

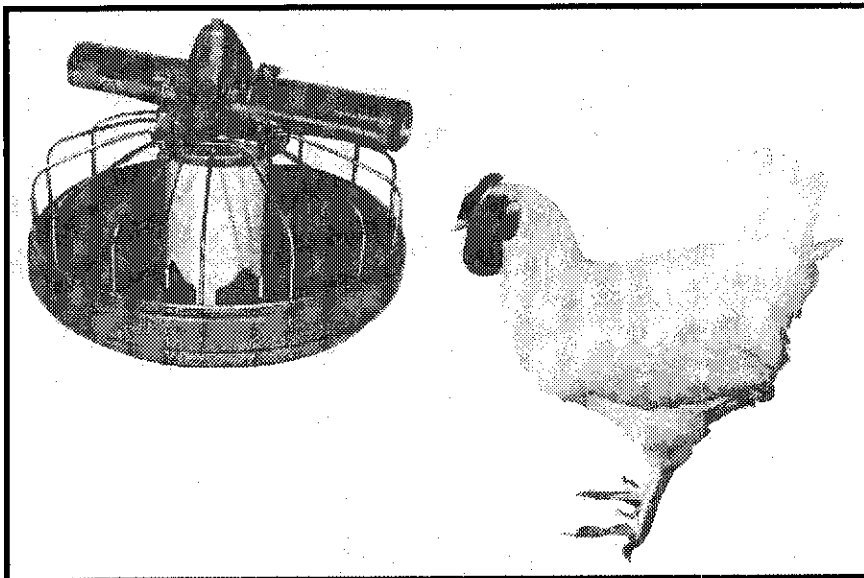


Male Feeders

Programmed System and Auto-Winched System

Revision Number: 1
Date: March 1999

*Installation &
Operation Manual*



Pneg-251

THE GSI GROUP



Installation Notes

C. Power Winch Instructions

Installation

Mounting Winch Assembly

1. Cut one (1) length of 2 x 10 and one (1) length of 2 x 4 long enough to span three (3) ceiling purlins. These will be used to support the Winch Assembly.
2. Using the Winch Assembly as a template, Pre-drill the 2 x 10 and 2 x 4 as shown in Figure 10.
3. Insert carriage bolts (not supplied) down through winch supports and through Winch Assembly. Tighten winch support bolts.
4. Mount the Winch supports securely to the ceiling purlins. **BE SURE WINCH SUPPORTS SPAN THREE (3) PURLINS.** Winch Cable Drum must be centered through the center line of the main cable run as shown in Figure 11.

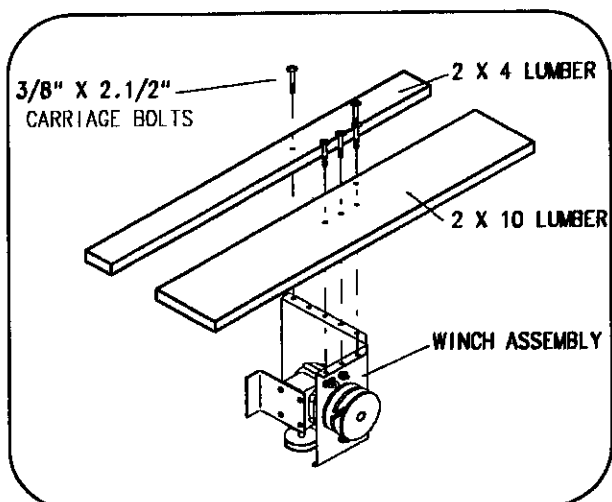


Figure 11

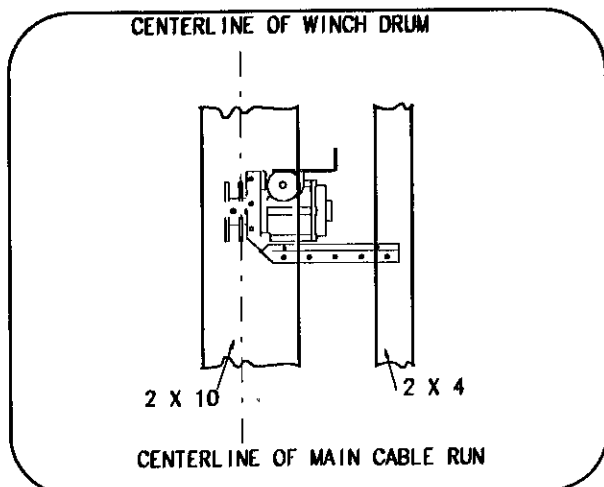


Figure 12

Winch Cable Assembly

1. Winch system is designed to operate using a block and tackle system. Two (2) 3 1/2" master pulleys, 3/16" cable and cable clamps are required to complete block and tackle cable loop. See Figure 12.

