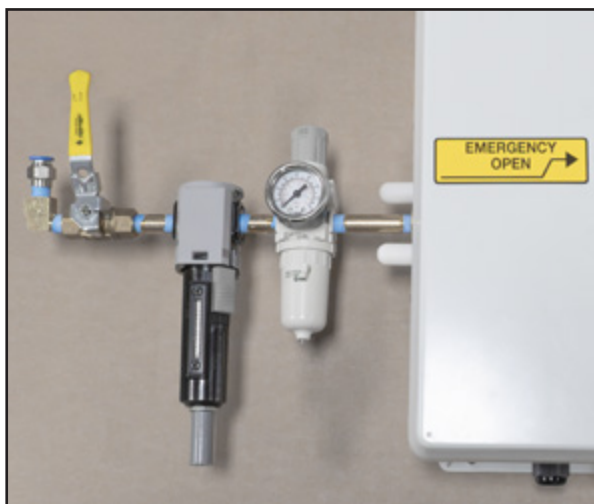
Chain/Sprocket View



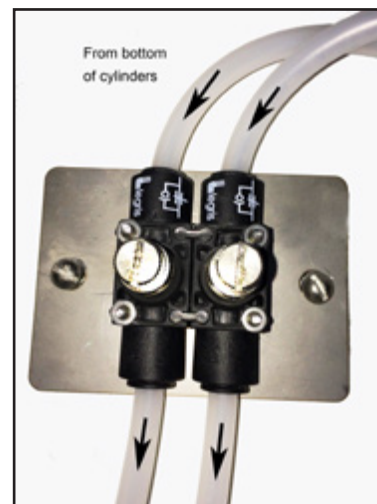
Top of Cylinder View



Bottom of Cylinder View



Control Box View



Flow Control View

Typical Material List

Provided Materials

CYLINDERS - Industrial Duty, 2 units per door with Top & Bottom Mounting Plates (4 Pieces)

Part #	Door Opening Ht.	Description	Qty
SL08	8'	47-3/16" Cylinders	1 pr.
SL10	10'	59-3/16" Cylinders	1 pr.
SL12	12'	71-3/16" Cylinders	1 pr.
SL14	14'	83-3/16" Cylinders	1 pr.
SL16	16'	95-3/16" Cylinders	1 pr.

HARDWARE PACKAGE

Part #	Description	Qty
TBLTS1458	1/4" x 5/8" SS Track Bolt	4 ea.
NUTFS14	1/4" SS Flange Nut	4 ea.
SLAC/SLSC12	Aluminum Collar w/ 1/2" SS Set Screw	2 ea.
SLJNUT	7/16" SS Jamb Nut	4 ea.
SLSTBS	Turnbuckle with SS Studs/Locknuts	1 ea.
CN41	#41 Chain Door Operator size plus 12"	1 ea.
CMLN41	#41 Master Link	2 ea.
SL1241SS	#41 x 12 Tooth SS Sprocket	1 ea.
SSK	1/4" x 2" SS Key	1 ea.
SLPF90-38X14	90° x 3/8" x 1/4" NPT Push-in Fitting	4 ea.
SLFLKIT-4	Flow Control Kit	1 ea.

Options Sold Separately

Control Box Assembly with Valve & Regulator
Inline Dryer
SS or Galvanized Pusher Springs
Photoeye or other Safety Reversing Mechanism
Stainless Steel Chain
3/8" Polyflow Hose
Timer to Close

Tools Required

Ladder
Hammer
Hand Wrenches- 5/16" 1/4", 7/16", 1/2", 9/16", 5/8"
Standard Screwdriver
3/8" Socket Set- 7/16", 1/2", 9/16", 5/8"
Electric Impact or Drill with 3/8" and 7/16" Sockets, 1/4" drill bit.
Allen Wrench Set with 1/4" (L-shaped works best)

11 Tips for Setting Up
Your Air-Powered Operator.



Visit our YouTube Channel

Components Identification



Aluminum Collar with Set Screw (2)



Aluminum Collar Lock Nut (4)



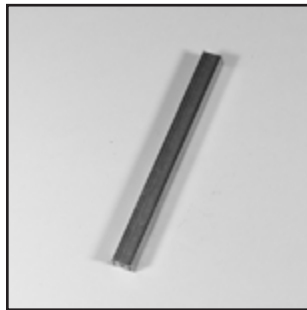
Chain (9', 11', or 13')



Master Links (2)



Sprocket with Set Screws (1)



1/4" Key (1)



Cylinders (1 Set)



90° Push-in Fitting (4)



Turnbuckle (1)



Track Bolt & Nut (4)

Cylinder Assembly & Installation

Typical Installation

Step 1

Please inspect all packages for damage and missing parts (refer to component identification page). Then decide which side of your door you would like to install your new Supralift operator on. The Supralift is versatile enough to mount to either side of the door. It's advised to use a bearing plate at the end of the shaft where the sprocket for the supralift is mounted for added support.

Step 2

Remove the plastic plugs at the top of the cylinders and install (hand tight) the two push-in fittings. Finish tightening with one half to one full turn.

Step 3

Remove the plastic plugs at the bottom of the cylinders and install the two push-in fittings (hand tight). Finish tightening with one half to one full turn.

Step 4

Thread one end of the chain down through one aluminum collar under the idler pulley and up through the other collar. Attach the turnbuckle to each end of the chain using the two master links.

(Figure 1)

Step 5

Slide the 12-tooth sprocket over the torsion shaft with set screws towards the outside of the shaft. Do not insert the $\frac{1}{4}$ " key or tighten the set screws at this time. Slide the sprocket near the end bearing plate of the door. (Figure 2)

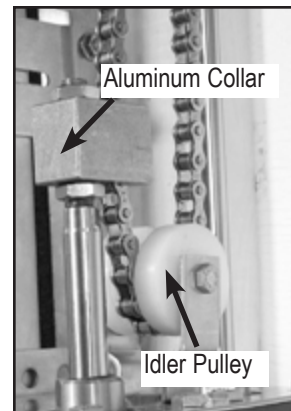


Figure 1



Figure 2

Step 6

With the door closed, hang the operator by the chain assembly over the sprocket on the torsion shaft. Keep the turnbuckle on the front side of the sprocket. The turnbuckle should be close to fully extended.

Step 7

Slide the operator cylinder assembly against the door track and move the sprocket for proper vertical alignments (See figure 5). Mark and drill $\frac{1}{4}$ " holes into the track and track angle through the pre-punched holes in the adjustable top and bottom track brackets of air operator. Drill as many holes as necessary to secure the operator firmly. (Recommended: Minimum of 2 holes on top and 2 holes on bottom.)

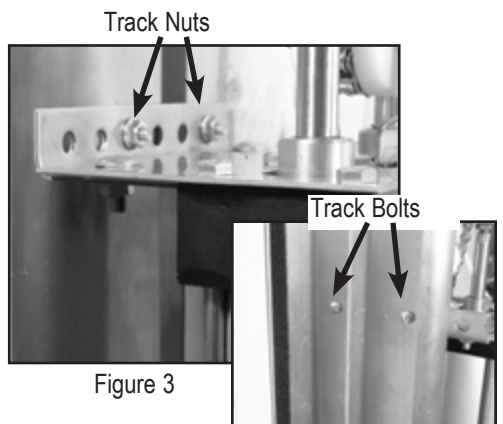


Figure 3

Note: The final position of the bottom of the cylinders may be moved down to accommodate highlift or vertical lift track applications. To move the cylinder down, increase the chain length. The cylinders cannot be moved up.

Step 8

Bolt the operator to the track with the $\frac{1}{4}$ " track bolts and track flange nuts included in the hardware package. Please ensure that the heads of the track bolts are on the inside of the track, closest to the door. When drilling the holes position the holes in the center of the track to avoid obstructing the door rollers. (Figure 3)

Step 9

Adjust the operator horizontal alignment with the shaft sprocket and door/track by adjusting the top and bottom track brackets.

The brackets can be adjusted by loosening the bolts that connect the top and bottom operator track brackets and the operator top and bottom plates. The opener can be adjusted in two directions for proper alignment. Tighten the bolts securely when complete.

IMPORTANT:

The centerline of the operator piston rod should be plumb with the center of the sprocket teeth on the torsion shaft of the door. The operator should also be plumb 90° to the torsion shaft as well. If the operator is not plumb, the piston rods will cause friction and cause premature failure of rod seals.

Step 10

Finish tightening the chain by turning the turnbuckle clockwise until the chain is snug. Tighten the locknut on one of the turnbuckle studs to prevent the chain from loosening after use.

Step 11

Pull the chain assembly up until the turnbuckle is approximately 1" below the sprocket on the torsion shaft. The turnbuckle should be on the front side of the sprocket. (Figure 6)

Step 12

Insert the 1/4" key into the sprocket and tighten the set screw securely on the shaft sprocket. For final setting of the sprocket, it is recommended to keep the sprocket as close to the bearing plate as possible to prevent deflection of the shaft. If it is necessary to have the sprocket more than 4" from the bearing plate and track assembly, use an additional bearing plate to stabilize the end of the torsion shaft. The sprocket must always be plumb with the operator to prevent premature seal wear.

Step 13

Push the piston rod on the cylinder closest to the wall (close cylinder) all the way down until the piston bottoms out in the cylinder, then raise the piston rod 1"– 1-1/2" upward and tighten the set screw on the aluminum collar to lock the chain. **Tip: Rotate the piston rod to one side to tighten the set screw then rotate back to proper position. Tighten the locknuts on top and bottom of the aluminum collar.**

Step 14

Raise the door to your desired opening height, push the piston rod on the cylinder furthest from the wall (open cylinder) all the way down, and tighten the set screw on the aluminum collar.

Dual Operator systems should be installed identically.

