

HS583 Curtain/Vent Machine Installation Manual

General Installation Notes:

Make sure that power is disconnected from system prior to servicing.

Installation of this equipment and related OEM equipment should be in accordance with these instructions, OEM's installation instructions and local codes (if applicable). Failure to follow specified instructions may cause damage to equipment and/or personal injury or death.

Take special note of any Warnings or Safety Decals on the equipment and in manuals.

Always wear protective clothing and any applicable Personal Protective Equipment (Safety Glasses and/or Ear Plugs) when working with the equipment.

Discarded materials, equipment and boxes should be recycled in accordance with local and national codes.

Note: Actuator Assembly is to be wired in accordance with all applicable local and national electrical wiring codes. All wiring sizes and fuse capacities are to be sized according to applicable electrical code specifications or other regulations.

SAFETY INSTRUCTIONS:

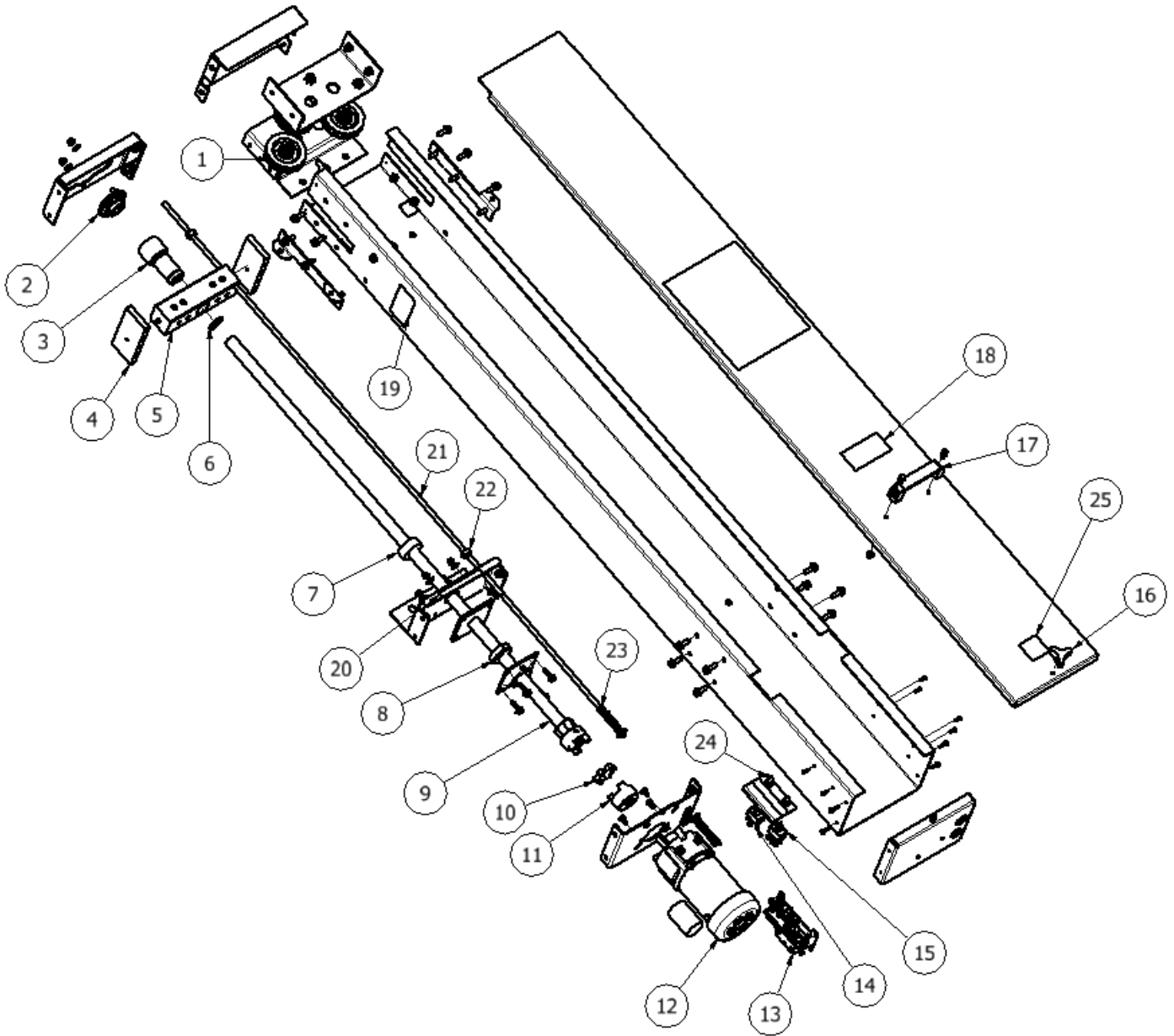
Read all safety messages in this manual and on equipment safety decals. Follow recommended precautions and safe operating practices.

Ground all electrical equipment for safety.

Ground all non-current carrying metal parts to guard against electrical shock.

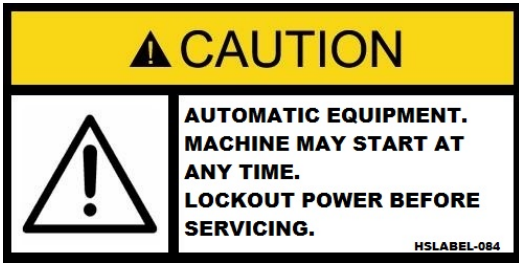
Always keep safety decals in good condition and replace missing or damaged decals.

COMPONENT LAYOUT (SERVICE REPLACEMENT PARTS)



ITEM #	PART #	QTY PER	DESCRIPTION
1	HS583-34	3	Pulley, Cast 3-1/2" with double ball bearings
2	HS583-42	1	Bearing Flange 1" I.D
3	HS583-8-2	1	Load Nut, nylon
4	HS583-9	2	Slide, load block
5	HS583-8	1	Load block assembly with load nut & cotter pins
6		1	1 1/4" External snap ring, supplied with HS583-8-2
7	HS583-41	2	Threaded collar, seal thrust bearing nylon
8	HS583-12	1	Thrust bearing, 1" ID, D9
9	HS583-11A24	1	ACME screw, 24" machine
	HS583-11A36	1	ACME screw, 36" machine
	HS583-11A48	1	ACME screw, 48" machine
10	HS613	1	Spider Gear-spacer Hytrel (white) L090/L095
11	LOV38146	1	Coupling Jaw L095 5/8" bore with keyway
12	HS9050	1	Motor 1/8 HP, 115V AC, 60 Hz, 1.9A FL, 28RPM
	HS9051	1	Motor 1/8 HP 230V AC, 50/60Hz, 0.75/0.90A FL, 24/29 RPM
	HS9052	1	Motor 1/8 HP, 115V AC, 60 Hz, 1.65A FL, 16RPM
13	HS583-31	1	Switch assembly with (6) EL1135 micro switches
14	EL1001	1	Switch, Toggle SPDT , 10A @ 250 Volt, CTR OFF
15	EL1005	1	Switch, Toggle DPDT , 10A @ 250 Volt, CTR OFF
16	HS612	1	Knob, tri-handle, 1/4-20 insert
17	HS583-45	1	Handle, Front door
18	HSLABEL-084	1	Label, "Caution Automatic Equipment"
19	HSLABEL-083	2	Label, "Warning Moving Parts"
20	HSLABEL-087	1	Label, "Grease Location"
21	HS583-27-24	1	Limit rod, 24" machine
	HS583-27-36	1	Limit rod, 36" machine
	HS583-27-48	1	Limit rod, 48" machine
22	HS583-28	2	Collar, steel 3/8" w/ set screw
23	HS583-29	2	Spring, limit rod
24	EL1083	2	Rubber cover, toggle switch
25	HSLABEL-008	1	Label, Warning-Shock Hazard

SAFETY DECALS AND WARNING LABELS



Located on front door of machine



Located on side of cabinet near cable/chain exits.



Located at bottom of front door near removal point.

