



Drop Feeder Control

Part Number 28999

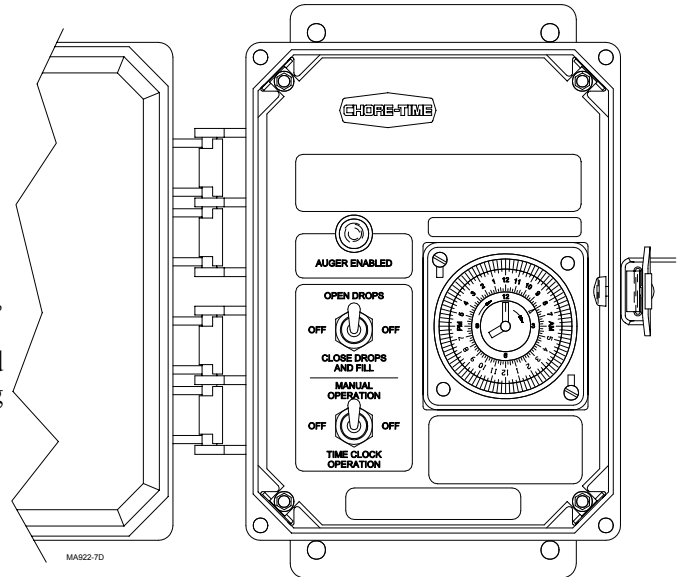
Introduction

The 28999 Drop Feeder Control is designed to be used with a Chore-Time Drop Feeding System and Chore-Time Flex-Auger® System.

The control will automatically open the Drop Feeders, close the Drop Feeders, and start the fill system. The system may also be operated manually.

The components of the control are housed in a dust proof, water tight box. Liquid tight connectors must be used when wiring into the control. The cover must be latched in closed position unless switches or time clock is being adjusted.

Wire the Drop Feeder Control, according to the appropriate wiring diagram.



Setting the Control

Unlatch and open front cover.

Time Clock operation

Set the desired feeding time(s) on clock by sliding out sufficient tabs to allow for auger run time. Slide out one additional tab for drop cycle (time required to open drops and close drops). Each tab represents 15 minutes. See "Time Clock Features and Operation" on page 5 for clock setting information.

The lower toggle switch should be in the TIME CLOCK OPERATION position.

The upper toggle switch should be in the OFF position.

How it Operates

When the switch on the time clock is activated by the tabs, all drops will open at the same time. The drops will automatically begin closing 15 seconds to 5 minutes after the clock is activated. This delay is adjustable inside the control panel.

In multiple lift applications the #1 lift will completely close, then #2, etc. until all drops have closed. At that time the fill system contactor and AUGER ENABLED Pilot Light will become energized and the fill system auger(s) will refill the drop boxes. The switch in the Drop Feeder Control Unit will stop the fill system(s). The fill system contactor and AUGER ENABLED Pilot Light will remain energized until the tabs no longer activate the Time Clock Switch.

CAUTION: Only use the number of time clock tabs needed to fill the system plus one extra tab.

Manual Operation

Set the lower toggle switch to the MANUAL OPERATION position. The Time Clock is now disabled and the drops may be opened or closed using the upper toggle switch.

The upper toggle switch should be in the OFF position when not in use.