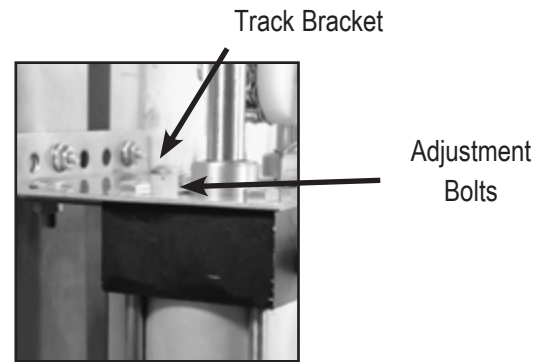


Figure 4

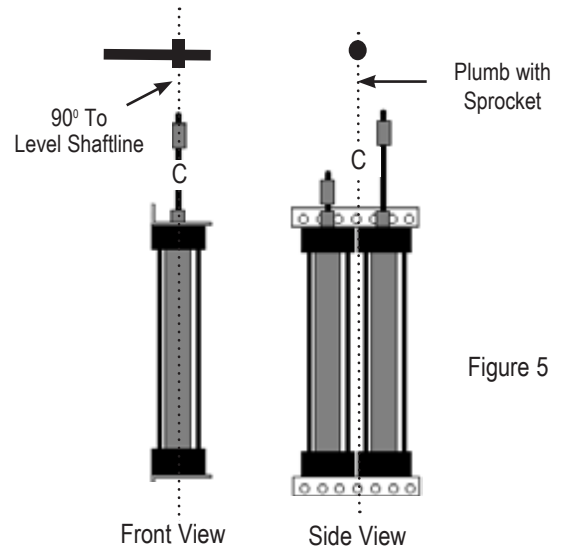


Figure 5

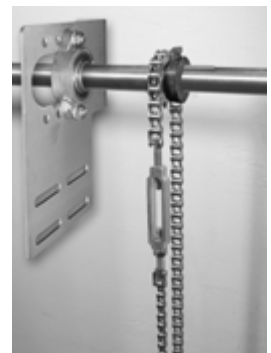
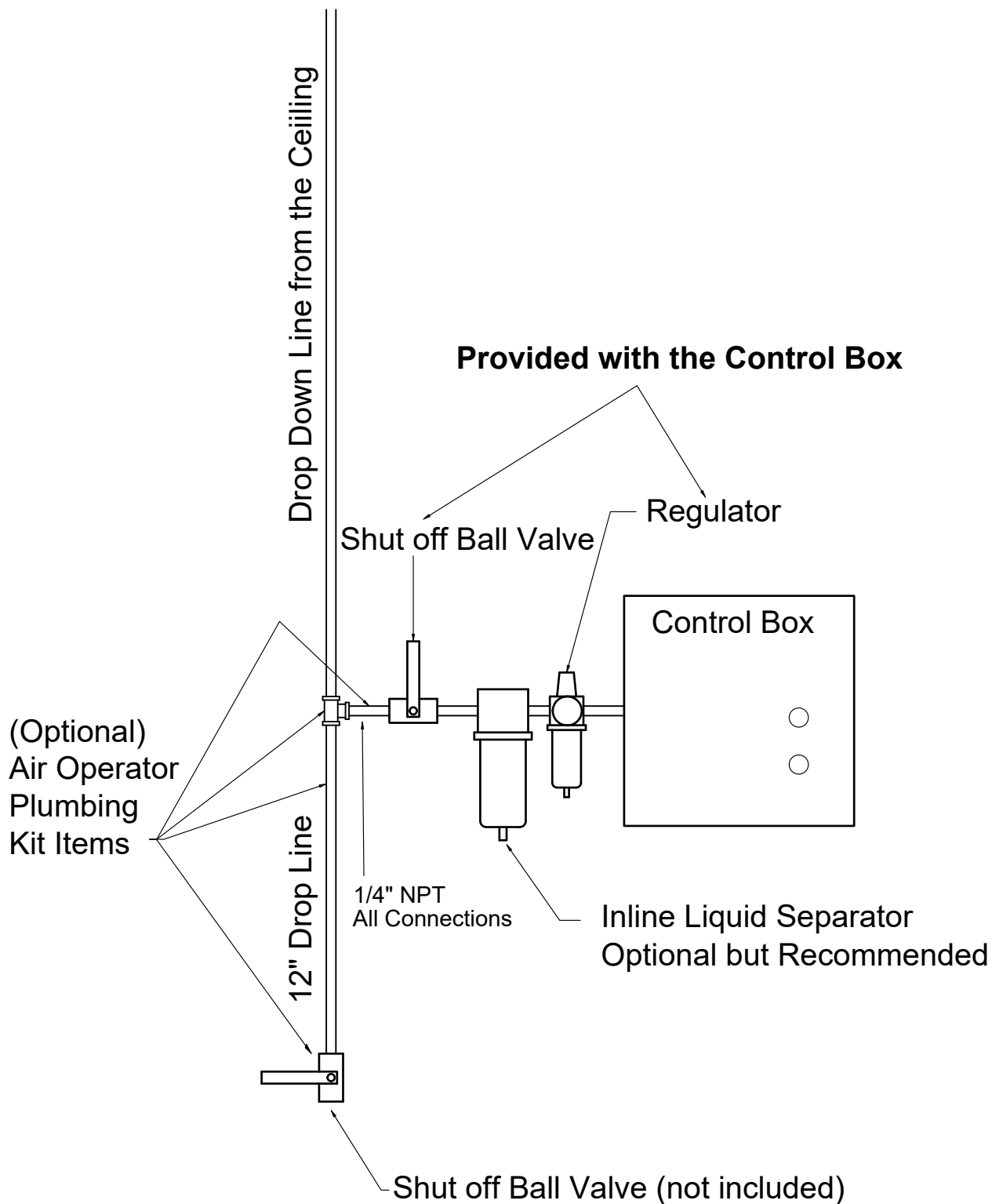
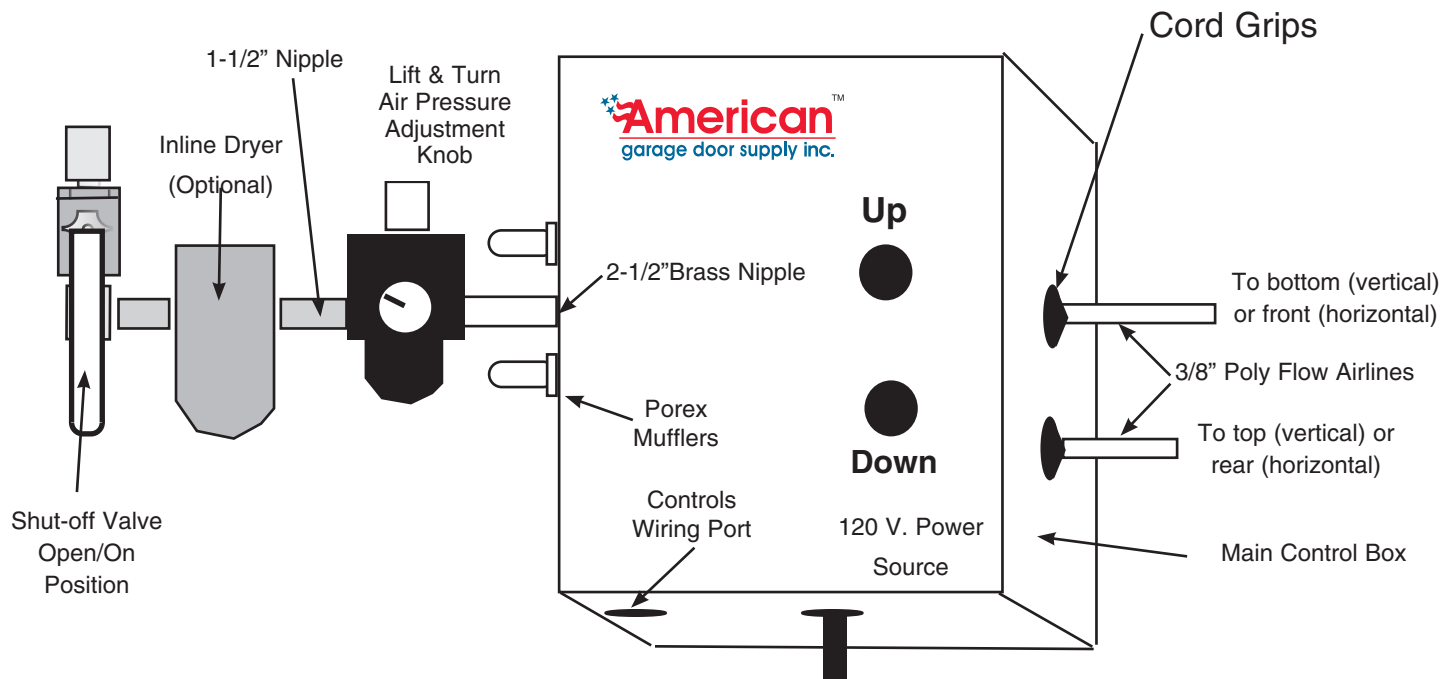


Figure 6

Air Operator Plumbing Detail



Typical Control Box Assembly



Typical Material List

Provided Materials

<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
SLA20-24	Waterproof Control Box	1 ea.
SLFR	Filter Regulator Assembly w/Gauge	1 ea.
SLRF-25x14	Nipple 1/4" NPT x 2-1/2"	1 ea.
SLRF-15x14	Nipple 1/4" NPT x 1-1/2"	1 ea.
SLPE18	Porex Muffler	2 ea.
VV500P-4	Shut-off Valve Assembly	1 ea.
SLPF-38x14	Push-in Fitting, 3/8"x 1/4" NPT	1 ea.

Options Sold Separately

Inline Dryer with 1-1/2" Nipple
 Photoeye or other Safety Reversing Mechanism
 Timer to Close
 3/8" Poly Flow Air Hose
 One Shot Timers Relays

Tools Required

Standard Screw Driver
 Phillips Screwdriver
 Hand Wrenches- 1/4", 7/16", 1/2", 9/16", 5/8"
 3/8" Socket Set- 7/16", 1/2", 9/16", 5/8"
 Electric Impact or Drill with 3/8" and 7/16" Sockets, 1/4" drill bit.
 Small Pipe Wrench
 Wire Cutters
 Teflon Tape



Components Identification



Control Box (1)



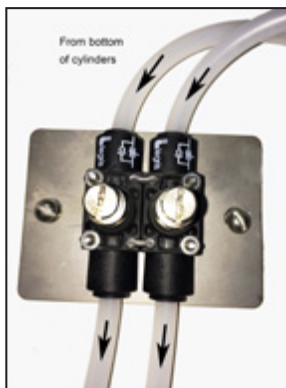
Filter/Regulator (1)



2-1/2" and 1-1/2" Nipple



Porex Mufflers/Metering Valves (2 ea.)



Flow Control (1)



Shut-off Valve Assembly (1)
and (Optional Inline Dryer)

Control Box Assembly & Installation

Step 1

Install the two Porex mufflers or 1/8" metering valves to the top and bottom ports on the left side of the control box. Hand tighten only. **Optional:** install metering valves for better speed adjustability. (Figure 1)

Step 2

Install the filter regulator assembly to the control box using the 2-1/2" brass nipple. Insert through the middle hole on the left side of the control box and tighten. Use teflon tape on threads. (Figure 1)

Step 3

Install the shut-off valve using the 1-1/2" nipple. If an inline dryer was purchased, install that in front of the regulator. (Figure 1)

Step 4

Mount the control box to the wall or other surface at the desired location.

