



HS583 Sprocket Models- 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:

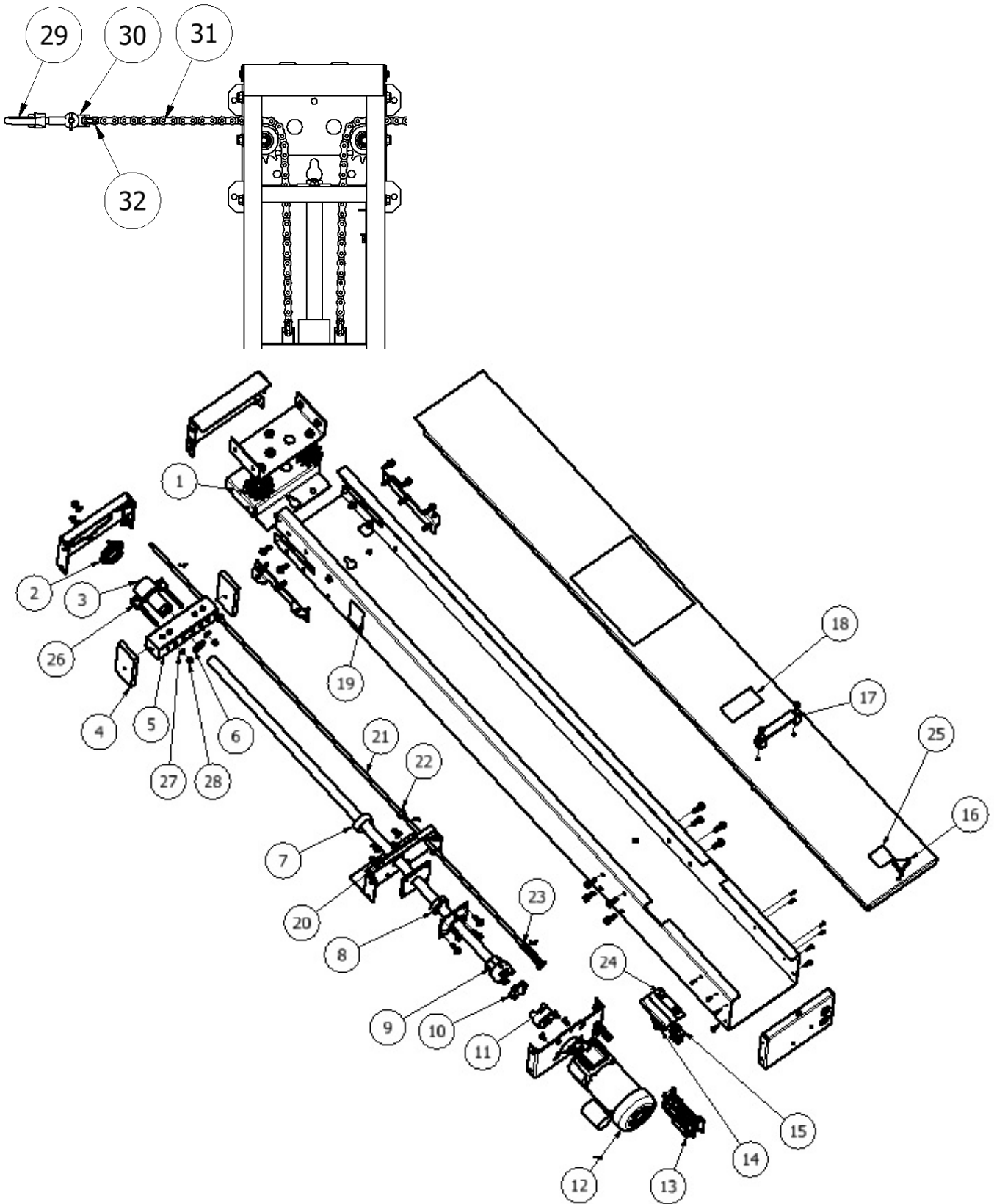
Read all safety messages in this manual and on equipment safety decals. Follow recommended precautions and safe operating practices.

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	HS583-44	2	Sprocket, 13 Tooth #50, W/ Sealed 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 ¼" 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
26	HS583-8-5	2	Bolt Adapter #50 Chain Curtain Machine
27	60580	2	Washer Flat Ss 5/16"
28	60681	2	Nut Lock 5/16"
29	HS583-55	2	Swivel 3/8" Eye/Jaw Galv
30	HS583-8-6	2	Adapter #50 Chain
31	HS583-70	1	(2) 36" #50 Roller Chain for 24" machine
	HS583-80	1	(2) 48" #50 Roller Chain for 36" machine
	HS583-90	1	(2) 60" #50 Roller Chain for 48" machine
32	EL50RC	4	Master link, #50 chain

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 9 and 10

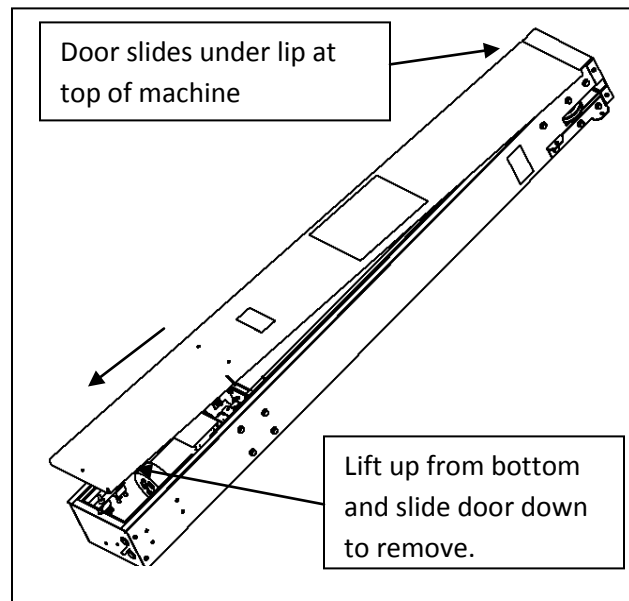
RPM	2:1 pulley ratio	1:1 pulley ratio	1:2 pulley ratio
15 & 28	4,000 lbs	2,000 lbs	1,000 lbs
60	2,000 lbs	1,000 lbs	500 lbs