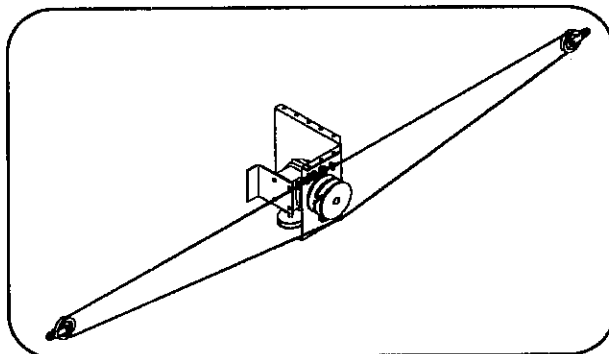


Figure 13

2. Attach one end of the cable loop to the "U" bolt on the winch frame as shown in Figure 13. **IT IS RECOMMENDED THAT LOOP BE DOUBLE CLAMPED TO "U" BOLT.**

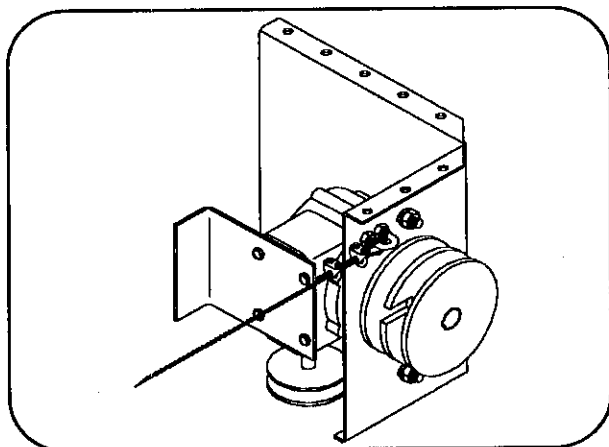


Figure 14

3. Thread the two (2) master pulleys on to the cable and then attach remaining end of loop to "U" bolt. The master pulleys must be attached to the main line cable.

4. Position the Cable Drum as shown in Figure 14. **CABLE IS NOT TO BE ATTACHED TO THE WINCH DRUM.**

Refer to the Winch Kit Instructions in this manual to complete feeder system suspension installation. The Drop cable nearest to the winch should not be installed at this time.

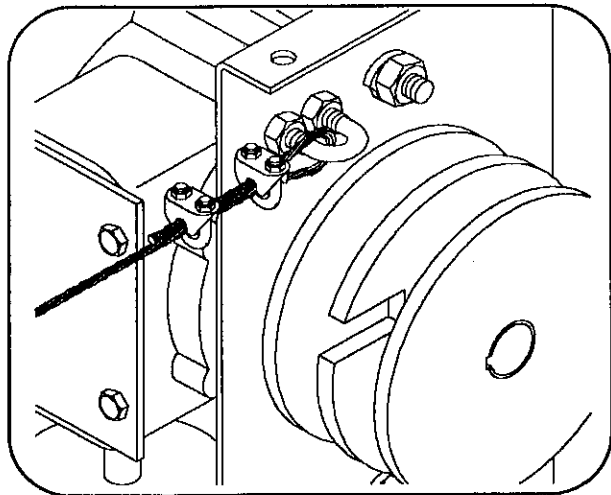


Figure 15

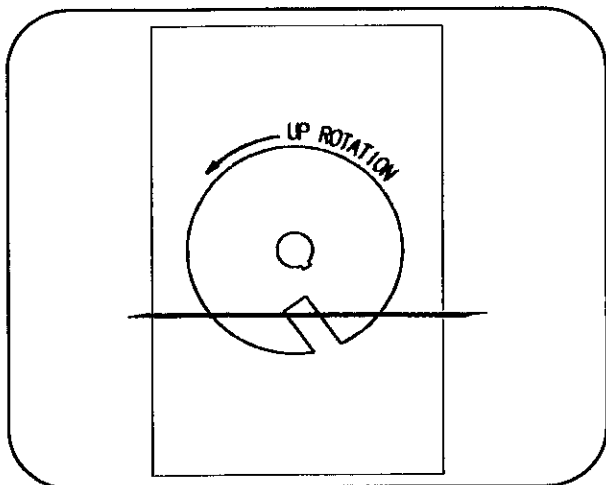


Figure 16

Controls Installation

1. Mount Master Control Box to the wall or other adequate surface. Unit should be mounted as close to Winch Assembly as possible (not more than 15 feet) only 20 feet of control cable is supplied. If Control Box needs to be mounted further away then control cable must be spliced. FOR SAFETY OF OPERATION WHEN RAISING THE SYSTEM YOU SHOULD BE ABLE TO SEE SYSTEM IN CASE OF COMPONENT FAILURE.

2. Mount the Winch Motor to the Motor mount as shown in Figure 16 using 5/16-inch x 3/4-inch bolts supplied in hardware bag. DO NOT LIFT MOTOR BY ELECTRICAL CORDS.