Step 5

Open the cover of the control box and connect two 3/8" polyflow lines to the two push-in fittings on the valve inside the control box. Plumb through the cord grips located on the right side of the control box to the push-in fittings located on the top of the operator cylinders. The top airline fitting on the control box goes to the front cylinder (farthest from the jamb) and the bottom airline goes to the back cylinder (closest to the jamb). Tighten cord grips on the right side of the control box when complete. (Figure 2)

IMPORTANT!

Control boxes should be used in conjunction with an inline dryer!

See recommendations. We recommend keeping the airlines as short as possible to reduce internal condensation in the airlines.

Step 6

Mount the flow control kit to your wall. It is recommended to locate the flow control kit in an area away from the doorway and direct spray. Plumb 3/8" airlines from the previously installed push-in fitting on the bottom of the cylinders to the push-in fittings located on the top of the flow controls. Plumb the line from cylinder nearest the jamb to the close and the line farthest away from the jamb to open. Plumb 12" drain tubes from the bottom of the flow controls. (Figure 4)

Step 7

Tighten the flow control valves (clockwise) completely.

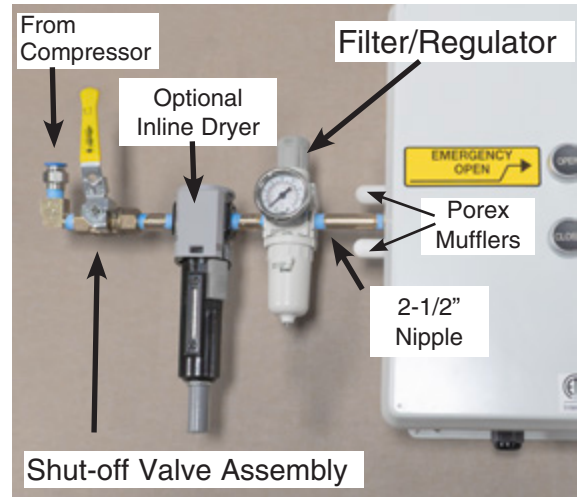


Figure 1

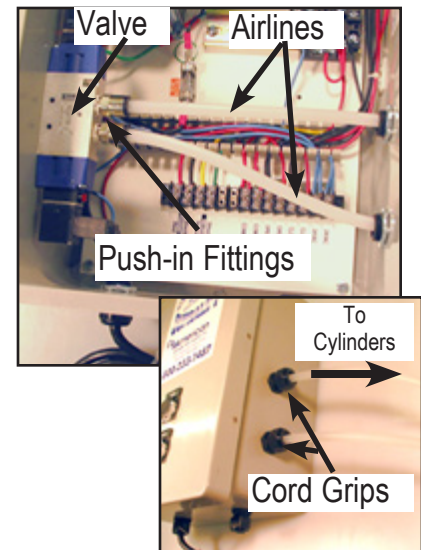


Figure 2

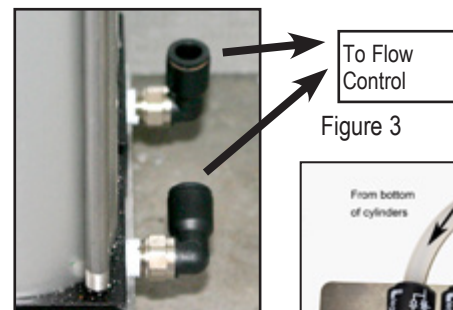


Figure 3



Figure 4

Final Installation & Adjustment

Before Connecting Main Airline from Compressor to Control Box.

Clear the main airline from compressor of contamination and debris by slowly opening up valve at compressor and purging the line. If new installation, the main airline which may have slag or other contaminants which could cause damage to the valve and other internal components.

Before hooking up the main airline to the Inline Dryer (optional) or the shut-off valve, turn off the shut-off valve by turning the valve lever to 90° to the valve.

Caution: If the Shut-off valve is in the open position, the door will start upward when you apply air pressure to the operator system.

Step 1

We recommend running 1/2" hard pipe airlines from your compressor to your control box or you can install 3/8" polyflow airline from your air compressor to the push-in fitting on the shut-off valve. Other larger line sizes may be used.

Step 2

Back off the filter regulator by pulling up on the adjustment knob on top of regulator and turn counter clockwise until it stops. Open the shut-off valve (inline with valve). Turn the regulator adjustment knob clockwise slowly until it reaches approximately 60-PSI (Recommended air pressure between 45-PSI and 70 PSI).

Step 3

Plug in 110 volt power cord located on the bottom of the control box into receptacle or hardwire. **This should be connected to a grounded receptacle only!**

Step 4

Adjust flow controls by starting with flow controls completely closed (Clockwise) with the locknut loose. Open each flow control valve approximately 5 complete turns (Counterclockwise). Cycle the door by pushing the open and close buttons located on the control box. While cycling the door open and closed, continue to turn the flow control valves until the door opens and closes smoothly at the top and bottom of each cycle. **It is recommended to keep both flow controls set equally.**

For additional tuning, adjust flow controls and air pressure at the regulator until door operates to your desired speed and smoothness.

Note: Each flow control valve will control the speed of it's direction. Tighten the lock nut located on flow control when adjusted completely. Install the metering valves instead of Porex mufflers for better speed adjustability.

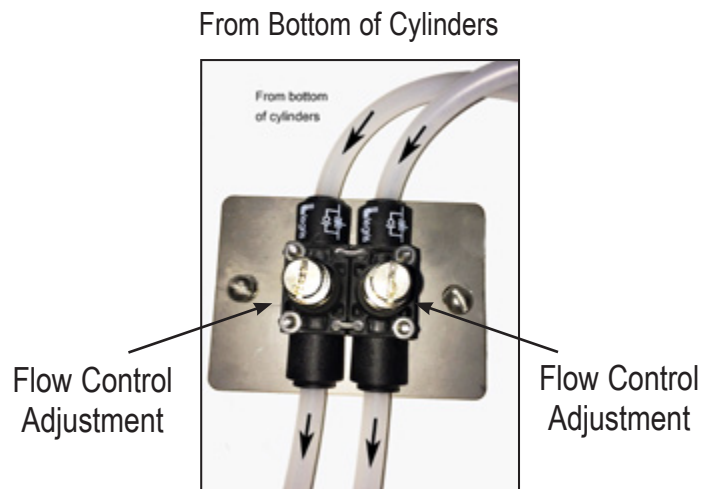
For a complete explanation of how the flow control works, see the next page.

Step 5

Inspect the entire operator cylinder assembly, chain, sprocket assembly and piston rods for proper alignment, and adjust as needed.

How the Flow Control Assembly Works

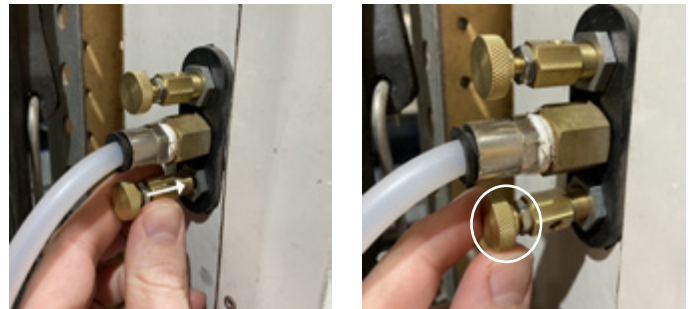
The flow control valve meters the volume of air escaping from the bottom of the cylinder as the piston is being pushed downward. Closing the valves will slow the travel speed of the door. The check ball in each valve allows each cylinder to breathe freely as the piston is drawn up mechanically by the chain on the reverse cycle.



Metering Valves

For better speed adjustability, install the provided metering valves instead of Porex mufflers.

Hand tighten into the designated areas on the left side of the control box. Adjust the knobs for fine tuning the speed. Tighten the lock nut to keep the desired setting in place.



CAUTION!

The Supralift operator is capable of opening and closing the door at very high speeds. Recommended door travel speed is 1 to 1-1/2 feet per second. (Example: 10' high door = 7 seconds). **Excessive door travel speed will increase the chances for malfunction of your door or the operator to occur which could result in injury or damage to persons or property.**

Step 6

Wire in loop detectors, pushbuttons, photoeyes and other controls or accessories as required. Plug in the photoeye amplifier. Photoeye sockets are previously installed for your convenience. If ordered with the control box, timer sockets will also be installed for convenience. For wiring information, please see wiring diagrams.

ATTENTION!

Our control boxes are configured for momentary dry contact signaling only.

For easy tie-in to equipment utilizing other signaling types, use the following components.

Signal from Equipment

24 VAC Pulse Current
110 VAC Pulse Current
24 VAC Continuous Current
110 VAC Continuous Current

Type of Component

24 VAC Relay, N/O Contact
110 VAC Relay, N/O Contact
24 VAC One Shot Timer, N/O Contact
110 VAC One Shot Timer, N/O Contact

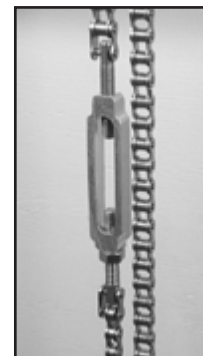
Maintenance & Adjustment

Keep the door tracks, torsion springs, track rollers, shaft bearings and chain connecting the operator to the door shaft, lubricated monthly. Tighten track bolts holding operator to the track periodically as well as checking tightness of the bolts holding the operator track bracket and top plate. Check to ensure correct plumbness with torsion shaft and sprocket.

There are three main adjustments to be made on this air-powered operator.

1. Chain Tensioner (Turnbuckle)

The chain on the operator has a turnbuckle, which is used to connect and tighten the chain. It is also used when you want to disconnect the operator from the door shaft. As the chain stretches with age this turnbuckle may need to be tightened. **DO NOT OVER TIGHTEN!** Over tightening will cause early bearing failure on the door.



