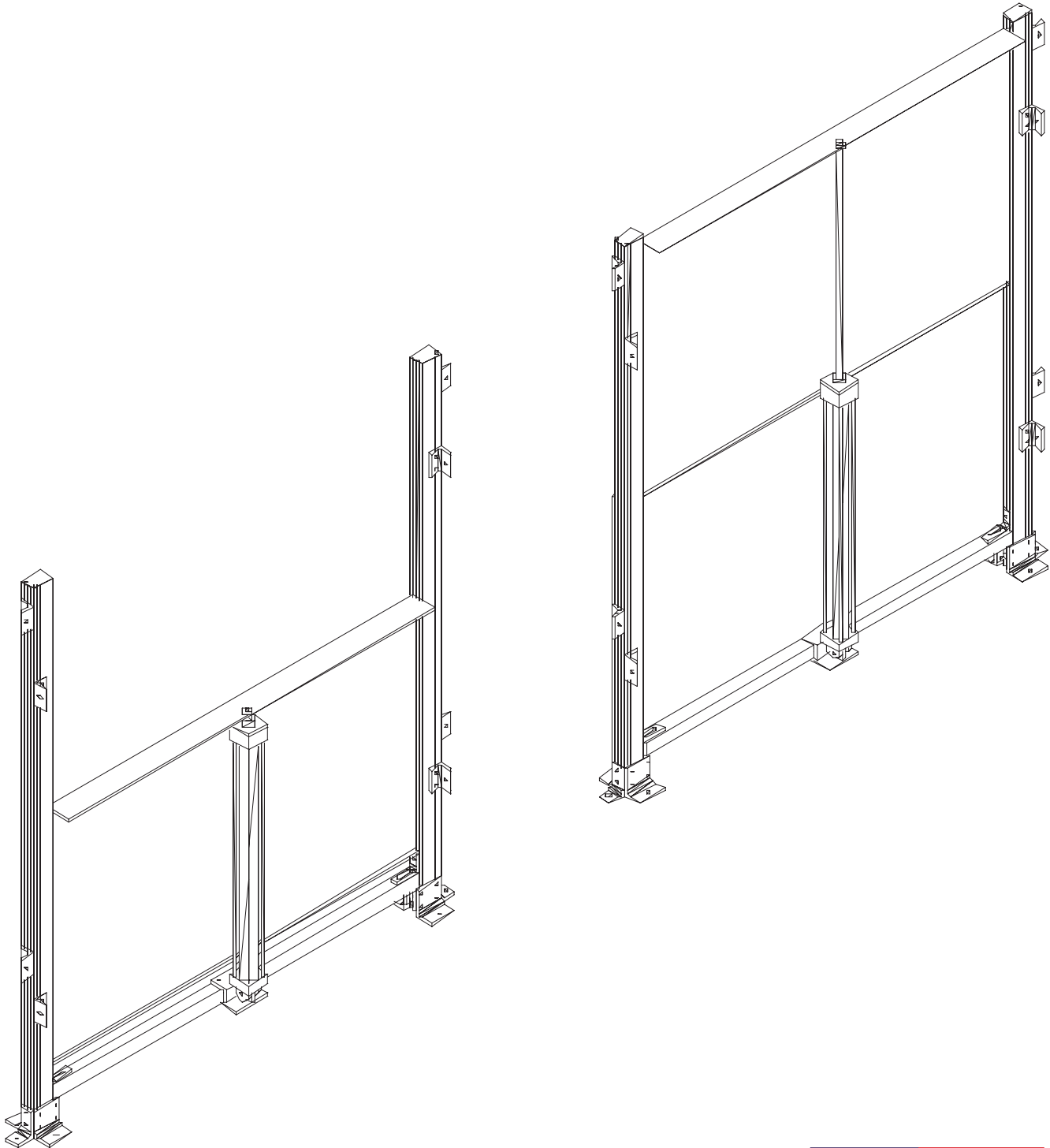


VERTI-GUARD™

AUTOMATED SAFETY BARRIER



This Manual Covers All Units Shipped to Date.

PRODUCT INTRODUCTION

NOTICE TO USER

Our mission is to “Improve Industrial Safety, Security and Productivity Worldwide Through Quality and Innovation.”

Thank you for purchasing the VERTI-GUARD™ pneumatic vertical sliding panel by FROMMELT SAFETY PRODUCTS. The solid panel is designed to provide an automatic hard guard between personnel and a hazardous operation. Our standard black lexan panels will eliminate weld flash and create a solid barrier to protect against flying debris and personnel entry into your guarded machine areas. This lexan material is intended to open and close in a vertical position to provide safety to work areas.

