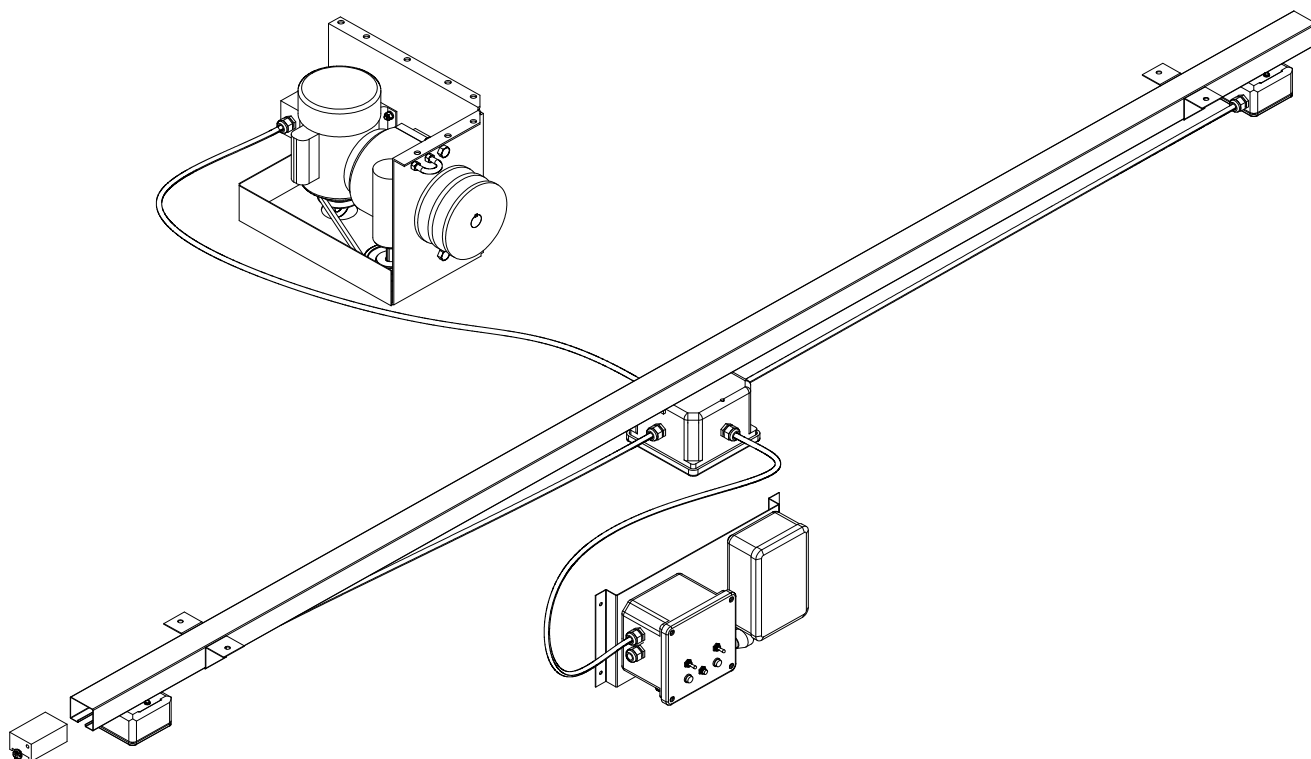




# **450250**

## **ROOSTER WINCH**

### **Installation Manual**



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**MANUAL 000196**  
*Effective 11-04-2020*

