

SUPRALIFT II

Air-Powered Operator



Installation Manual

1-1-2020

American Garage Door Supply, Inc.

1-800-233-1487

Supralift™ Air-Powered Operator Installation

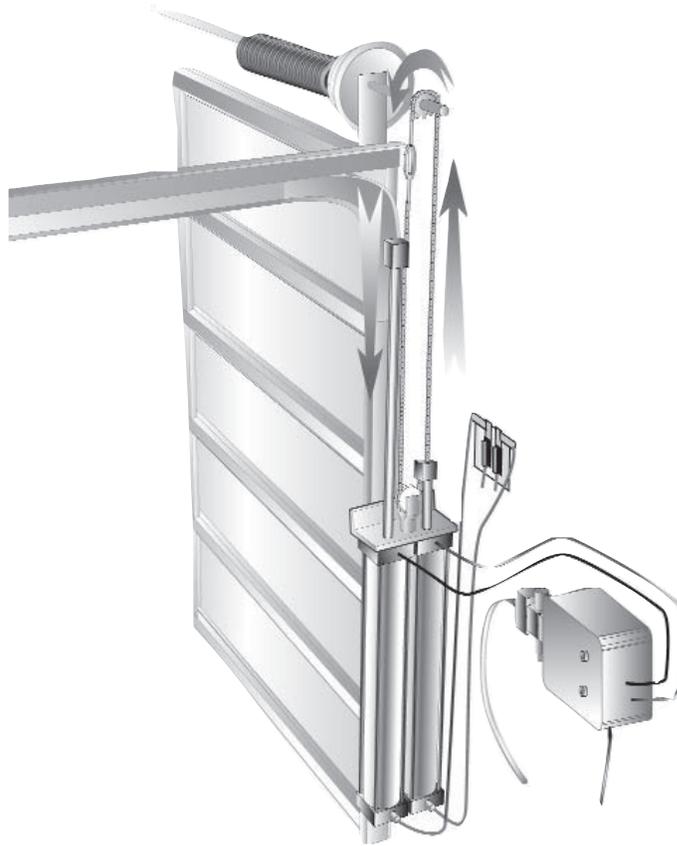
Please read Instructions completely before installation!

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 shaft deflection and chain jumping.
3. All Supralift operators used with standard lift or doors with minimal high lift (under 16") 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 liquid separator located before the control box to eliminate moisture in the airlines. Units installed without "point of equipment" inline liquid separators may void the warranty. Air pressure systems with a high amount of moisture will not allow your opener to operate properly and could cause damage.
5. Do not use an oiler with your Supralift™ system. Lubricant will attract dirt & 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.
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. Do not use an operator that is sized for a taller door than what it's intended travel Distance is, it will cycle slower.

Safety

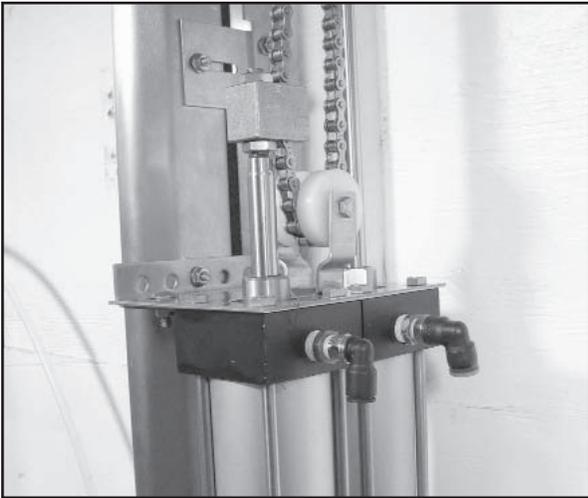
1. **Use the shut-off valve in the off position until installation is complete. To turn the valve to the off position turn the handle of the lockout so it is 90 degrees to the valve. When opening, open slowly to let the air pressure gradually fill the system. Opening the valve to quickly can cause the door to open suddenly and possibly cause personal injury or damage to the door.**
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.**



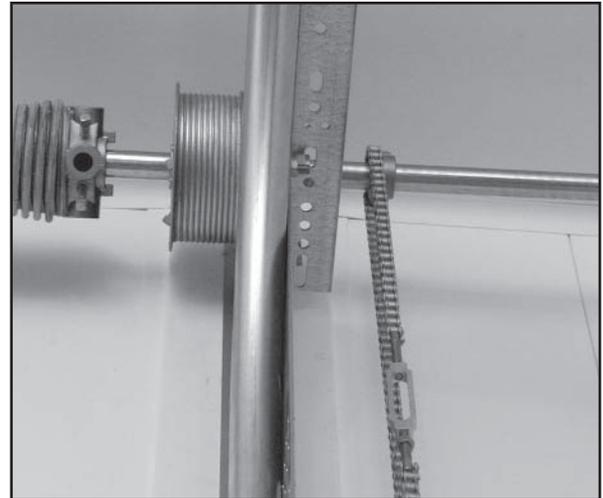
How Supralift™ Works

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 cushioned stop, preventing cable spooling and unwanted door jerking.

Sample Installation Pictures



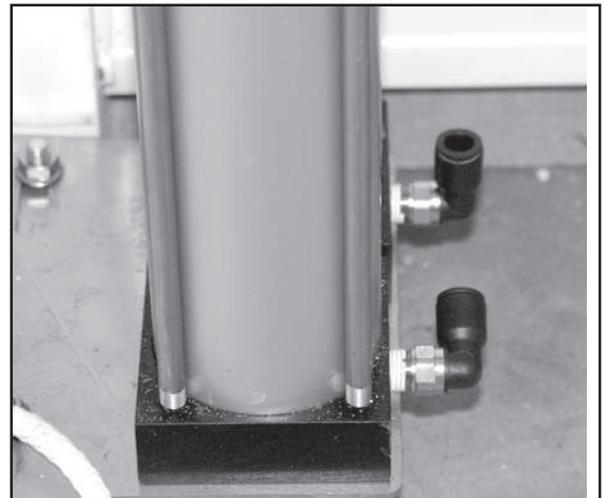
Top Assembly View



Chain/Sprocket View



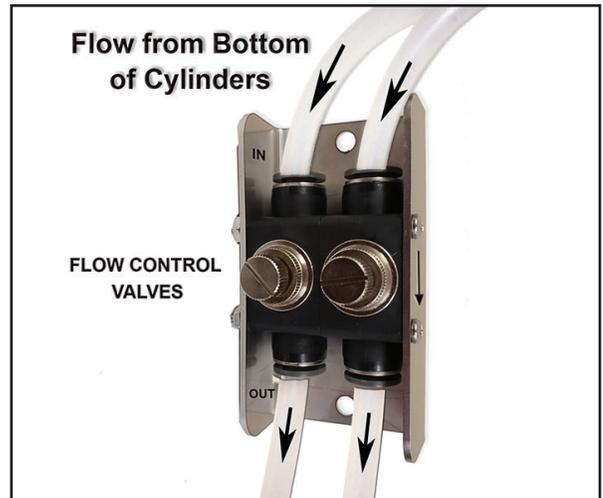
Top of Cylinder View



Bottom of Cylinder View



Control Box View



Flow Control View

Typical Material List

Provided Materials

CYLINDERS - Industrial Duty, 2 unit per door.