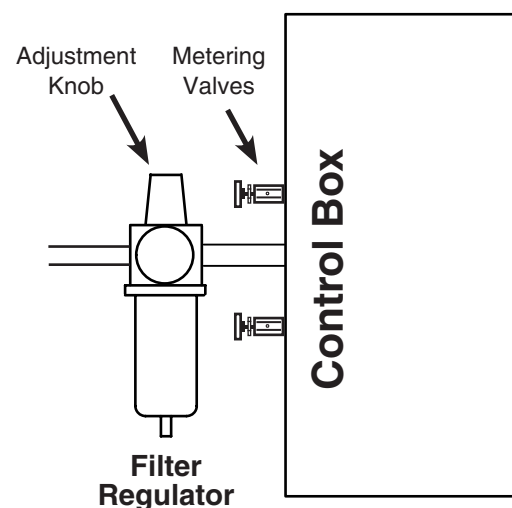
2. Air Filter - Regulator

The combination filter/regulator assembly controls the air pressure to both cylinders. It may be adjusted by pulling the knob up and turning clockwise or counter-clockwise (Clockwise to increase PSI, **50 - 70 PSI Recommended**). **62 PSI is common**. Heavier doors may need to have the pressure increased, but if you must exceed 80 PSI, you probably have a door problem.

Replacing the filter in the regulator is recommended every 6 months.

3. Door Speed

The air-powered operator is designed to start slow, move rapidly through the middle range of operation, and slow to a gentle close. Decreasing the air pressure coming into the operator as described in the above air filter regulator adjustment can control the doors intermediate speed. The stopping speed is controlled by the flow controls located on the flow control kit. For precise speed adjustments, use the provided metering valves instead of mufflers.



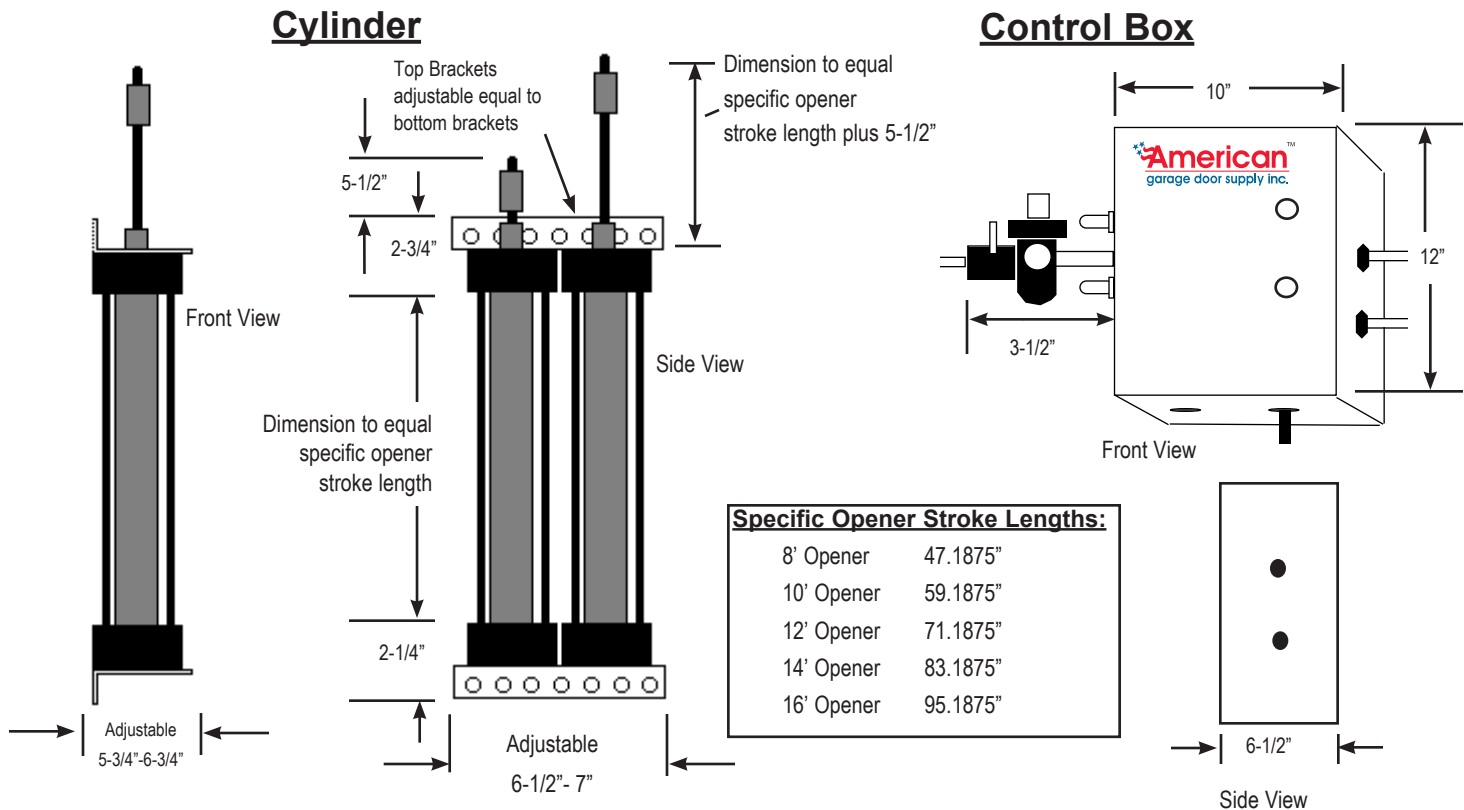
DO NOT IGNORE YOUR AIR COMPRESSOR!

Compressing air creates a lot of water. There is a drain at the bottom of your air compressor that should be opened to let water out of your tank. (Daily attention may be required). Automatic drains are available for your compressor as well as in-line air dryers; all you need to do is contact your local compressor dealer.



Air-Powered Door Openers

Model SL Specifications



Standard Specifications

Model Specific:

The Air-Powered Opener will be Model SL as manufactured by American Garage Door Supply Inc., Bemidji, MN. **1-800-233-1487**

Related Work- Door preparation, miscellaneous or structural metal work, field electrical wiring, signal wiring, wire, conduit, fuses, air tubing, air fittings, and disconnect switches are in the scope of other divisions or trades.

Product:

Supply Model SL, heavy duty, chain drive, dual cylinder, jackshaft type opener(s) for the height of the door. Doors over 144 square feet requires dual opener system.

General:

Provide Air-Powered Door Opener assembly of size and capacity recommended by door manufacturer; complete with air cylinders and factory supplied, control box with valve, filter regulator, OSHA shut-off valve, inline dryer, push button stations, safety photoeyes and other accessories required for proper operation.

Control Circuit:

24 VAC Electrical circuit with 120 VAC Primary power.

Mounting and Limits

Opener to be equipped with a 1" x 12 tooth driven sprocket for the door shaft with # 41 chain. Limits to be set by mechanical means by adjustment of the pistons and aluminum collar. Operator shall be capable of driving the door at variable speeds. Operator shall be capable of mounting on either side of the door and shall be capable of driving the door at a speed of approximately 12" to 18" per second.

Execution

Install the air-powered opener in accordance with American Garage Door Supply Instructions and standards and in compliance with applicable federal, state or local regulations.

SUPRALIFT

Manufactured by
AmericanTM
garage door supply inc.
1225 Industrial Park Dr. SE, Bemidji, MN. 56601

For more information call:
(800) 233-1487

American Garage Door Supply reserves the right to make design or specification changes without notice.

Air-Powered Door Openers

CFM Requirements

To figure the CFM required, use the following formula.

1. Multiply the stroke (in inches) of the cylinder you are using by .00284 cubic feet of displacement per inch. This is the cubic ft. required for 1/2 cycle (open or close).
2. Multiply the previous 1/2 cycle required by 2 for a per cycle measurement. (Note: for dual opener systems you must multiply by 4.)
3. Multiply item number 2 by the number of cycles you intend to operate in one minute. This will vary to fit your traffic flow, size of door and etc. A 10' high door under normal operating conditions will open and close 3 times a minute.

Stroke Lengths of Cylinder:

8' Opener	47.1875"
10' Opener	59.1875"
12' Opener	71.1875"
14' Opener	83.1875"
16' Opener	95.1875"

Example: 12' high door cycling 3 times per minute.

1. $71.1875 \times .00284 = .2021$ Cu. Ft. of Displacement (Per 1/2 Cycle Open or Close)
2. $.2021 \times 2 = .4042$ Cu. Ft. of Displacement (Per Complete Cycle/ Open & Close)
3. $.4042 \times 3 = 1.2126$ CFM Required per Opener.



Manufactured by

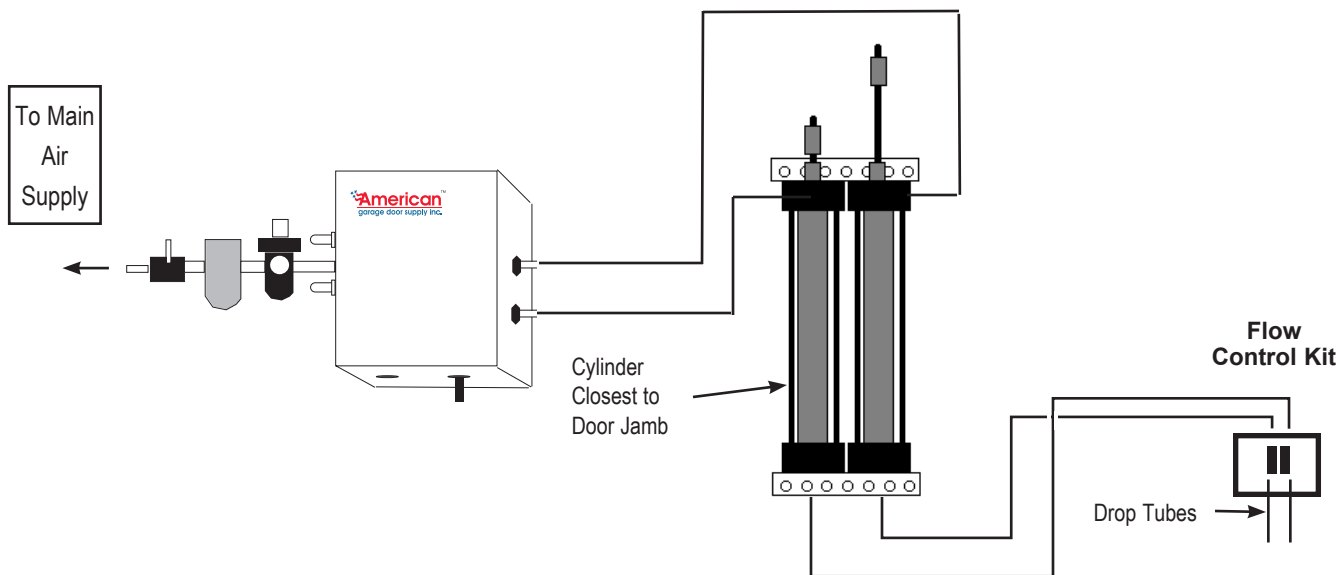
1225 Industrial Park Dr. SE, Bemidji, MN. 56601