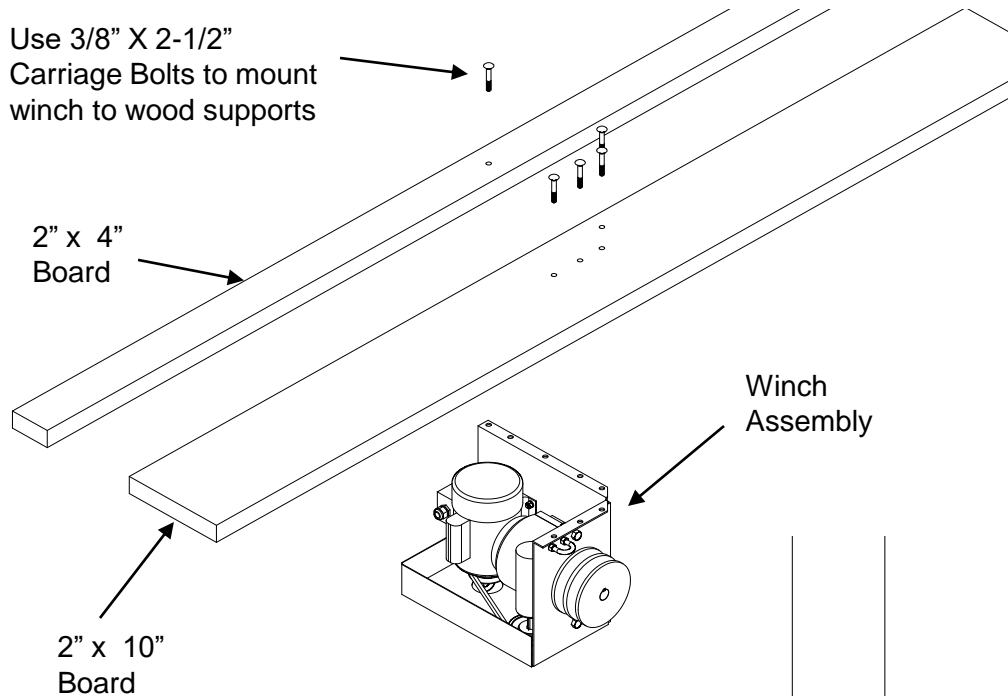


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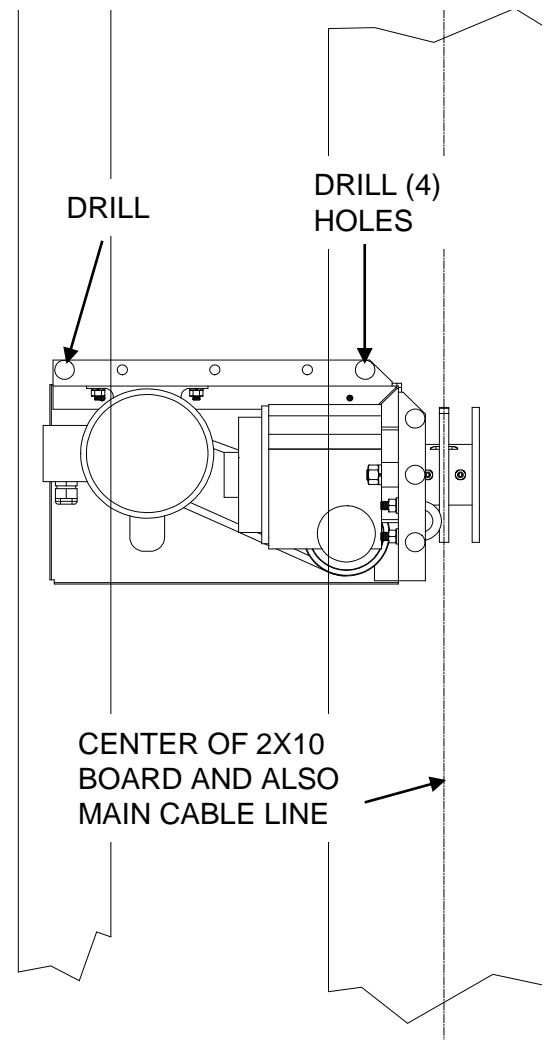


## WINCH MOUNTING INSTRUCTIONS



### MOUNTING WINCH ASSEMBLY

1. Cut one 2 x 10 and one 2 x 4 long enough to span three ceiling purlins. These will be used to support the winch assembly.
2. Use the winch assembly as a template to pre drill the 2 x 10 and the 2 x 4 support boards. Winch cable drum should be centered on 2" x 10" as shown.
3. Insert carriage bolts (not supplied) down through winch support boards and winch assembly. Tighten bolts securely.
4. Mount the winch supports securely to all (3) ceiling purlins. **WINCH SUPPORTS MUST SPAN THREE PURLINS.** Winch cable drum must be centered through the center line of the main cable run as shown.