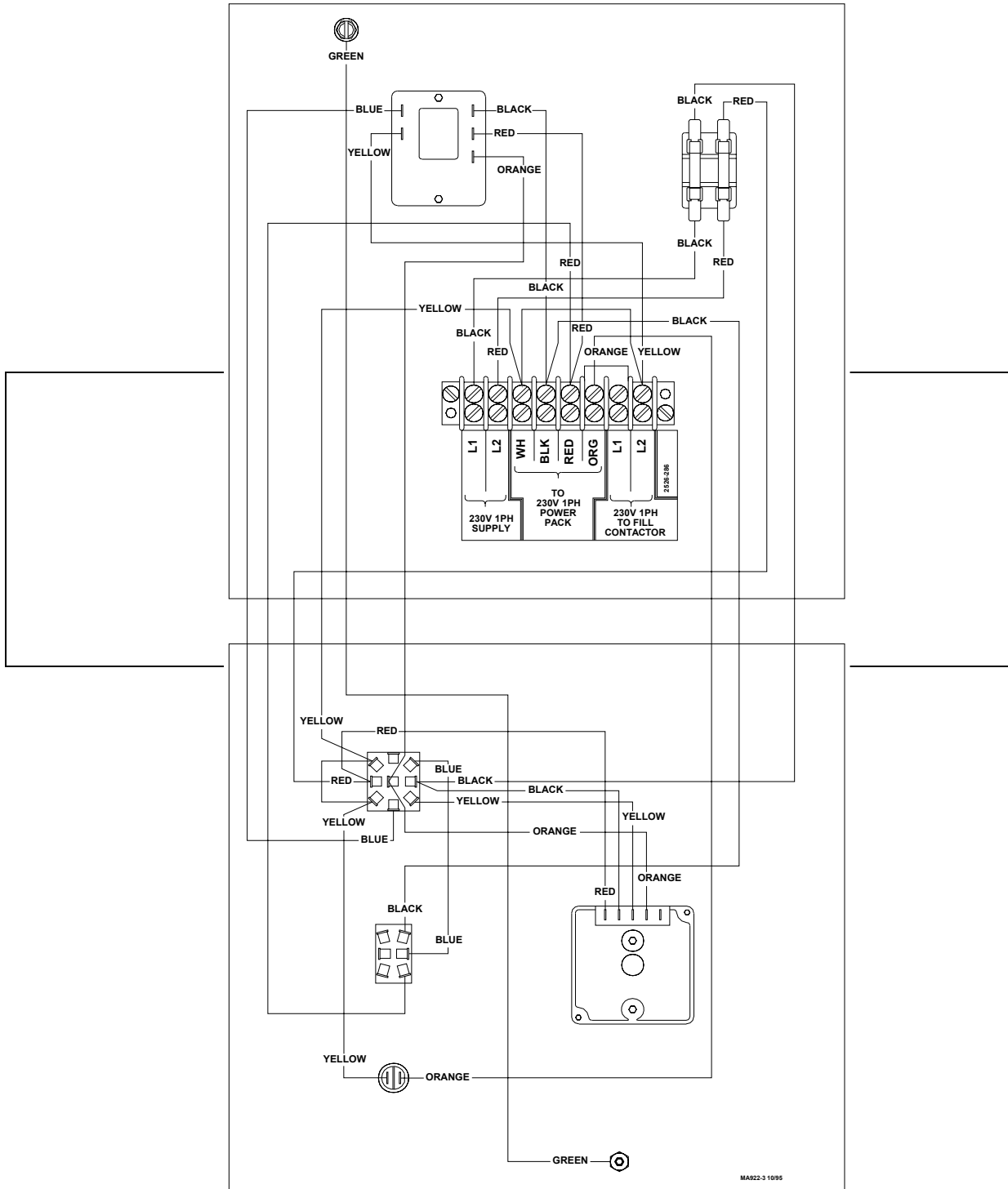
Chore-Time Equipment a Division of CTB Inc.
P.O. Box 2000 • Milford, Indiana 46542-2000 • U.S.A.
Phone (574) 658-4101 • Fax (877) 730-8825

How it Operates

Set the upper toggle switch to the OPEN DROPS position and the drops will open. Set the upper toggle switch to the CLOSE DROPS AND FILL position, and the drops will close. When the balls are fully seated the fill system contactor and AUGER ENABLED Pilot Light will become energized. The switch in the Drop Feeder Control Unit will stop the fill system.

Close the cover and secure latch to keep moisture and contamination from entering box and voiding warranty.

Drop Feeder Control Internal Wiring Diagram (Feed-Fill)



Internal Wiring Changes for converting a standard 28999 Drop Feeder Control Panel to a Feed-Delay Fill style control

In this mode of operation the drops will be full of feed at feeding. The refilling will be delayed to a preset time of choice. After the balls have been lifted to allow feeding, the ball will remain in the up position until time to refill the feed boxes.

The control will need to be wired as shown to run as a delay fill system, See Figure 1.