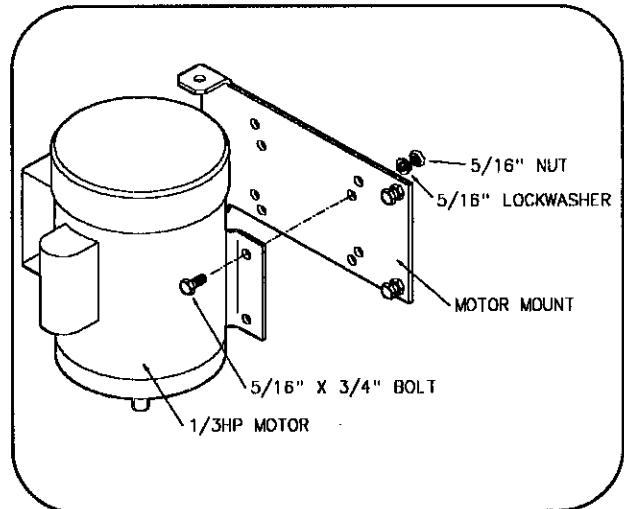


Figure 17

3. Remove belt guard from winch assembly. Attach motor mount assembly to the winch frame as shown in Figure 17 using 5/16-inch carriage bolts supplied in hardware bag.

4. Install drive pulley on motor shaft. Align with drive pulley on gearbox and tighten drive pulley.

5. Install belt onto the two (2) pulleys and check the belt alignment.

6. Tighten drive belt by adjusting bolts on motor mount. IMPORTANT! DO NOT OVER TIGHTEN DRIVE BELT THIS WILL REDUCE LIFE OF MOTOR BEARINGS AND GEARBOX BEARINGS. Replace belt guard on winch assembly.

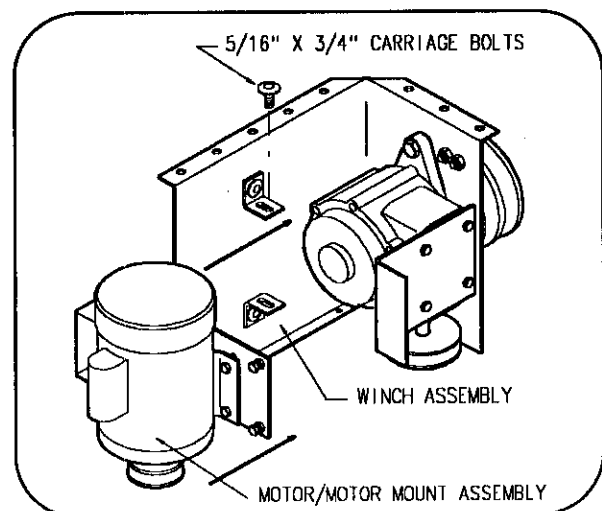


Figure 18

7. The drop cable nearest the Winch Assembly is to be installed and used as the control cable as shown in Figure 18. Install the Control Mounting Channel to the ceiling using the two (2) clamps provided. Mount the clamps approximately one (1) foot from each end of channel. The channel must be mounted with the open end down. Mount the channel in close proximity to main cable run without creating interference.

8. Mount one (1) drop pulley at each end of channel. The drop line end pulley must be at least 24-inches from end of channel for installation purposes.

9. Mount the Overhead Control Box to the channel using channel clips and wing nuts supplied in the hardware bag. The box must be mounted with end marked "UP" towards the point where the control cable will attach to the main cable.

10. Mount the Up and Down Micro switches to the control channel using remaining clips and wing nuts. **THE ACTIVATOR ARMS ON THE SWITCHES MUST POINT TOWARDS THE END OF THE CONTROL CHANNEL.**

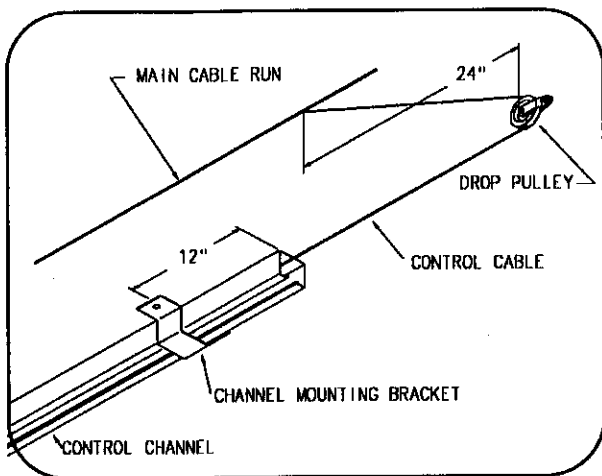


Figure 19

Control Cable Installation

1. Clamp one end of control cable to main line approximately 24-inches back towards winch from drop pulley as shown in Figure 18.
2. Insert the cable through cable clamp switch block and then other cable clamp as shown in Figure 19. Do not tighten switch block cable clamps at this time.
3. Run drop cable through control channel and drop end drop pulley and then attach to the feeder line. Be sure that cable does not interfere with switch actuator arms when in operation.
4. Insert Switch block into control channel being careful to move switch activator arm down so as not to damage it.