For more information call:
(800) 233-1487

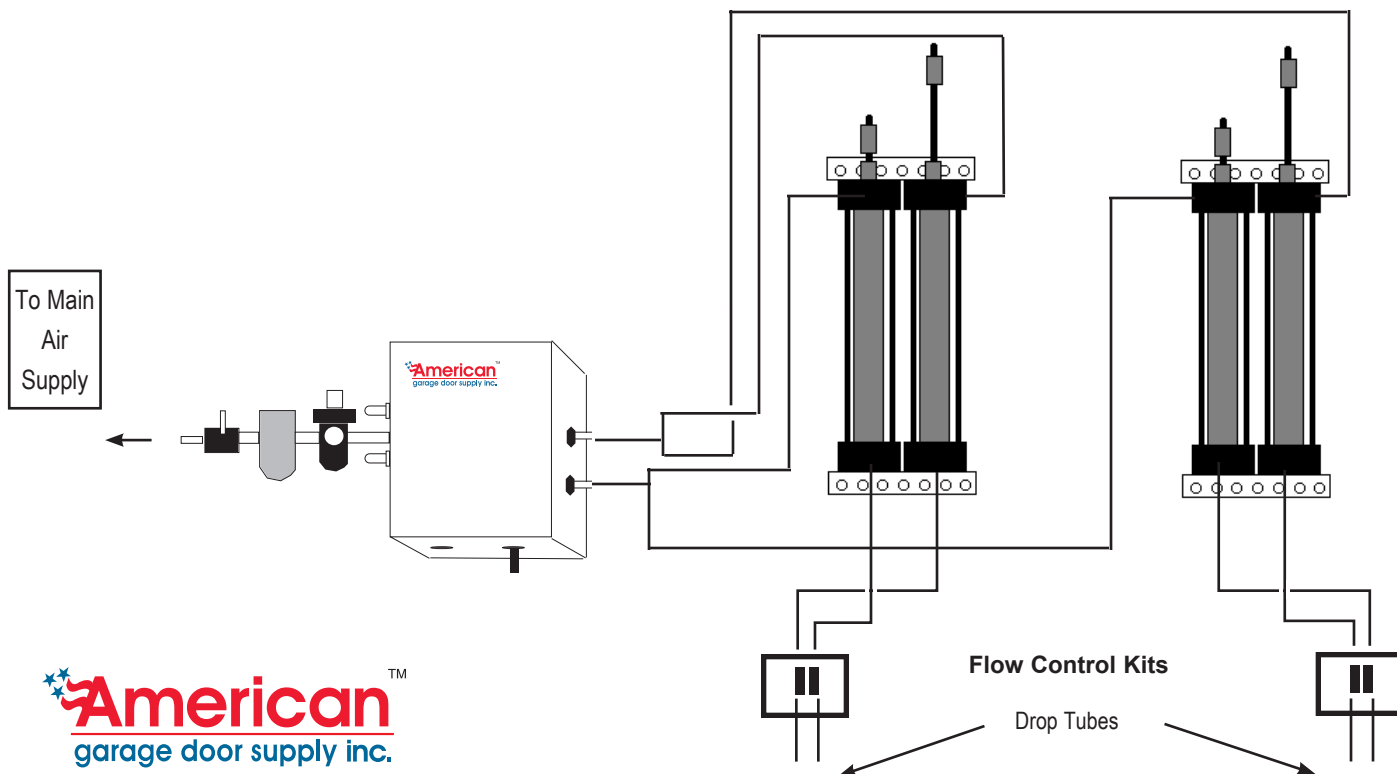
American Garage Door Supply reserves the right to make design or specification changes without notice.

Supralift Plumbing Detail

Single System



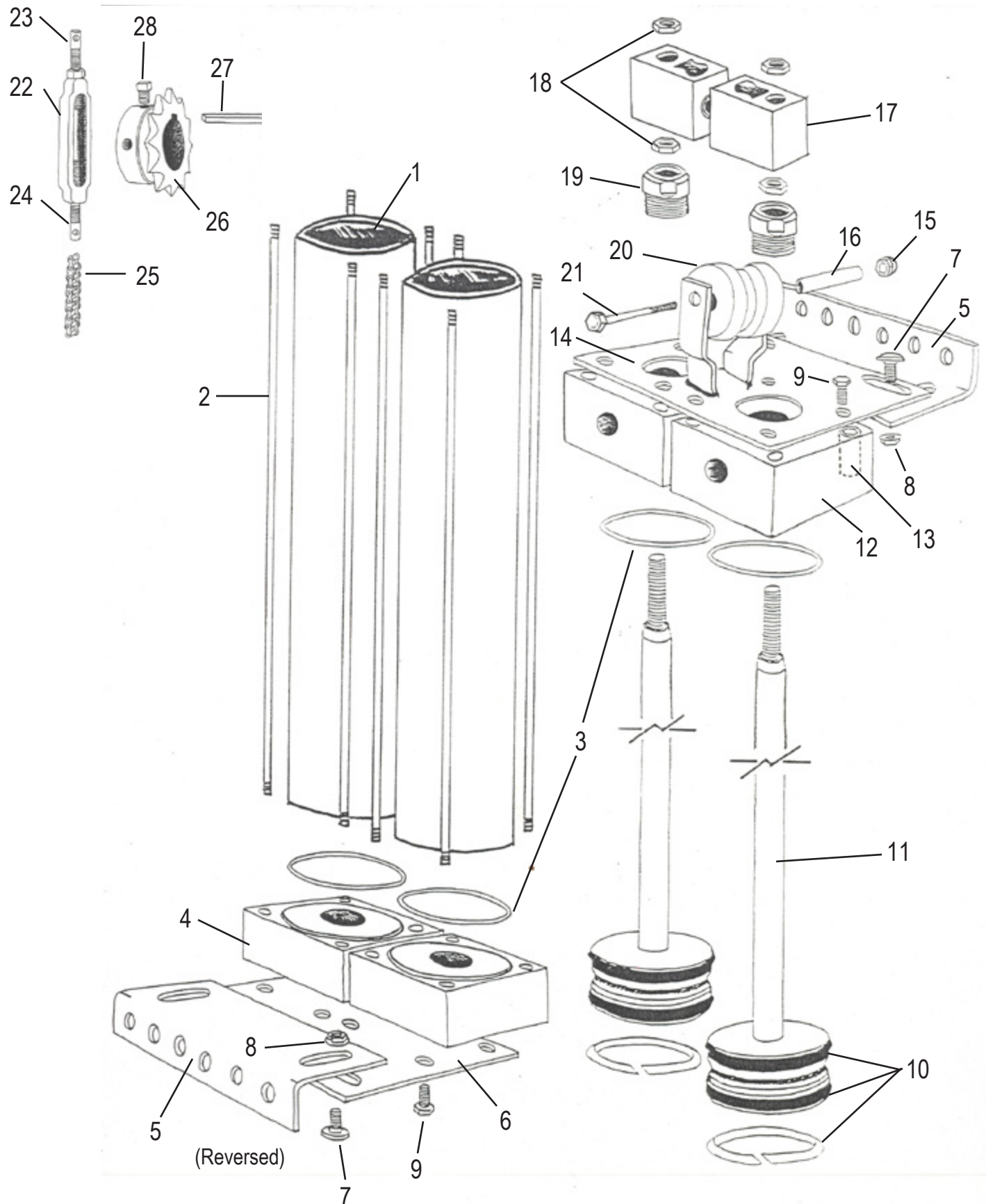
Dual System



AmericanTM
garage door supply inc.

1-800-233-1487

Supralift Parts Diagram



Supralift Parts List

See Parts Diagram for # Column

#	PART #	DESCRIPTION
1	SLCT08	Supralift Cylinder Tube Only, 8'
1	SLCT10	Supralift Cylinder Tube Only, 10'
1	SLCT12	Supralift Cylinder Tube Only, 12'
2	SLCTR08	Supralift Cylinder Retaining Rod, 8'(**)
2	SLCTR10	Supralift Cylinder Retaining Rod, 10' (**)
2	SLCTR12	Supralift Cylinder Retaining Rod, 12' (**)
3	SLOR-N	Seal, Tube
4	SLBC	Bottom Cap
5	SLTB4	SS Track Bracket
6	SLBB2	SS Bottom Plate
7	CB LTS51634	Carriage Bolt, 5/16" x 3/4" SS
8	NUTFS516	Flanged Hex Nut, 5/16"-18 SS
9	HBLTS51658	Hex Head Bolt 5/16" x 5/8" SS (**)
10	SLPS-NO	Wear Sleeve Ring & Piston Seals (Seal Kit)
11	SLPR8	Supralift Piston Rod, 8'
11	SLPR10	Supralift Piston Rod, 10'
11	SLPR12	Supralift Piston Rod, 12'
12	SLTC	Top Cap - with Bushing Threads
13	SLSN	Sleeve Nut, SS (**)
14	SLTB2	SS Top Plate
15	NUTLS14	Hex Nut, Self Locking 1/4" SS
16	SLBS	SS Idler Sleeve
17	SLAC	Aluminum Collar
17	SLSC12	1/2" x 1/2" SS Set Screw (**)
18	SLJNUT	7/16"-20 SS Jam Nut (**)
19	SLBUSH	Threaded Seal, SS Bushing Only (**)
20	SLP1	Idler Pulley
21	HBLTS14214	Pulley Bolt, 1/4" x 2.1/4" S/S
22	SLTBS	5/16" Aluminum Turnbuckle Body
23	SLST-LH	Left Hand Thread Turnbuckle Stud, S/S (**)
24	SLST-RH	Right Hand Thread Turnbuckle Stud, S/S (**)
25	CN-41-9	9' Nickel Chain
25	CN-41-11	11' Nickel Chain
25	CN-41-13	13' Nickel Chain
26	41B12SS	12 Tooth, # 41 SS Sprocket
27	SSK	1/4" x 3" SS Keystock
28	SLSC51612	Sq. Head SS Set Screw 5/16" x 1/2" (**)
XX	SLFLKIT-4	Flow Control Kit
XX	SLEV	Brass Speed Control Valve (Older Units)

IMPORTANT!