The information contained in this manual will allow you to operate and maintain the unit in a manner which will insure maximum life and trouble free operation. This manual should be thoroughly read and understood, before operating or servicing this unit.

The actual parts used on your unit may be different than shown in this manual due to special engineering or product improvement.

If any procedures for the installation, operation or maintenance of the VERTI-GUARD have been left out of this manual or are not understood, contact Technical Support at 1-563-589-2722.

SPECIAL FEATURES

- Separates work from employee.
- Automatic-hand free operation.
- Resistant to tears, cuts or punctures.
- Minimal reach-in profile.
- No overhead obstruction.
- Adjustable speeds. (12” to 24” per second)
- Clear vision or opaque panels.

TOOLS NEEDED:

- Level
- Hammer
- Combination Wrenches
- Screwdriver
- Anchors
- Drill
- Hammer Drill
- Wire Strippers
- Cargo Straps (for lifting)

WARRANTY

Only Frommelt® Safety Products authorized parts are to be used on this product. Failure to do so may void warranty.

FROMMELT SAFETY PRODUCTS warrants that it's VERTI-GUARD system, including electrical components, will be free from defects in design, materials and workmanship for a period of one (1) year from the date of shipment. Hose, fuses, and fogging or scratching of vision window, are not considered to be covered by warranty. It does not cover damage incurred from abuse, misuse or impact. All claims for breach of this warranty must be made within thirty (30) days after the defect is or can, with reasonable care, be discovered. To be entitled to the benefits of this warranty, the products must have been properly installed, maintained, operated within their rated capacities, and not otherwise abused. Periodic lubrication and adjustment is the sole responsibility of the owner. This is FROMMELT SAFETY

PRODUCTS exclusive warranty. FROMMELT SAFETY PRODUCTS EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. Non-standard FROMMELT SAFETY PRODUCTS warranties, if any, must be specified by FROMMELT SAFETY PRODUCTS in writing.

In the event of any defects covered by this warranty, FROMMELT SAFETY PRODUCTS will remedy such defects by repairing or replacing any defective equipment or parts. This shall be the exclusive remedy for all claims whether based on contract negligence or strict liability. Neither FROMMELT SAFETY PRODUCTS ANY OTHER MANUFACTURER WHOSE PRODUCTS ARE THE SUBJECT OF THIS TRANSACTION, NOR ANY FROMMELT SAFETY PRODUCTS REPRESENTATIVE, SHALL IN ANY EVENT BE LIABLE FOR ANY LOSS OR USE OF ANY EQUIPMENT OR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND WHETHER FOR BREACH OF WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. The application of a manufacturer's specifications to a particular job is the responsibility of the purchaser.

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IMPORTANT!!!

Make sure the side rails are not pulled in or spread out when fastening to the wall. Make sure the unit is mounted flush to the wall.

IMPORTANT!!!

The control/junction box and all wiring should be installed by a qualified electrician in accordance with all national and local electrical codes.
If rigid conduit is installed, bonding must be maintained between conduit and ground connections by using ground bushings and a jumper wire.

WARNING!!!

When working with electrical or electronic controls. make sure that the power source has been locked out and tagged according to OSHA regulations and approved by your local electrical requirements.

CAUTION !!!

When drilling holes in the box, do not allow the drill to go too deep into the box. Damage to the control components may occur.

DEFINITION AND FUNCTION

CONTROL BOX ASSEMBLY (OPTIONAL)

The control box assembly includes a four way air control valve, open, close and stop push buttons, and (2) 24 VDC relays. This control box allows the VERTI-GUARD to be opened or closed by momentarily pushing a button, or from a 24 VDC output signal from a machine controller. This box requires use of a 110 VAC air valve.

CYLINDER

The cylinder extends and retracts the panel in the opening when air is supplied.

FRAME ASSEMBLY

The frame assembly is an all aluminum structure which holds the cylinder, panel guides, limit switches, and air hose.

JUNCTION BOX ASSEMBLY (OPTIONAL)

The Junction box assembly includes a four way air control valve, and the necessary terminal blocks to easily incorporate an output signal from the existing machine controller. The four way valve is available as 24 VDC or 110 VAC.

PANELS

The lower panel is made of 1/4" black lexan. The standard sliding panel is made of 1/4" black lexan. There is an option for either clear lexan or galvanized sheet metal.