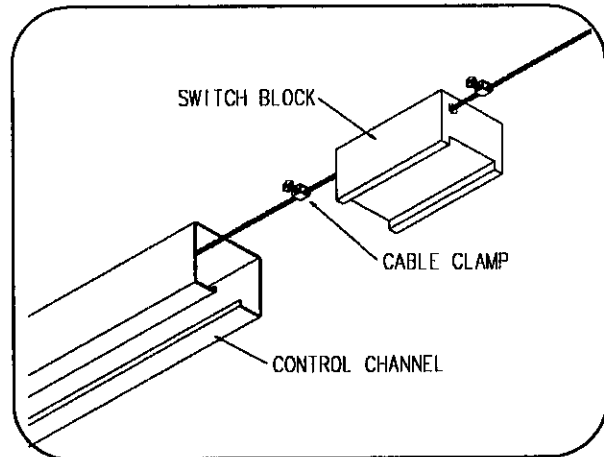


Figure 20

Primary Wiring

ALL WIRING SHOULD BE DONE BY A QUALIFIED ELECTRICIAN.

System operates on 230 V single phase power only. 230 V power must be supplied to Main Control Box.

Note: Ground wire must be supplied to overhead control box to provide proper grounding for winch motor.

1. Open Main Control Box and note colors of wire connected to terminals one (1) through four (4). The SJ cord that is connected to these terminals should be run up to the overhead control box.

2. Connect the wires from the SJ cord to the terminal strip in the overhead control box. Terminal one (1) should go to Terminal one (1), Terminal two (2) should go to Terminal two (2), etc.

Note: Use the terminal strip in the overhead control box that is not connected to the winch motor.

3. The Feeder Line Fill System and the feeder line should get power from terminals four (4) and five (5) in Main Control Box. **THIS WORKS ON SYSTEMS THAT ARE WIRED 220 VOLT SINGLE PHASE ONLY!** For other systems, consult the factory.

See wiring schematic for wiring details.

Setting the Micro Switches

The span of winching operations is determined by the space between the micro switches and can be increased or decreased by loosening the wing nuts on the micro switches and adjusting them closer or farther apart.

1. Raise the system to the feeding height required by your breed of bird (18 to 24-inches from floor). The height should be comfortable for the males but not too high for the females.

2. Slide the switch block against the activator arm of the down micro switch until switch clicks. Mark location of block on cable.

3. Release the tie back end of the control cable at the main cable. Pull the cable partially out at the drop end until you have access to the marks on the cable.

4. Pull the Switch block to its marked location and tighten the cable clamps on each side of the block. See Figure 9. Return the switch block to its position inside the channel. Reconnect the tie back end to the main cable.

5. Raise the system to the desired height for filling.

6. Loosen wing nut holding the up micro switch. Slide switch assembly back against switch block until activator arm of micro switch is activated by switch block and retighten wing nut.

IMPORTANT: THE CABLE MUST BE PLACED IN THE DRUM NOTCH DURING IT'S FIRST REVOLUTION.

Power Winch Operation

Start with feeder in down position.

1. Flip DPDT toggle switch to up position. Push and hold in up push button until light is lit. Release up button. Feeder should now be in the up position ready to fill.

2. Flip the Feed switch to the on position. The Feeder Fill light should be lit and the feeder and fill system should start. System should fill until all pans are filled to proper level.