UNPACKING UNIT

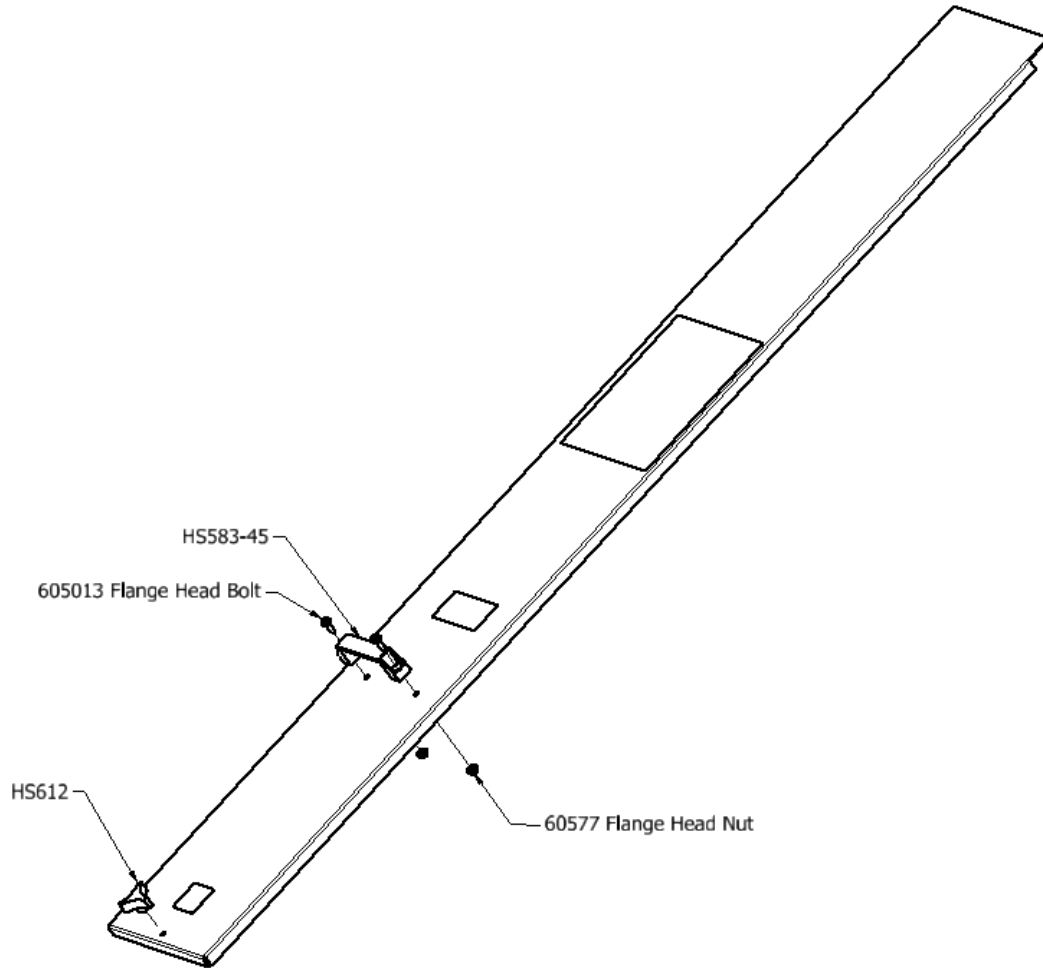
Remove front cabinet door.

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. HS583-60 Hardware Kit
 - a. (2) HS583-55 Swivel 3/8" Eye/Jaw
 - b. (2) HS583-8-6 Adapter #50 Chain
 - c. (4) EL50RC Connecting Link #50 Chain
3. (2) Chain sections based on machine length
 - a. 24" Machine – HS583-70
 - b. 36" Machine - HS583-80
 - c. 48" Machine - HS583-90
4. 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)**