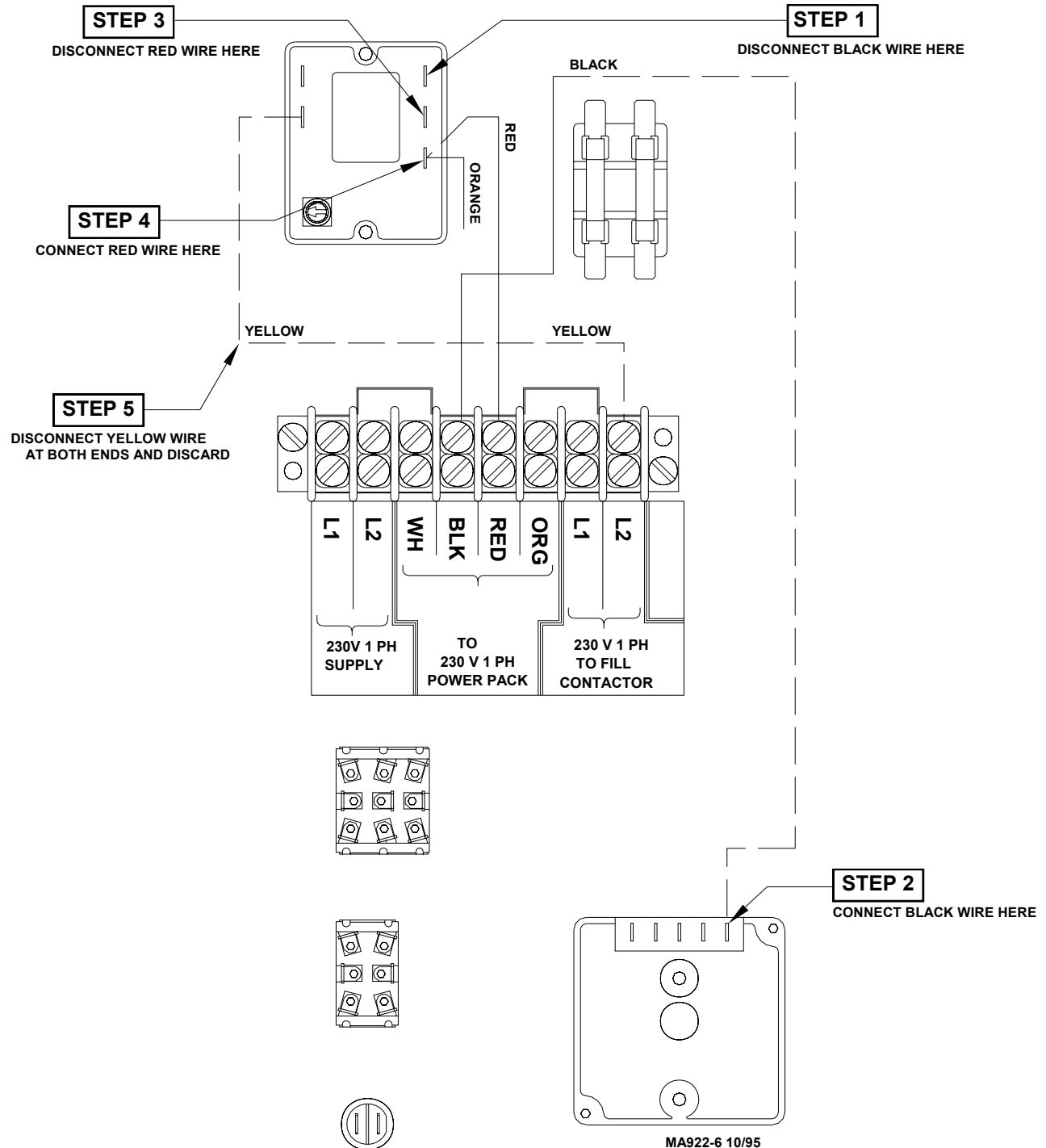
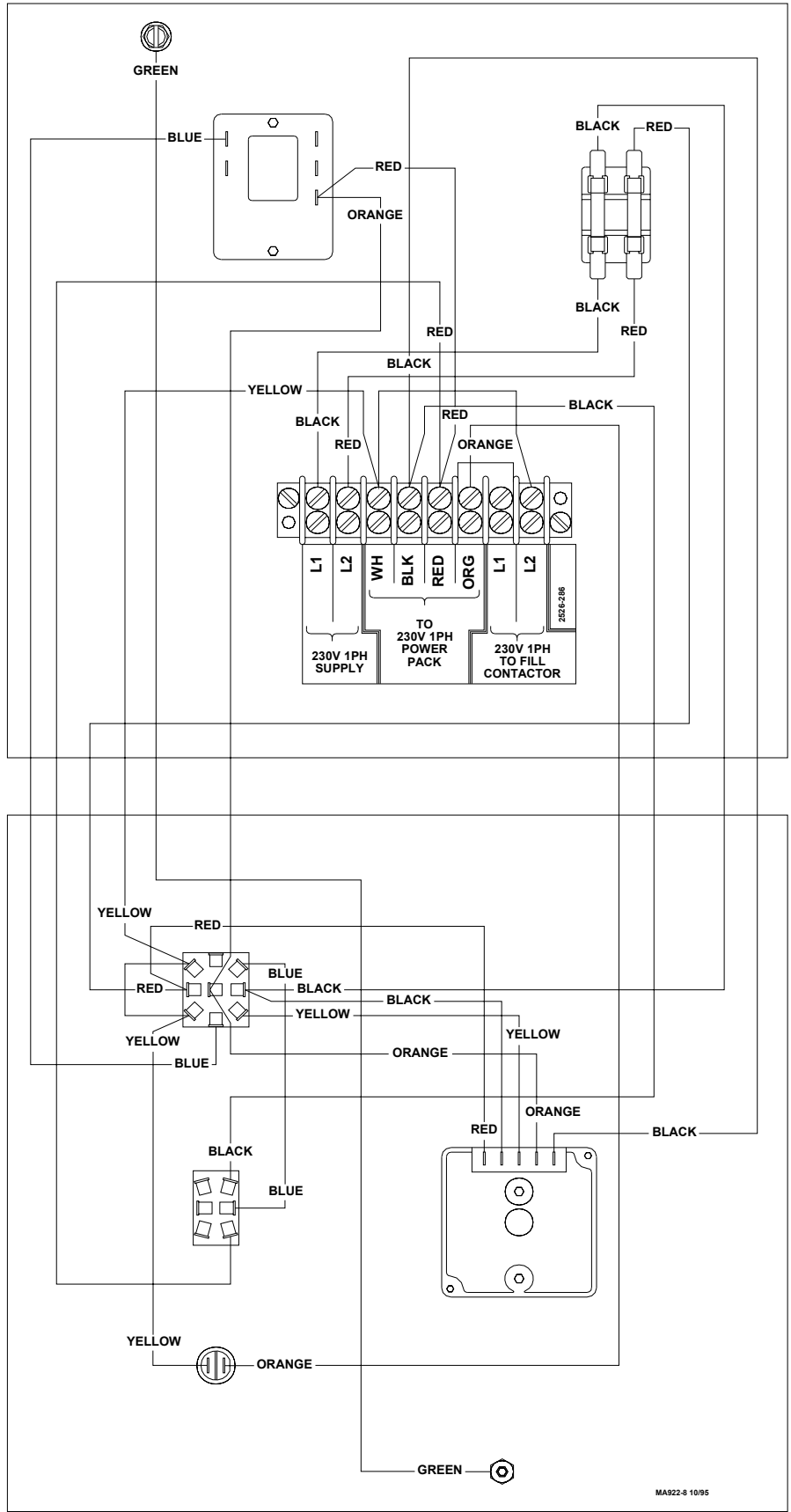