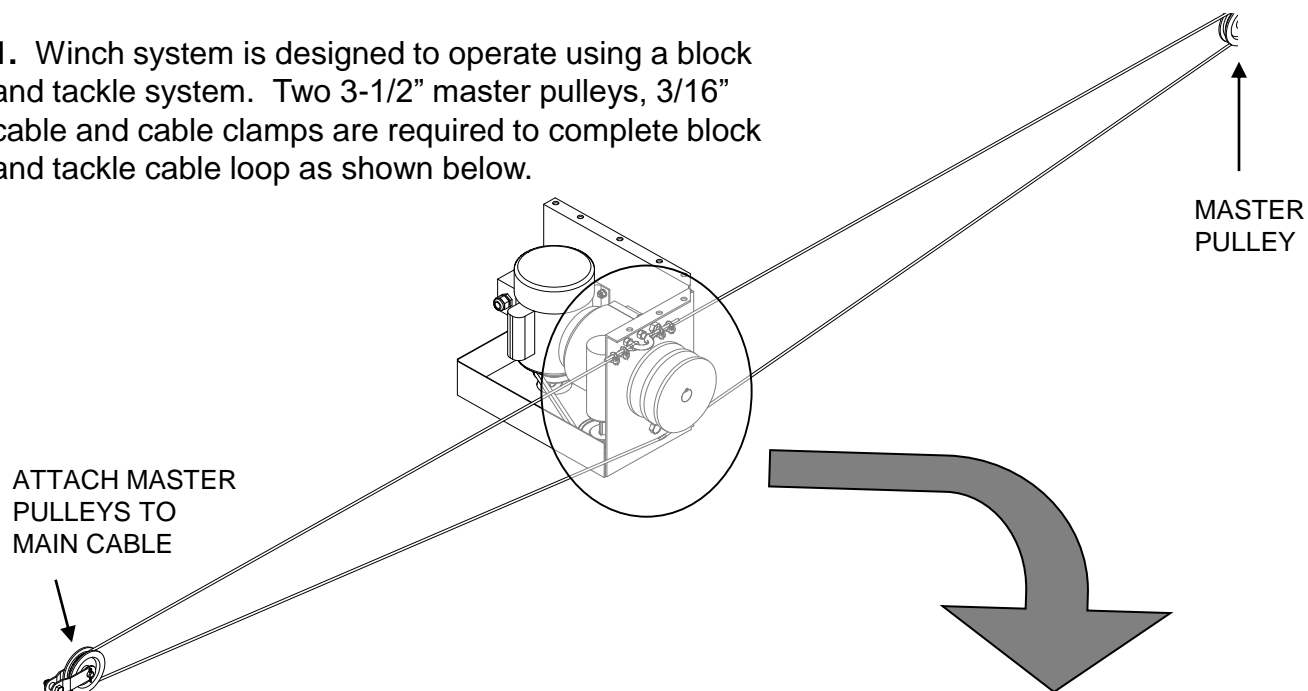


***Pre-drill all holes in wood supports to prevent splitting !***



## WINCH CABLE ASSEMBLY

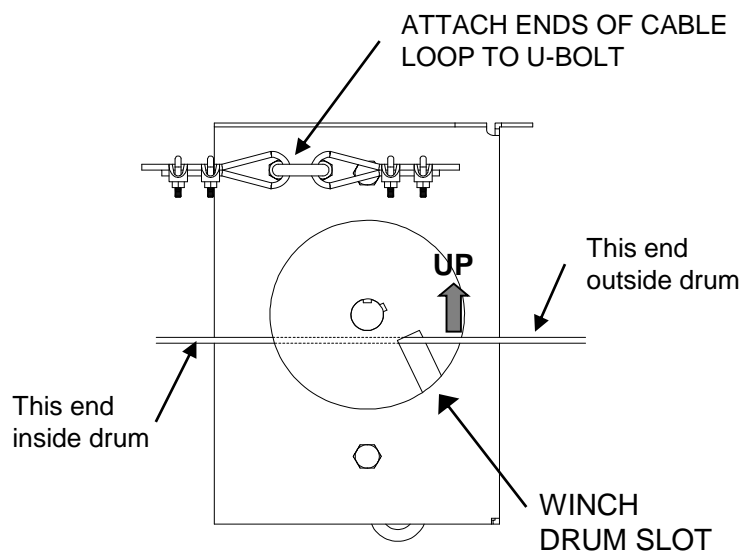
1. Winch system is designed to operate using a block and tackle system. Two 3-1/2" master pulleys, 3/16" cable and cable clamps are required to complete block and tackle cable loop as shown below.



2. Attach one end of the cable to the U-bolt on the winch frame as shown in detail to the right. **DOUBLE CLAMP THE CABLE TO THE U-BOLT.**

3. Thread the two master pulleys onto the cable and then attach remaining end of cable to U-bolt. The master pulleys must be attached to the main line cable.

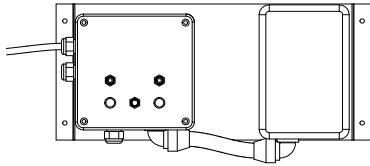
4. Position the slot on the winch cable drum as shown in detail. Run cable through drum. **Be sure to note how cable passes through drum slot.**



**BE SURE NOT TO FASTEN CABLE TO WINCH DRUM**



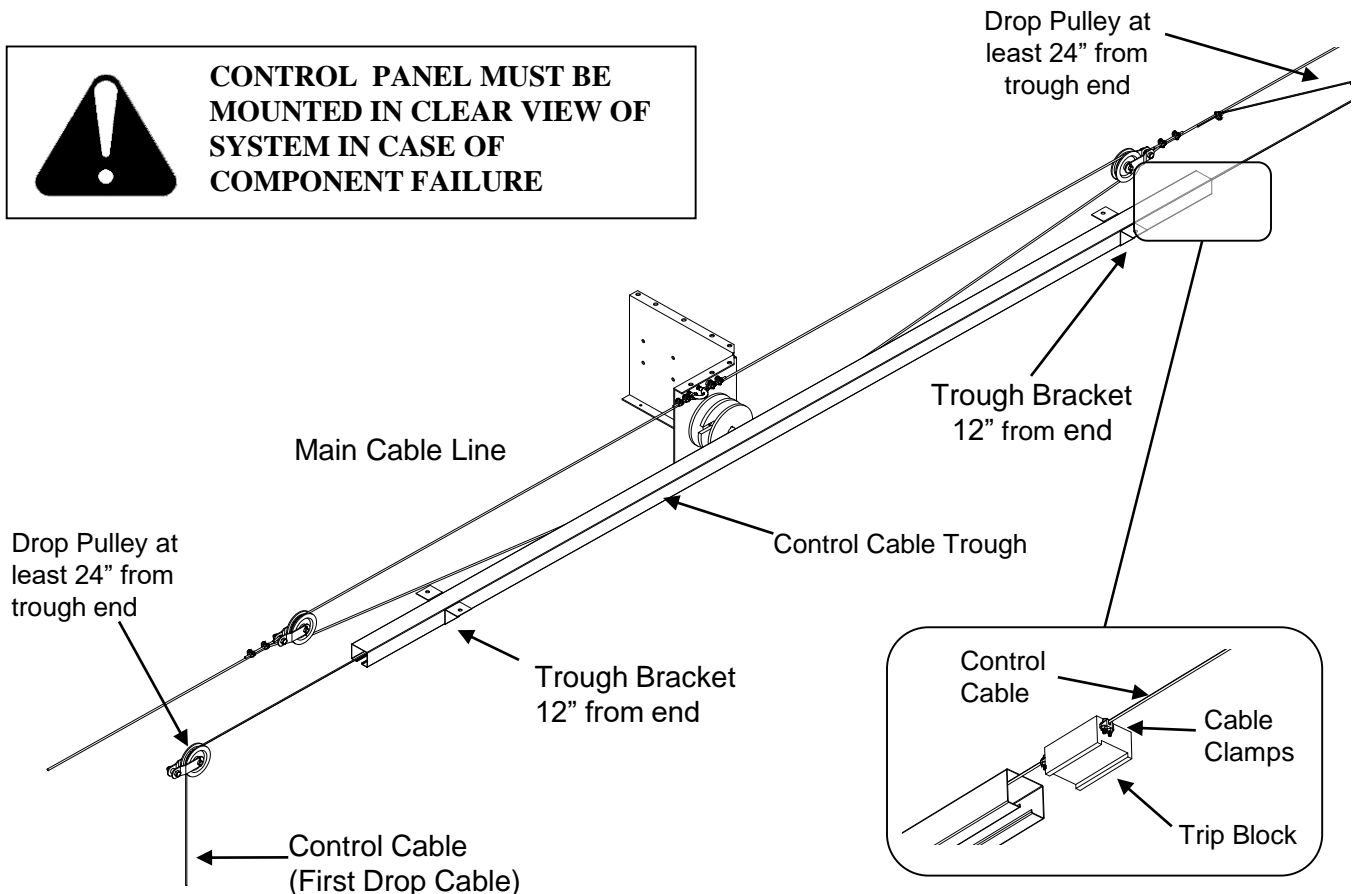
## CONTROL CABLE INSTALLATION



Mount the master control switch and timer to a wall within reach of a 230V power source and length of ceiling control switch cord.