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

HARDWARE PACKAGE

Part Number	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 with 1/2" SS Set Screw	2 ea
SLJNUT	7/16" SS Jamb Nut	4 ea
SLSTBS	Turnbuckle w/ SS Studs/Locknuts	1 ea
CN41	#41Chain	Door Operator size plus 1'
CMLWP41	#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° -3/8" x 1/4" NPT Push-in Fitting	4 ea
SLFLKIT-4	Flow Control Kit	1 ea

Control Box Assembly with Valve & Regulator

Options Sold Separately

Inline Liquid Separator

SS or Galvanized Pusher Springs

Photo-eye or other Safety Reversing Mechanism

Waterproof Chain

3/8 Polyflow Hose

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 work best)

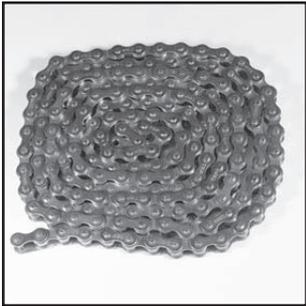
Components Identification



Aluminum Collar with Set Screw



Aluminum Collar Lock Nut



Chain



Master Links



Sprocket with Set Screws



1/4" Key



Cylinders



Push-in Fitting



Turnbuckle



Track Bolt & Nut

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 wish to install your new Supralift operator. 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 firmly 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 firmly 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)

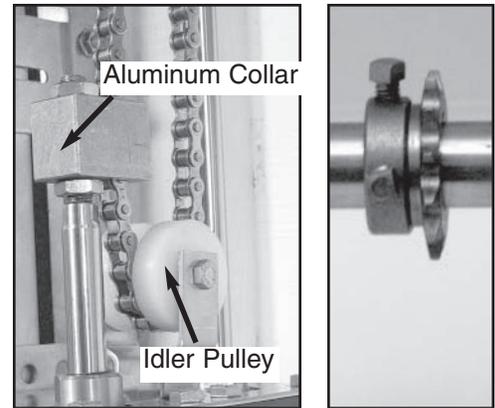


Figure 1

Figure 2

Step 5

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

Step 6

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

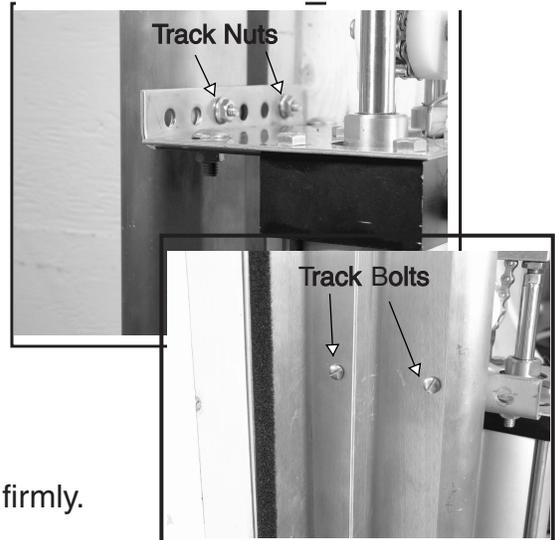


Figure 3

Step 7

Slide the operator cylinder assembly to the door track and move sprocket for proper vertical alignments. (See figure 5) Mark and drill 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 operator firmly. (**Recommended:** Minimum 2 holes on top and 2 holes on bottom.)

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 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 obstruction to the door rollers. (Figure 3)

Step 9

Adjust operator horizontal alignment with 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 plates. The opener can be adjusted in two directions for proper alignment. Tighten the bolts securely when complete.

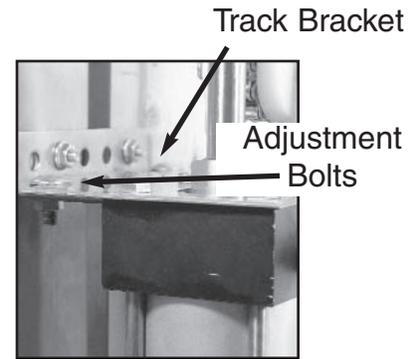
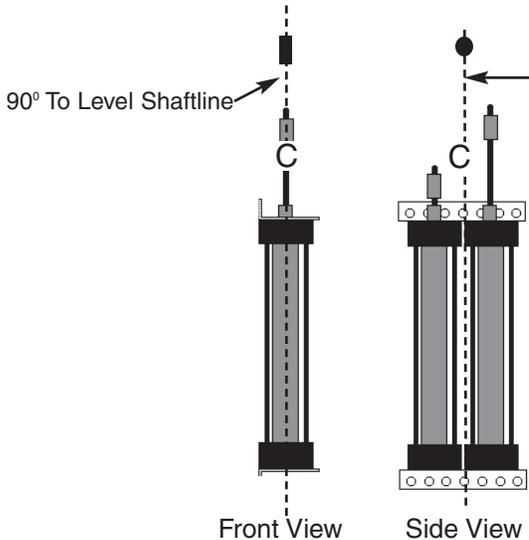


Figure 4



Plumb with Sprocket

Important:

The centerline of the operator 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 premature failure of rod seals.

Figure 5

Step 11

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 during use.

Step 12

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 13

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.



Figure 6

Step 14

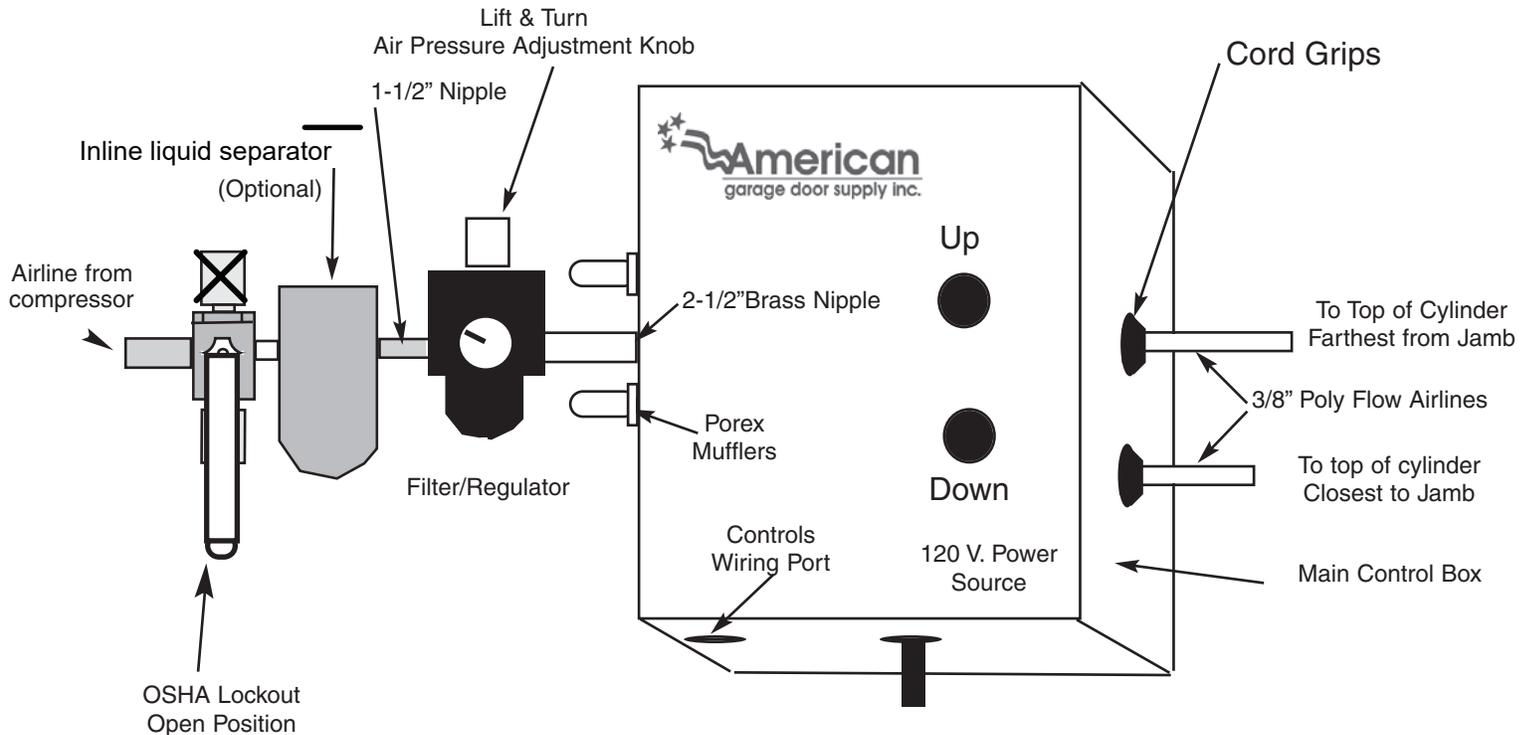
Push the piston rod on the cylinder closest to the wall (close cylinder) all the way down until the piston bottoms out in the cylinder, then raise the piston rod 1"-1-1/2" upward and tighten the set screw on the aluminum collar to lock the chain. **Tip:** Rotate the piston rod to one side to tighten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

Step 15

Raise 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.