For ease of maintenance and service, Anti-Seize gel is recommended on the items with **

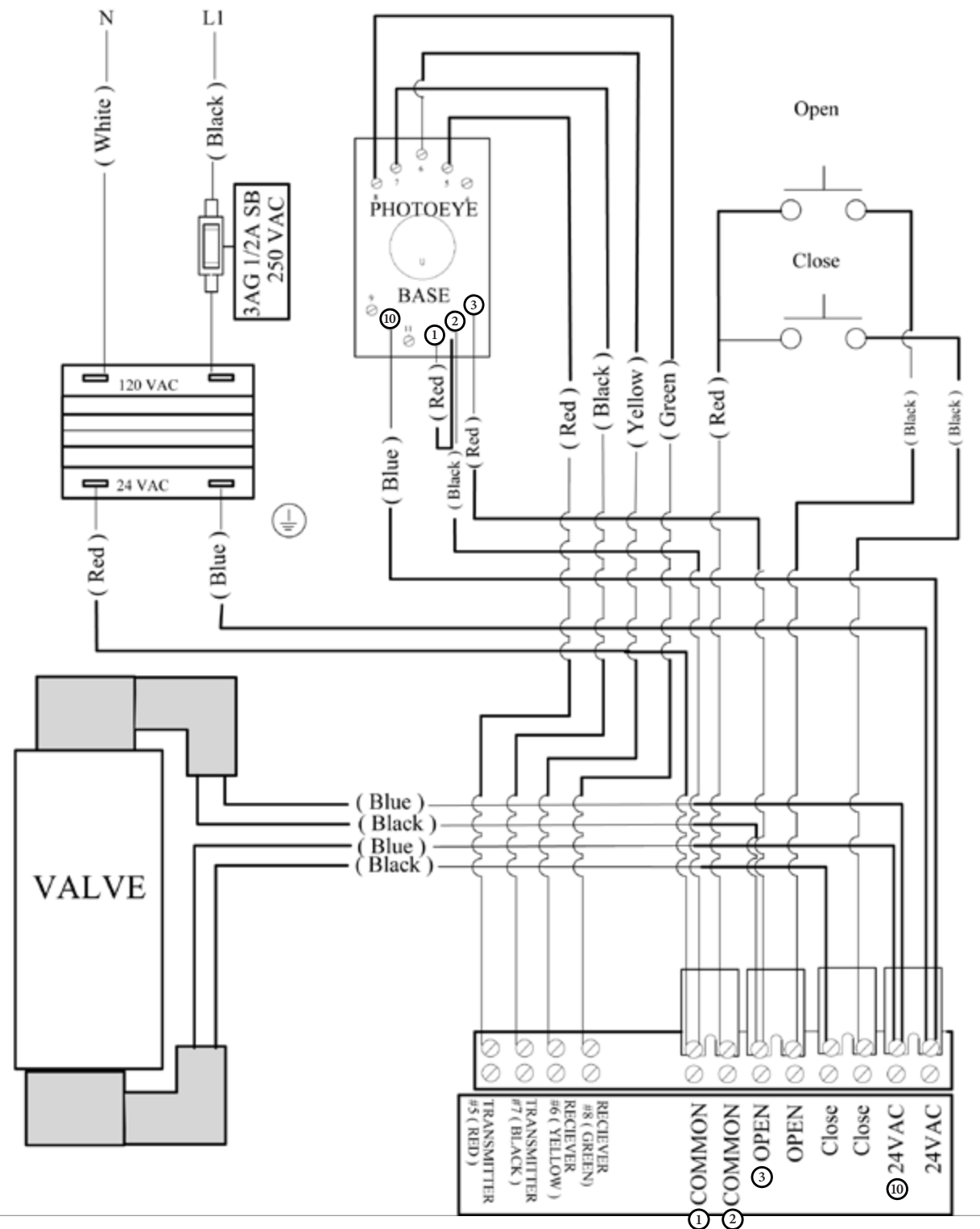
Control Box Wiring Diagram

SLA20-24

120 VAC

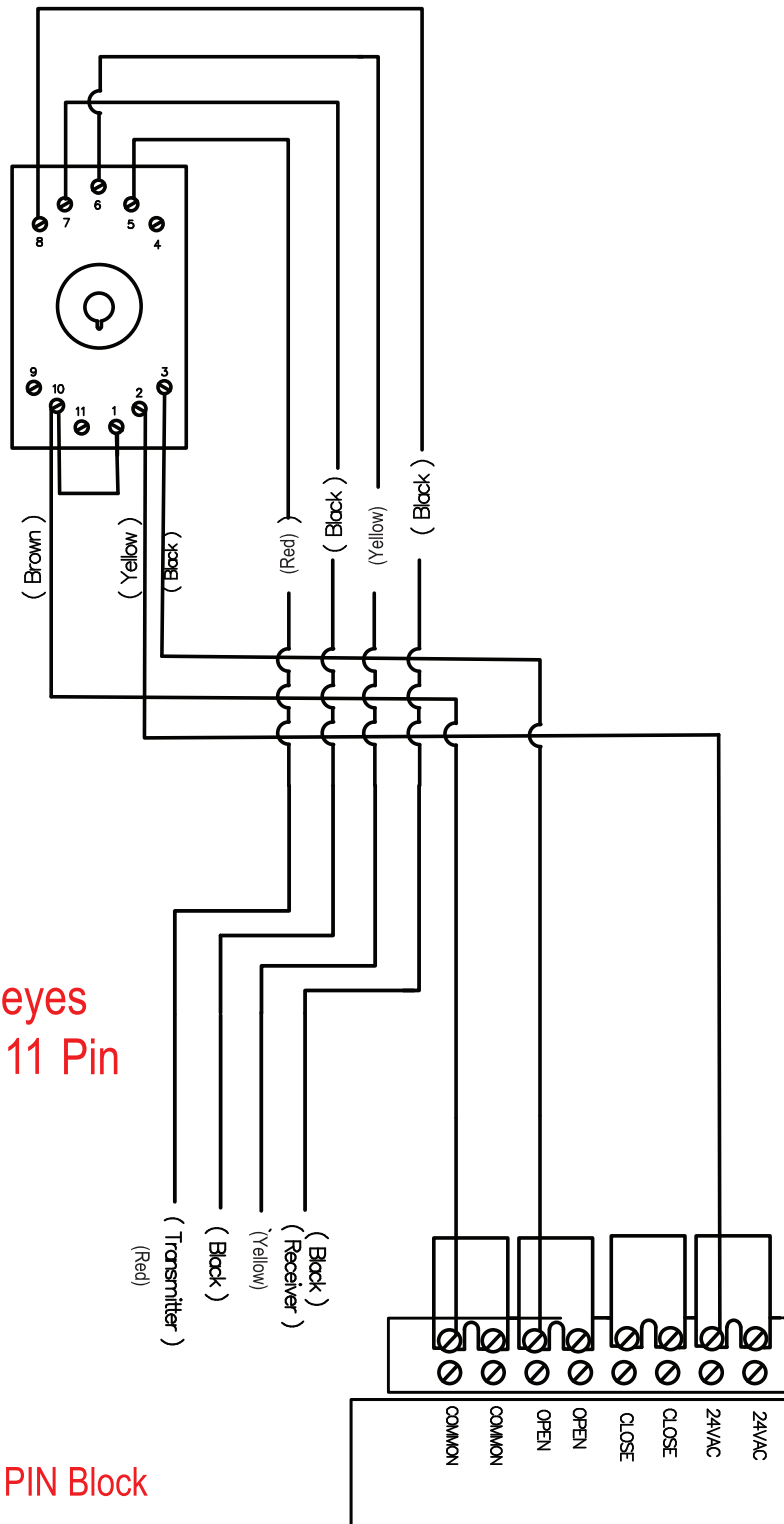
1 Phase (Primary Voltage)

24 VAC (Secondary Voltage)



Control Box Wiring Diagram SLA20-24

Adding Second Set of Photo-Eyes with Close timer.



The 2nd set of Photo-eyes wires directly to the 11 Pin Base as shown here.

Wiring to 2nd PIN Block

American Garage Door Supply, Inc.
1-800-233-1487
www.americandoorsupply.com

Control Box Wiring Diagram
SupraLift & NuMax Operators
SLA20-24 7-2013 to Current

Wiring a Magnetic Contact Switch (MCS)

The Magnetic Contact Switch (MCS) wires inline between the common and the auxiliary device (photo eyes or reversing edge). The diagram is shown for photo eyes.

Step 1: Mount the contact switch on the door according to the enclosed directions.

Step 2: Remove the common wire connection from the 11 pin socket, located at the #1 position.

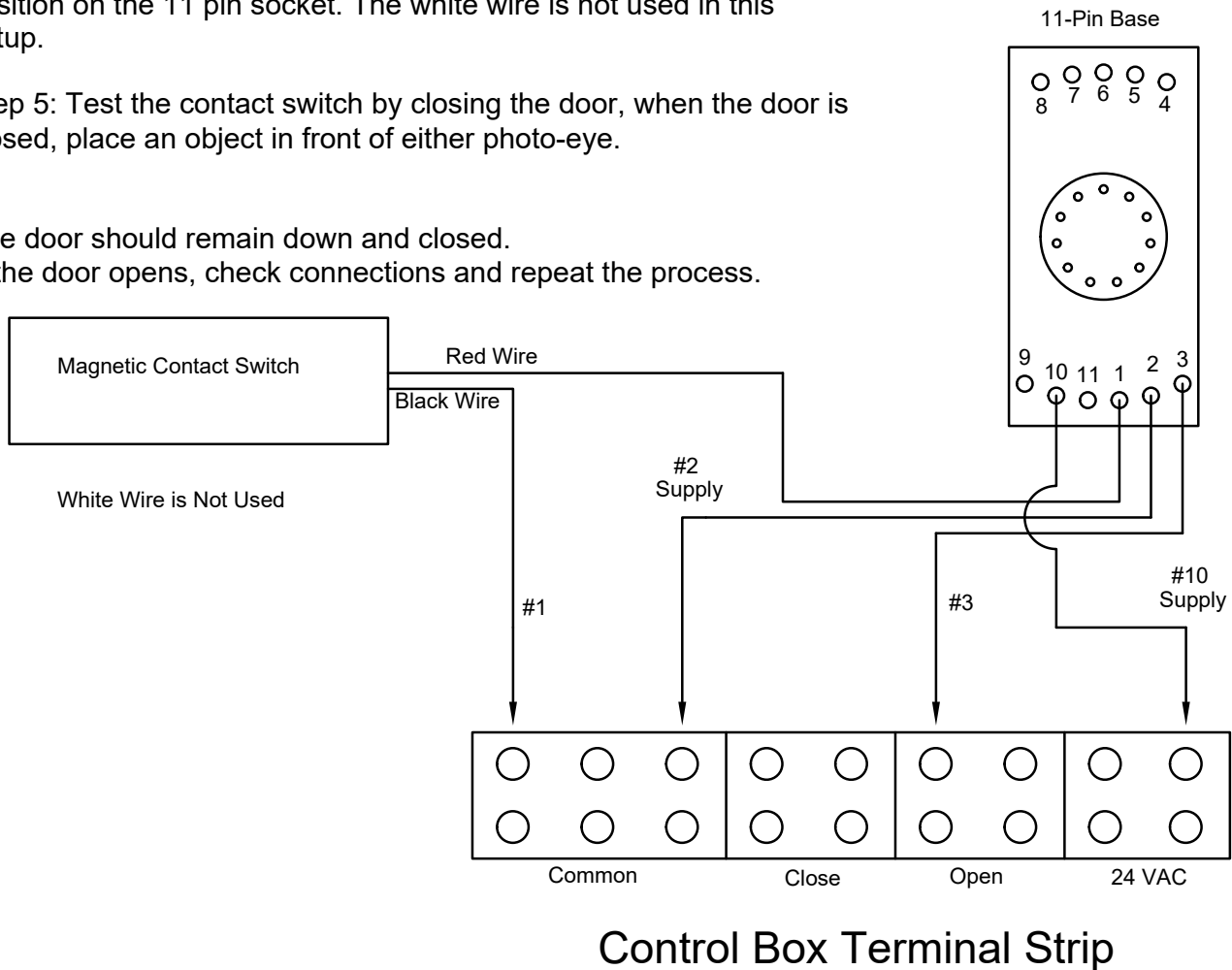
Step 3: Wire the BLACK wire from the contact switch to one of the common terminals on the terminal strip.