SPECIFICATIONS:

Maximum Load: Ratio : Machine travel : vent/ curtain travel
 Example: 2:1 = 2" machine travel : 1" vent/curtain travel
Refer to Figures 6 and 7

RPM	2:1 pulley ratio	1:1 pulley ratio	1:2 pulley ratio
15 & 28	4,000 lbs	2,000 lbs	1,000 lbs
60	2,000 lbs	1,000 lbs	500 lbs

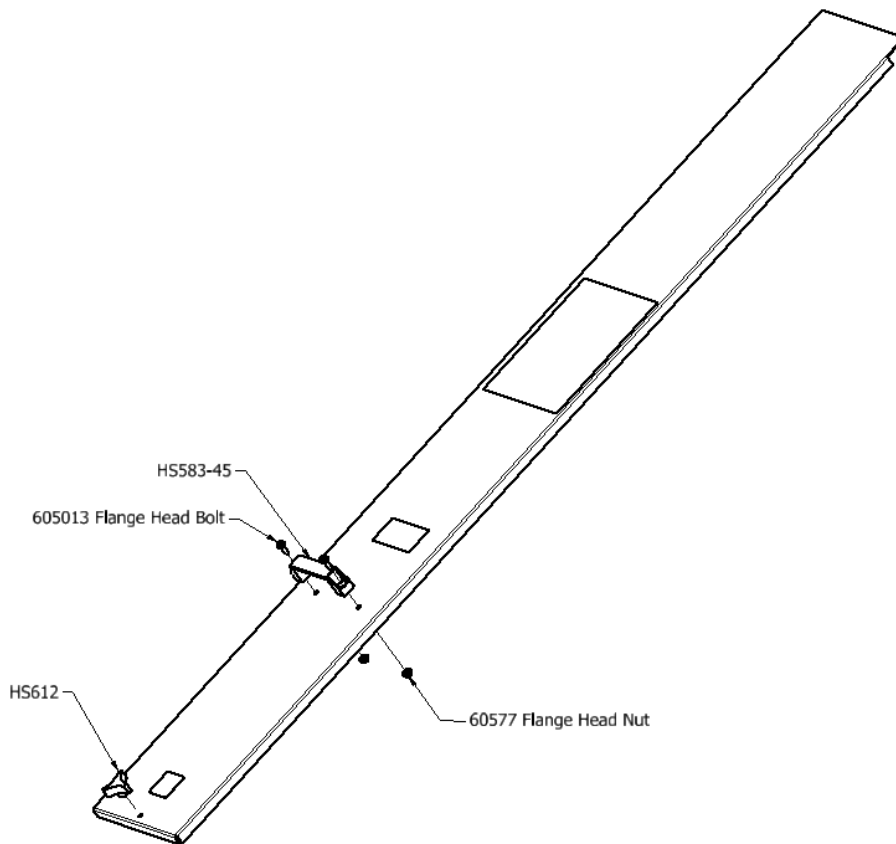
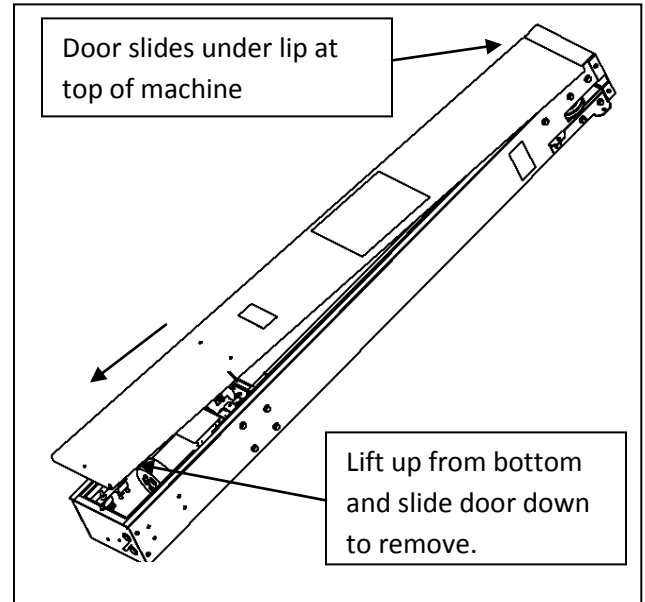
UNPACKING UNIT

Remove front cabinet door.

Packaged inside cabinet chassis:

1. HS583-50 Hardware Kit
 - a. Front cabinet door hardware
 - i. HS583-45 Handle
 - ii. (2) 605013 Flange head bolts
 - iii. (2) 60577 Flange nuts
 - iv. HS612 Tri-handle knob
 - b. Machine mounting hardware
 - i. (1) 3/8" x 3" Lag bolt
 - ii. (6) 3/8" x 2" lag bolts
 - iii. (2) 61646 liquid tight connectors
2. Installation manual

Assembly of Cabinet door with hardware supplied.



HS612 Tri-Handle Knob installs over threaded stud when cabinet door is placed on machine.

INSTALLATION / OPERATION

1. The HS583 Curtain/Vent machine is equipped with a key hole slot for easy installation as well as (6) locations to secure unit to a wall.
2. Install **(1) 3/8" X 3"** Lag bolt (supplied) in the wall of the building in the desired location leaving bolt out approximately 1/4". Lag bolt location to be center line of the machine and installed 6 1/4" below the height of the top of the machine. Allow a minimum of 1" clearance above machine from any structure in order to provide adequate clearance for hanging machine on keyhole lag bolt.
3. Hang machine on bolt aligning keyhole slot located near top of the machine. **(Figure 1)**

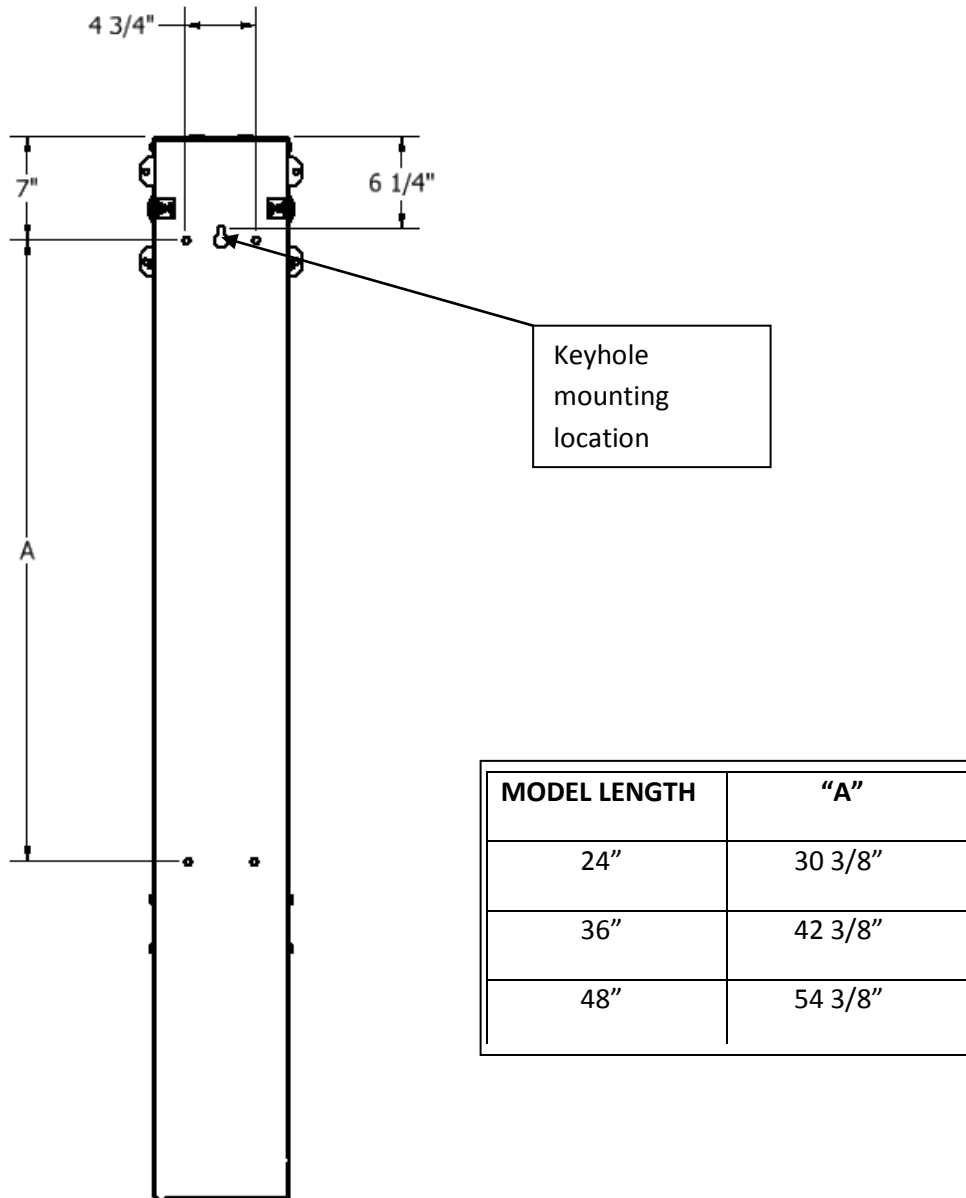


Figure 1

4. **DO NOT OPERATE MACHINE** while hanging on this bolt. Level machine and secure machine using **3/8" x 2"** Lag bolts (supplied) in the (6) mounting locations. **(Figure 2)**