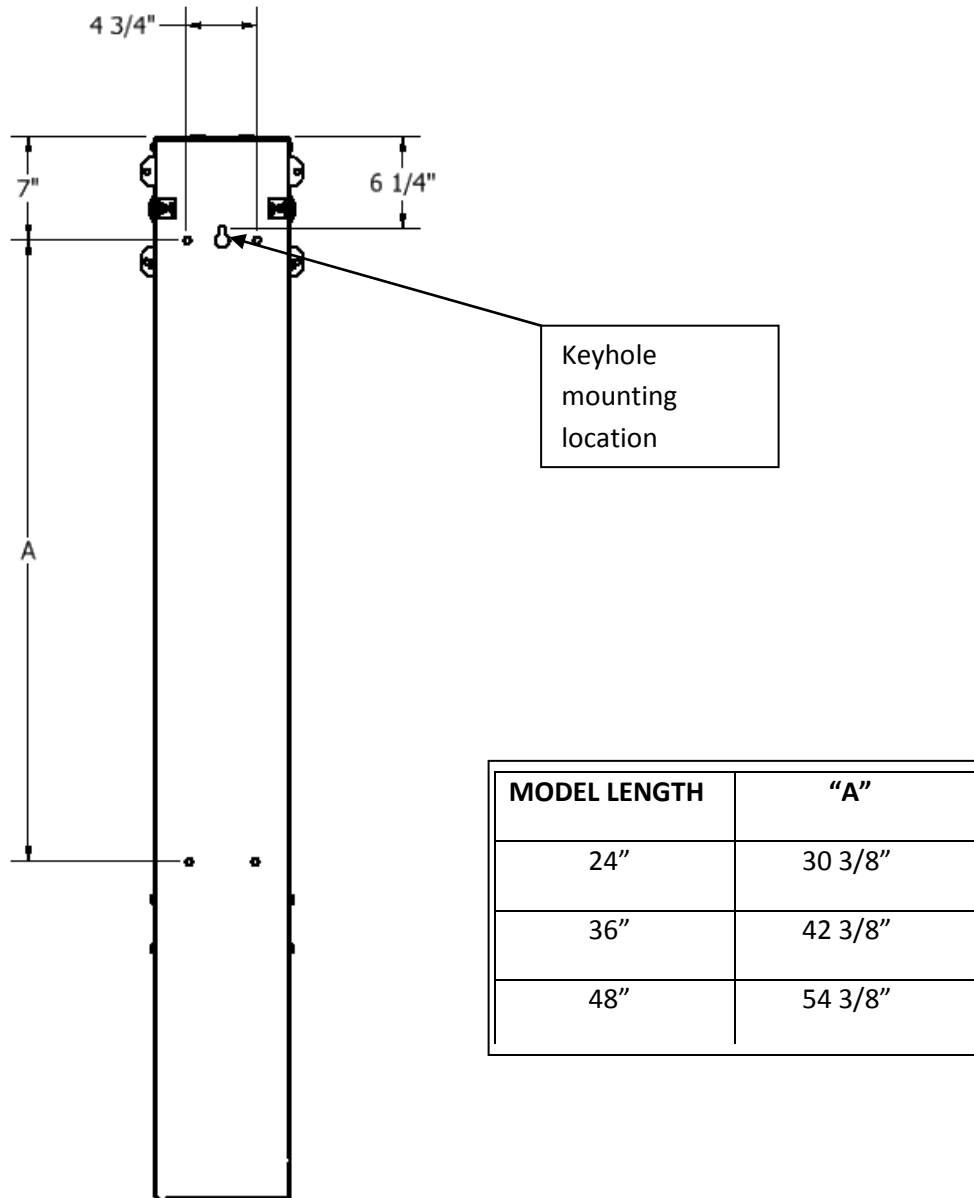


Figure 1

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)**

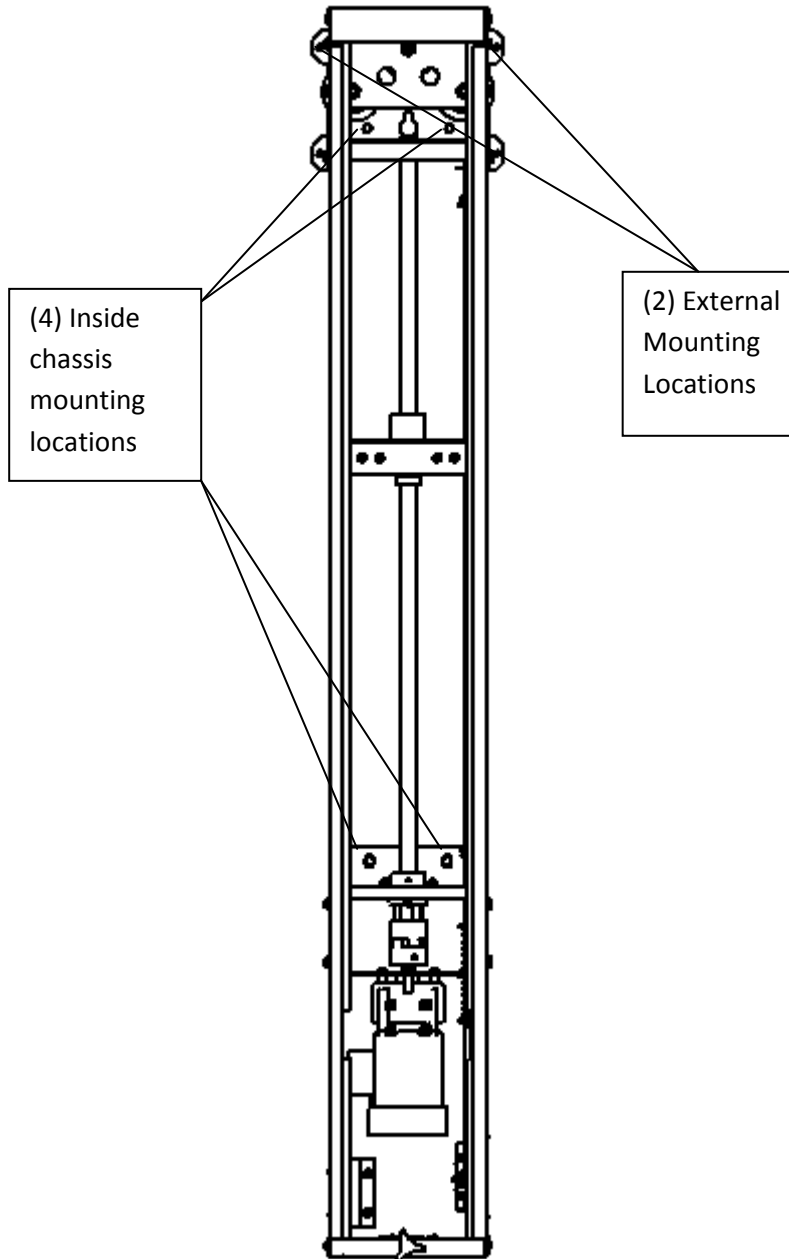


Figure 2

5. When connecting chains, the load nut should be near the “Closed” position to allow enough chain/cable for manual winch connection.
6. Run chain ends through side of machine around sprocket down to the load block. Route chains around sprockets as shown in below figures that best suits the application.

7. Chains 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.

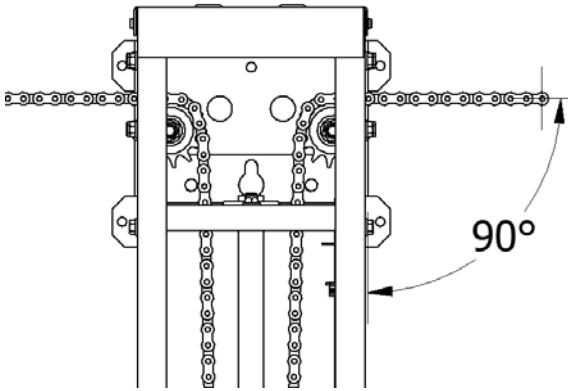


Figure 3

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

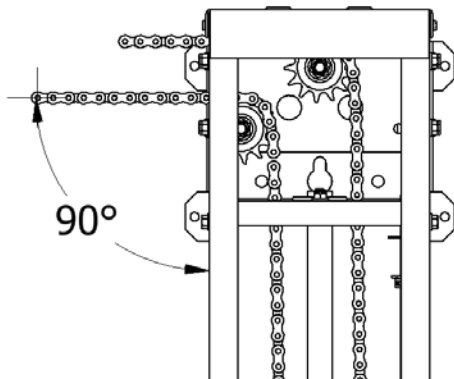


Figure 4

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

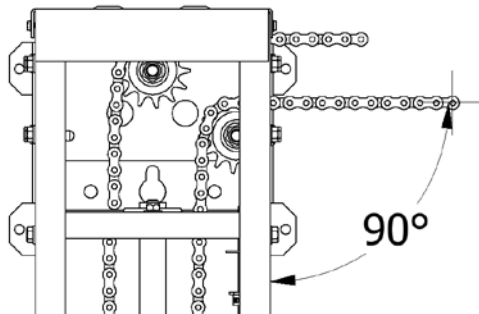


Figure 5

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

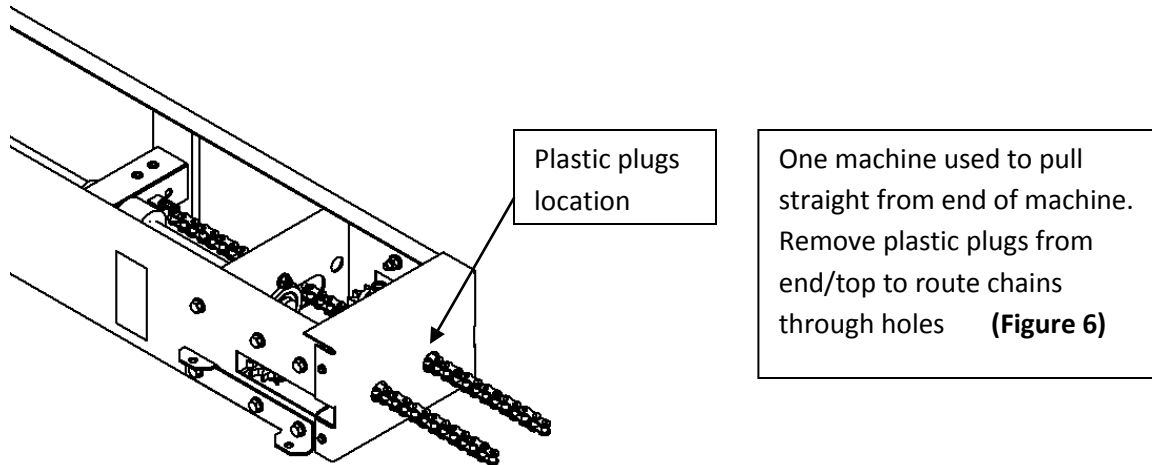


Figure 6

8. Once chains are fed through the top of the machine, run each chain down to load block and connect to chain adapter using master links supplied. **Figure 7.**

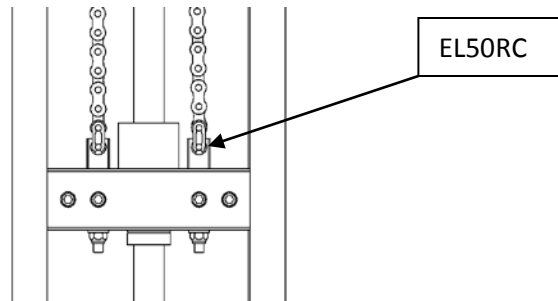


Figure 7

9. Attach chain adapter to end of chain and connect chain adapter to swivel. **Figure 8.**

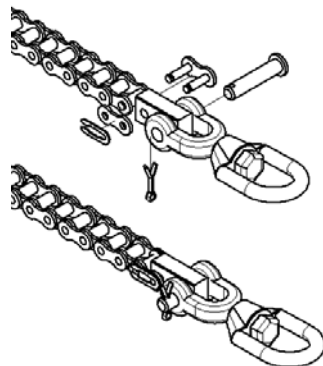
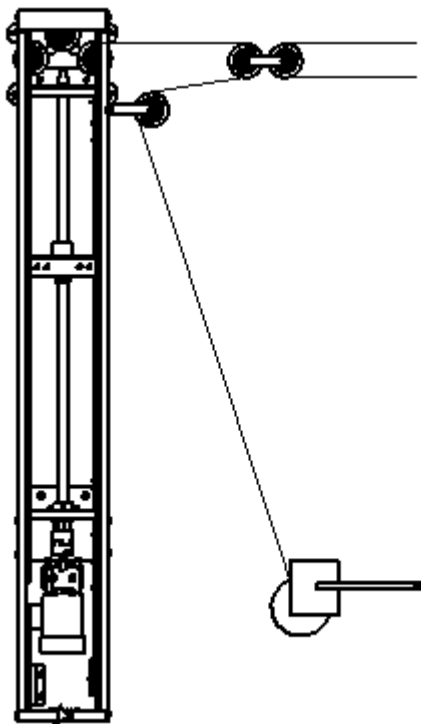