SITE EVALUATION

The VERTI-GUARD can be installed either as an In-Jamb, Face, free standing unit or mounted to a machine structure in a machining, welding or other type of environment:

Please verify before starting installation:

1. Can the VERTI-GUARD assembly be mounted to the workstation?
2. If anchoring to the floor is there anything buried in the floor where the anchors go?

3. Does the installation allow adequate clearance for robotic machining, welding or other types of operation?
4. Can electrical power to the workstation be shut off without interfering with other plant operations?
5. Is there an air supply connection available at the installation site?

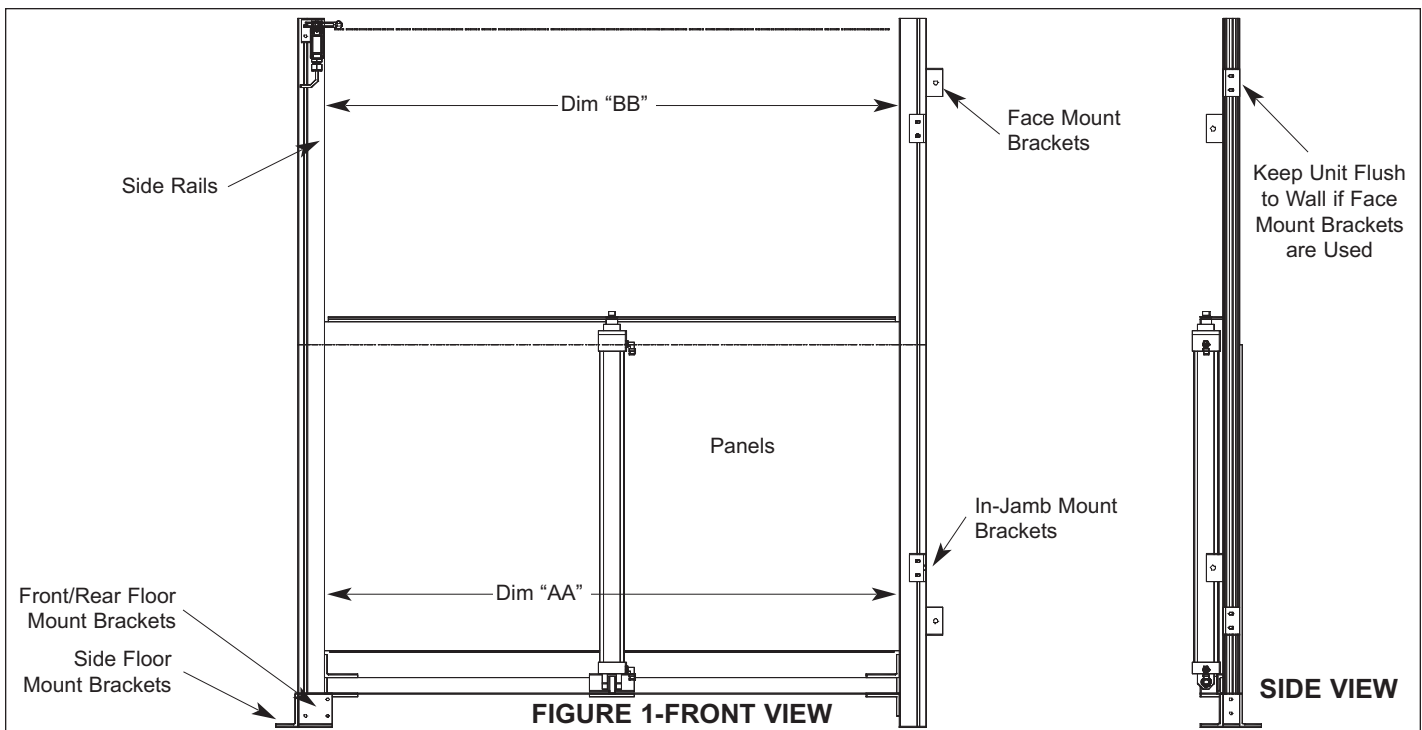
PARTS INVENTORY

1. Remove all assemblies and parts from the shipping container.
2. Arrange parts on the floor, *Per Page ?*
3. Check to insure all parts are included. Call Technical Support if you have any questions.