**CONTROL PANEL MUST BE MOUNTED IN CLEAR VIEW OF SYSTEM IN CASE OF COMPONENT FAILURE**



Mount control cable trough to ceiling near main cable run with open side down using (2) trough brackets approximately 12" from both ends of trough. Mount (1) drop pulley on each end of trough at least 24" from end and centered with cable line to allow for proper operation of switch. One pulley will be directly above first drop cable location. Clamp drop line (Control cable) to main line approximately 24" back from drop pulley towards winch. Thread line through pulley and switch trip block as shown in closeup. Do not tighten trip block clamps. Continue running control cable through control trough and second pulley. Allow plenty of excess for cable to attach to feeder line below. Slide trip block into control trough.



## CONTROL BOX AND SWITCH WIRING



**ALL WIRING MUST BE DONE BY A QUALIFIED ELECTRICIAN !**

**1)** Wire main control box to 230V power source and feed fill system as per wiring diagram shown on next page. Main control is pre-wired to ceiling control.

UP Control Micro switch

**NOTE:**

Be sure trip block is inside UP switch before attaching switch to trough.

Wire to Winch Motor

Pre-wired Cord to Main Control

Ceiling Control Box

DOWN Control Micro switch

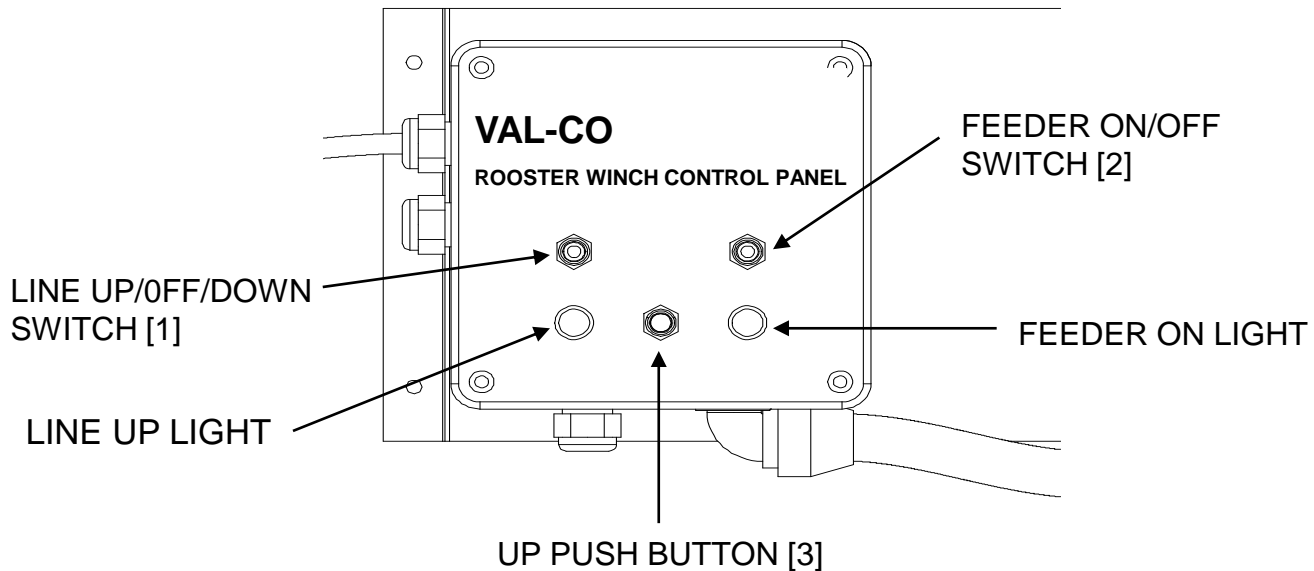
**2)** Mount control box and both micro switch boxes to trough as shown above. Fasten boxes with [2] retainer clips, 1/4" x 1" carriage bolts and nuts per box. Place bolts through tabs so nuts are down. Micro switches **must** be pointed toward ends of trough. **DOWN control micro switch should be mounted on drop cable end.**

**3)** Wire winch motor cord from ceiling control box to motor as per wiring diagram on next page.

**4) SETTING THE MICRO SWITCHES:** The distance your winch system travels is determined by the space between the micro switch boxes. Travel distance can be increased or decreased by moving the switch boxes along the trough. Raise system to desired feeding height and slide trip block to **DOWN** control micro switch. Mark control cable where trip block is located. Release tie back end at the main cable. Pull control cable out drop end until you reach marking. Slide trip block to mark and tighten cable clamps on both sides of block. Slide block back into track past down micro switch being careful not to damage switch arm. Reconnect tie back end. Now raise system to desired fill height. Loosen retainers on **UP** micro switch box and slide toward trip block until switch arm is activated. Retighten switch box.