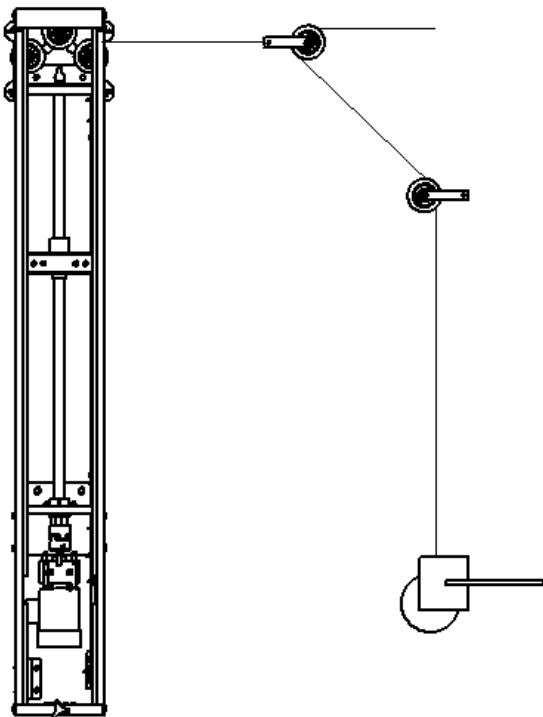
Figure 8

10. Route cable through end of swivel forming a loop. Secure end of loop with min. of (3) cable clamps.
11. Install sprockets, corner brackets, through wall brackets and hand winch. Use bearing supported sprockets/pulleys on any that rotates during operation of machine. Figures below show examples of external cabling and hand winch location.

Ratio Configurations



Pulley arrangement for 1:1 ratio. For each 1 inch travel of the machine there is 1 inch travel of the curtain. **(Figure 9)**



Pulley arrangement for 1:2 ratio. For each 1 inch travel of the machine there is 2 inch travel of the curtain. **(Figure 10)**