Figure 1. Standard Control converted

Instructions for setting the time clock, See Figure 2. Push in all the tabs between the selected feed time and fill time. With the time clock set this way it will delay filling of the boxes.

Drop Feeder Control Internal Wiring Diagram (Feed-Delay Fill)

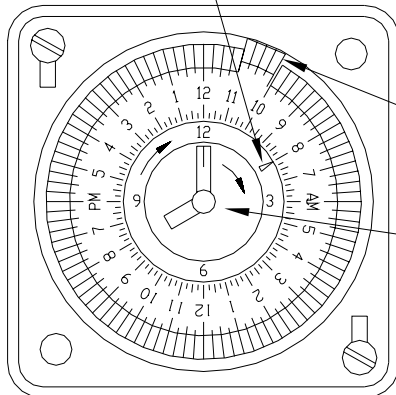


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Time Clock Features and Operation

- The outside edge of the clock face is a series of tabs.
- Use a finger nail or small screw driver to push tabs out.
- Each white tab on the time clock is equivalent to 15 minutes.
- Turn the white minute hand clockwise until the real time (actual time of day) is lined up with white arrow on inner clock face.
- **Do not turn the hand counter-clockwise! This will strip out the nylon gears and void your warranty. Also, never adjust the time clock by turning the outer dial.**

Time of Day (AM & PM Format)