Typical Control Box Assembly



Typical Material List

Provided Materials

<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
SLE 10/20/etc SLA20-24	Waterproof Control Box	1 ea
SLFR	Filter Regulator Assembly w/ Dial	1 ea.
SLRF	Nipple 1/4' NPT x 2-1/2"	1 ea
SLPE	Porex Muffler or 1/8" flow controls valves	2 ea
SLBV	Shut-off Valve Assembly	1 ea.
	Flow Control Mounting Screws	2 ea

Options Sold Separately

Inline liquid separator with 1-1/2" Nipple
 Photoeye or other Safety Reversing Mechanism
 Timer to Close

3/8" Poly Flow Air Hose
 1 One Shot Timer 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



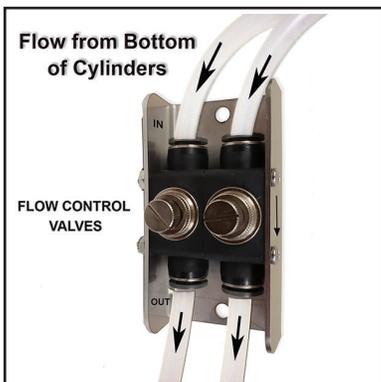
Filter/Regulator



2-1/2" Nipple



Porex Muffler /Needle Valve



Flow Control



Shut-off Valve Assembly
and Inline Dryer (Optional)

Step 1 Control Box Assembly & Installation

Install the two Porex mufflers, or 1/8" Flow control valves to the top and bottom ports on the left side of the control box. Hand tighten only.

Step 2

Install the filter regulator assembly onto the control box using the 2½" 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 assembly into the filter/regulator using the 1-1/2" nipple. For optional inline liquid separator use additional 1-1/2" nipple. (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 side of the operator cylinders. Plumb the airlines from the control box to the top of the operator cylinders. The top airline fitting on the control box goes to the front cylinder (farthest from the jamb) and 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 with an inline liquid separator!! See recommendations. We recommended to keep 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 the open. Plumb bottom of flow control with a 12" drain tube

Step 7

Tighten the flow control valves (clockwise) completely.

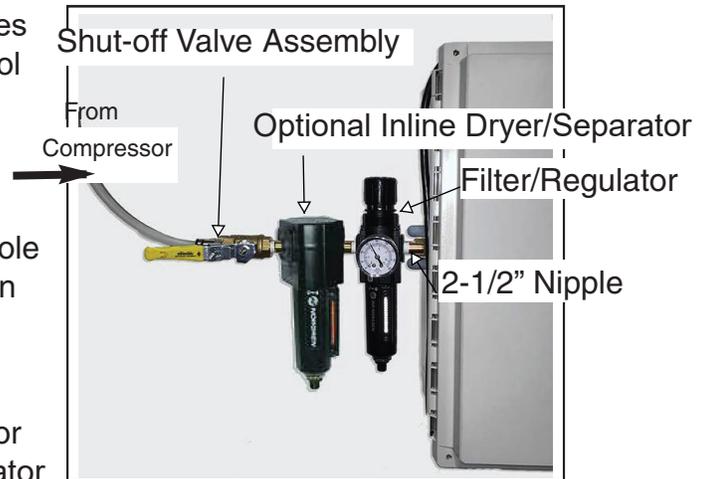


Figure 1

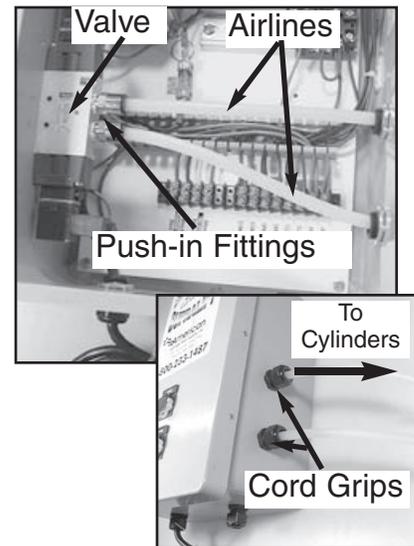


Figure 2

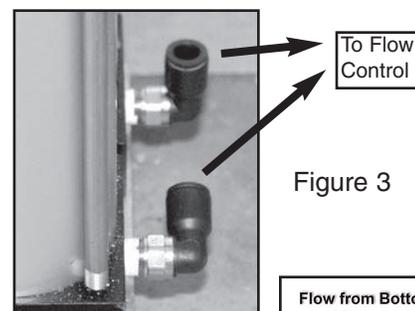


Figure 3

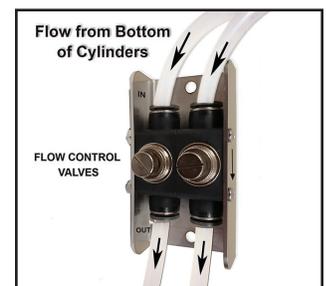


Figure 4

Final Installation & Adjustment

Before Connecting Main Airline from Compressor to Control Box.

Clear main airline from compressor from contamination and debris by slowly opening up valve at compressor and purging line. If new installation, the main airline may have slag or other contaminant's which could cause damage to the valve and other internal components. Before hooking up the main airline to the shut-off valve. Turn off the shut-off valve by turning the valve lever to 90° to the valve or Off.

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 air lines out to your control box as shown in the drawing on page XX or you can install 3/8" polyflow airline from your air compressor to the push-in fitting on the shut-off valve. Other 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 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.

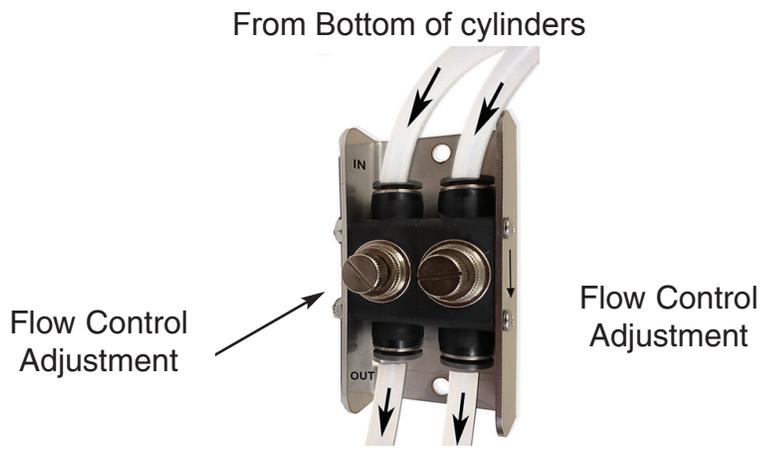
Note: Each flow control valve will control the speed of it's direction. Tighten lock nut located on flow control when adjusted completely.

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

Step 5

Inspect entire operator cylinder assembly, chain, sprocket assembly and piston rods for proper alignment, 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.

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 5

Wire in loop detectors, pushbuttons, photoeyes, timers 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 your 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 carwash and other equipment 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 AND 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 an 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.



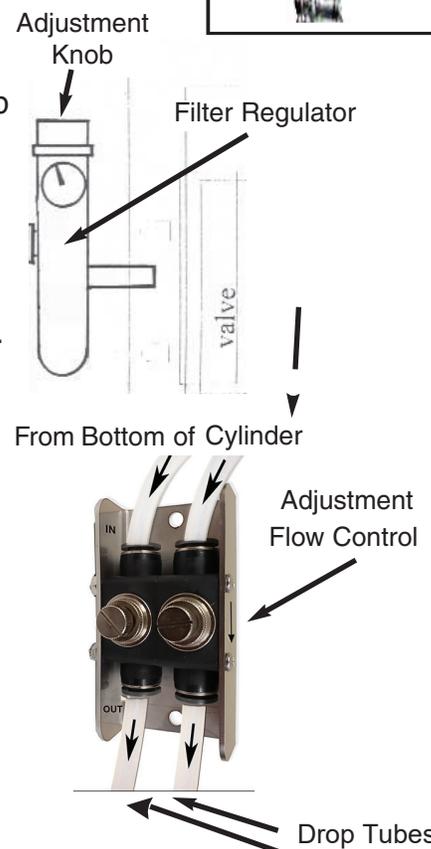
2. Air Filter - Regulator

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 90 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.