Mounting Configurations

Outside End wall Mount – Curtains

1:2 Ratio

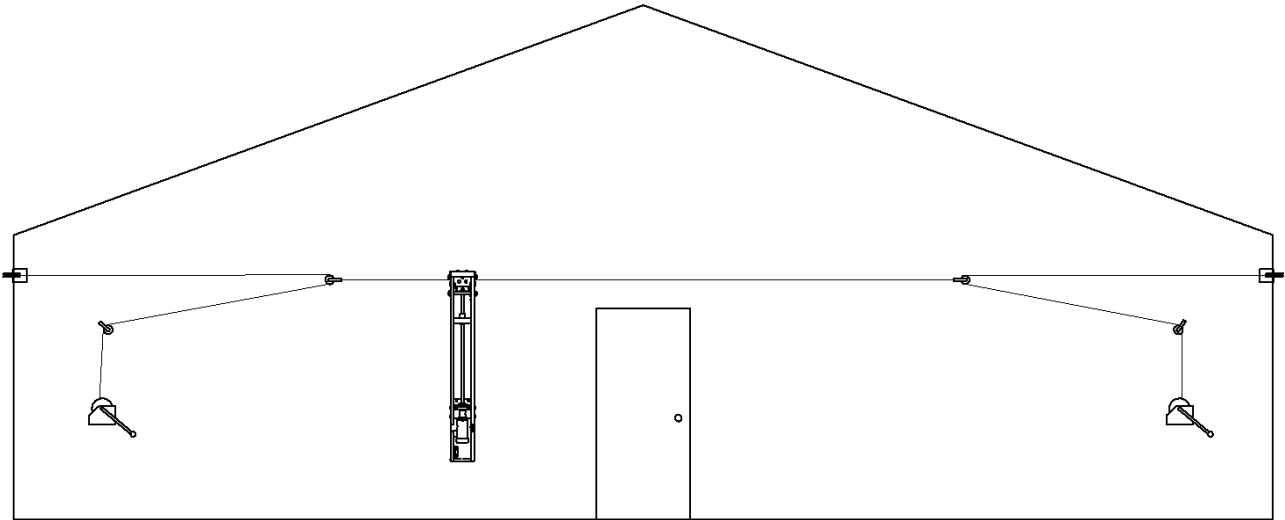


Figure 11

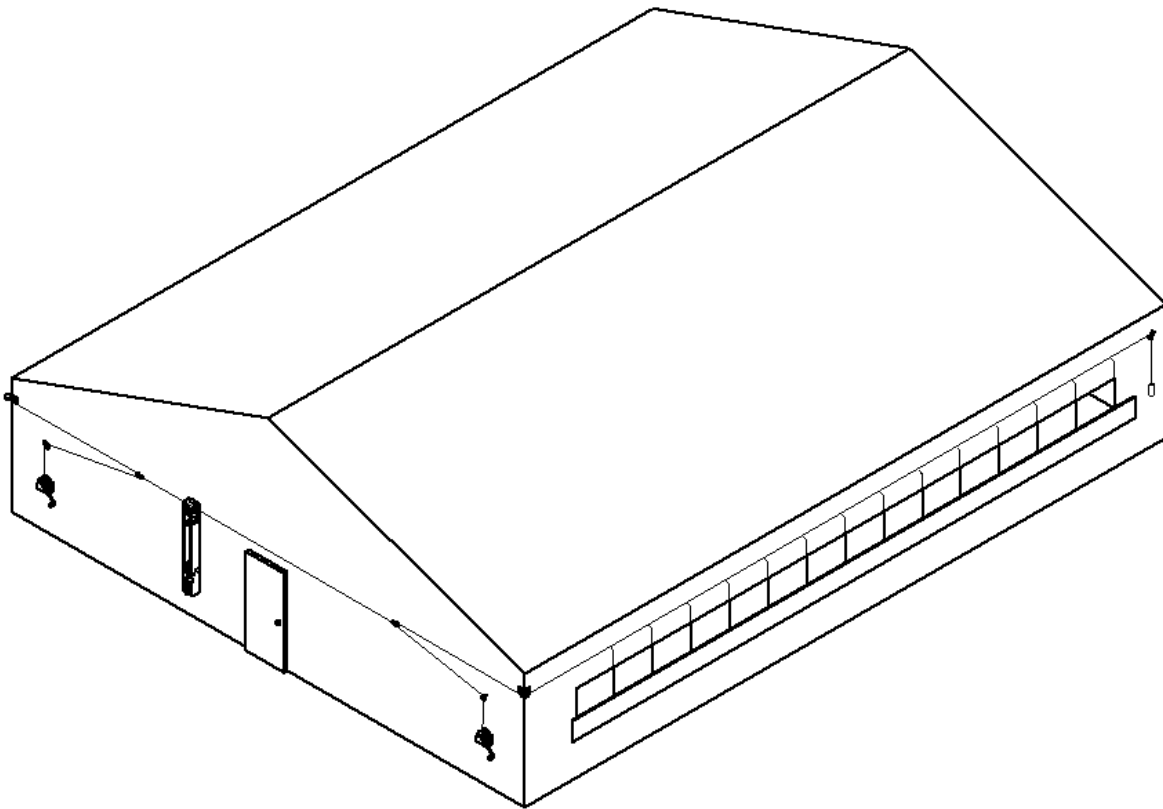


Figure 12

Outside Endwall Mount – Curtains

1:1 Ratio

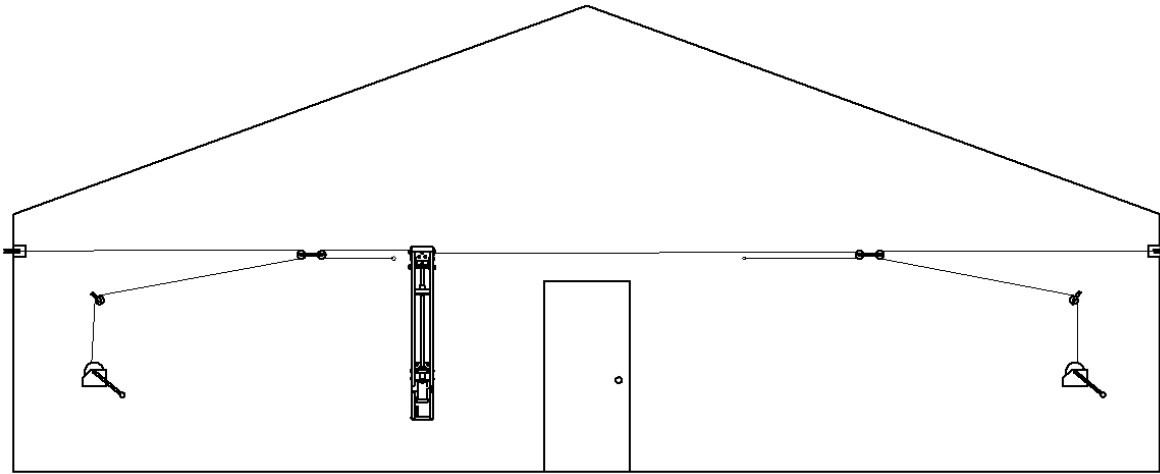


Figure 13

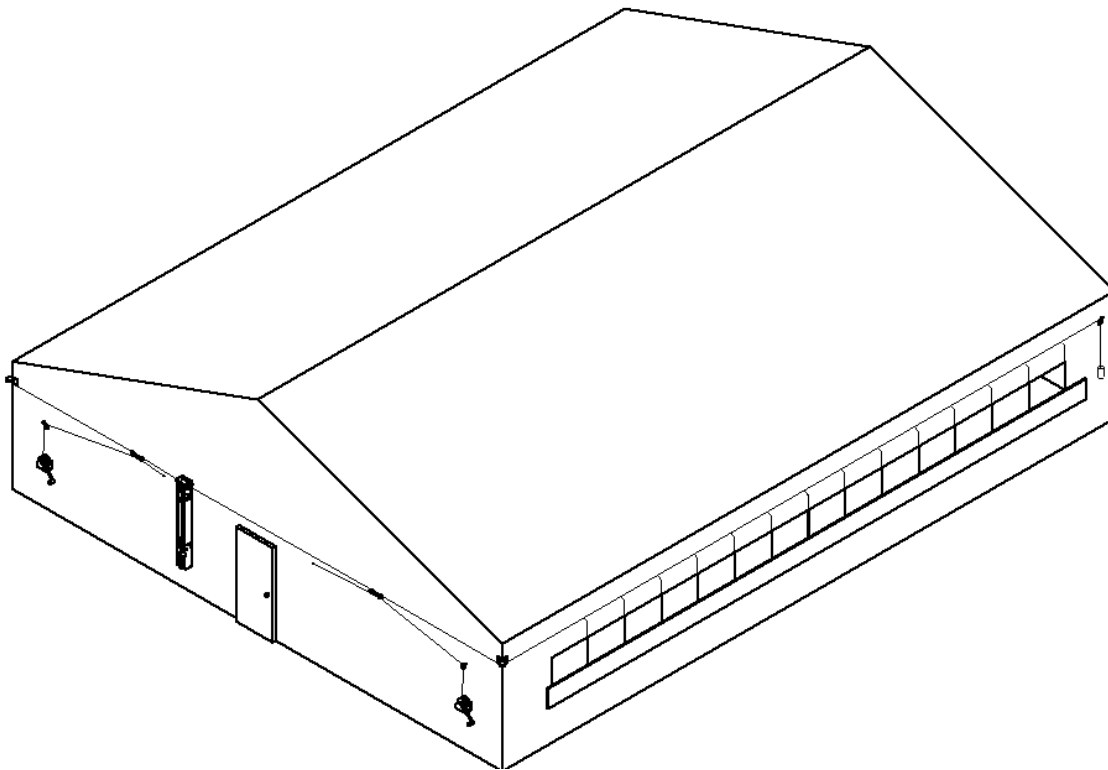


Figure 14

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

1:2 Ratio

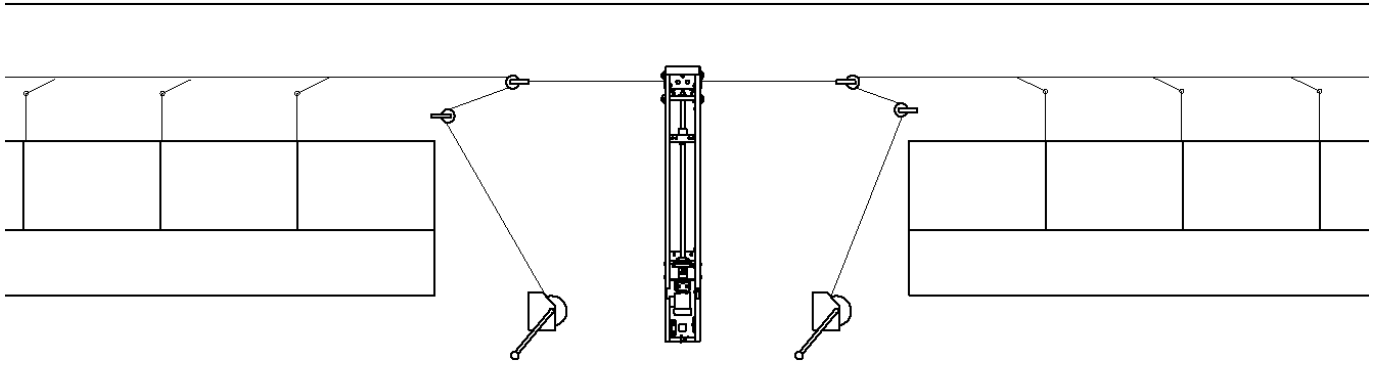