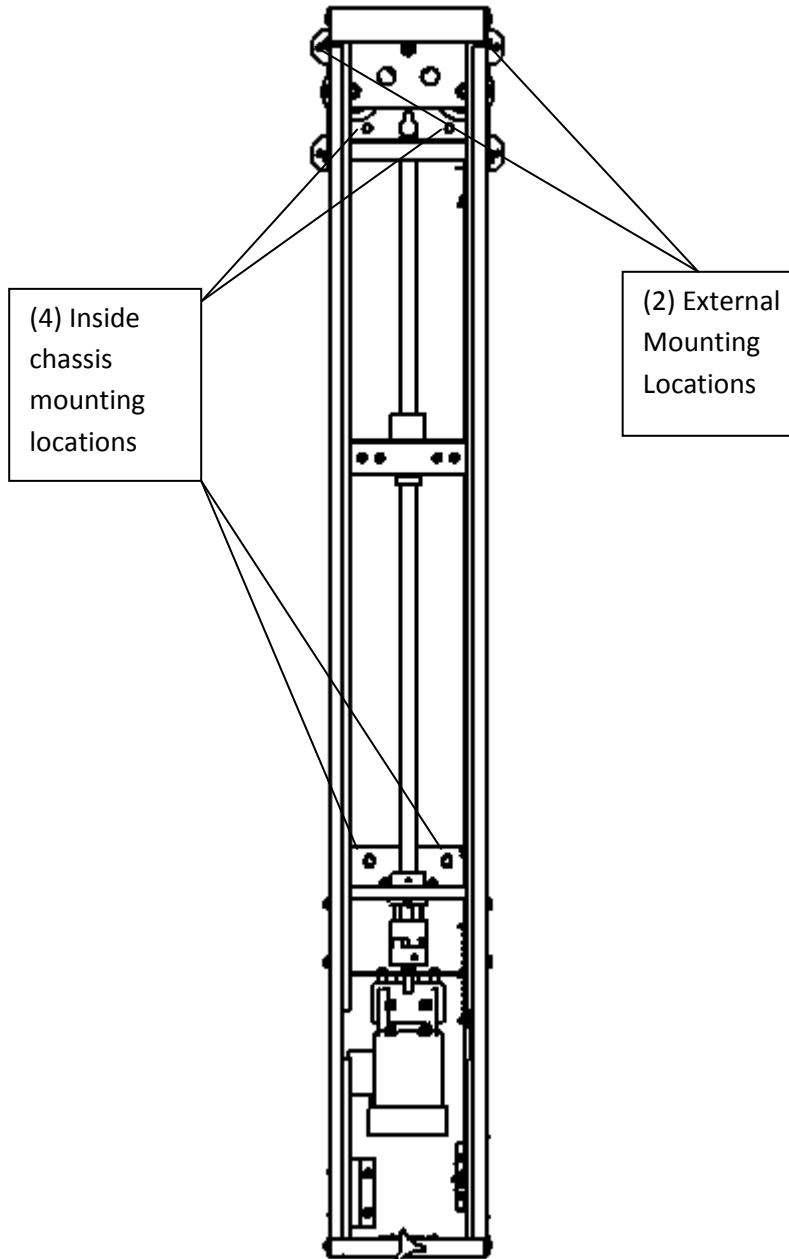


Figure 2

5. When connecting cables, the load nut should be near the “Closed” position to allow enough cable for manual winch connection.

6. Run cable ends through side of machine around pulley down to the load block. Route cables around pulleys as shown in below figures that best suits the application.
7. Cables should exit 90 Degrees to cabinet side to ensure even load on both sides of load block.
Changing the exit angle will change force distribution on load block resulting in shorter load nut life.

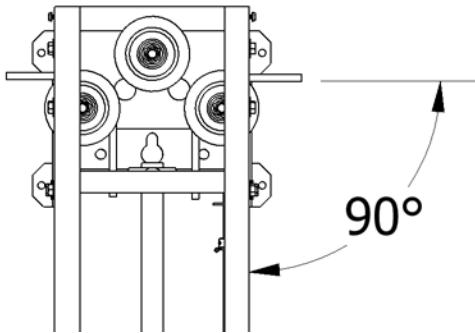


Figure 3

One machine used to pull two curtains from both sides, loop cable around pulleys.
(Figure 3)

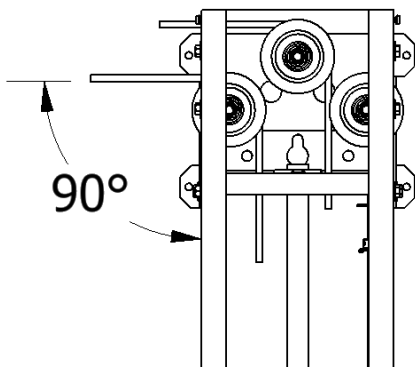


Figure 4

One machine used to pull curtain from **LEFT** side, loop cable around pulleys.
(Figure 4)

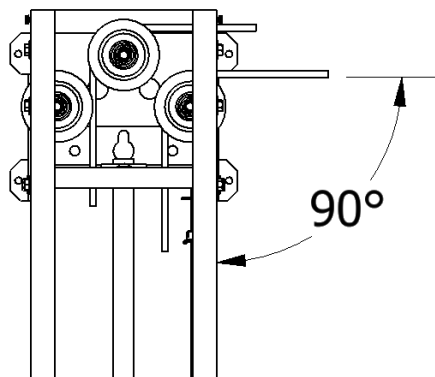
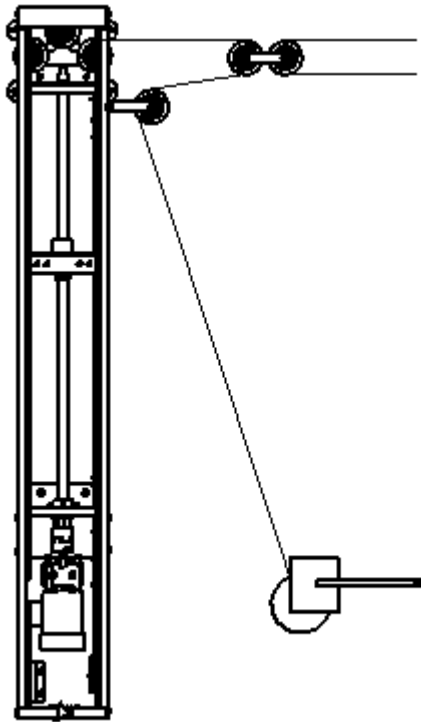


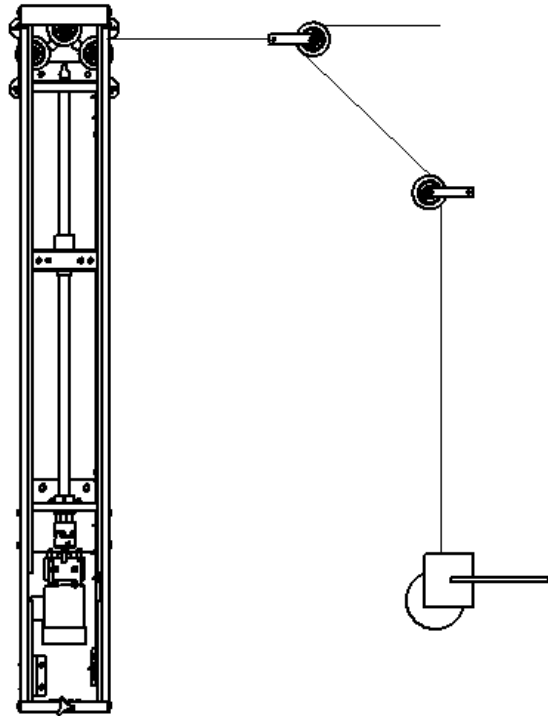
Figure 5

One machine used to pull curtain from **RIGHT** side, loop cable around pulleys.
(Figure 5)

- Install corner brackets, through wall brackets and hand winch. Use bearing supported pulleys on any pulley that rotates during operation of machine. Figures below show examples of external cabling and hand winch location.