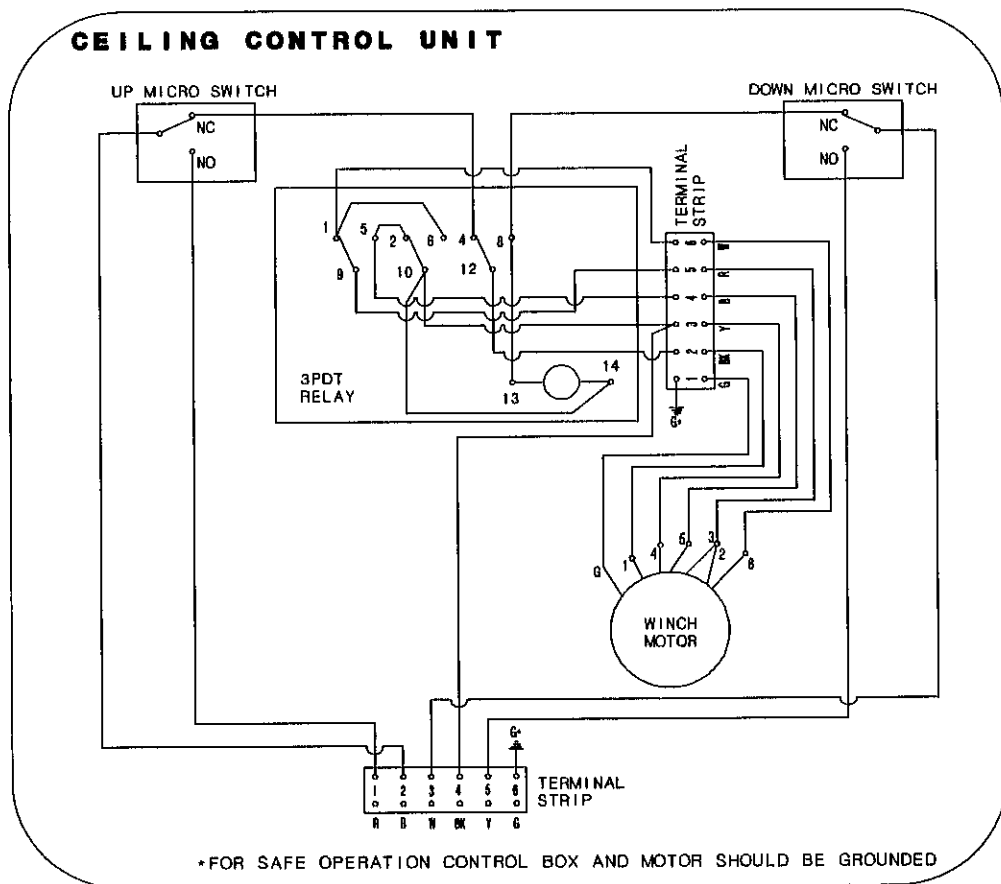
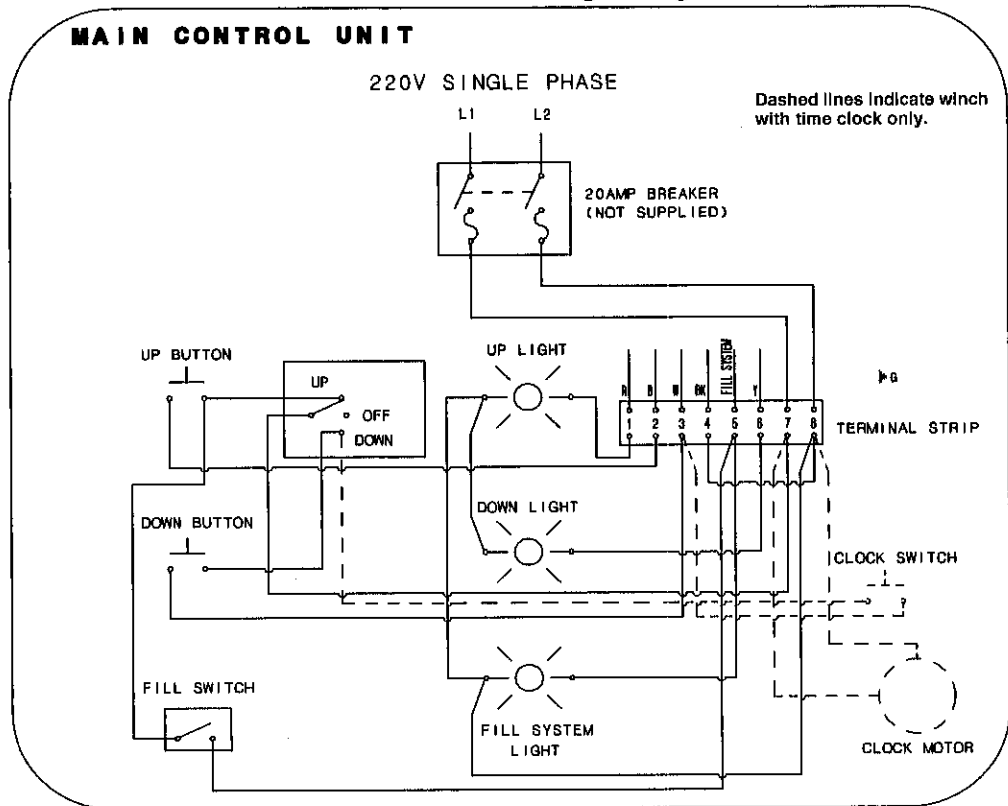
3. After filling is complete turn Feed switch to the off position.

4. The DPDT toggle switch must now be set to the "Down on Clock" position. **MAKE SURE TIME CLOCK IS SET TO THE PROPER TIME.** See inside of time clock box for instructions on setting time clock.