UNIT INSTALLATION

1. Place the VERTI-GUARD unit in front of the machine it is to be installed on.
2. Place marks on the floor, wall or unit and verify location. Testing of equipment may be necessary before anchoring unit, *Figure 1*.
3. Use the proper fasteners to mount the unit, fasteners not supplied.
4. Make sure to maintain the same dimension from "AA" to "BB", *Figure 1*.
5. If using the face or in-jamb mounting methods, make sure that the side rails are not pulled in or spread out, causing undue wear and friction on the panel wear guides and the side rail track.
6. Shimming may be required on the in-jamb and face mount positions to keep the unit flush on the wall, *Figure 1*.

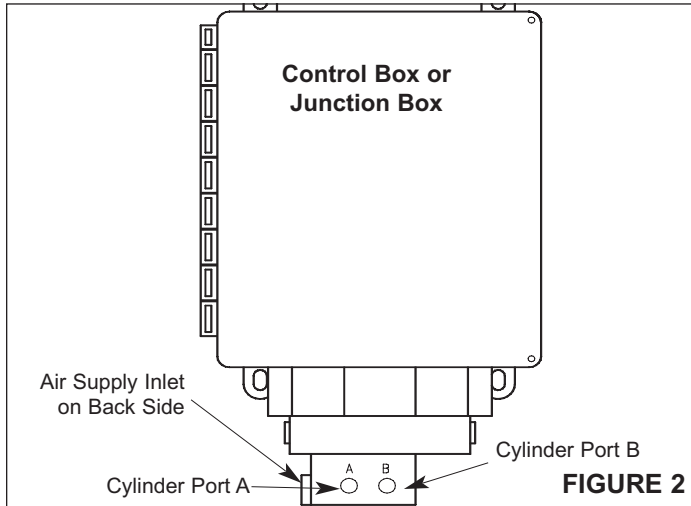
NOTE: *Side rails must be parallel in both front and side directions.*



INSTALLATION INSTRUCTIONS

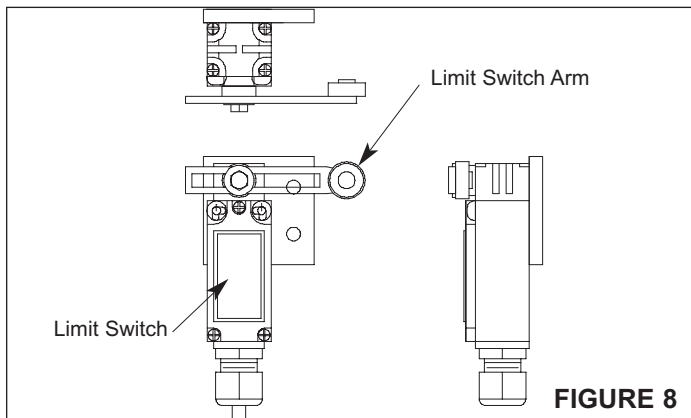
AIR SUPPLY INSTALLATION

1. If the junction or control box option is chosen, route the main air line through the pressure regulator provided. Maintain an operating pressure between 60 and 90 psi.
2. Connect an air line from the outlet of the pressure regulator to the inlet of the four way control valve on the junction box or control box, **Figure 2**.
3. Using the quick connections connect both air lines from each end of the cylinder to outlet ports A and B on the four way control valve, **Figure 2**.