Pulley arrangement for 1:1 ratio. For each 1 inch travel of the machine there is 1 inch travel of the curtain. **(Figure 6)**



Pulley arrangement for 1:2 ratio. For each 1 inch travel of the machine there is 2 inch travel of the curtain. **(Figure 7)**

Outside Endwall Mount – Curtains

1:2 Ratio

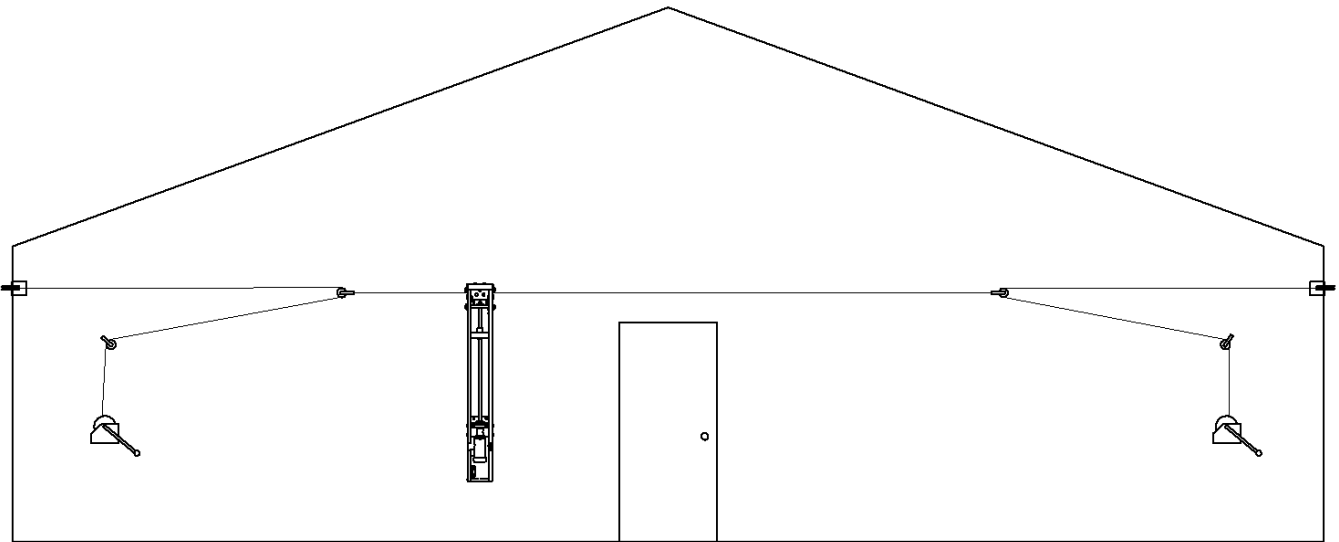


Figure 8

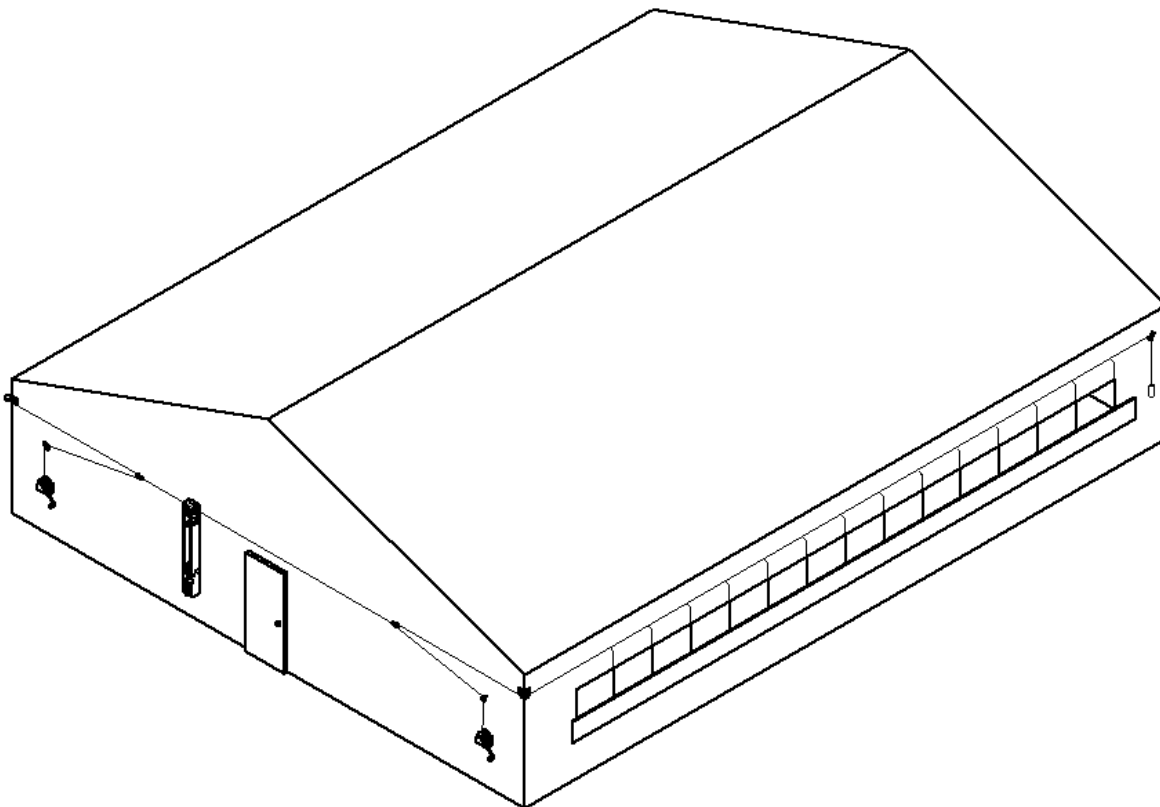


Figure 9

Outside Endwall Mount – Curtains

1:1 Ratio

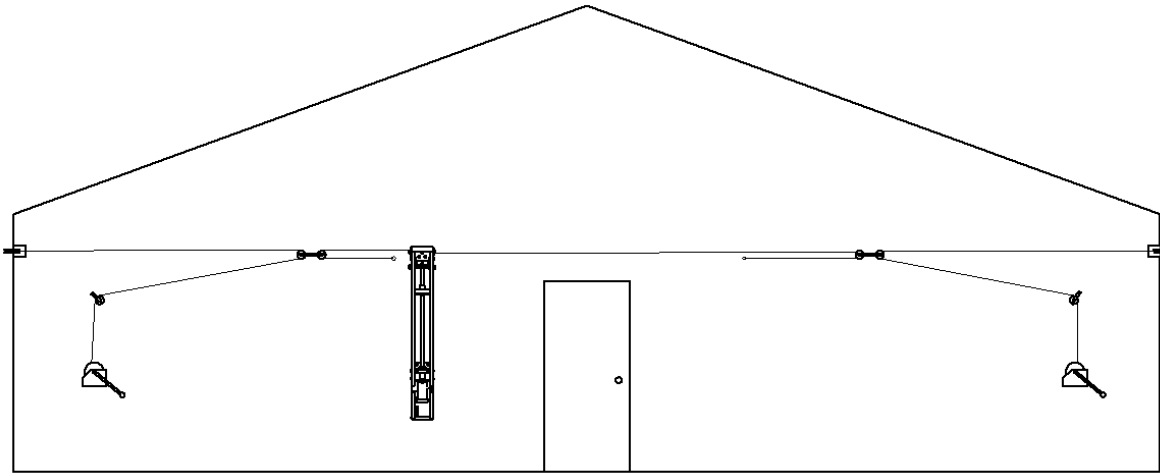


Figure 10

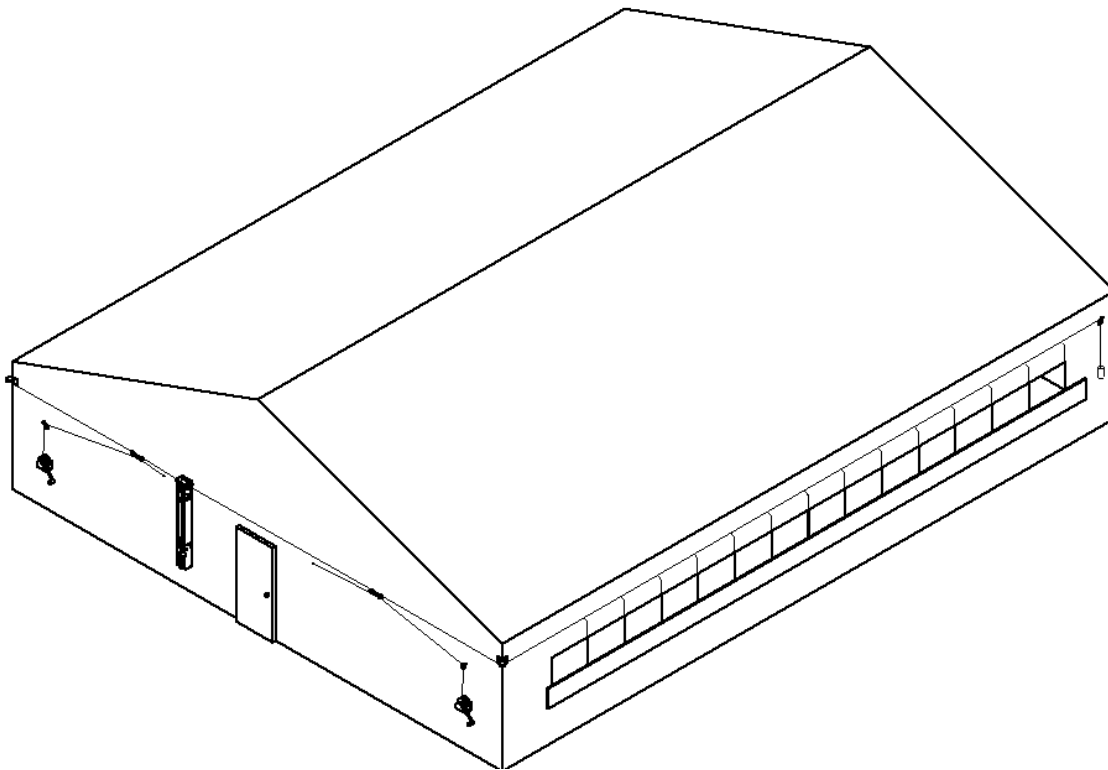


Figure 11