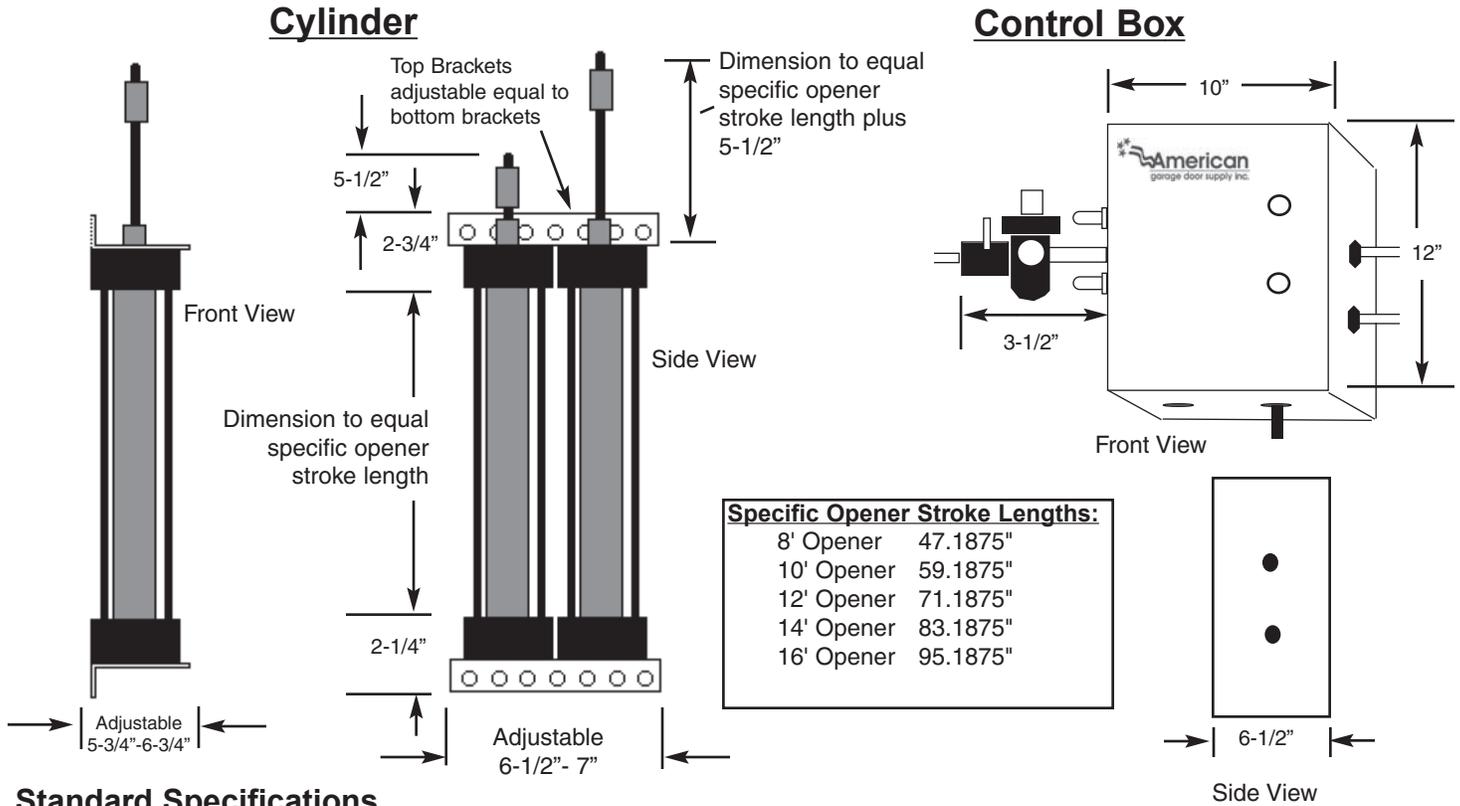
***DO NOT IGNORE YOUR AIR COMPRESSOR!**

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. Also available from American Garage Door Supply, Inc. is a large volume water separator for those applications that require much larger water separation. The inline liquid separator should be checked and cleaned monthly.



Air-Powered Door Openers

Model SL Specifications



Standard Specifications

Model Specific:

The Air-Powered Opener will be Model (SL) SupraLift 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 sec-ond.

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.



Manufactured by

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

For more information call: **(800) 233-1487**
or Fax: **(218) 751-6551**

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 times 2 for a per cycle measurement.
(Note: for dual opener systems you must multiply by 4)
3. Multiply item number 4 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

American
garage door supply inc.

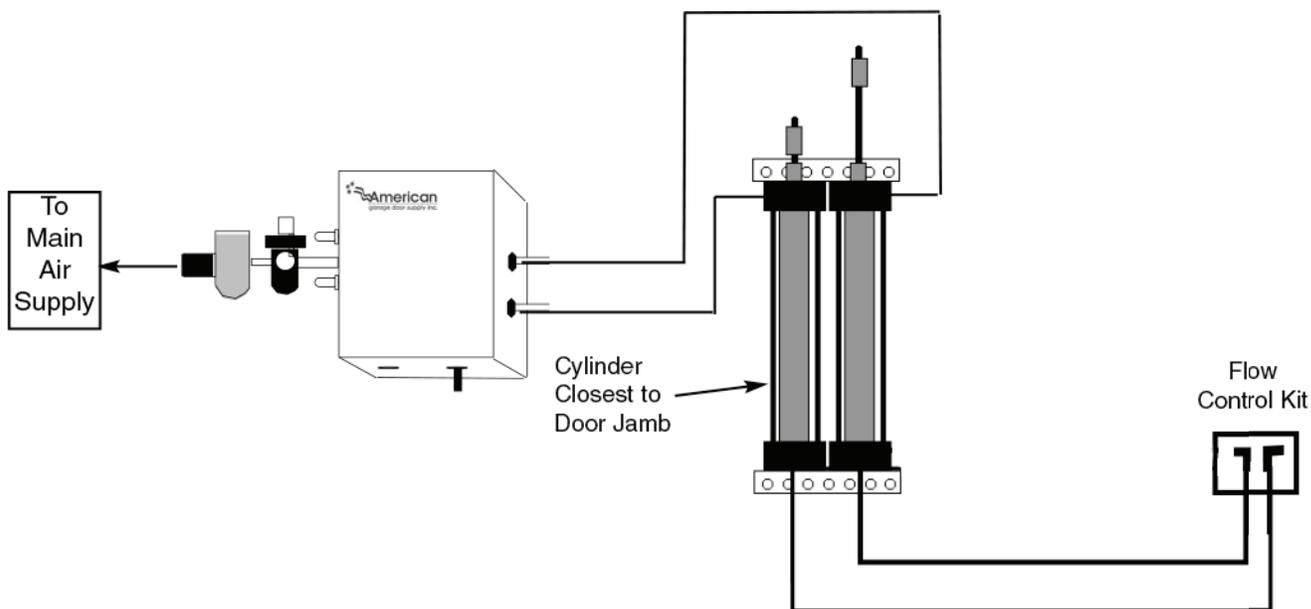
1225 Industrial Park Dr. SE, Bemidji, MN. 56601

For more information call: **(800) 233-1487**
or Fax: **(218) 751-6551**

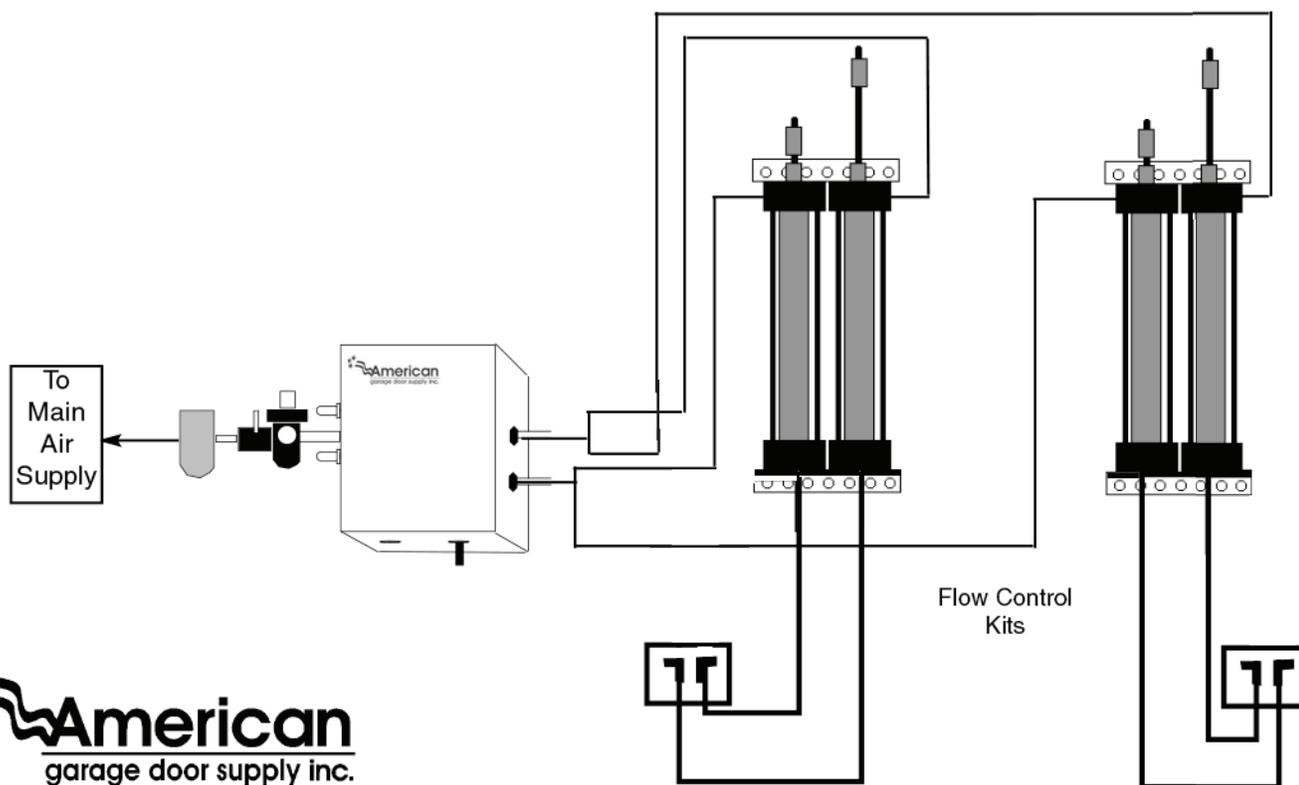
American Garage Door Supply reserves the right to make design or specification changes without notice.