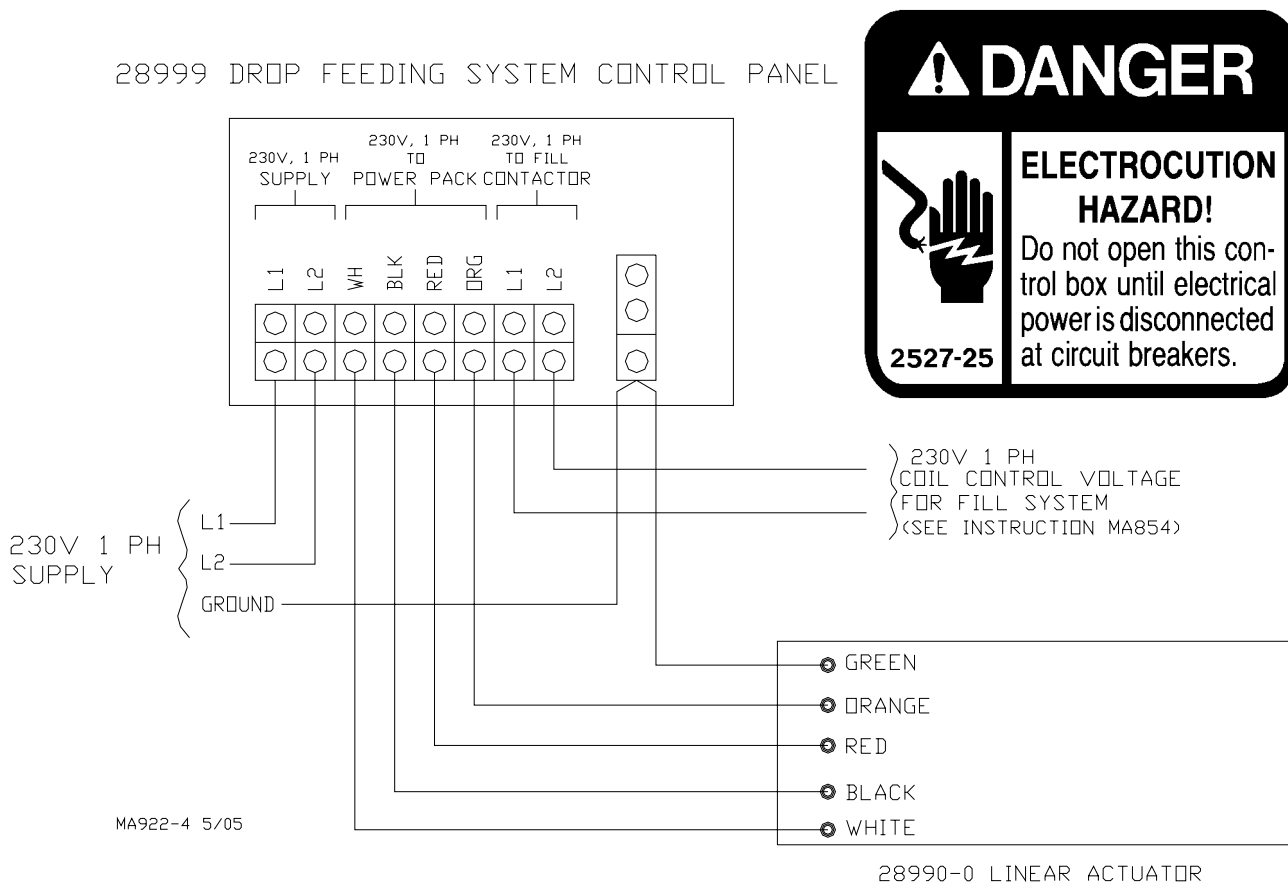


Pull tabs as required for feeding cycle (1hr. shown)

When adjusting, turn minute hand clockwise only.

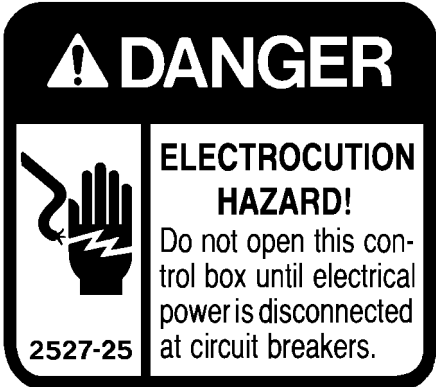
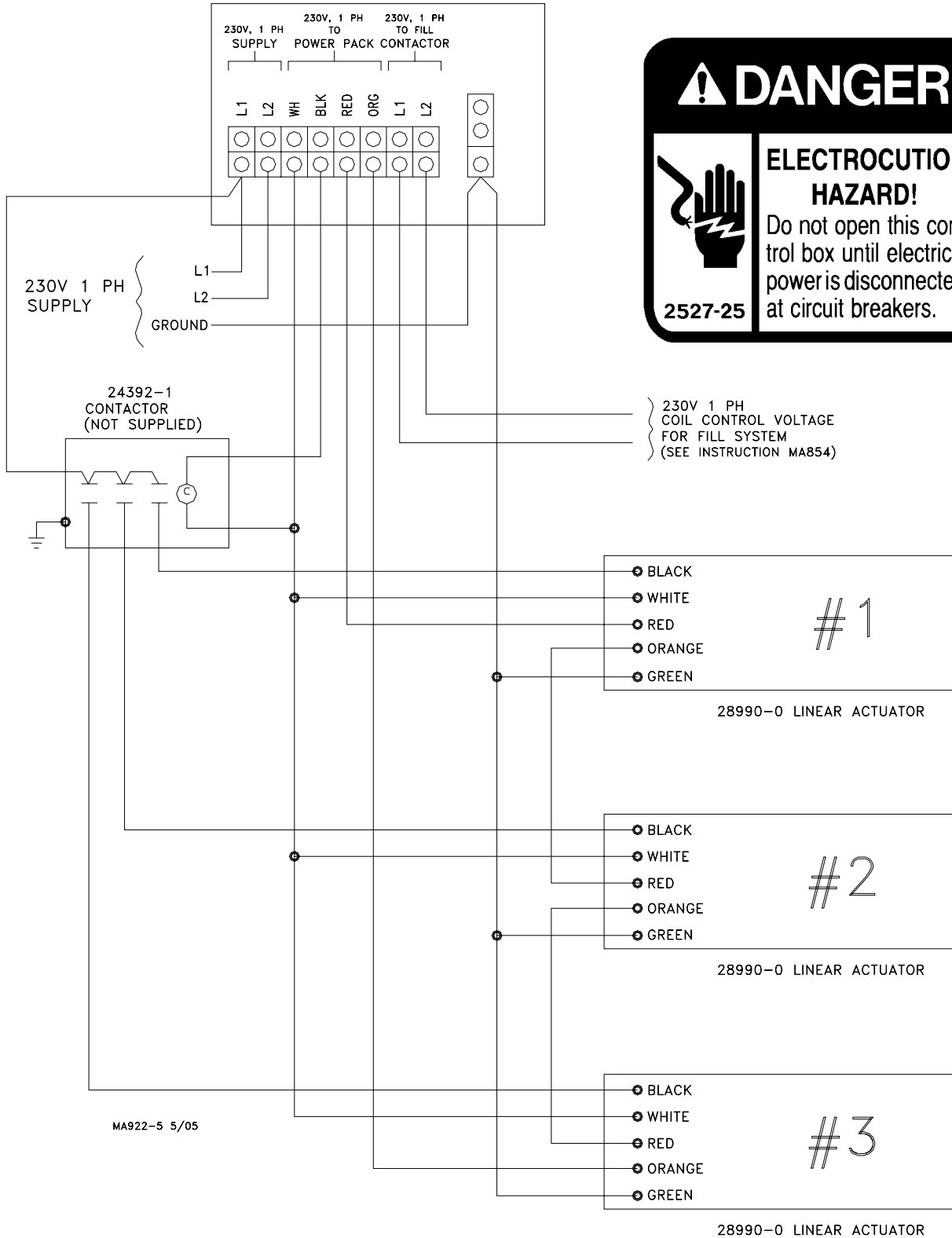
Figure 2. Setting Time Clock