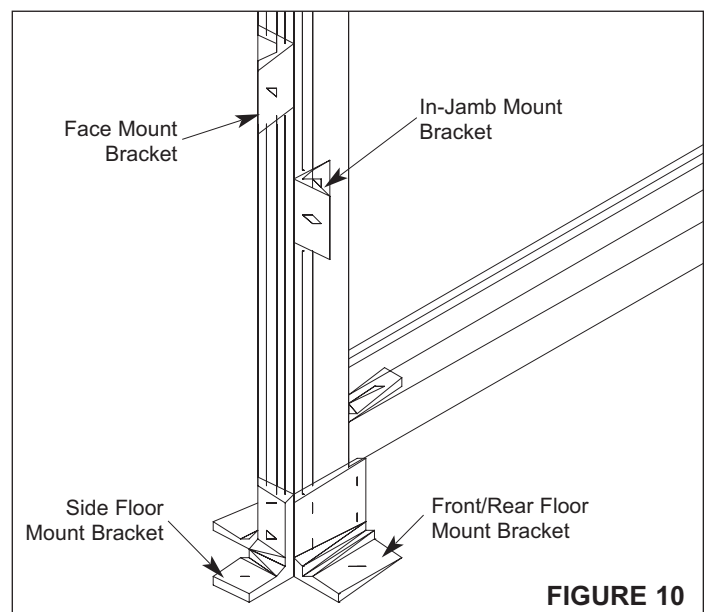
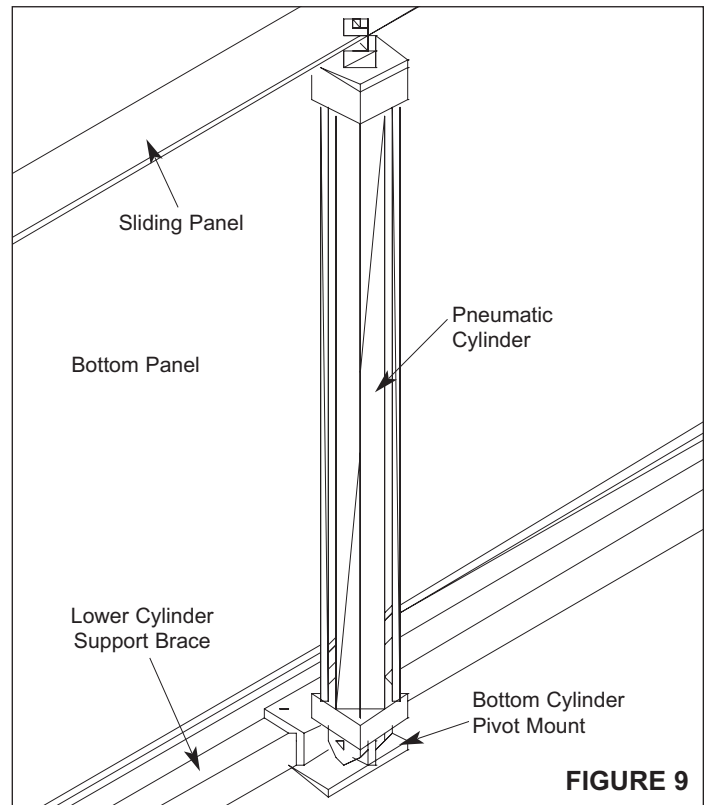
MONTHLY MAINTENANCE PROCEDURES

1. Visually inspect the VERTI-GUARD panel during an open and close cycle to verify proper operation and that door is fully opening and closing.
2. Clean the panels with a warm soapy solution.
3. Inspect all air, electrical, and mounting hardware connections and make sure all connections are tight.
4. Check cylinder cushions so that panels are not hitting on the end of the panel extension and retraction.
5. Inspect all parts for signs of wear and replace as necessary.
6. Check the limit switch in both the open and closed position. Adjust if required.
7. Check aluminum track for debris buildup. Clean if necessary. Check guides for wear.



LIMIT SWITCH ADJUSTMENT

1. Limit switches can be adjusted by loosening the limit switch bracket bolts and sliding the bracket to the correct location, **Figure 8**.
2. Limit switches are capable of being either normally open or normally closed. Check wiring diagram on the back side of the limit switch for contact wiring. When the panel makes contact with the limit switch arm, a signal is given to the controls to stop the door. Wiring either by (NO) or (NC) is based on the customer's devices.
3. For adjusting the closed limit switch, **Figure 8**.
4. For adjusting the open limit switch, **Figure 8**.



ELECTRICAL INSTRUCTIONS

JUNCTION BOX INSTALLATION (OPTIONAL)

1. Install junction box and suggested remote disconnect (supplied by others) in an area that can be accessed for maintenance.
2. Bring signal wires from the machine controller to the terminal blocks provided. The signal wires type will need to match the type of valve provided (110VAC or 24 VDC). Connect the limit switch wires to the appropriate terminal blocks. Wire per instructions provided, [Figure 3 & Pages 3, 4.](#)

54" above floor level.