Outside of building, on one side, center mount - Curtains

1:2 Ratio

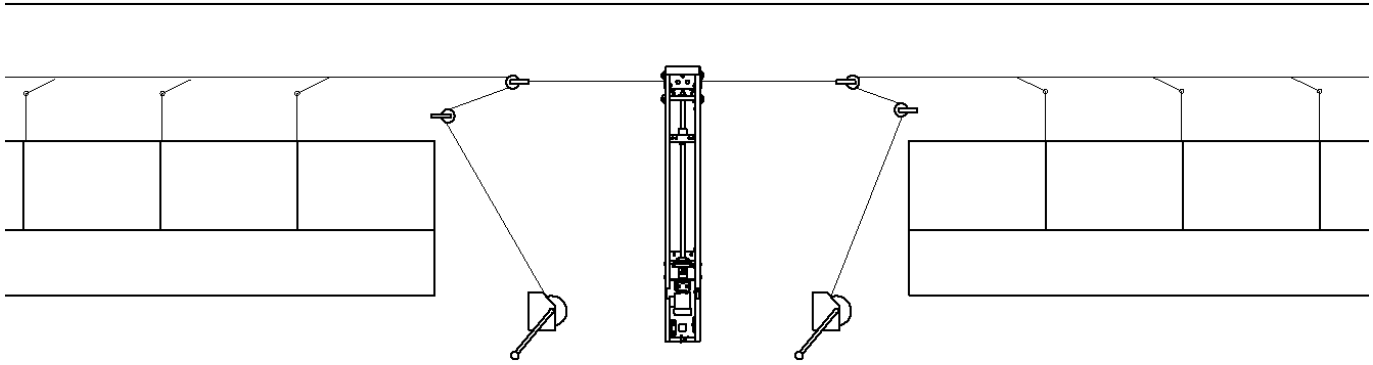


Figure 12

1:1 Ratio

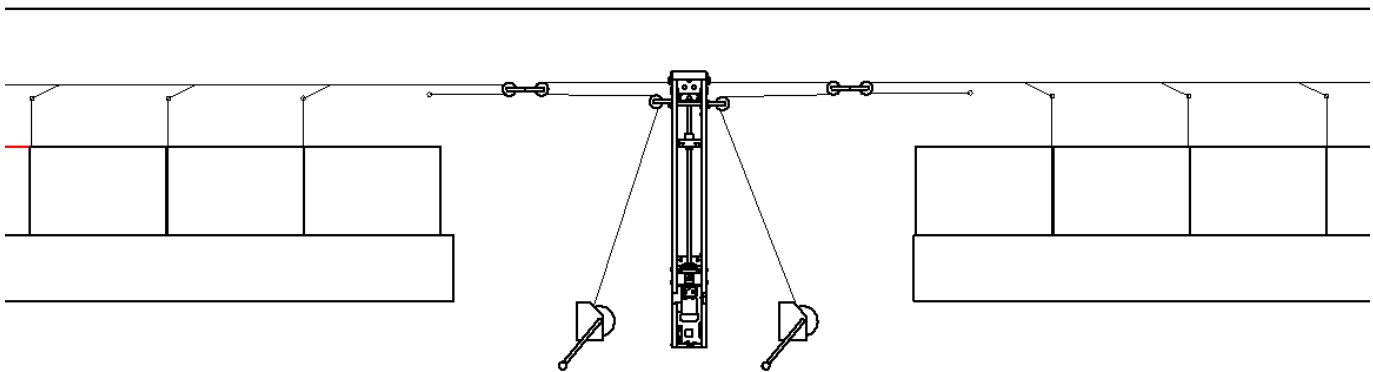


Figure 13

Inside Endwall Mount – Vent Doors

1:2 Ratio

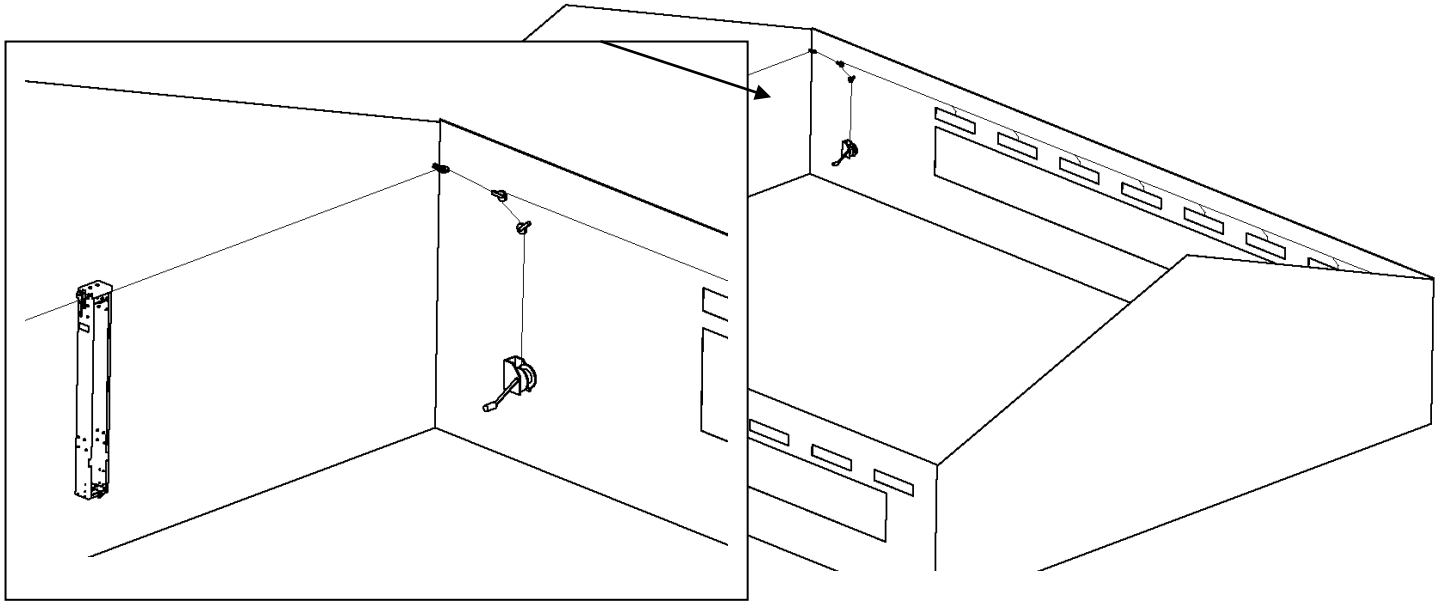


Figure 14

Inside Sidewall Mount – Vent Doors

1:1 Ratio

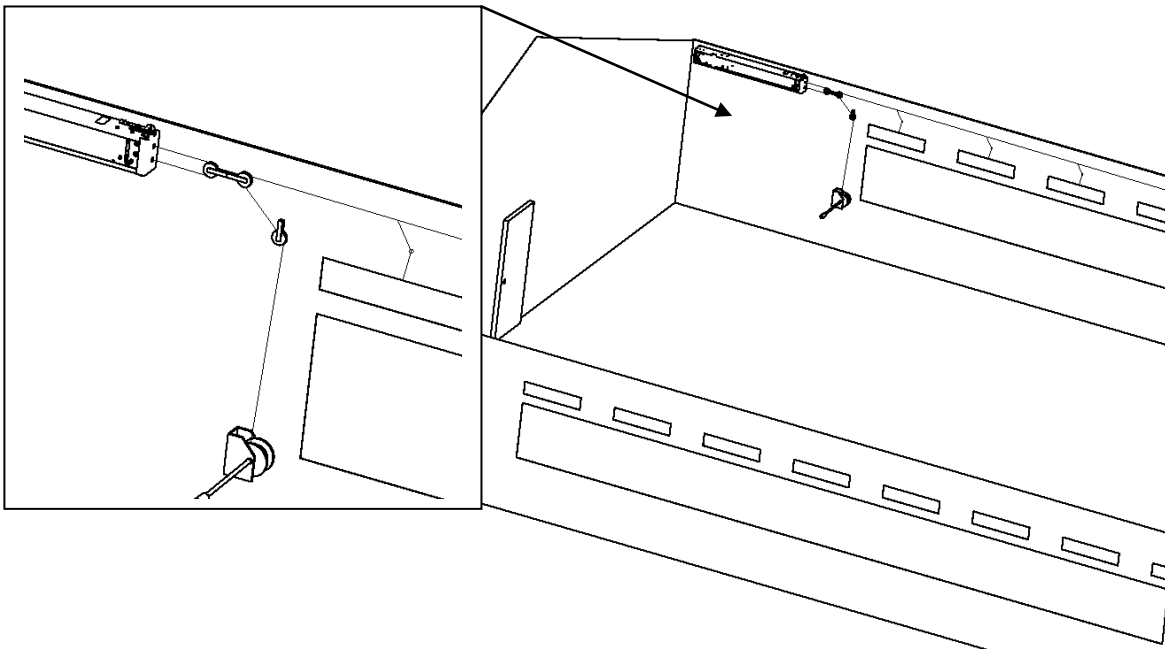


Figure 15

9. If mounting machine horizontally in order to pull cables straight from end of machine, remove (2) plastic plugs found at top of machine to access pre-punch holes for routing cables. Loop cable around bearing supported pulley