Drop Feeder Control (with Single Linear Actuator) Wiring Diagram



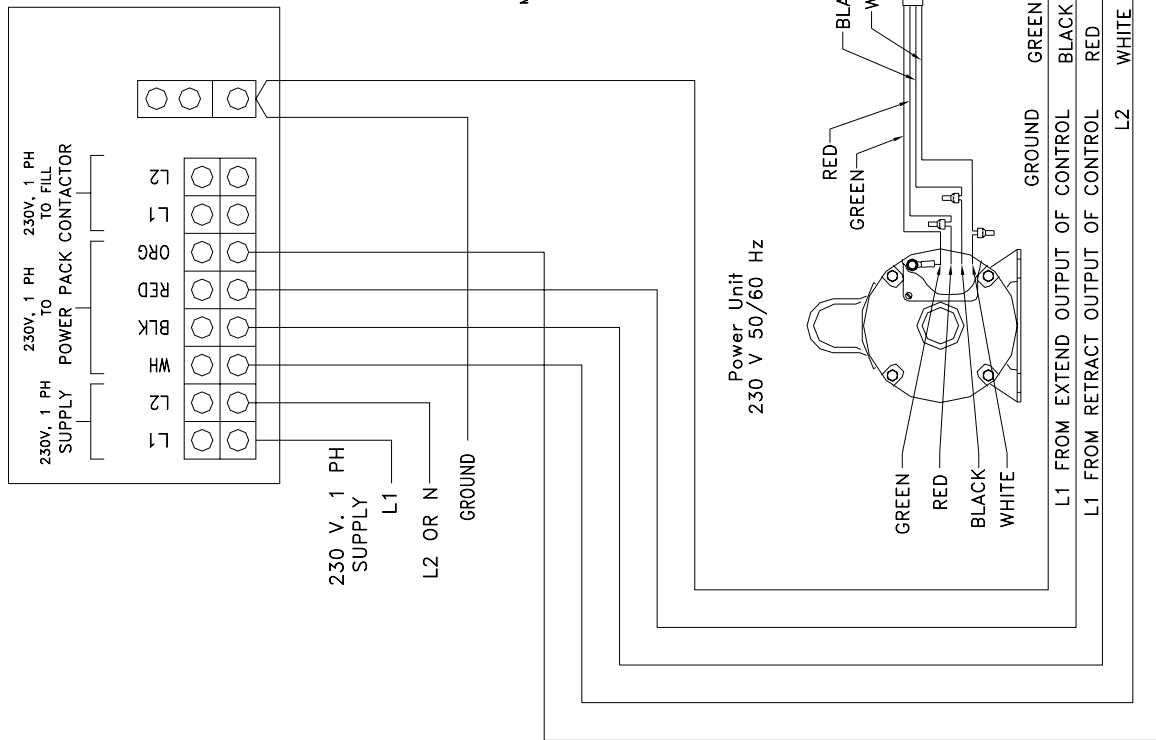
Drop Feeder Control (with Multiple Linear Actuators) Wiring Diagram