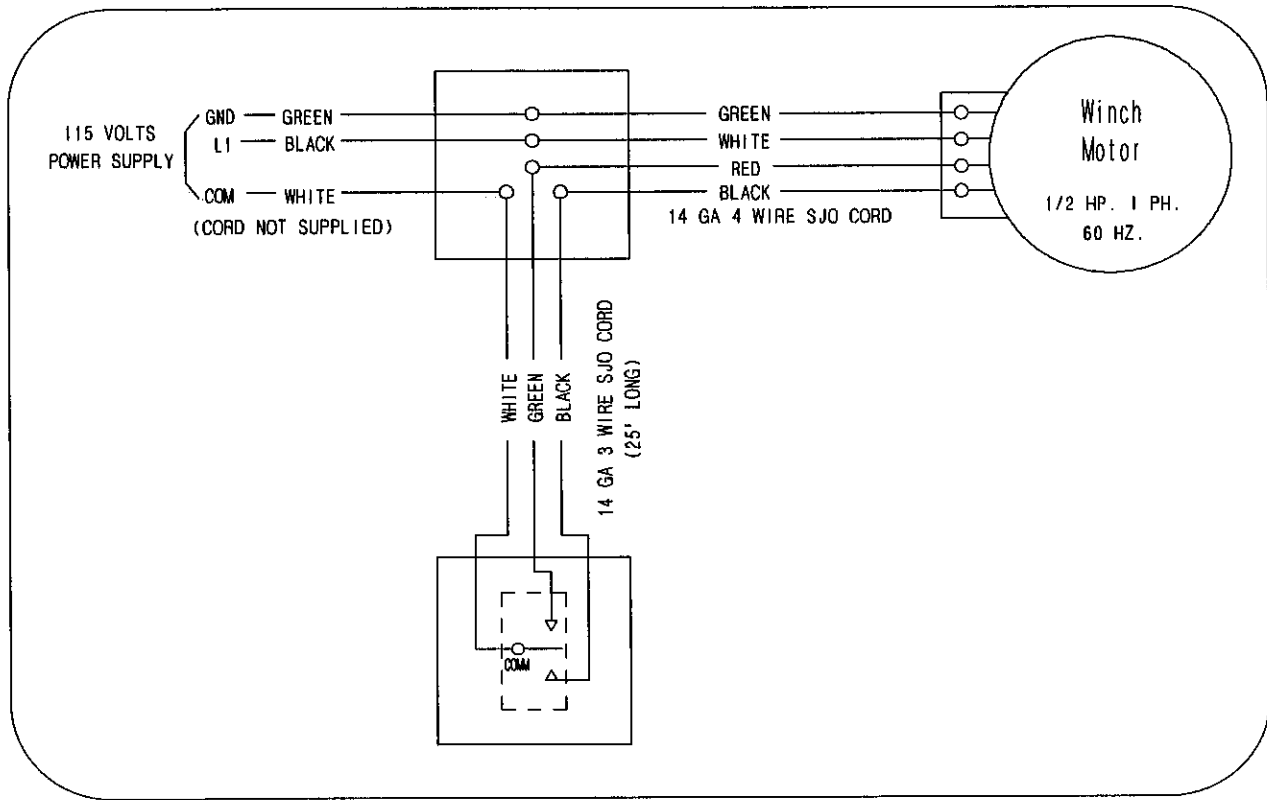
5. Pull out two (2) tabs on Time Clock at time which you wish feeding to begin.

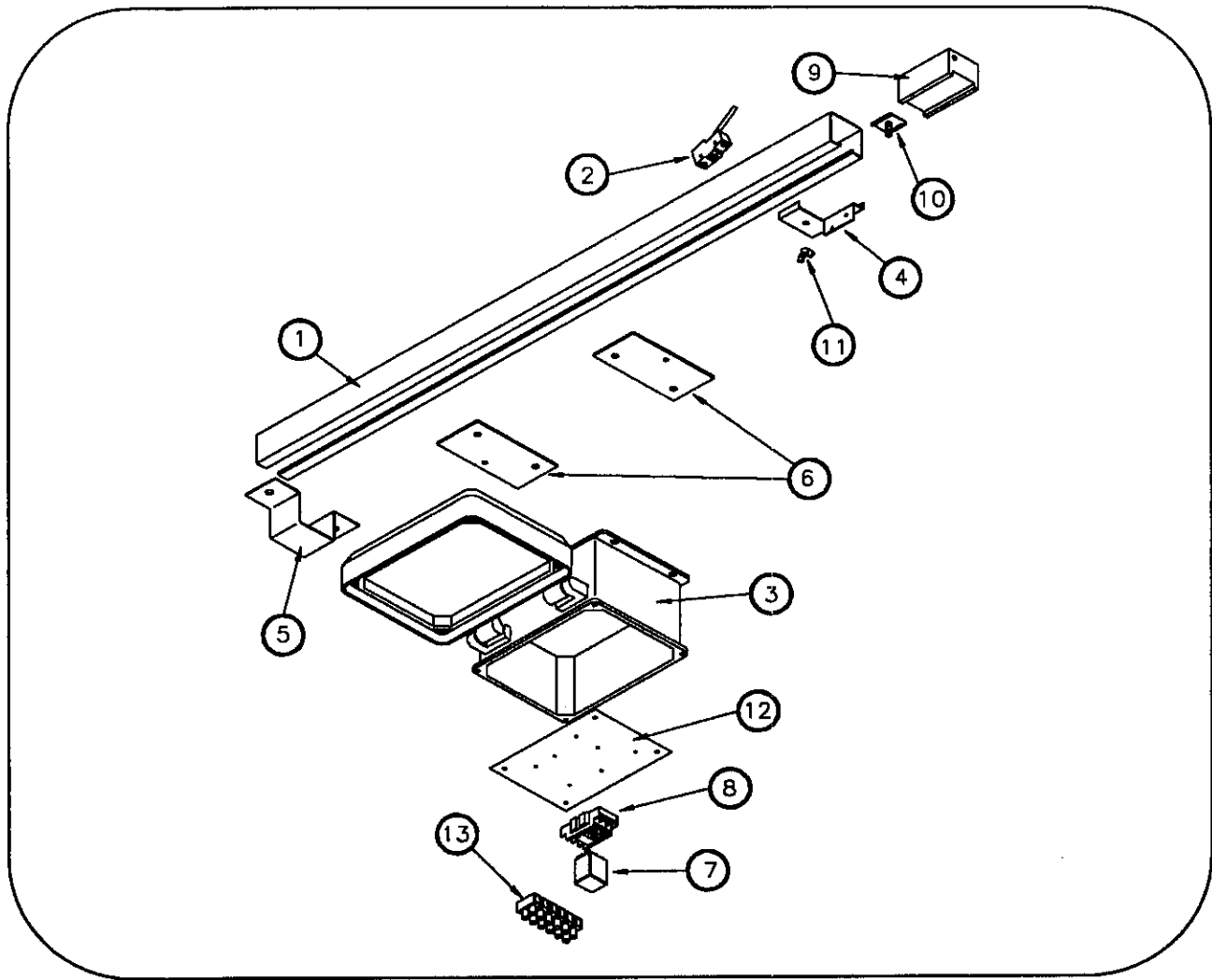
At predetermined time Power Winch will lower feed line to feeding position. System may only be raised manually using up push button and up toggle switch.