## CONTROL PANEL OPERATION



- 1) Flip UP/OFF/DOWN switch [1] to UP position and push UP push button [3] until up light comes on. Feeder should now be in position for filling.
- 2) Flip Feed ON/OFF switch [2] to ON position. Feeder on light should come on and feeder fill system should begin running. Continue filling feeders until desired level.
- 3) Flip Feed ON/OFF switch [2] to OFF position. Fill system should stop
- 4) Flip Line UP/OFF/DOWN switch [1] to Down position and line will lower when predetermined time is reached by timer. See timer instructions for setting timer to desired time and duration for feeder to be lowered. Line will only lower by using timer.



## ROOSTER WINCH TROUBLE SHOOTING

### PROBLEMS

### SOLUTIONS

Winch goes up when it should go down and goes down when it should go up.	A.) Wires on relay block terminals #8 and #9 are switched. Wire #36 should be on terminal #9 and wire #37 should be on terminal #8. Refer to wiring diagram.
	B.) Cable is run thru winch drum in wrong direction. Refer to drawing on page #3.
Winch always goes up or always goes down no matter which way it is suppose to go.	Wires on relay block terminals #2 and #3 are switched. Wire #34 should be on terminals #1 and #2 and wire #35 should be on terminal #3.
Winch does not stop in either direction.	The plastic trip block is not triggering the micro switches in control trough. Carefully bend lever so it will activate switch when trip block passes under it.

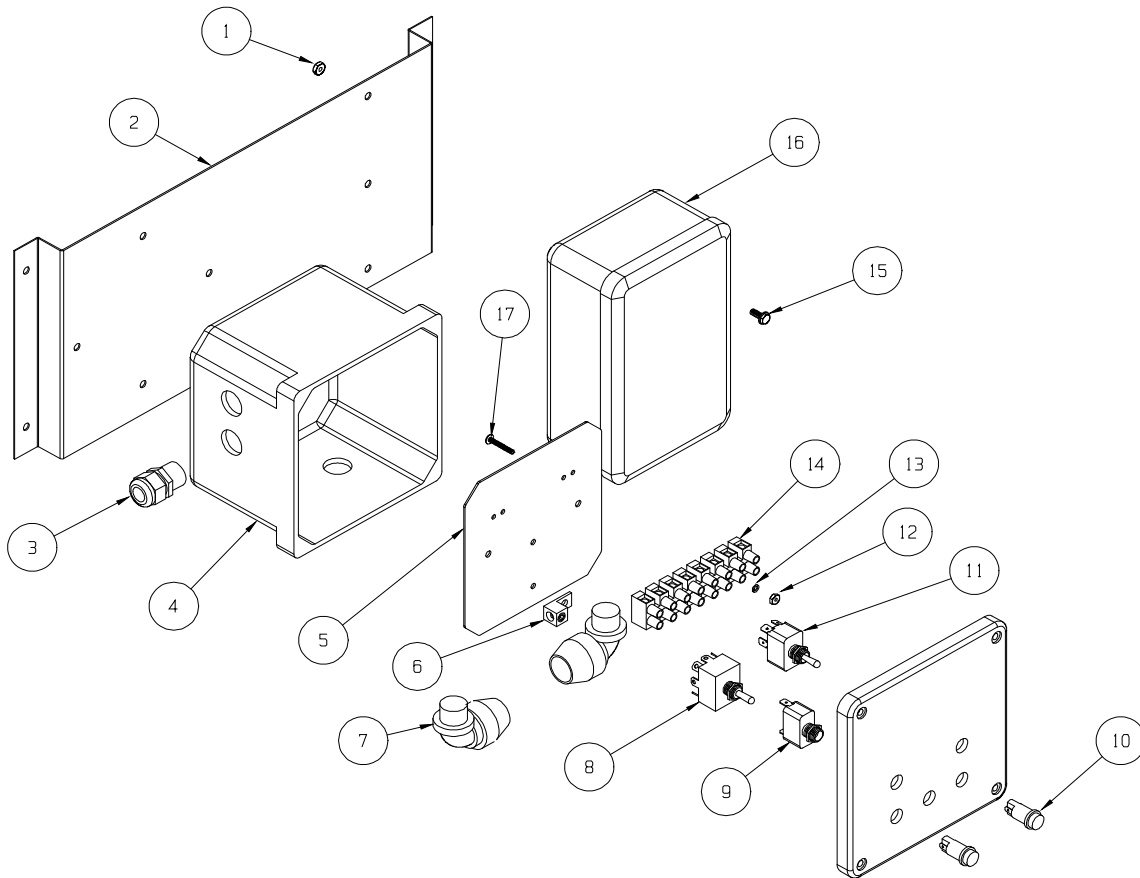
### SAFETY FEATURE IN OPERATION OF WINCH

The winch system is designed to allow automatic lowering of the feed system without the presence of an operator. To protect against possible system damage, should the down control switch fail, we have designed the slot in the winch drum to disengage the cable after the feeders reach the floor. The winch will continue to run but the cable will drop from the drum and should not cause any further damage. After repairs are completed, replace cable through drum as shown on page 3 of this manual and reset system.