28999 DROP FEEDING SYSTEM CONTROL PANEL



Drop Feeder Control (with One Linear-Lift™) Wiring Diagram

28999 DROP FEEDING SYSTEM CONTROL PANEL



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! DANGER

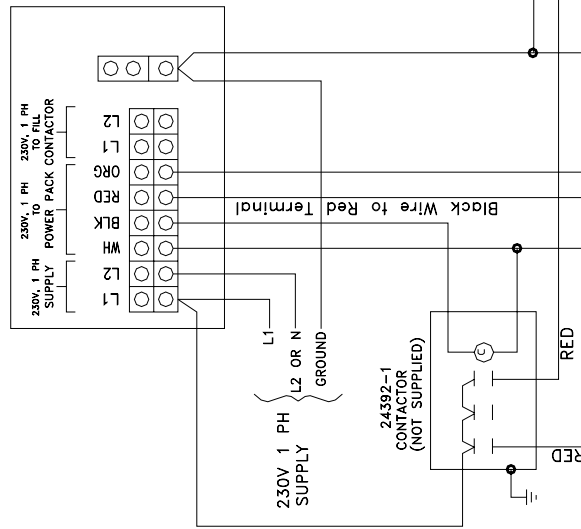
ELECTROCUTION HAZARD!

Do not open this control box until electrical power is disconnected at circuit breakers.

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Drop Feeder Control (with Two Linear-Lifts™) Wiring Diagram

28999 DROP FEEDING SYSTEM CONTROL PANEL



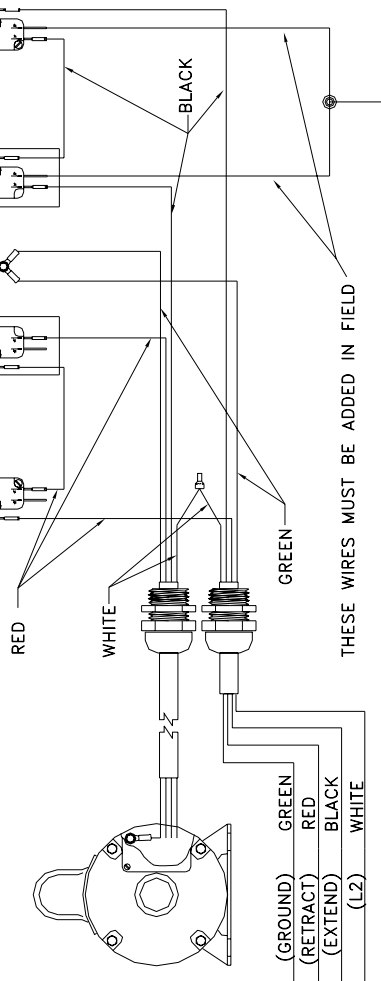
⚠ DANGER

ELECTROCUTION HAZARD!

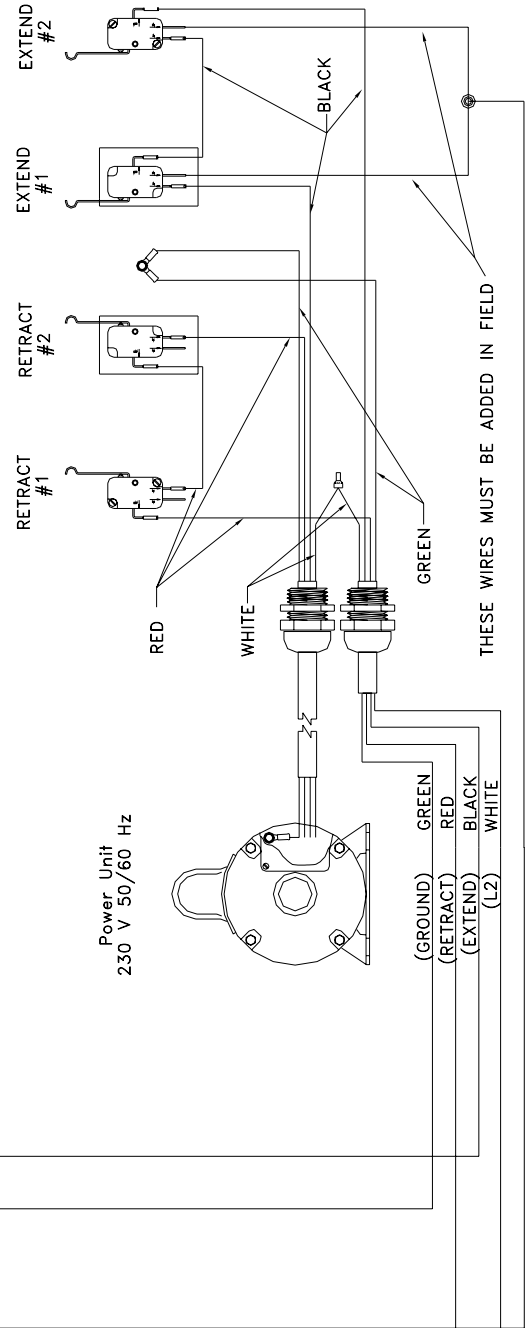
Do not open this control box until electrical powers are disconnected at circuit breakers.