Supralift Plumbing Detail

Single System

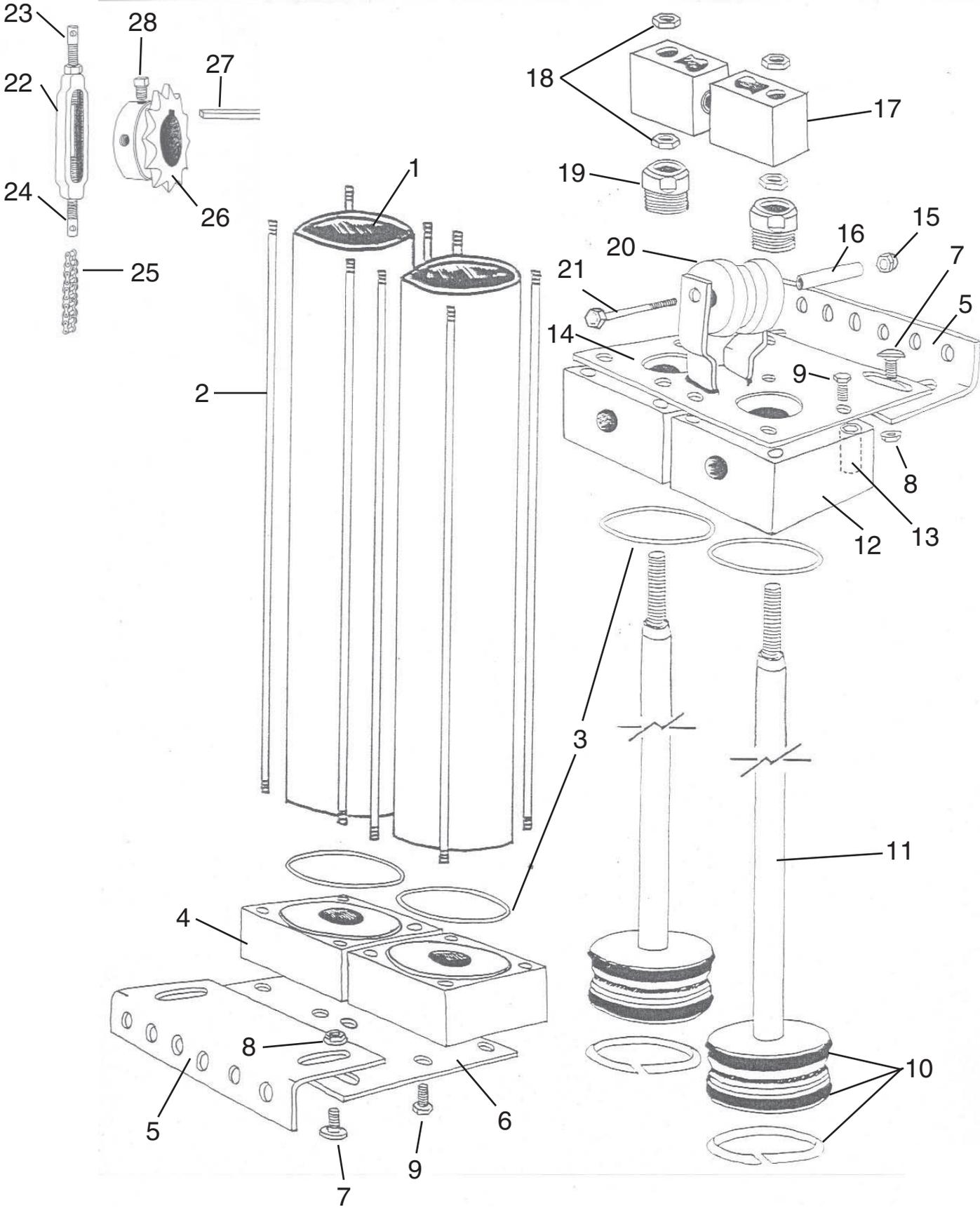


Dual System




American
garage door supply inc.
1-800-233-1487

Supralift Parts Diagram



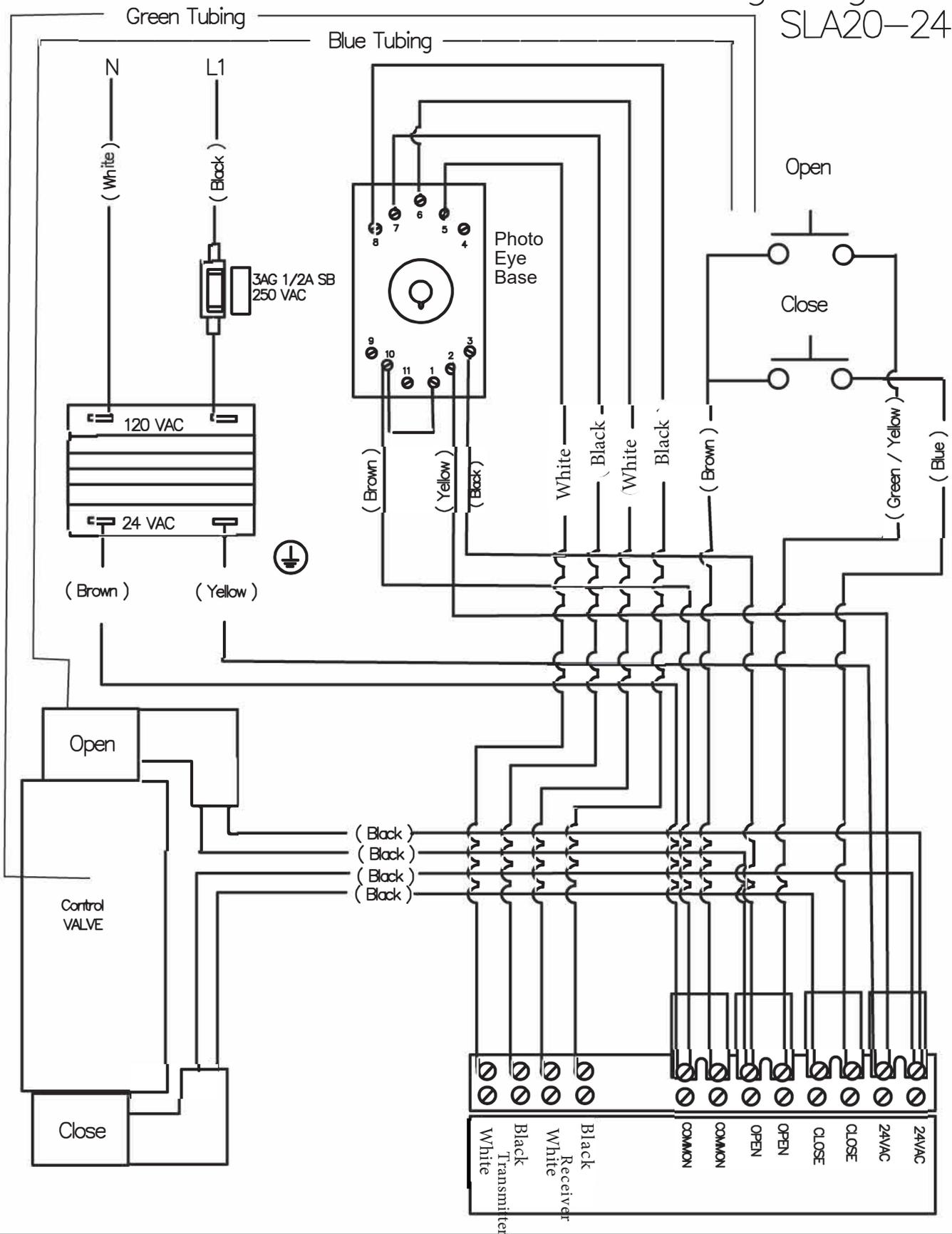
Supralift Parts List

#	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 End Cap
5	SLTB4	SS Track Bracket
6	SLBB2	SS Bottom Plate
7	RBLTS51634	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	SLCYKIT	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 - New Style 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 Jamnut (**)
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	SLWP08	8' Waterproof Chain
25	SLWP10	10' Waterproof Chain
25	SLWP12	12' Waterproof 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	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