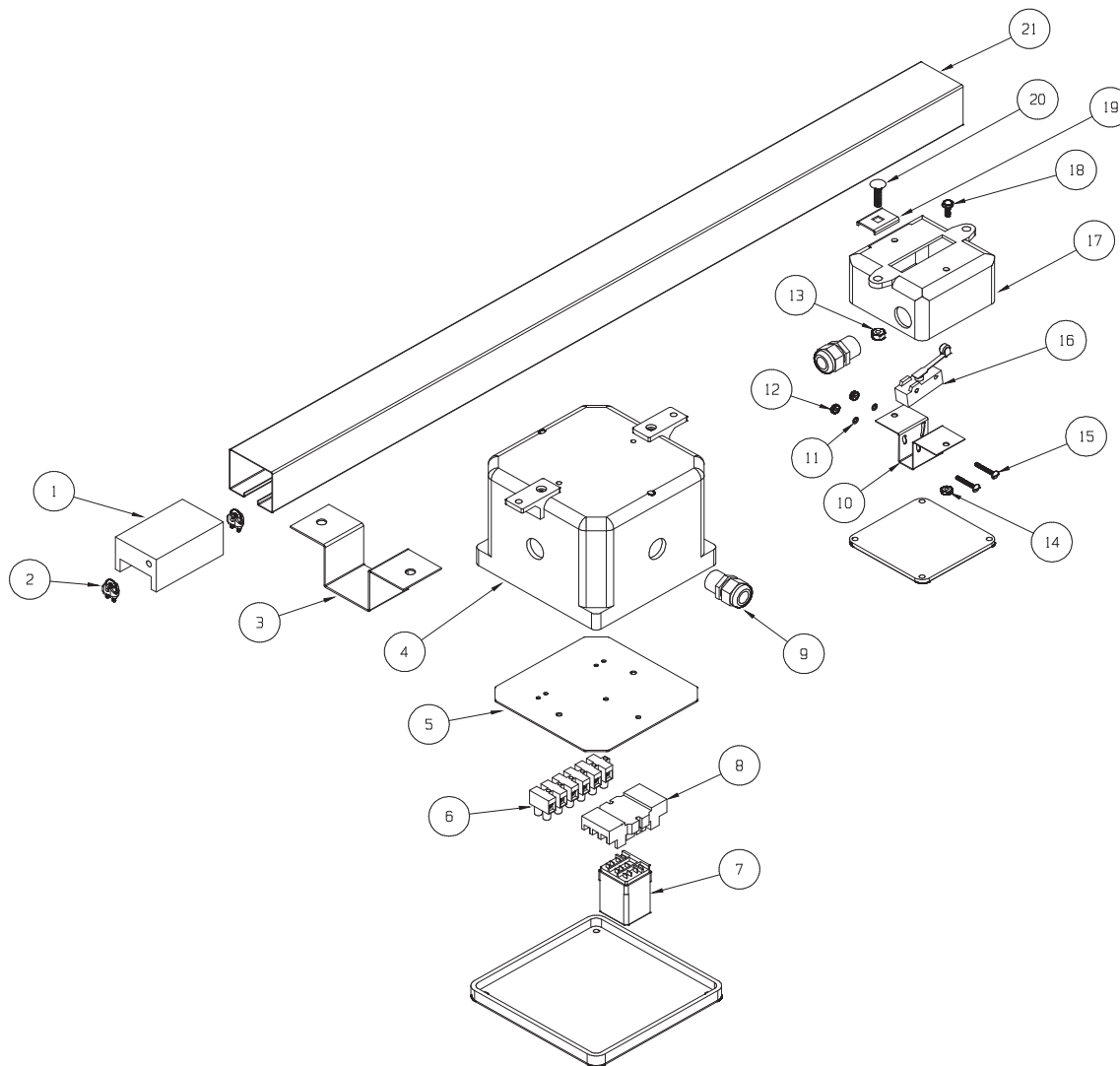
## MAIN CONTROL



KEY	PART NUMBER	QTY.	DESCRIPTION	KEY	PART NUMBER	QTY.	DESCRIPTION
1	012408	4	#10-24 KEP NUT	9	450535	1	MOMENTARY SWITCH
2	450537	1	CONTROL MOUNTING PLATE	10	723406	2	INDICATOR LIGHT
3	750030	3	CORD GROMMETS	11	723404	1	2-POSITION TOGGLE SWITCH
4	450540	1	MAIN CONTROL BOX	12	012731	2	#6-32 NUT
5	450551	1	INSIDE MTG PLATE	13	012732	2	#6 LOCKWASHER
6	450484	1	GROUND BLOCK	14	450759	1	8 HOLE TERMINAL BLOCK
7	425045	2	90 DEG CONNECTOR	15	012795	2	#10-24 X 1/2" BOLT
8	450712	1	3-POLE TOGGLE SWITCH	16	450454/455019	1	24 HOUR TIMER/DIGITAL TIMER
				17	012570	2	#6-32 x 1" BOLT