to ensure even load distribution on load block. Use 3 ½" diameter V-groove pulley to maintain proper cable spacing. **(Figure 16)**

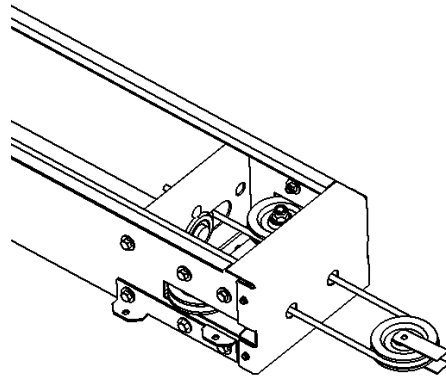


Figure 16

10. To secure cable to load block, run cable through hole nearest the center in load block, then loop back up through the outboard hole. Tighten all set-screws. **(Figure 17)**

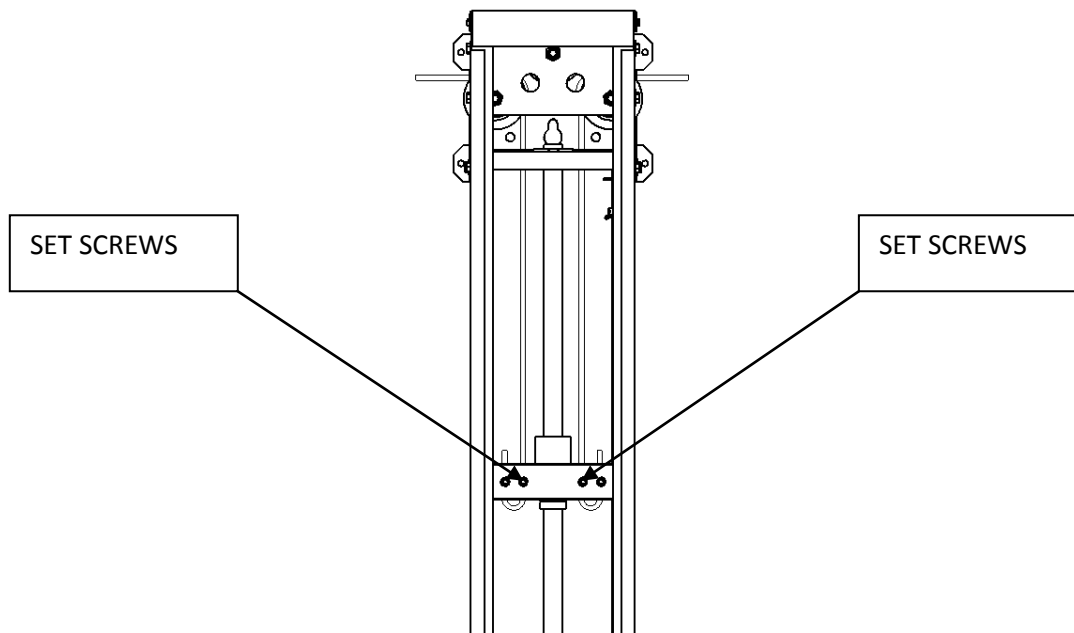


Figure 17

11. Connect wiring to machine per **(Figure 18A or 18B)** depending upon input voltage. All wiring must be done in accordance to national and local electrical codes.