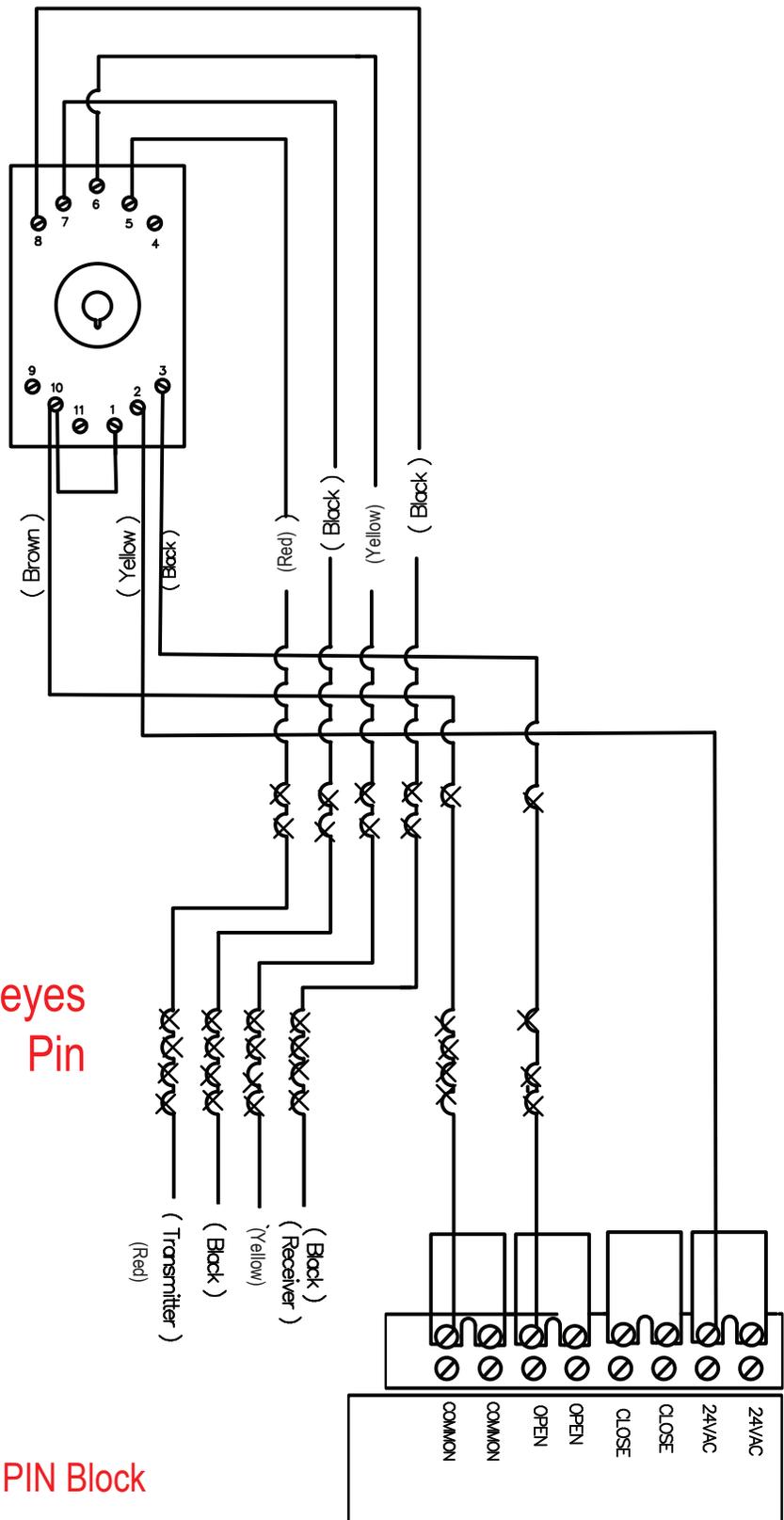


American Garage Door Supply, Inc.
1-800-233-1487
www.americandoorsupply.com

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

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 Pin Block as shown here.

Wiring to 2nd PIN Block

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 contact switch on door according to enclosed directions.

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

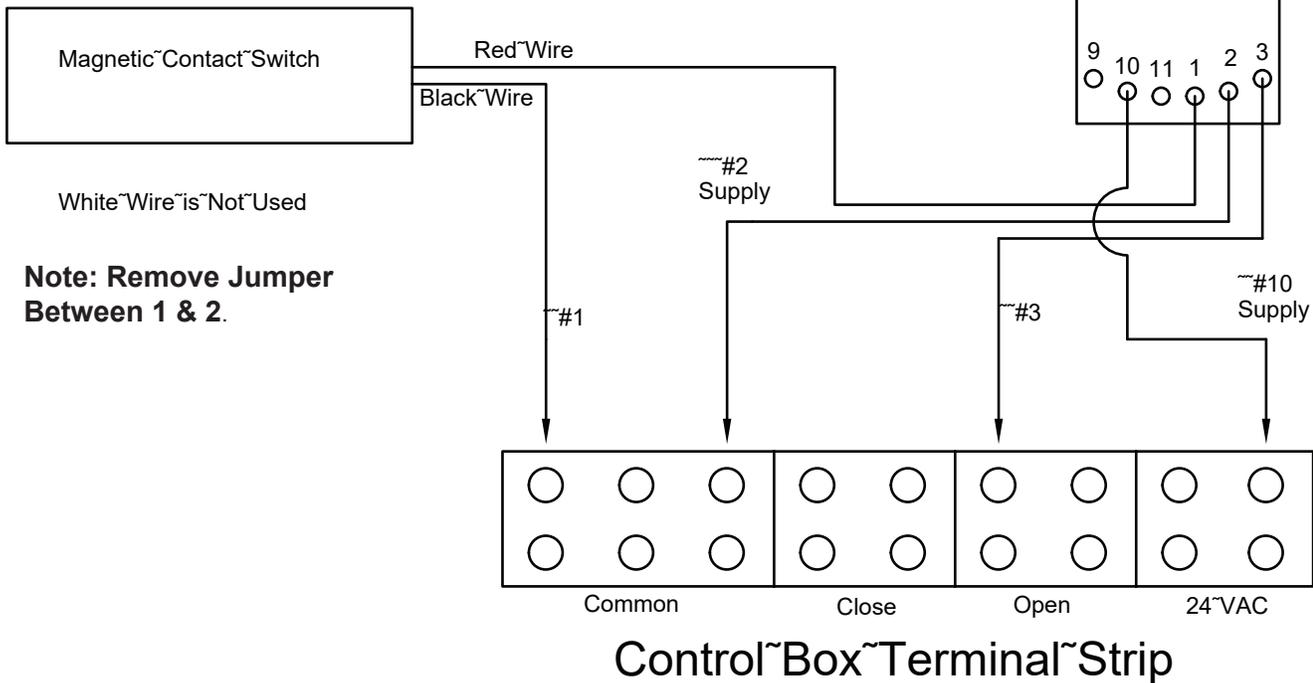
Step 3: Wire the BLACK wire from the contact switch to one of the common terminals on the terminal strip.

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 limit switch by closing the door, when the door is approximately 2 inches from the floor place an object in front of either photo-eye.