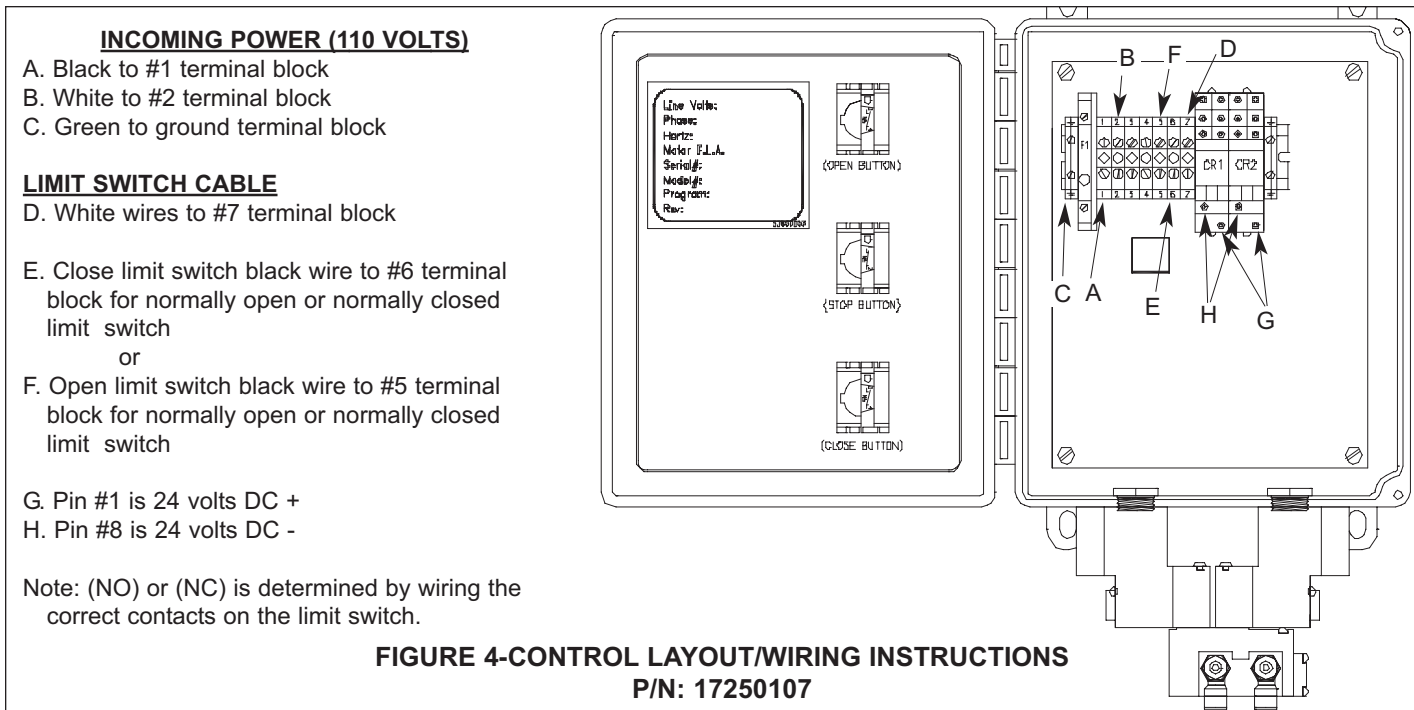
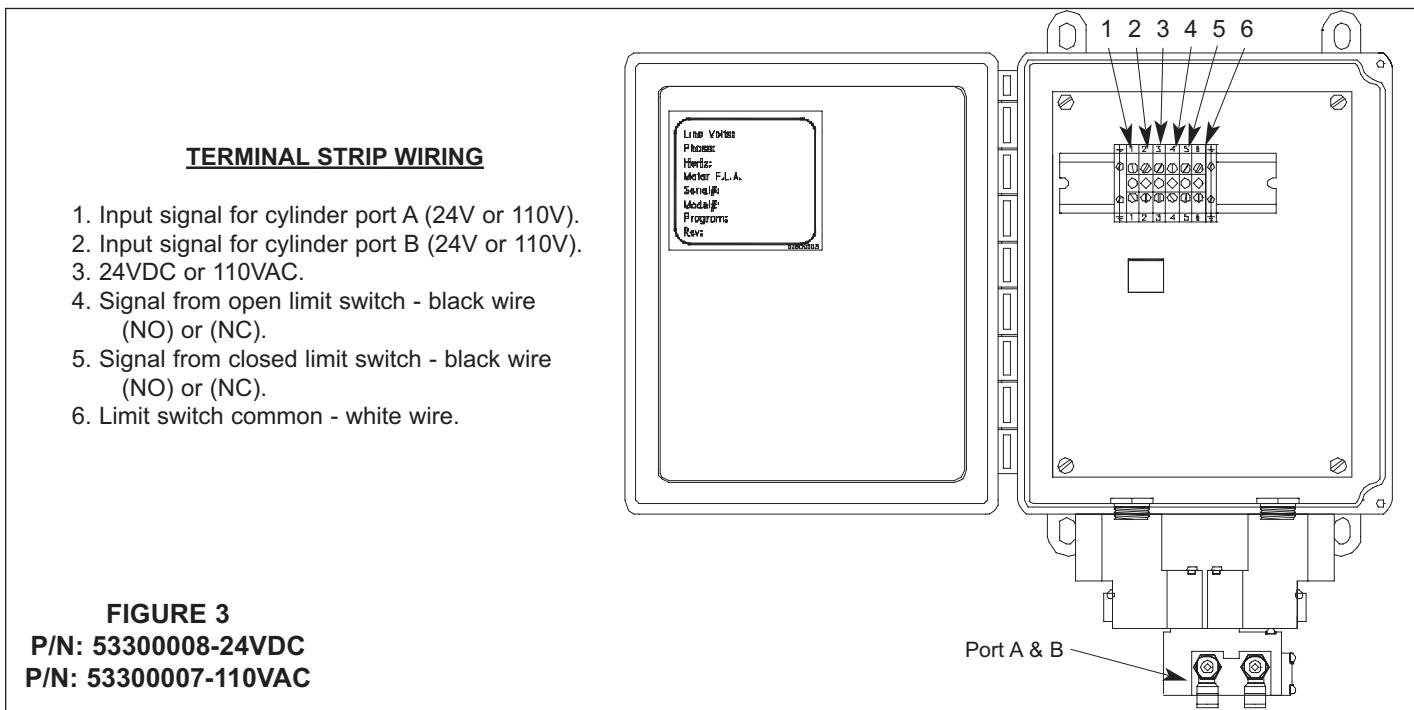
2. Provide 110V AC power to the control box. Wire per the wiring diagram provided, [Figure 4 & Pages 3, 4.](#)
3. Connect limit switch wires to the terminal blocks per the wiring diagram provided, [Figure 4.](#)