HS583 WIRING DIAGRAM – 115V, 60 Hz

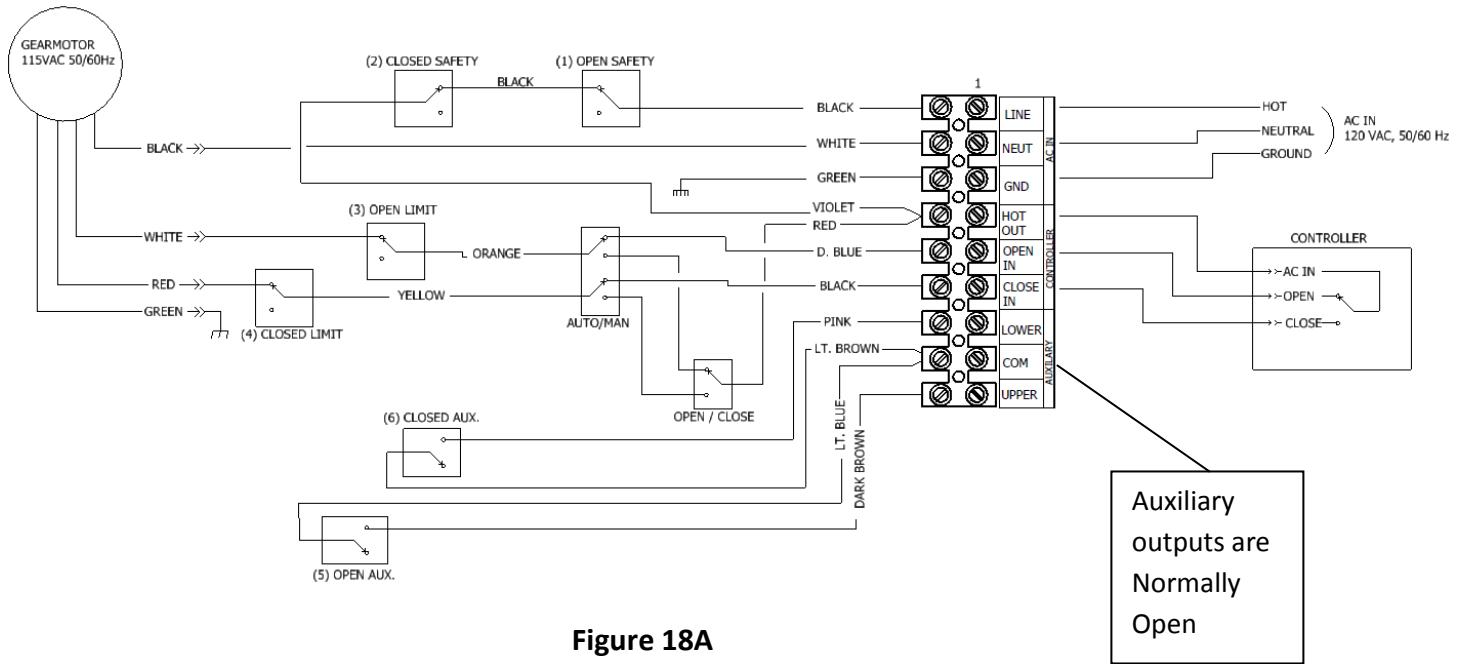


Figure 18A

HS583 WIRING DIAGRAM – 230V, 50/60 Hz

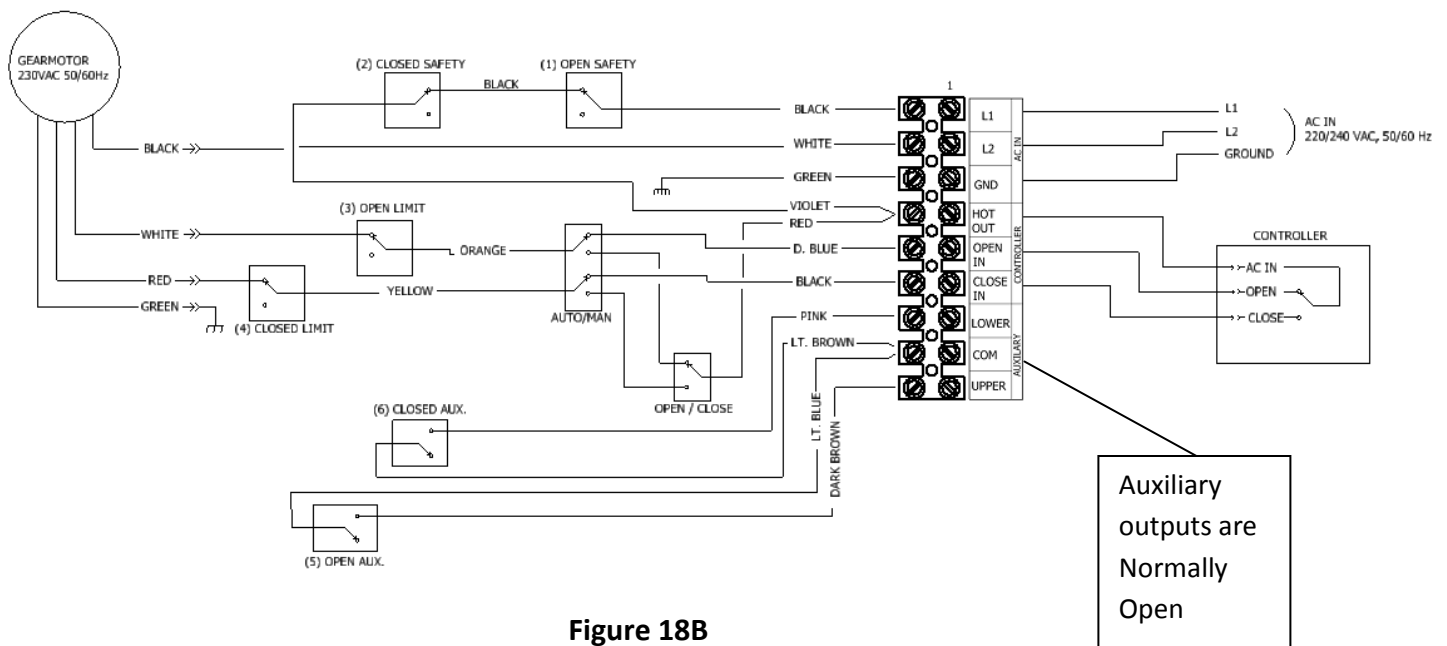
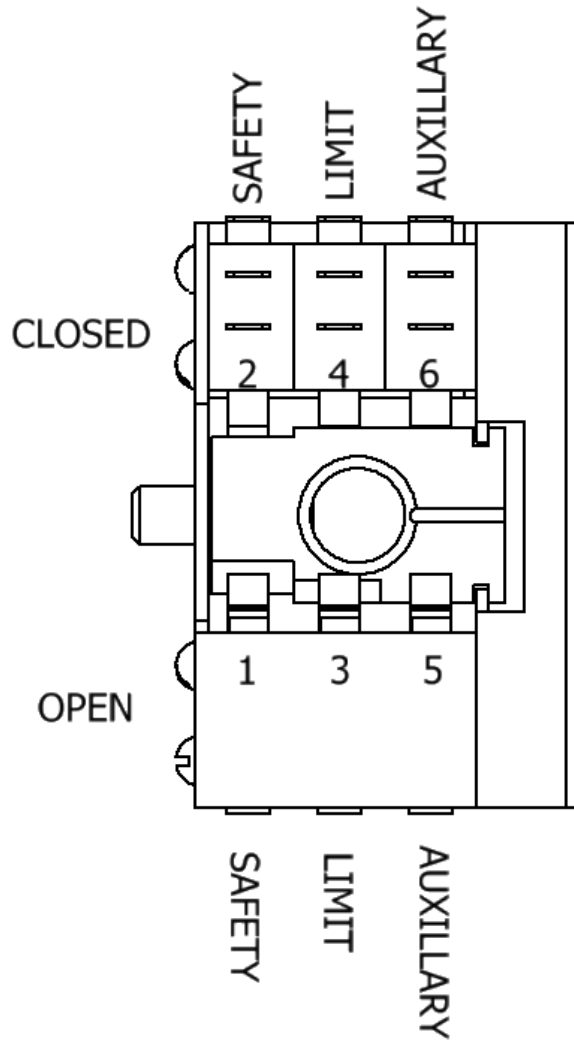


Figure 18B

LIMIT SWITCH ASSEMBLY, SWITCH LAYOUT



TOP VIEW OF SWITCH ASSEMBLY

Figure 19

OPERATION

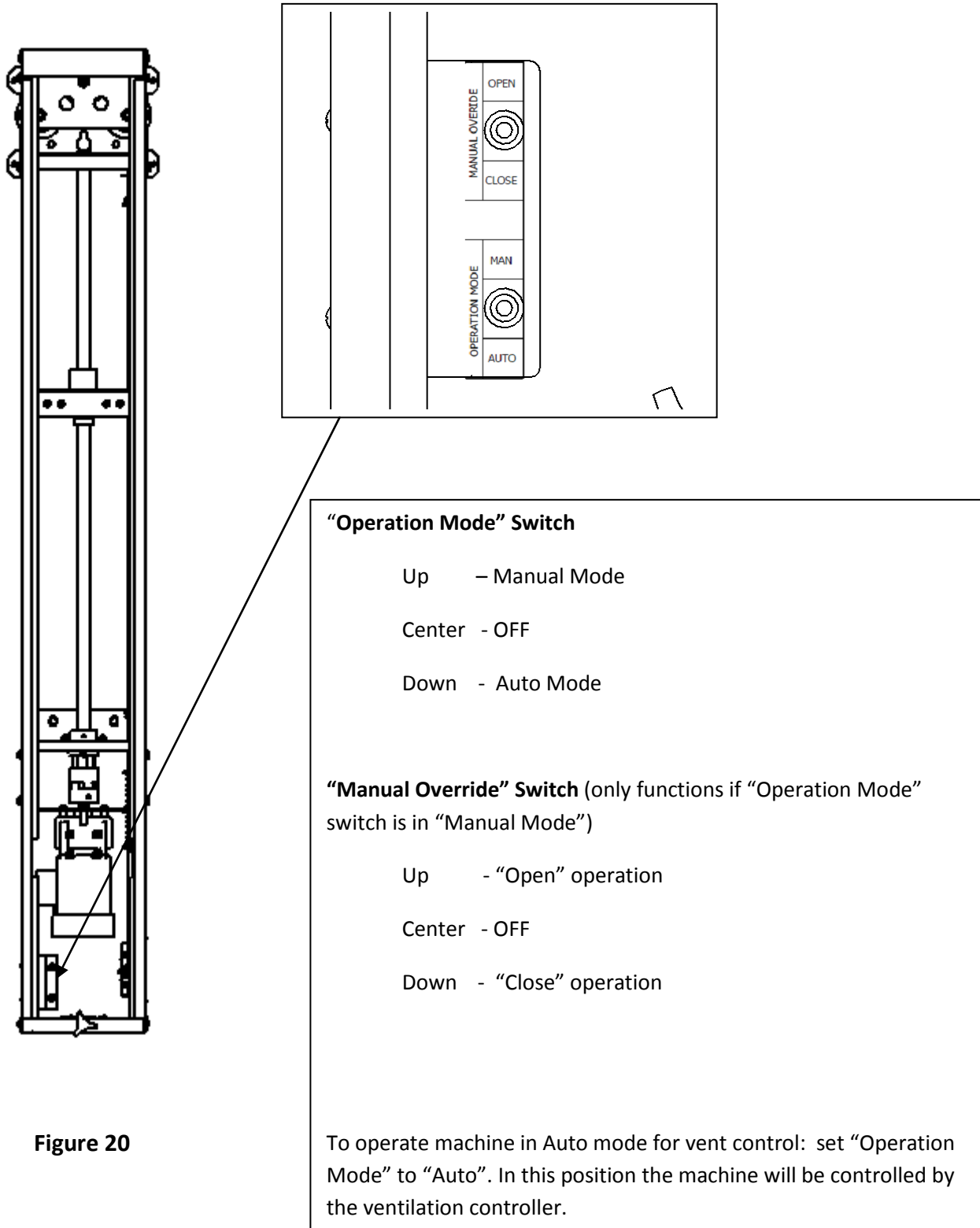


Figure 20

12. Controller set-up and limit rod adjustment is done by locating (2) lock collars located on limit rod. There is an upper and lower lock collar secured by 3/32" set screw. There are cotter pins permanently installed to set absolute limit of machine in case of slippage or failure of lock collars.
13. To set-up machine, place in manual mode and run machine in "Close" operation until stops. Take up any slack with manual winch. Factory setting of lower lock collar set point should be sufficient; however adjustments to the stopped position of the fully closed position can be made.
14. Next loosen upper limit lock collar. Operate machine in manual mode in the "OPEN" operation. When curtain reaches desired opening, stop the machine by switching manual override switch to center (OFF) position. Operate machine in "CLOSED" direction for approximately 1" of travel then stop. Slide the upper limit lock collar down to the top of the load block and tighten set screw.