The Door should continue down and close.
If the door reverses, check connections and repeat the process.

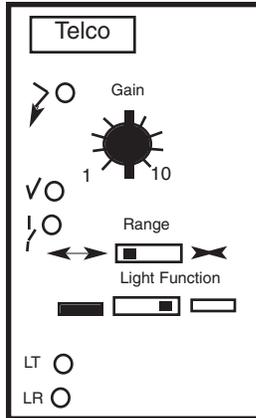
The purpose of the Magnetic Contact Switch (MCS) is to block the signal from auxiliary devices such as photo eyes or reversing edges. When the door is in the fully closed position and something breaks the photo eyes, the door will not open. Reversing edges require a shut-off device to prevent the door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



For SLA20-24 Control Box, Date 04-11-2019

Telco Manual Amplifier Photoeye Wiring Diagram

Amplifier
Part # PA11-B302T-05



Range Switch should be set on **Long Range** ↔
 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.

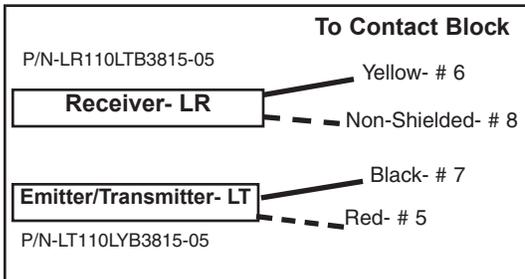
Operation

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

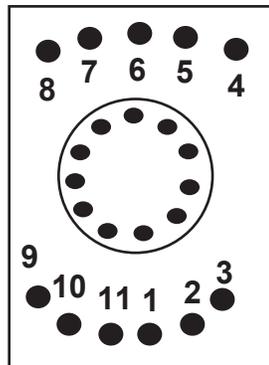
When adjusting, the eyes must be more than 5 feet apart.

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.

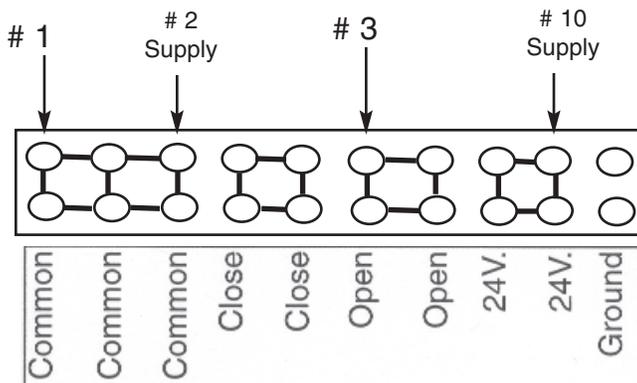
Photoeye Sensors



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!!!

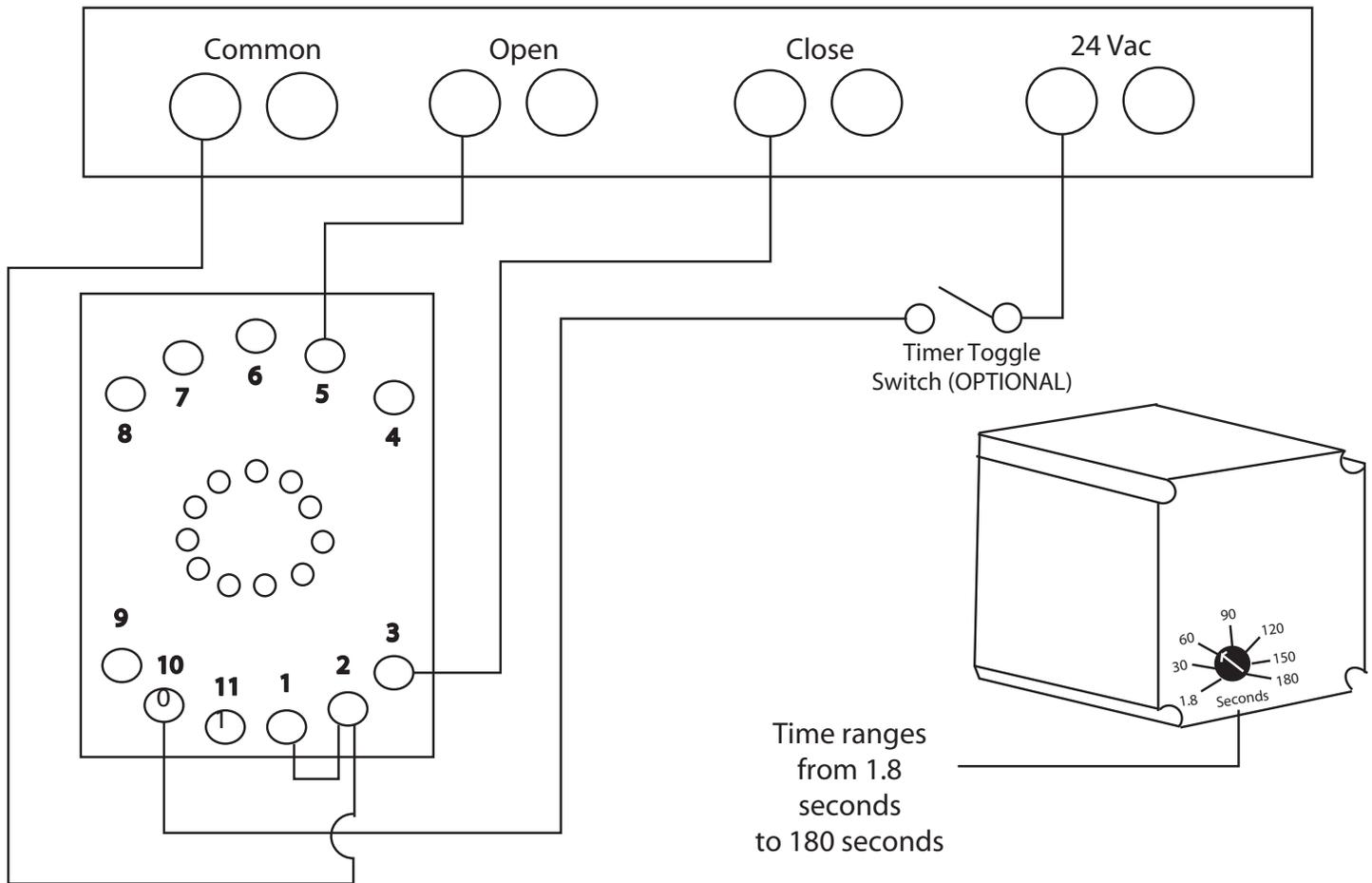
This diagram shows photoeyes wired in non-failsafe mode. If you choose to wire in fail safe mode, wire #4 from the contact block to open on operator terminal strip instead of #3. The light function switch should be set to dark. Warning: In failsafe mode, if either photoeye or system fails, the door will open automatically.


American
 garage door supply inc.
1-800-233-1487
www.carwashdoors.com

Note: This wiring Diagram is set up for Supralift & Magnelift 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



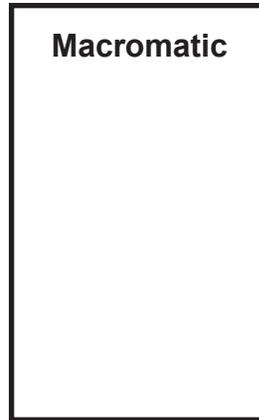
Wiring Diagram\Wiring Book\Macromatic Timer

One Shot Macromatic Timer

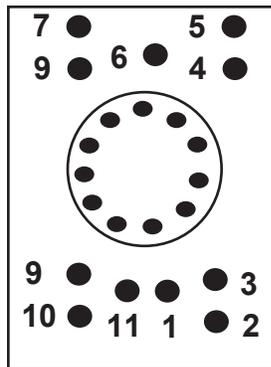
Wiring Diagram - 120 V or 24V

10-11-07

One Shot Timer

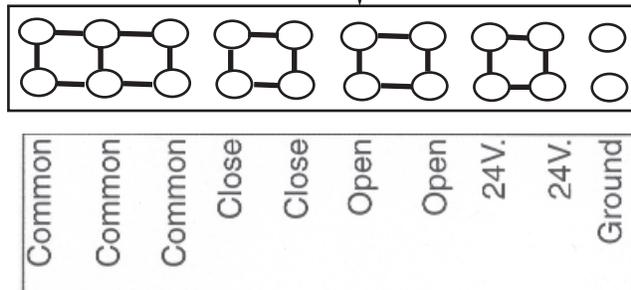


Contact Block 11 Pin Socket



1 # 3

This is an example of a
open signal. For Close,
wire #3 to Close.