Step 4: Wire the RED wire from the contact switch to the #1 position on the 11 pin socket. The white wire is not used in this setup.

Step 5: Test the contact switch by closing the door, when the door is closed, place an object in front of either photo-eye.

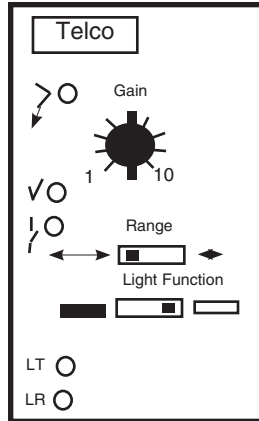
The door should remain down and closed.
If the door opens, check connections and repeat the process.

The purpose of the Magnetic Contact Switch (MCS) is to block the signal from auxiliary devices such as photo eyes or reversing edges. When the door is in the fully closed position and something breaks the photo eyes, the door will not open. Reversing edges require a shut-off device to prevent the door from reopening upon contact with the floor. The MCS will also prevent the door from opening if the photo eyes or reversing edge fails.



Telco Manual Amplifier Photoeye Wiring Diagram

Amplifier
Part # PA11-B302T-05



Range Switch should be set on **Long Range** $\longleftrightarrow$
Light Function Switch Should be set on **Light** ☐
(Non-Failsafe Mode)

Wiring Eyes

Wire numbered terminals on contact block to appropriate numbers listed on Receiver, Transmitter and Terminal Strip. Once wired, plug in amplifier to 11 pin socket located on contact block.

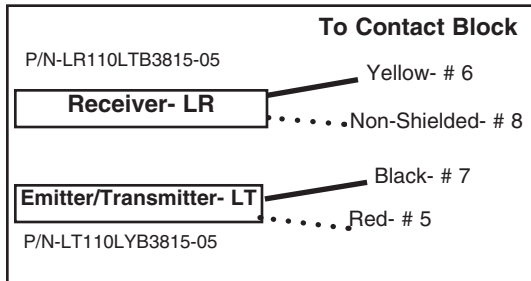
Operation

Adjust gain adjustment on amplifier dial clockwise until green light turns on.

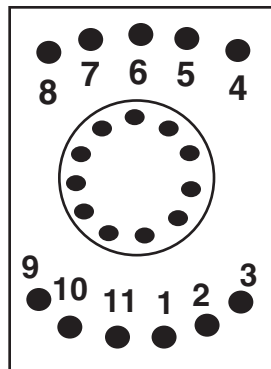
When adjusting, the eyes must be more that 5 feet apart.

Red LR or LT failure LED indicates a sensor failure. The failure can be due to a broken or shorted wiring or a defective sensor. Check wiring and if O.K, change the sensor.

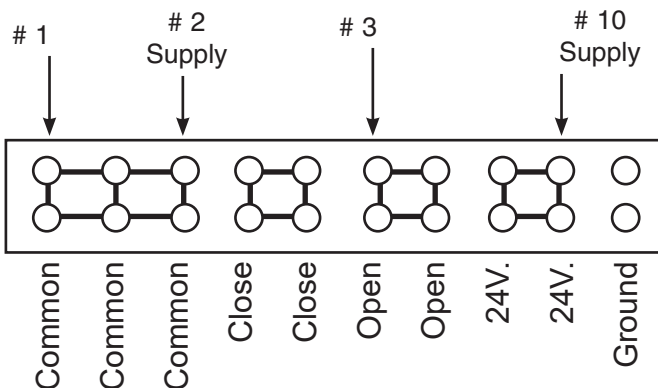
Photoeye Sensors



Contact Block 11 Pin Socket



Operator Terminal Strip



Splicing

If sensor cables need to be lengthened. Splice cables with similar wire type and size. **Example-** Use shielded cable for shielded wire on sensor and use non-shielded wire for non-shielded sensor wire.

ATTENTION!

This diagram shows photoeyes wired in non-failsafe mode. If you choose to wire in fail safe mode, wire #4 from the contact block to open on operator terminal strip instead of #3. The light function switch should be set to dark. ☐

Warning: In failsafe mode, if either photoeye or system fails, the door will open automatically.

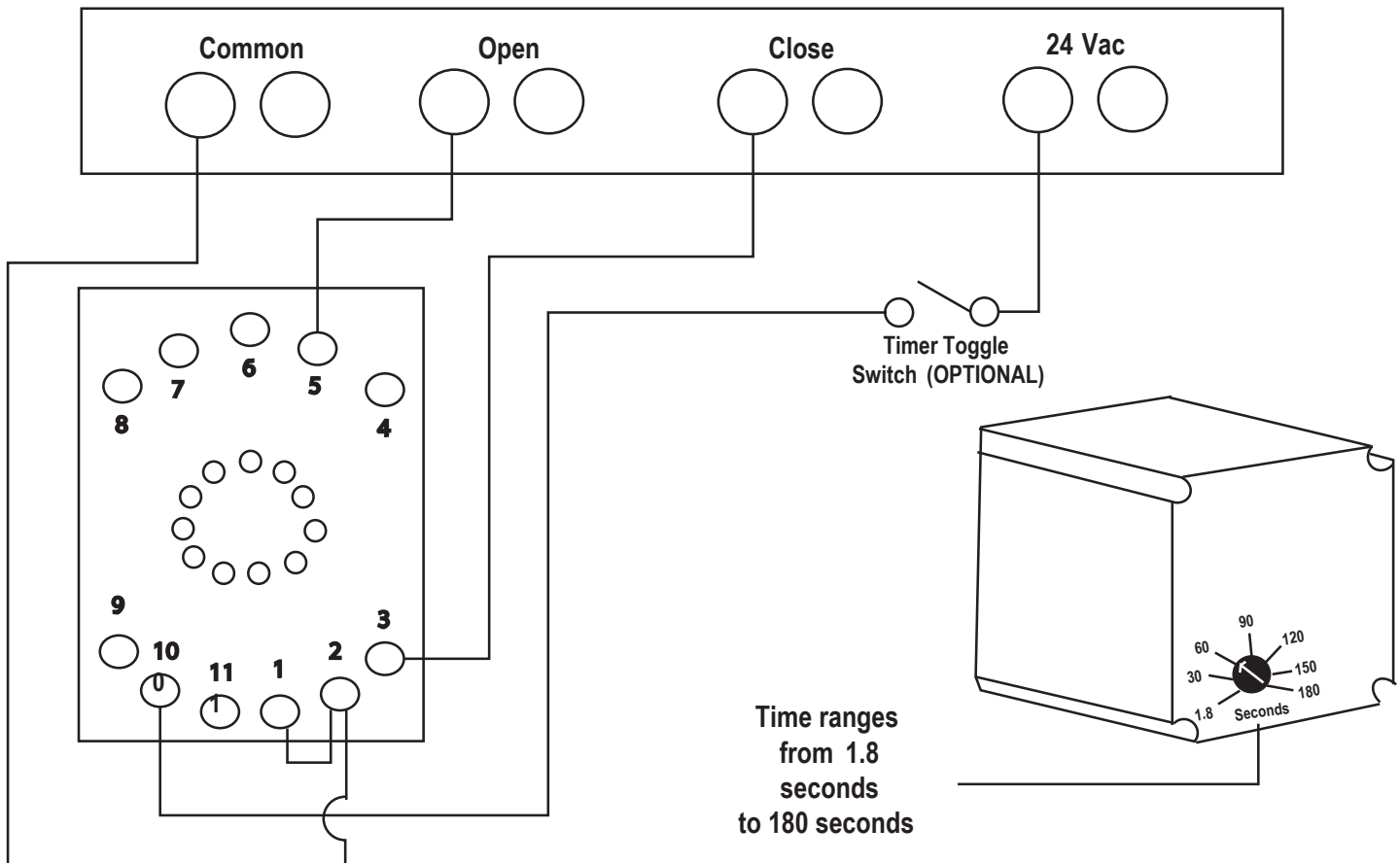
AmericanTM
garage door supply inc.

1-800-233-1487
www.carwashdoors.com

Note: This wiring Diagram is set up for Supralift & Numax Air-Powered Operators. For Electric Operators, please refer to electrical wiring diagram of your electric operator for terminal strip locations for Open, Common and 24 V. Power.