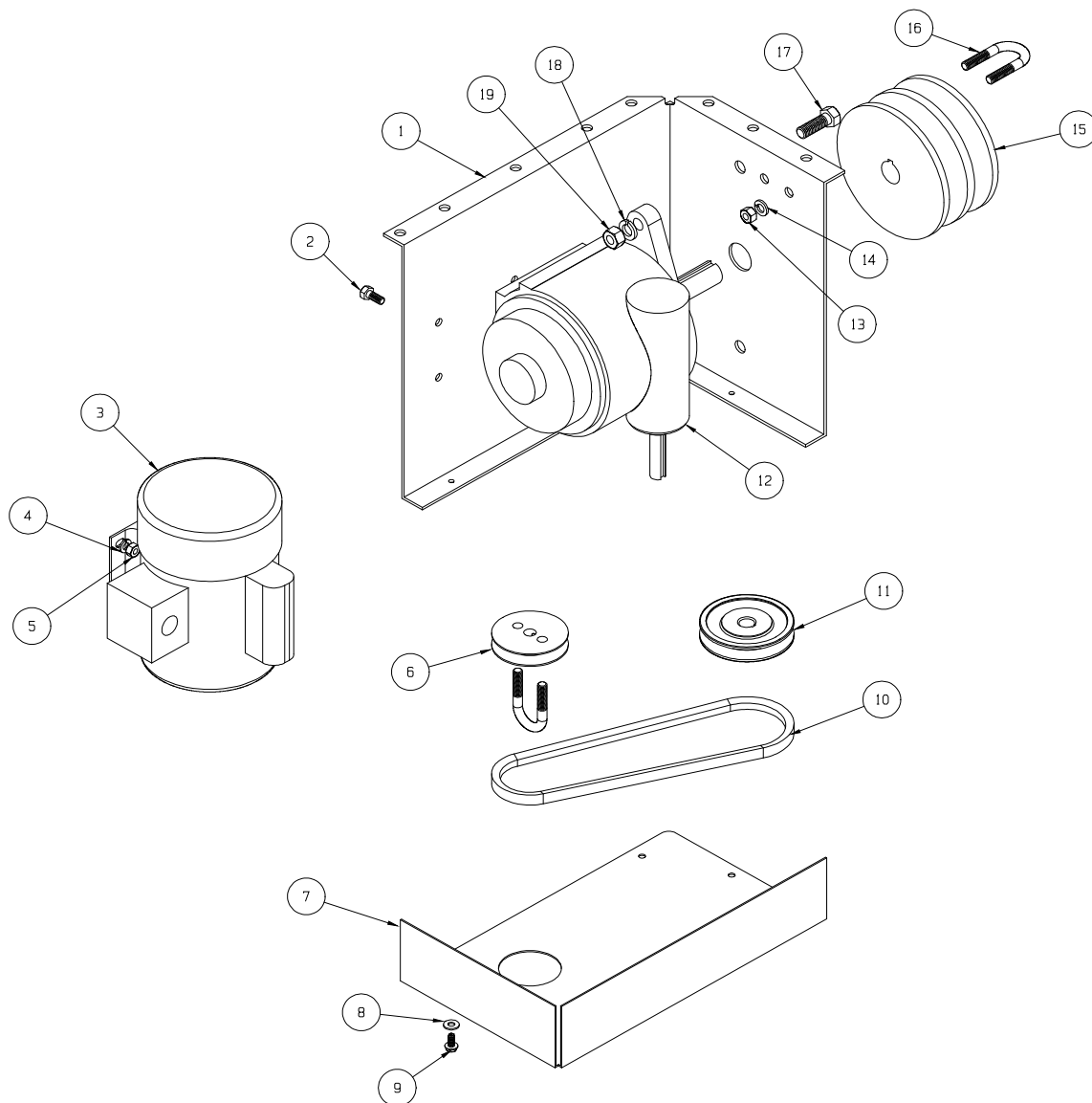
## CEILING CONTROL UNIT



KEY	PART NUMBER	QTY.	DESCRIPTION	KEY	PART NUMBER	QTY.	DESCRIPTION
1	450539	1	TRIP BLOCK	12	012731	8	#6-32 NUT
2	750423	2	1/8" CABLE CLAMP	13	012793	6	1/4-20 NYLOK NUT
3	450543	2	TROUGH MTG BRACKET	14	012408	6	#10-24 KEP NUT
4	450542	1	CEILING CTRL BOX	15	012570	4	#6-32 X 1" BOLT
5	450551	1	MOUNTING PLATE	16	770012	2	SNAP ACTION SWITCH
6	412192	1	8 HOLE TERMINAL BLOCK	17	450557	2	SWITCH CTRL BOX
7	450538	1	11 PIN RELAY	18	012795	4	#10-24 X 1/2" BOLT
8	450544	1	RELAY SOCKET	19	450552	6	BOX RETAINER CLIPS
9	750030	6	CORD GROMMET	20	011434	6	1/4-20 X 1" CARRGE BOLT
10	450536	2	SWITCH BRACKET	21	450541	1	WINCH TROUGH
11	012732	8	#6 LOCKWASHER				