Figure 15

1:1 Ratio

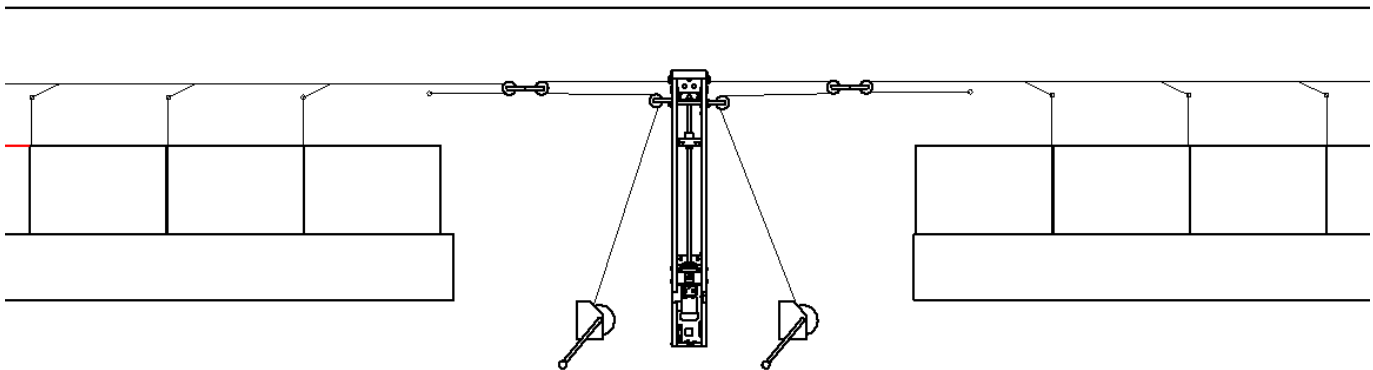


Figure 16

Inside Endwall Mount – Vent Doors

1:2 Ratio

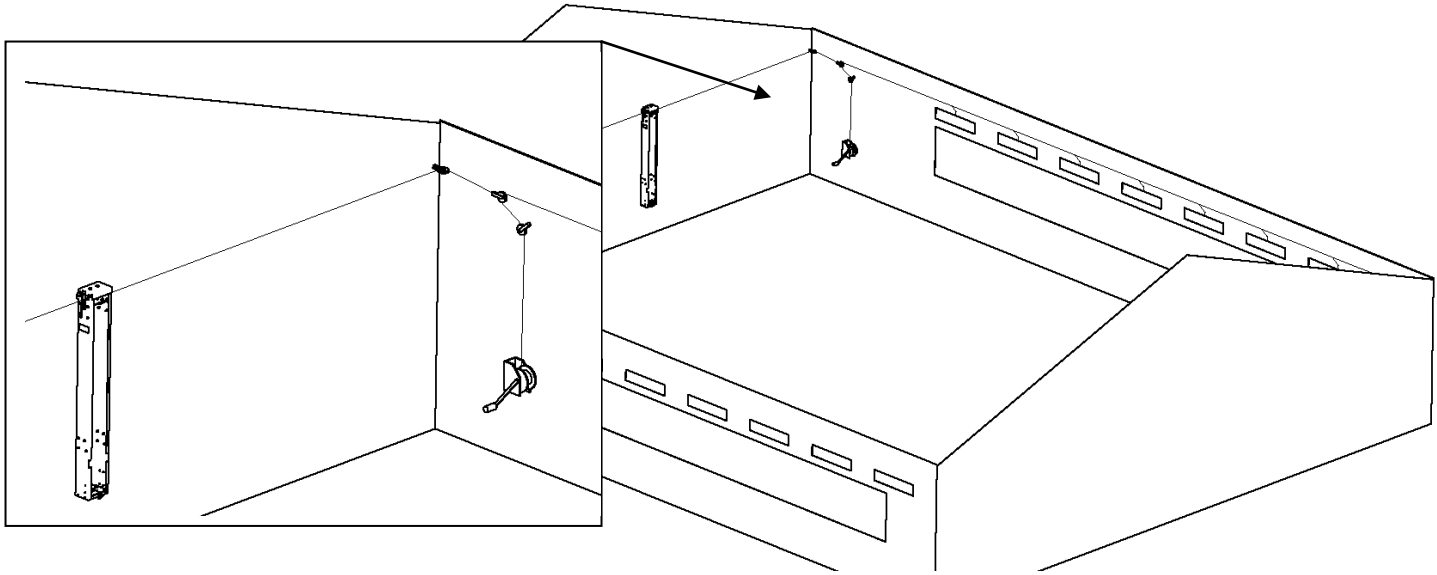


Figure 17

Inside Sidewall Mount – Vent Doors

1:1 Ratio

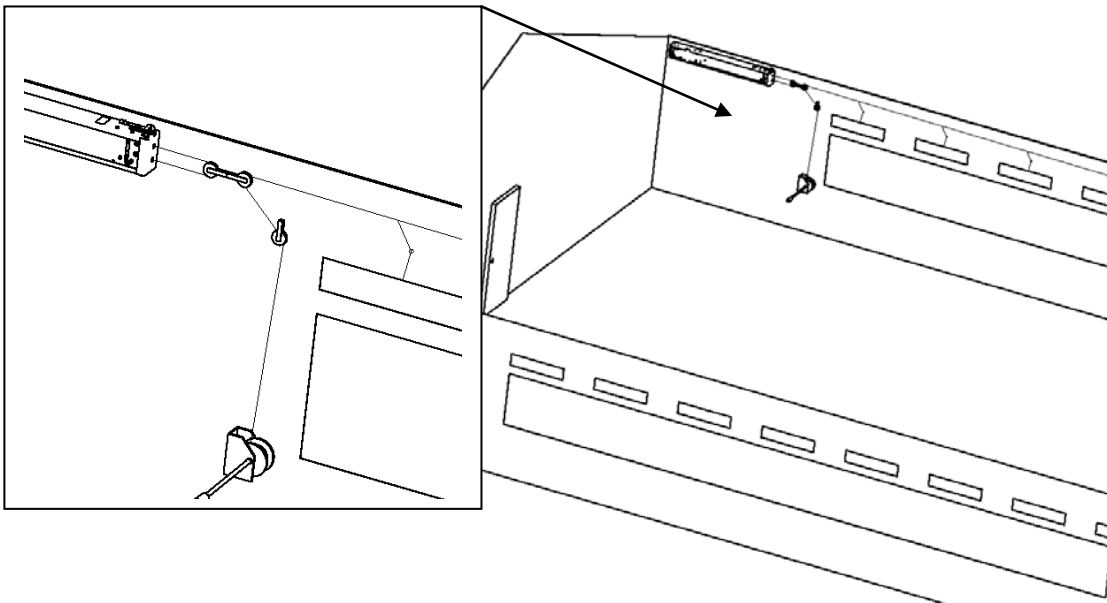


Figure 18

12. Connect wiring to machine per **(Figure 19A or 19B)** depending upon input voltage. All wiring must be done in accordance to national and local electrical codes.