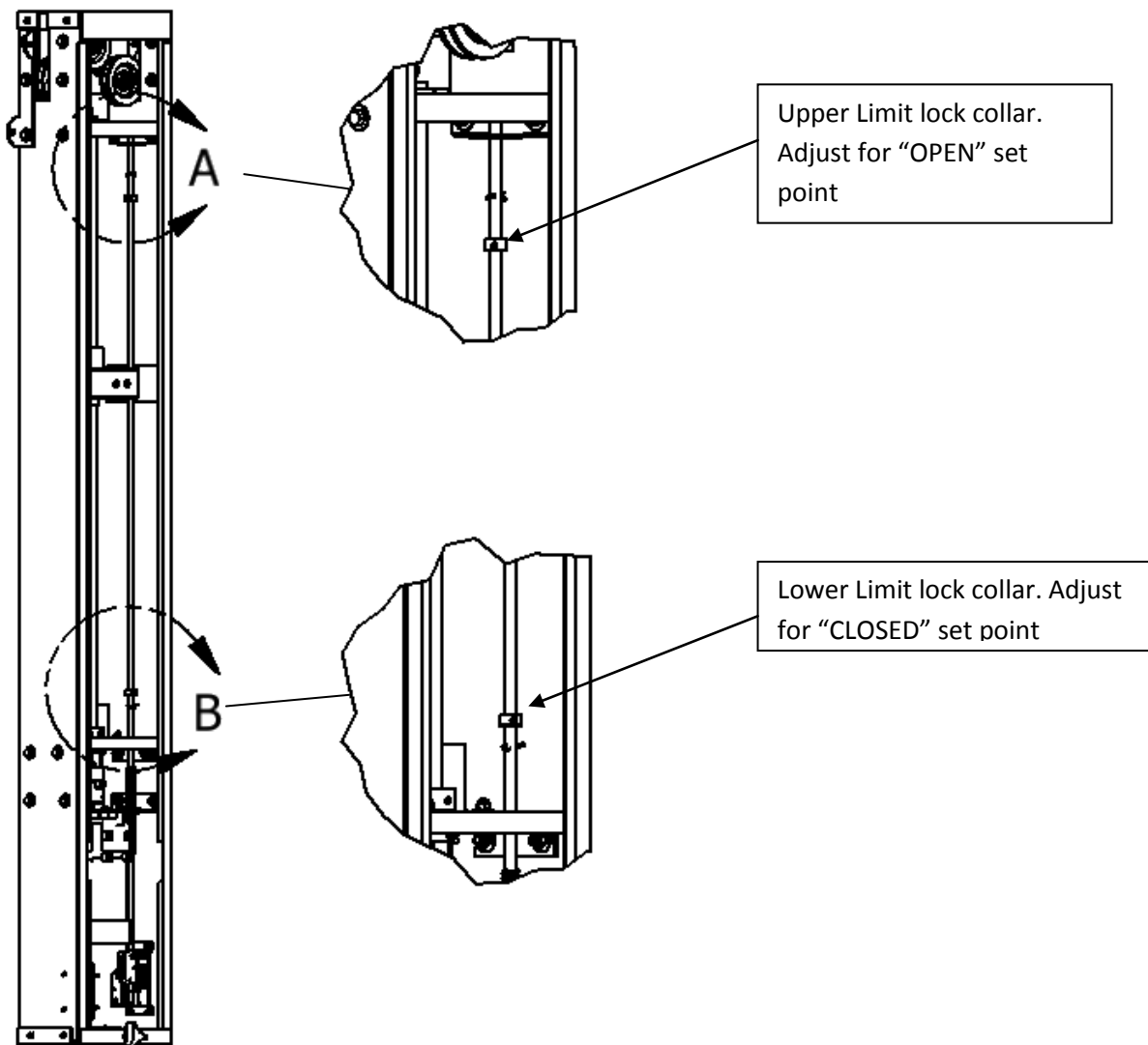


Figure 21

MAINTENANCE AND REPAIR

Always turn off machine and lock-out power before beginning any maintenance or repair.

Inspect machine monthly and all other external components such as cable, pulleys, clamps etc..

Inspect and clean drive screw for any foreign debris lodged in the threads. Lubricate drive screw monthly using Lithium NLGI GRADE 2 grease along length of screw (**Figure 22**)

Inspect and lubricate thrust bearing every three (3) months with Lithium NLGI GRADE 2 grease.

Inspect lock collars, upper flange bearing and motor/drive screw jaw coupling set screws to ensure they are tight.

Using local “manual” controls, run machine in both directions to ensure limit switch function and cabling operation.

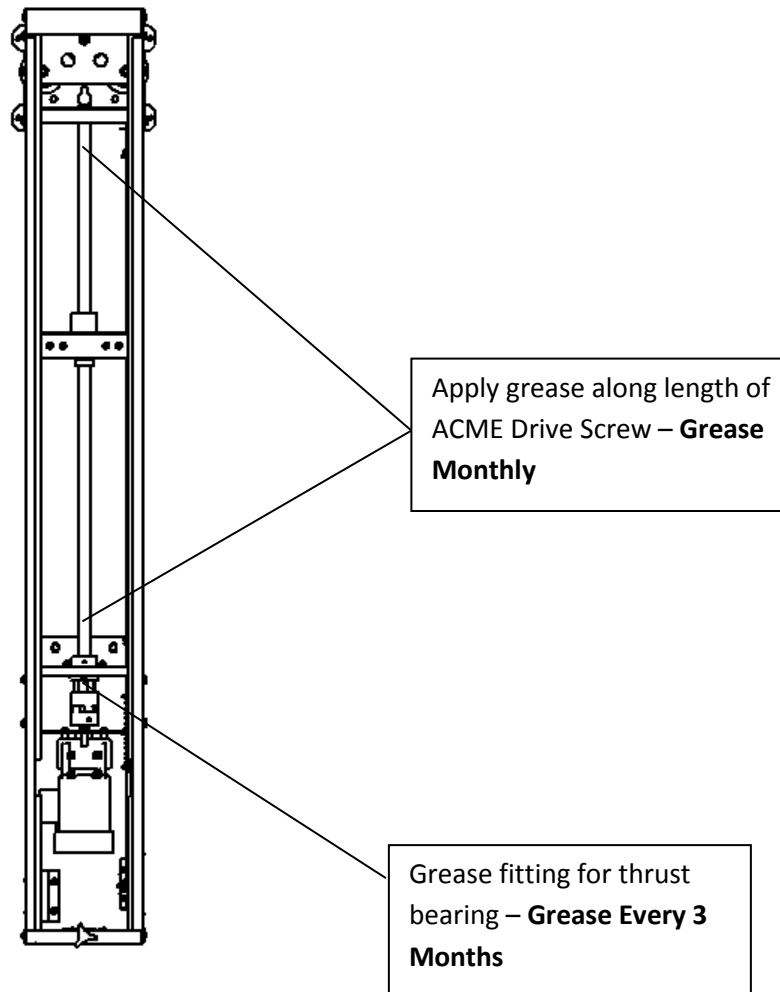


Figure 22



Notes





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Hog Slat Limited Warranty

Hog Slat warrants products to be free from defects in material or workmanship for a period of twenty-four (24) months from the date of **original purchase**. Hog Slat will credit, repair, or replace, at its option any product deemed defective within this time period. Labor costs associated with the replacement or repair of the product are not covered by the Seller/Manufacturer.

Conditions and Limitations

1. The product must be installed by and operated in accordance with the instructions published by the **Seller/Manufacturer or Warranty will be void.**
2. Warranty is void if **all components** are not original equipment supplied by the **Seller/Manufacturer.**
3. This product must be purchased from and installed by an authorized retailer/distributor or certified representative thereof or the Warranty will be void.
4. Malfunctions or failure resulting from misuse, abuse, negligence, alteration, accident, or lack of proper maintenance shall not be considered defects under the Warranty.
5. This Warranty applies only to components/systems for the care of poultry and livestock. Other applications in industry or commerce are not covered by this Warranty.
6. This Warranty applies only to the Original Purchaser of the product.

The **Seller/Manufacturer** shall not be liable for any **Consequential or Special Damage** which any purchaser may suffer or claim to suffer as a result of any defect in the product. **“Consequential” or “Special Damages” as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.**

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This equipment must be installed in accordance with all State and Local Codes and applicable Regulations which should be followed in all cases. Authorities having jurisdiction should be consulted before installations are made.



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