## WINCH ASSEMBLY



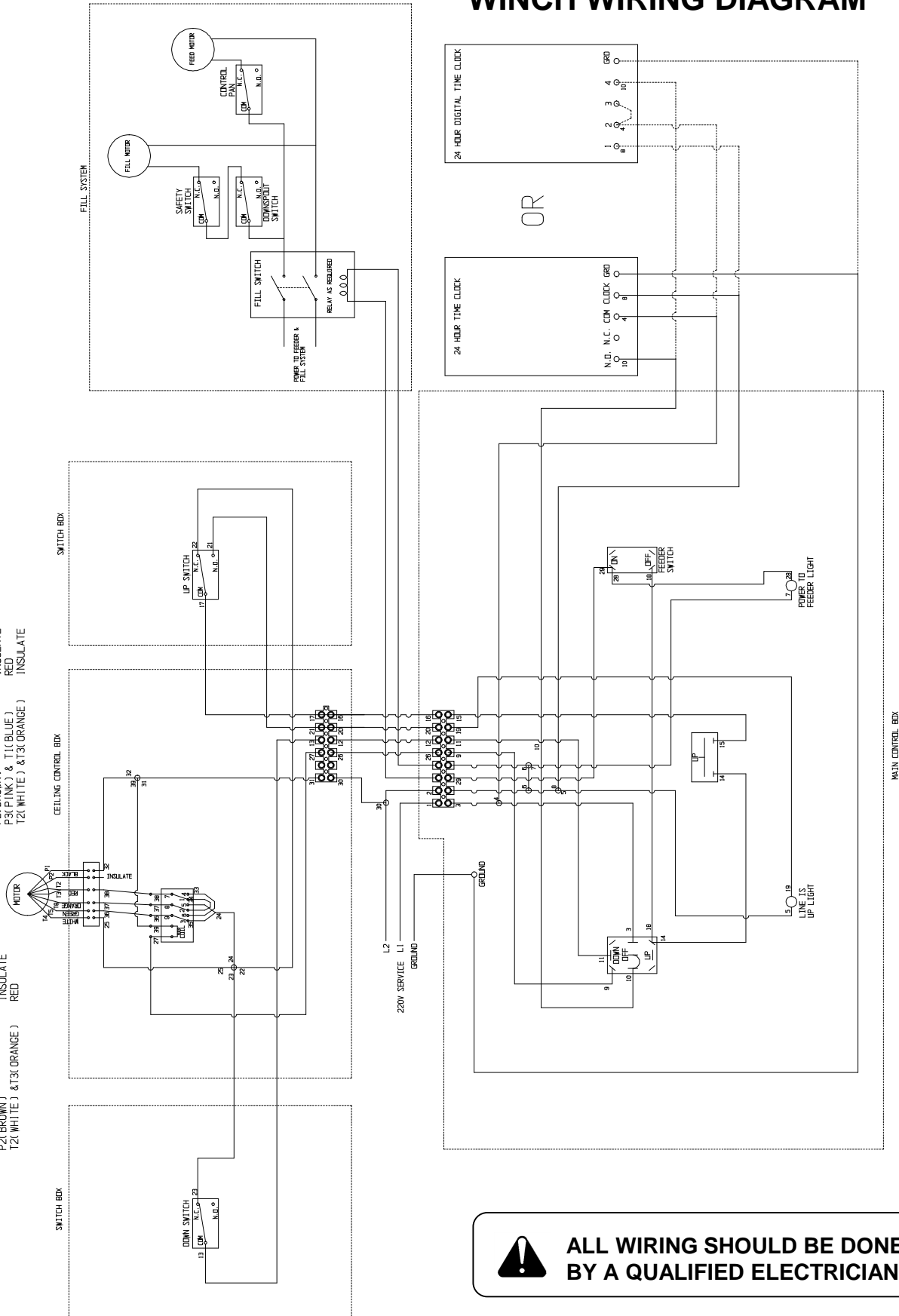
KEY	PART NUMBER	QTY.	DESCRIPTION	KEY	PART NUMBER	QTY.	DESCRIPTION
1	450252	1	WINCH HOUSING	11	980035	1	3.75" OD PULLEY
2	010643	4	5/16-18 X 3/4" BOLT	12	410610	1	GEARBOX 220:1
3	450533	1	1/3 HP MOTOR	13	011115	8	3/8-16 NUT
4	010252	4	5/16" LOCKWASHER	14	010253	4	3/8" LOCKWASHER
5	011114	4	5/16-18 NUT	15	450251	1	CABLE DRUM
6	450697	1	3.05"OD PULLEY W/HOLES	16	450255	2	3/8" X 2" U-BOLT
7	450254	1	WINCH BELT GUARD	17	012266	2	1/2-13 X 1-1/2" BOLT
8	010424	3	1/4" FLAT WASHER	18	010255	2	1/2" LOCKWASHER
9	012585	3	1/4 X 5/8" SELF TAP SCREW	19	011117	2	1/2-13 NUT
10	450547	1	28" V-BELT				



# 450250 ROOSTER WINCH INSTALLATION MANUAL

## WINCH WIRING DIAGRAM

7 WIRE MOTOR		9 WIRE MOTOR	
MOTOR	CONTROLLER	MOTOR	CONTROLLER
T4( YELLOW )	WHITE	T4( YELLOW )	WHITE
T5( BLACK )	GREEN	J10( BLACK )	GREEN
T8( RED )	ORANGE	T8( RED )	ORANGE
P1( BLUE )	BLACK	P1( PURPLE )	BLACK
P2( BROWN )	INSULATE	P2( BROWN )	INSULATE
T2( WHITE ) & T3( ORANGE )	RED	P3( PINK ) & T1( BLUE )	RED
		T2( WHITE ) & T3( ORANGE )	INSULATE



**ALL WIRING SHOULD BE DONE BY A QUALIFIED ELECTRICIAN !**



## PRODUCT WARRANTY

Val-Co warrants to the original purchaser that Val-Co manufactured products will be free of defects in material and workmanship for one year from date of purchase when used in usual and customary service.

Val-Co will, at its option, (a) repair or replace products found to have a defect in material or workmanship when the defective product is returned prepaid for inspection within one year of date of retail sale, or (b) refund to the original purchaser the original purchase price in lieu of such repair or replacement. All returned merchandise must be authorized and prepaid. Val-Co will not be liable for any unauthorized expenses incurred in regard to any item presented for warranty adjustment. Val-Co will not, under any circumstances, be liable for any kind of special, incidental, consequential, or contingent damages (including, but not limited to, lost or damaged product goods, cost of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies) and the warranty liability will be limited to the invoiced price of the product from Val-Co to the purchaser.

Products which are abused, misused, altered, neglected, damaged by accident, or installed different than instructions are not covered under this warranty. Products not manufactured by Val-Co and supplied by outside manufacturers are warranted separately by the respective manufacturer. This warranty applies only to products used for the care of livestock and poultry - other applications in industry or commerce are not covered by this warranty.

Val-Co reserves the right to make design or specification changes at any time without any contingent obligation to purchasers of products already sold.

Val-Co feed bins are designed for storage of material having a density of no more than 40 pounds per cubic foot. The feed bins are designed for the storage of free-flowing materials only; soybean meal, meat scraps and certain other materials are not considered free-flowing and should not be stored in Val-Co feed bins.

Val-Co is not responsible for any undertaking, representation, or warranty made by any dealer, distributor, or other persons, beyond those expressly set forth in this warranty.

Any exceptions to this warranty must be authorized in writing by an officer of the company.



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