HS583 WIRING DIAGRAM – 115V, 60 Hz

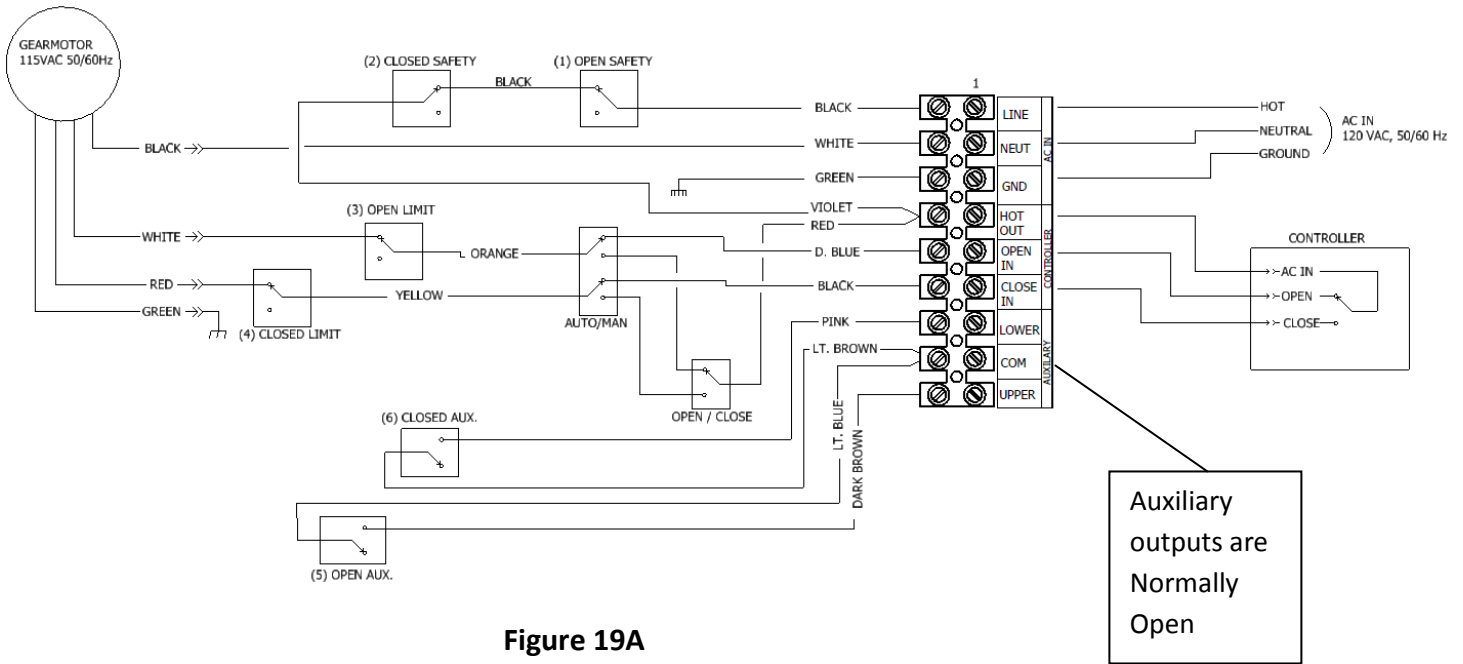


Figure 19A

HS583 WIRING DIAGRAM – 230V, 50/60 Hz

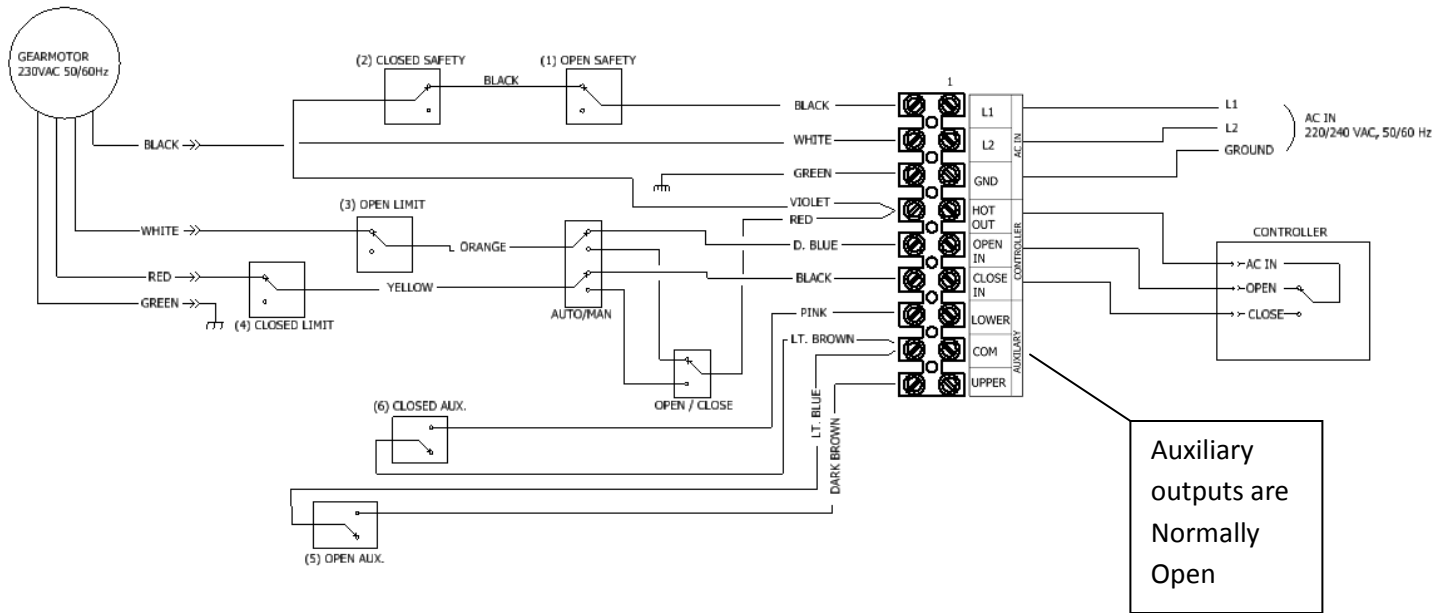
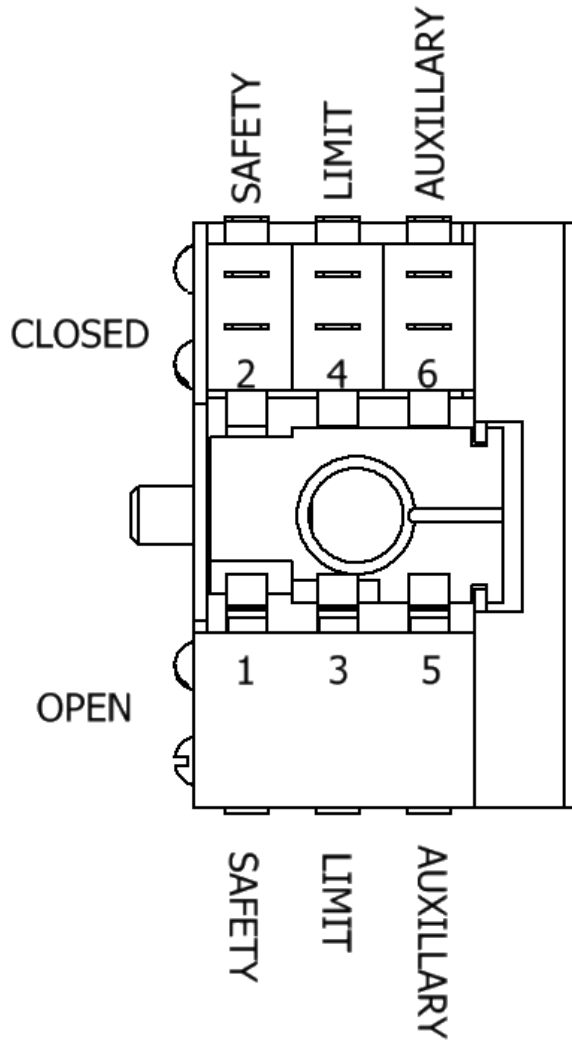


Figure 19B

LIMIT SWITCH ASSEMBLY, SWITCH LAYOUT



TOP VIEW OF SWITCH ASSEMBLY

Figure 20

OPERATION

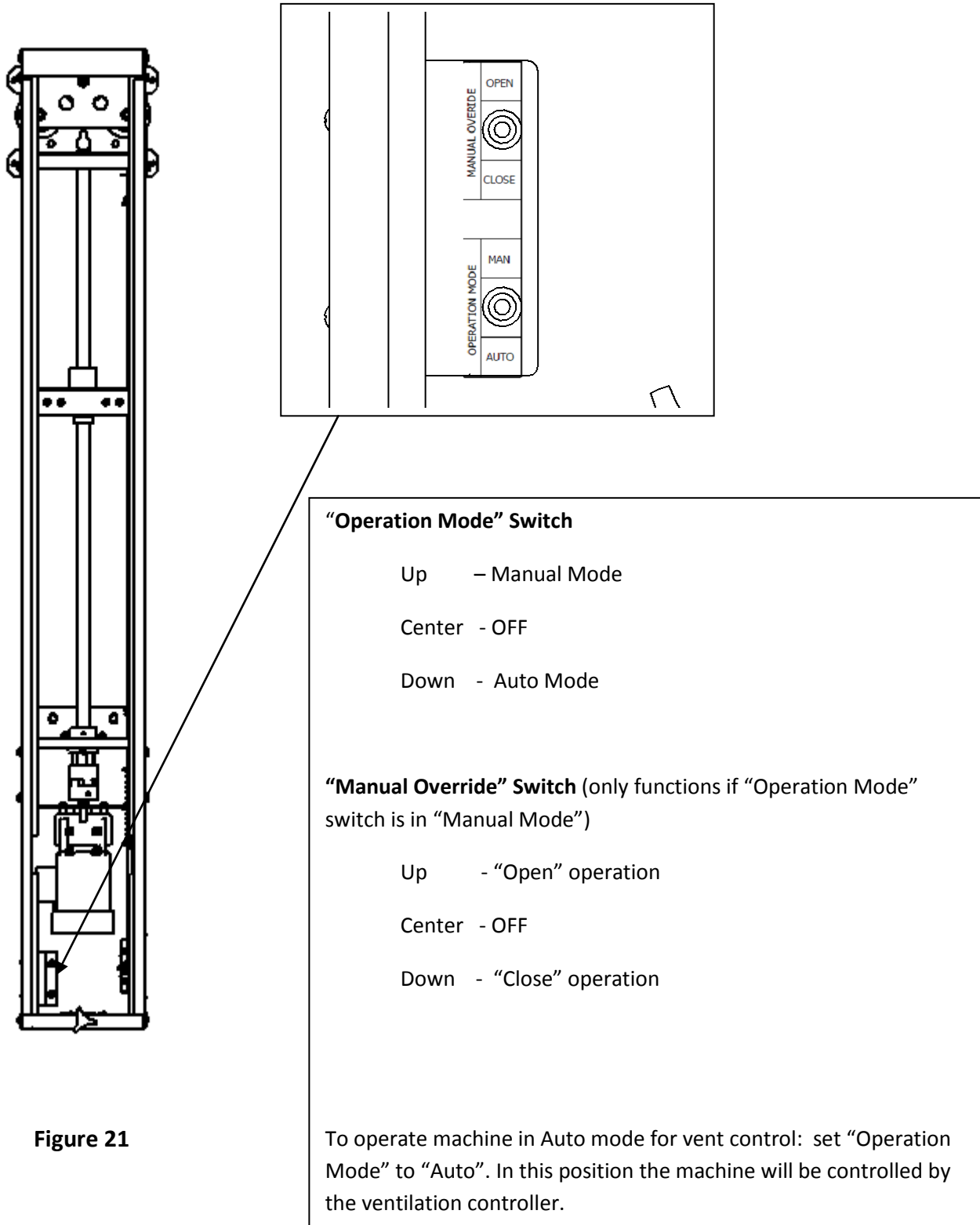


Figure 21

13. 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.
14. 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.
15. 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.