CONTROL BOX INSTALLATION (OPTIONAL)

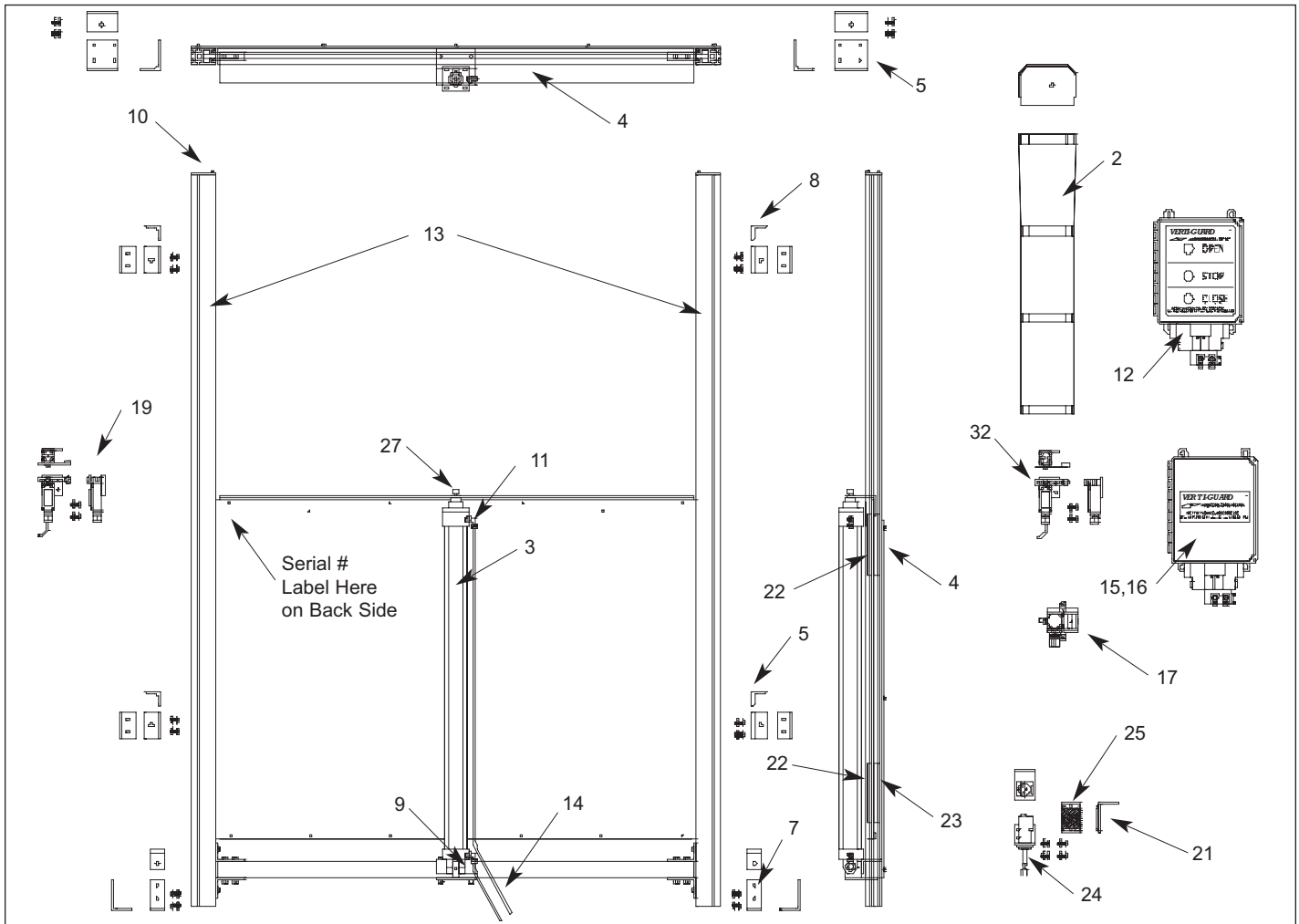
1. Install control box and remote disconnect approximately