Power Winch Wiring Diagram



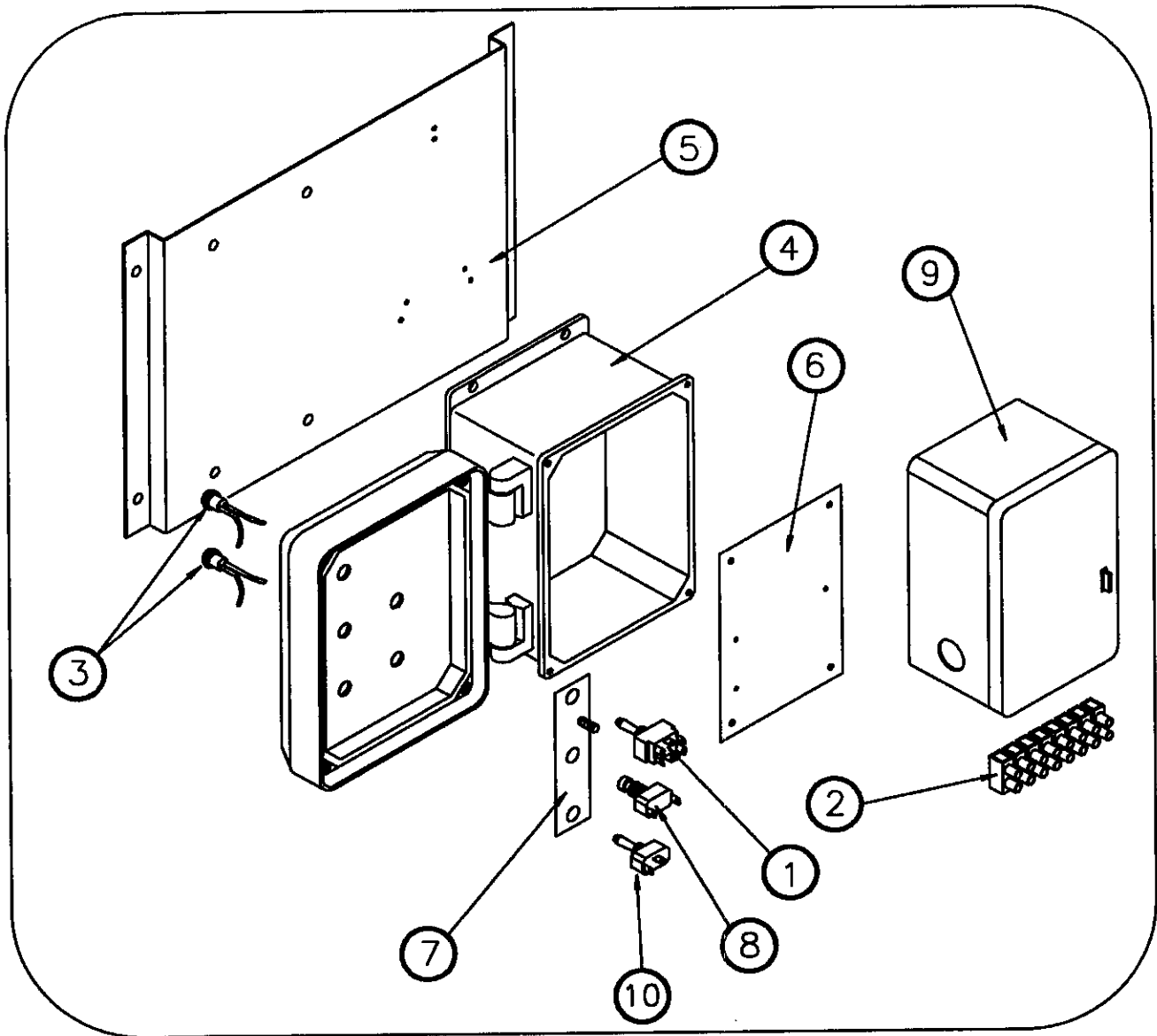
Electric Winch and Controller





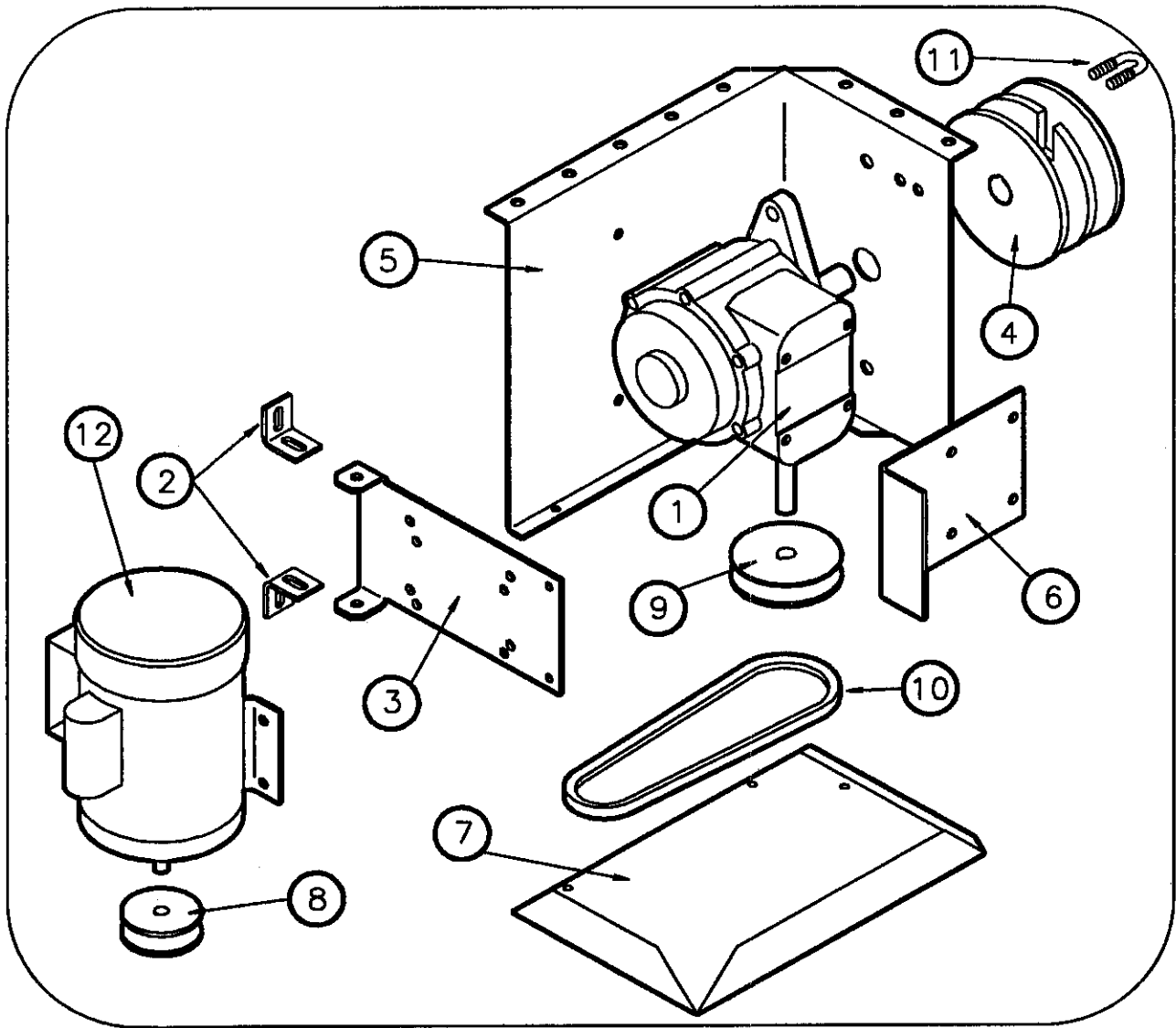
Ceiling Unit Parts

Key	Part No.	Description
1	07097537	Control Channel
2	07097202	Micro Switch
3	07097536	Non-Metallic Control Box
4	07097538	Switch Bracket
5	07097540	Channel Mounting Bracket
6	07097541	Control Box Mounting Bracket
7	07097554	3PDT Gen Purp Relay
8	07097555	Relay Base
9	07097529	Switch Activator Block
10	07097539	Channel Clip
11	S-4198	1/4-20 Wing Nut
12	07097640	Overhead Control Box Plate
13	S-6150	6 Gang Terminal Block



Main Control Parts

Key	Part No.	Description
1	TFC-0013	DPDT Switch (On-Off-On)
2	07097460	8 Pole Terminal Strip
3	07097476	250V Red Light
4	07097536	Non-Metallic Control Box
5	07097542	Control Box Mount Plate
6	07097641	Main Control Box Plate
7	07097643	Ground Plate Assembly
8	FH-999	N/O Momentary Switch
9	FLX-3413	24 Hour Time Clock
10	HH-1442	SPST Toggle Switch



Winch Assembly Parts

Key	Part No.	Description
1	00404008	Winch Gearbox
2	07097544	Motor Mount Support
3	07097545	Motor Mount
4	07097580	Cable Drum
5	07097581	Winch Bracket
6	07097582	Motor Adjustment Bracket
7	07097583	Belt Guard
8	07097584	Drive Sheave
9	07097585	Driven Sheave
10	07097586	"A" V-Belt
11	07097631	3/8" x 2" "U" Bolt
12	07097632	1/3 HP TEFC Motor

...the right combination of
tradition and technology



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