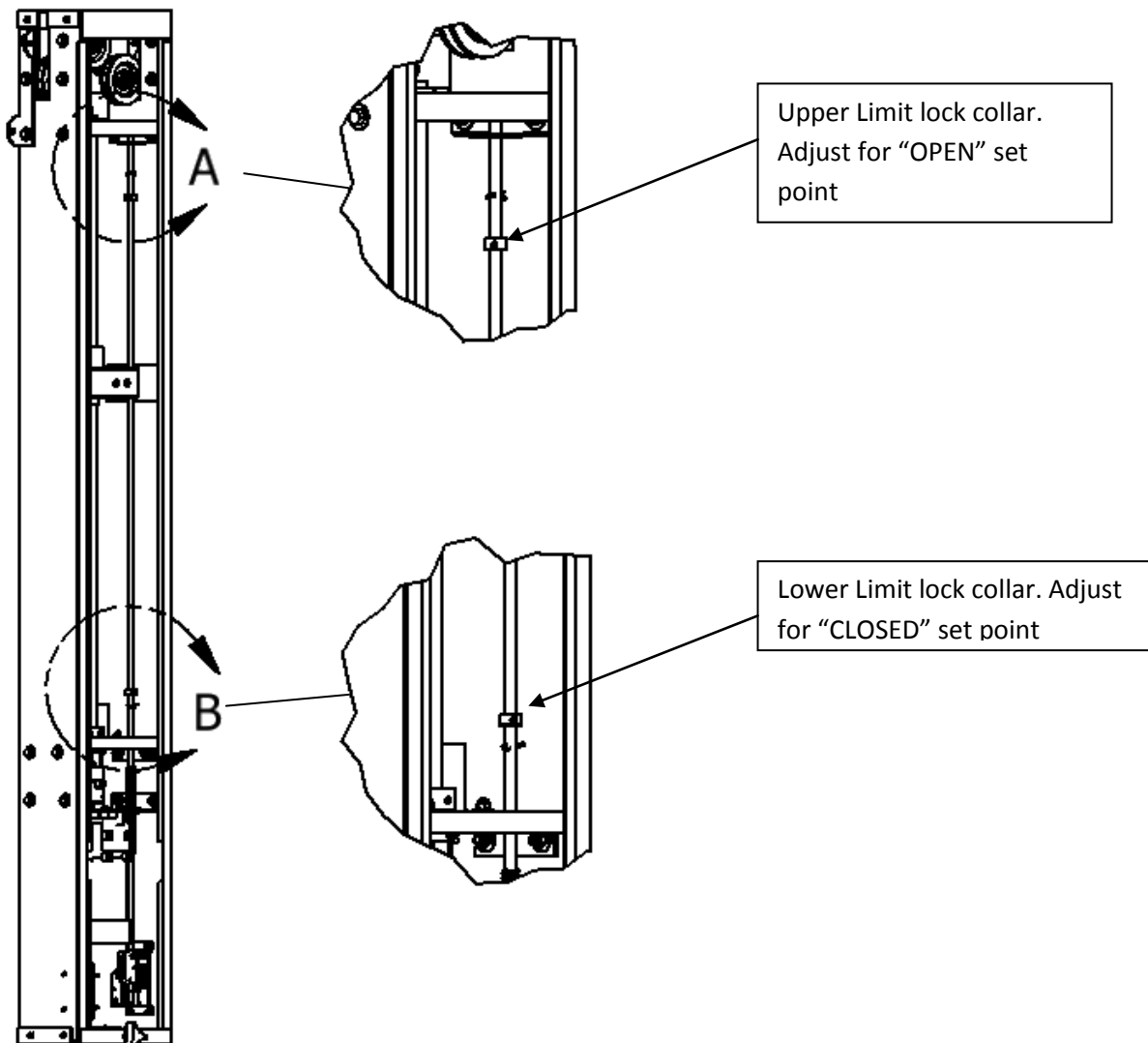


Figure 22

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 23**)

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.

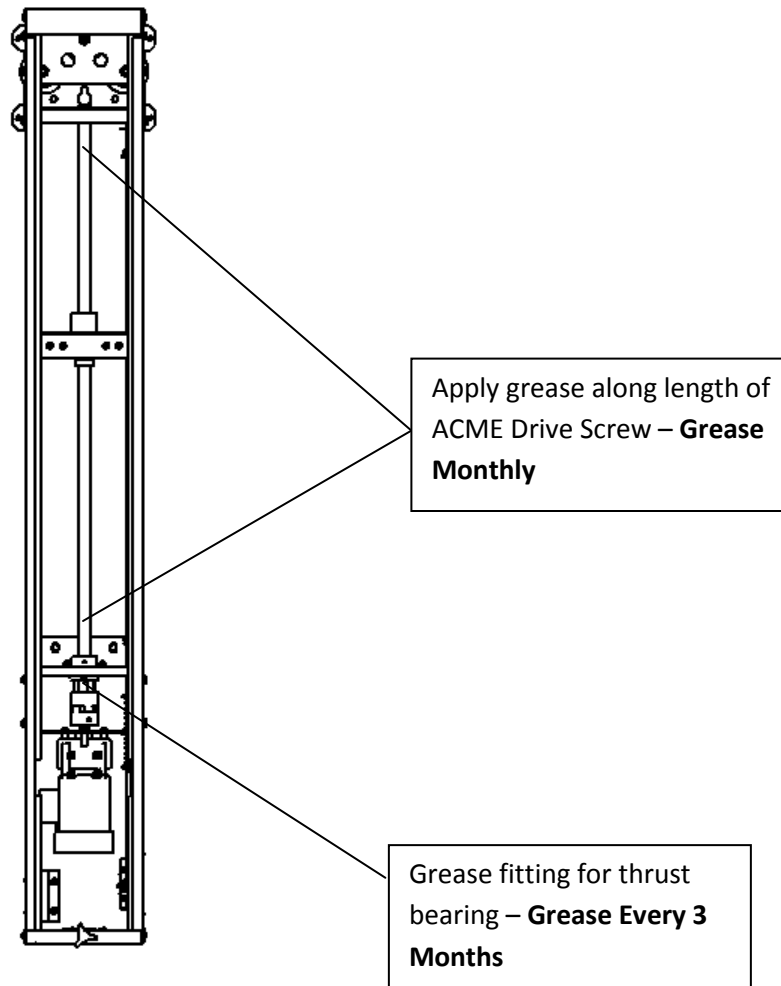


Figure 23

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.*

THIS WARRANTY CONSTITUTES THE SELLER/MANUFACTURER’S ENTIRE AND SOLE WARRANTY AND THIS MANUFACTURER EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

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Notes

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.



Hog Slat, Inc.
PO Box 300
Newton Grove, NC 28366

Phone: (910) 594-0219
Fax: (910) 594-1392

www.hogslat.com

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HSART-349
Market – Hog & Poultry