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.

2. 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.



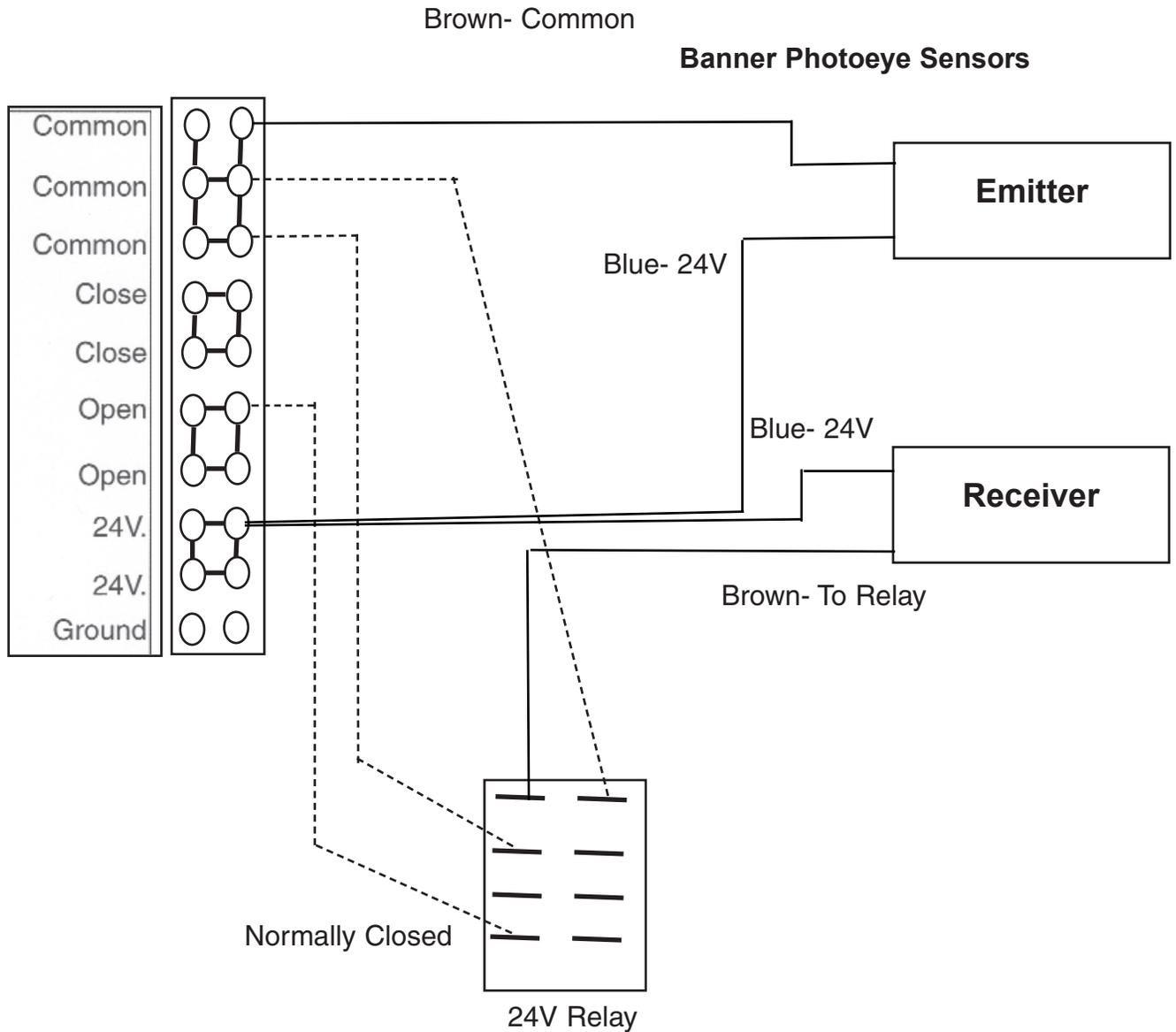
1-800-233-1487

www.carwashdoors.com

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

Banner- 24 VAC Wiring Diagram

1-1-05

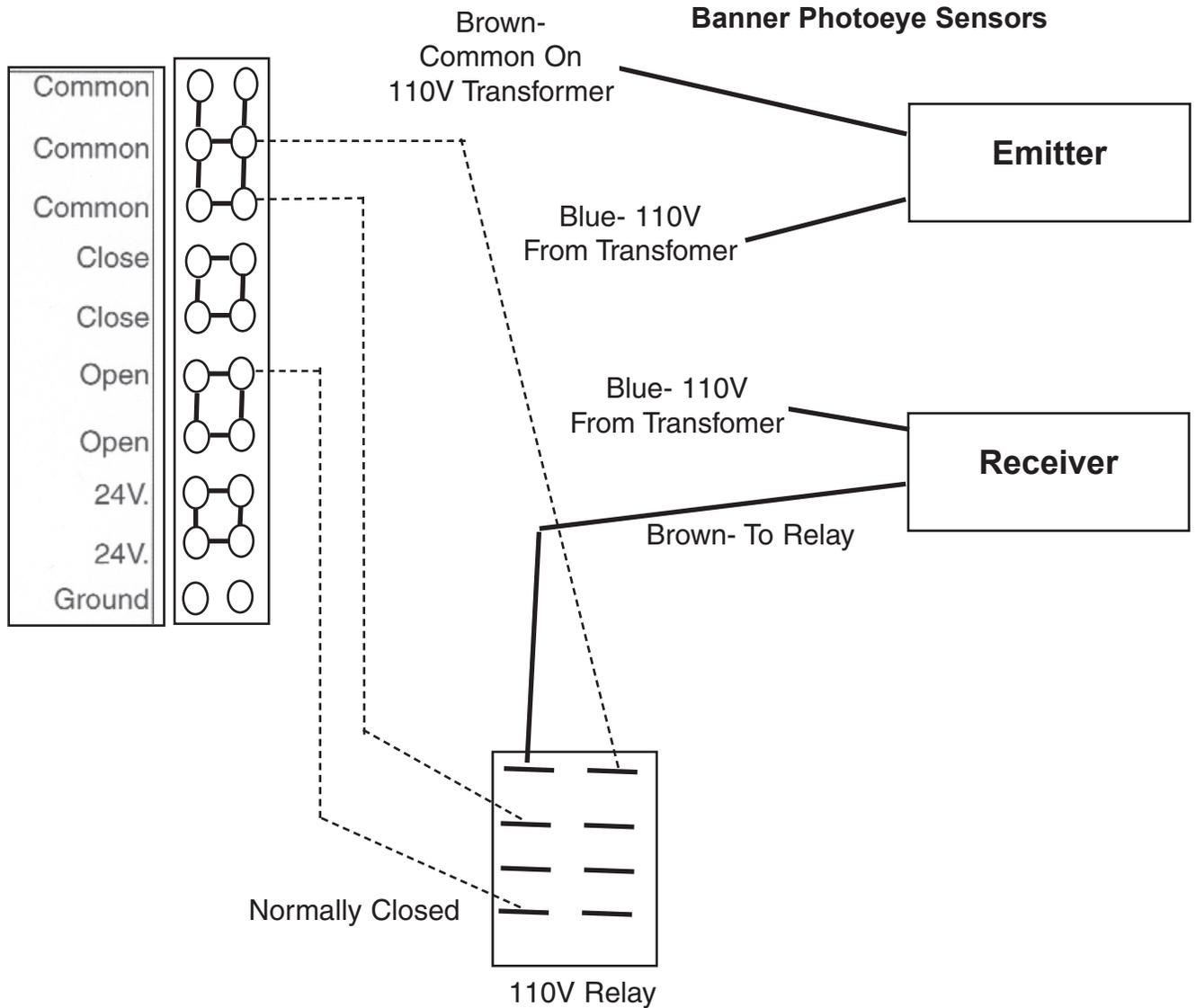



American
garage door supply inc.
1-800-233-1487
www.carwashdoors.com

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

Banner- 110 VAC Wiring Diagram

1-1-05




American
garage door supply inc.
1-800-233-1487
www.carwashdoors.com

Note: This wiring Diagram is set up for Supralift & Magnelift 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. This warranty does not include seal or contact surface wear.

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 warranty 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 warranty 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