POWER / STARTUP

1. Turn power on to the control box.
2. Turn on air supply.
3. Press the close button, the curtain will slide to the extended position.



SERVICE PARTS



ITEM	QTY	DESCRIPTION	P/N	ITEM	QTY	DESCRIPTION	P/N
1	1	Entire Verti-Guard Unit	1380....	19	0/2	Switch, Limit	54300015
2	1	Cylinder, Cover (optional)	1851....	20	a/r	Lube, Lubriplate, Aero #11376, Tube	54650001
3	1	Cylinder, Pneumatic	1976....	21	a/r	Nut, Tee 1/4"	55610017
4	1	Panel, (Specify-Top, Bottom, Material, Size)	6355....	22	4	Wear pad, Countersunk	61200021
5	0/2	Brackets, Front/Back Floor Mount, "A"	14500624	23	4	Wear Pad, Tapped	61200022
6	0/2	Brackets, Front/Back Floor Mount, "B"	14500625	24	0/1	Photoeye	63900002
7	0/2/4	Brackets, Side Floor Mount	14500628	25	0/1	Reflector	66400001
8	0/4	Brackets, In-Jamb/Face Mount/Joiner ABB	14500678	26	a/r	Screw, HWH, Self, Drill/Tap, #12-14 x 3/4"	67850004
9	1	Bushing Flange	15550028	27	a/r	Screw, HWH, Self Drill/Tap, #12-24 x 1 1/4"	67850005
10	2	Side Rail Cap	16200027	28	4	Screw, FHMS, PHLP, #10 x 1", znc	67850042
11	2	Connector, Elbow	16950005	29	0/8	Screw, HHMS, 1/4-20 x 1/2", znc	67860002
12	0/1	Control Box (110VAC)	17250107	30	a/r	Screw, HHMS, 1/4-20 x 3/4", znc	67860003
13	a/r	Side Rail	44850129	31	1	Shoulder Bolt	67880095
14	a/r	Hose, Air	52850002	32	0/1/2	Switch, Safety Interrupt	72700124
15	0/1	Junction Box (24VDC)	53530007	33	0/4	Tab, Side Rail, 1380	72740039
16	0/1	Junction Box (110VAC)	53530008	34	a/r	Washer, Flat, 1/4" x 3/4" x 1/16", znc	74110001
17	0/1	Regulator, Lockout Valve	53700199	35	a/r	Washer, Flat, 3/8" x 1" x .063, znc	74130001
18	0/1	Kit, Photoeye	53700366				

TROUBLESHOOTING, REPAIR AND ADJUSTMENTS

Problem	Cause	Remedy
Sliding panel remains open, does not close.	Air hose leak.	Replace air hose.
	Bad air line connection.	Check all air connections for a tight secure fit.
	Bad limit switch.	Replace with new limit switch.
Sliding panel has jerky movement	Guide wear pads loose or worn out..	Check hardware or replace as required.
	Excessive build up of debris in track.	Use an air nozzle to clear debris from the track.
Panel hits hard when opening or closing.	Pneumatic air cylinder cushions out of adjustment.	Adjust cushions so panels do not slam at the end of the travel.