Macromatic Timer Wiring Diagram

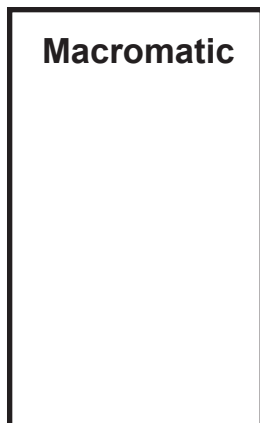
Standard Control Box



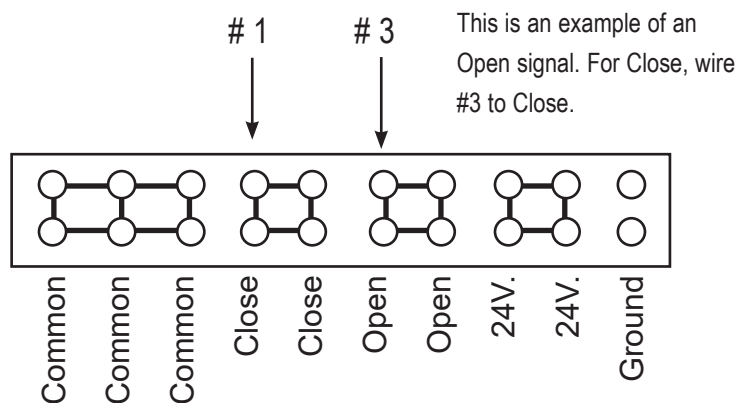
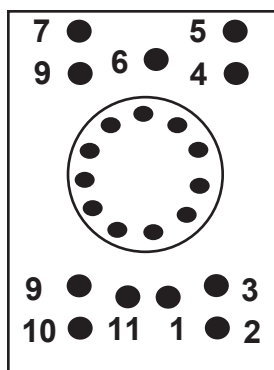
One Shot Macromatic Timer

Wiring Diagram - 120V or 24V

One Shot Timer



Contact Block 11 Pin Socket



Wiring Contact Block

1. Primary Power to the Unit-

The Macromatic Time Delay Relay requires power at all times to power the unit. Wire primary power to the unit by connecting #2 and # 10 to the correct power source.

For 120VAC one shot timers use 120VAC (Polarity not important) or 120VDC (Polarity is important)

Use the same rules for 24volt timer.

2. Power Trigger-

The power trigger is the input into the timer from your equipment or other electrical accessory that is triggering the timer to work. Use 5 and 7 on the contact block for connection to your incoming signal.

This signal should be a continuous signal with the same voltage as the timer primary power.

For 120VAC one shot timers use 120VAC (Polarity not important) or 120VDC (Polarity is important) Again for 24 Volt timers use the same rules.

3. Output to Opener-

Wire the contact block to your opener.

Terminals 1 and 3 are normally open and 1 and 4 are normally closed. In most cases use 1 and 3.

Wire 1 and 3 to the common and open or closed (dependent upon the functionality you require).

Note: Other N.O and N.C contacts are available for multifunctionality and operate at the same time as the former mentioned terminals. N.C is 11 and 8 and N.O is 11 and 9.

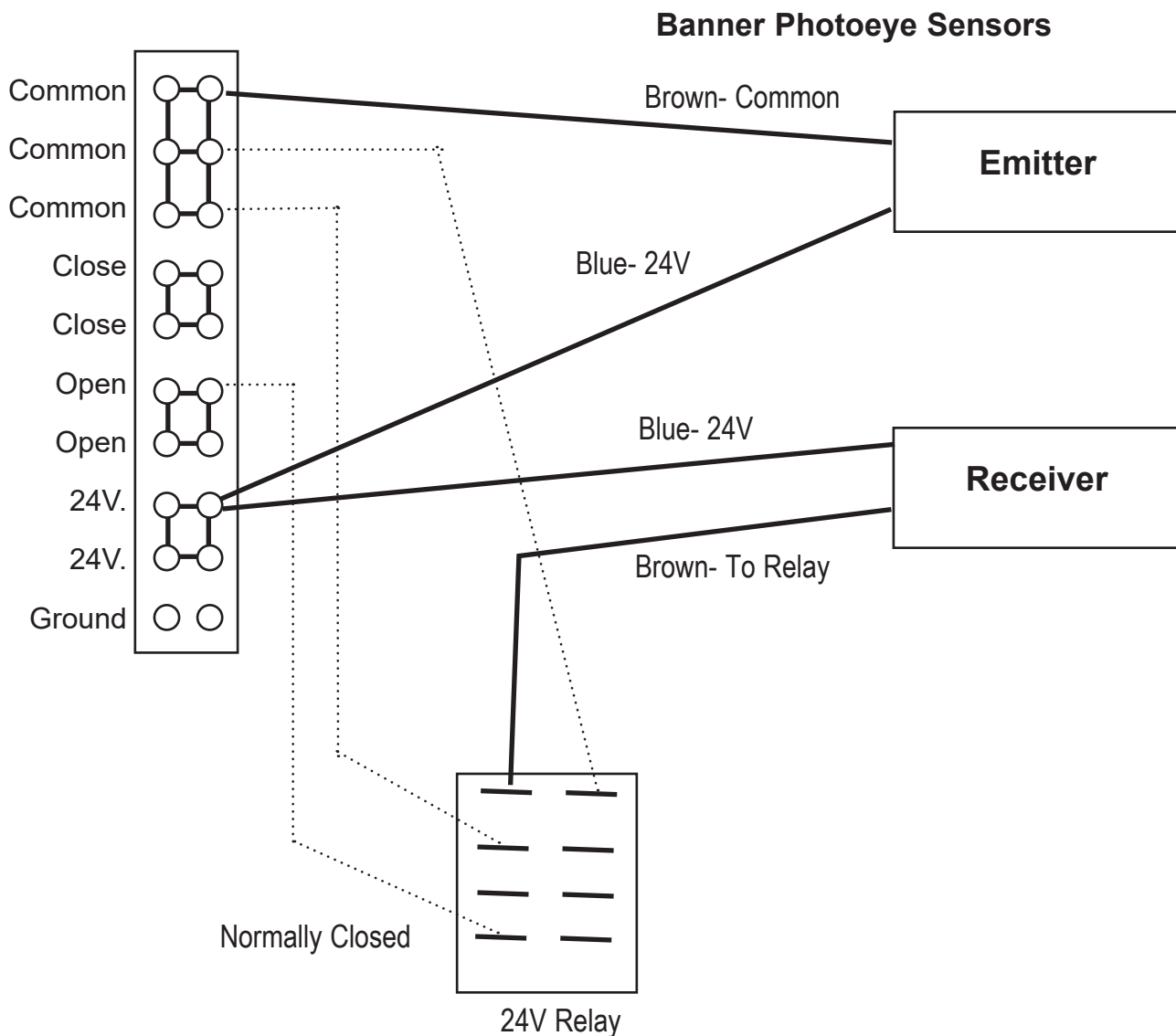


1-800-233-1487
www.carwashdoors.com

Note: This wiring Diagram is set up for Supralift & NuMax Air-Powered Operators only.

Banner - 24 VAC

Wiring Diagram



AmericanTM
garage door supply inc.

1-800-233-1487
www.carwashdoors.com

Note: This wiring Diagram is set up for Supralift Air-Powered Operators only.



Supralift II™

Air-Powered Garage Door Openers

Five Year Limited Warranty

American Garage Door Supply, Inc. (Company) warrants to the original purchaser or original owner that all Supralift Air Powered Garage Door Openers sold by American Garage Door Supply, Inc. are free from defects in material and workmanship under normal use and service.

The company's sole obligation under this warranty shall be limited to furnishing replacement parts (F.O.B. Bemidji, Minnesota) for 60 months from the date of initial shipment by American Garage Door Supply Inc.

This warranty is void if the product warranted has been damaged by accident, abuse, misuse or neglect, negligence, improper installation or service, unauthorized modifications, misapplication or other use not arising out of defects in material and workmanship.

Warranty redemption requires verification of original purchase and ship date and completion of a return goods form. Returns are only accepted when a return authorization number has been provided by the Company before the product is returned.

General Conditions

The warranties set out in this certificate are the exclusive remedy for the original purchaser or owner in lieu of all other warranties; written, oral or implied (including any warranty of merchantability or fitness for purpose) and all other obligations or liabilities on the part of the Company. 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 Supralift Air Powered Garage Door Opener 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 Supralift Air Powered Garage Door Opener is not installed or serviced according to the Company's Installation Manual and instruction.

Accessories and other components of the Supralift Air Powered Garage Door Opener are not covered under this warranty. Items such as control boxes and sub-components, airline, inline dryers, filter regulators, flow controls control stations, loop detectors, photoeyes and timers have separate warranties depending on the component/accessory and original manufacturer.

Written permission is required for the return of any parts or equipment and any such return must be on the basis of transportation charges prepaid.

American Garage Door Supply Inc.
1225 Industrial Park Dr. SE
Bemidji, MN 56601
(800) 233-1487 Toll Free
www.carwashdoors.com

3-1-2026



Air-Powered Garage Door Openers Component and Accessories Warranties

American Garage Door Supply, Inc. (Company) will handle and manage the original manufacturer warranties to the original purchaser or original owner for all components and accessories manufactured by others and sold by American Garage Door Supply, Inc.

The company's sole obligation under this warranty shall be limited to presenting the defective component to the original manufacturer and furnishing replacement parts at normal pricing guidelines.

All accessories or components falling under this warranty statement will be presented by American Garage Door Supply Inc. to the original manufacturer for evaluation. Upon approval and credit by the original manufacturer for the defective product, credit will be made to the original purchaser for the invoice from American Garage Door Supply Inc. for the replacement product.

Warranty redemption requires verification of original purchase and ship date and completion of a return goods form. Returns are only accepted when a return authorization number has been provided by the Company before the product is returned.

General Conditions

The warranties set out in this certificate are the exclusive remedy for the original purchaser or owner in lieu of all other warranties; written, oral or implied (including any warranty of merchantability or fitness for purpose) and all other obligations or liabilities on the part of the Company. 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 Components and Accessories 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 product is not installed according to the original manufacturer or is not installed or serviced according to the American Garage Door Supply's Installation Manual and instruction.

Main Valves-	1 Year	(5 years If used with Parker Co. Filter Regulator)
Control Boxes-	1 Year	
Filter Regulator	1 Year	(5 years If used with Parker Co. Inline Dryer)
Inline Dryers -	1 Year	
Telco Photoeyes-	3 Years	
Macromatic Timers-	2 Year	
NP2 Loop Detectors-	1 Year	
PBK Control Stations-	1 Year	

Written permission is required for the return of any parts or equipment and any such return must be on the basis of transportation charges prepaid.

American Garage Door Supply Inc.
1225 Industrial Park Dr. SE
Bemidji, MN 56601
(800) 233-1487 Toll Free
www.carwashdoors.com

3-1-2026

Other American Products:



**Infra-red
Heaters**

Air-Powered Operators

SURVIVOR



**Polycarbonate
Car Wash Doors**



Stainless Steel Hardware

The Right Products, The Right Company, The Right Choice

In specifying American Garage Door Supply products for your project, you are focusing on our commitment to quality and reputation for excellence. Backed by over three and a half decades of experience, innovation and proven performance, American Garage Door Supply's door, operator, hardware and other products are the right choice to make your next project everything you need it to be. Call us today for more information about our high quality products, technical assistance or for a dealer near you.

MANUFACTURED BY
AmericanTM
garage door supply inc.
Bemidji, Mn

Members of:



**Our Experience
Works for You!**

1-800-233-1487
www.carwashdoors.com



Made In U.S.A.