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Power Unit
230 V 50/60 Hz



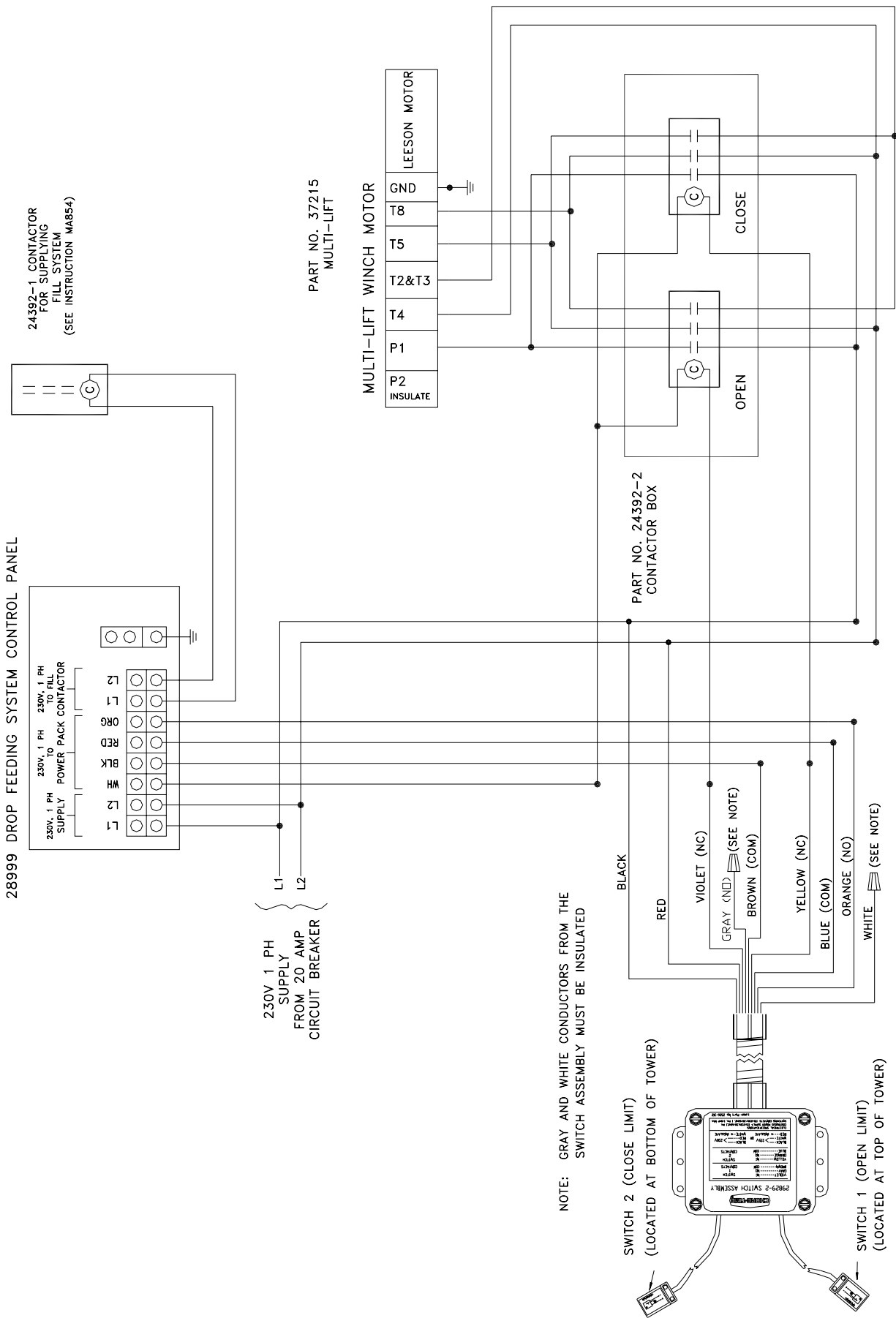
Power Unit
230 V 50/60 Hz



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Drop Feeder Control (with One MULTI-LIFT® and One Tower Switch) Wiring Diagram

MA922E



24392-1 CONTACTOR FOR SUPPLYING FILL SYSTEM (SEE INSTRUCTION M4854)

28999 DROP FEEDING SYSTEM CONTROL PANEL

230V 1 PH SUPPLY FROM 20 AMP CIRCUIT BREAKER

PART NO. 37215 MULTI-LIFT

MULTI-LIFT WINCH MOTOR

SWITCH 2 (CLOSE LIMIT) (LOCATED AT BOTTOM OF TOWER)

SWITCH 1 (OPEN LIMIT) (LOCATED AT TOP OF TOWER)

NOTE: GRAY AND WHITE CONDUCTORS FROM THE SWITCH ASSEMBLY MUST BE INSULATED

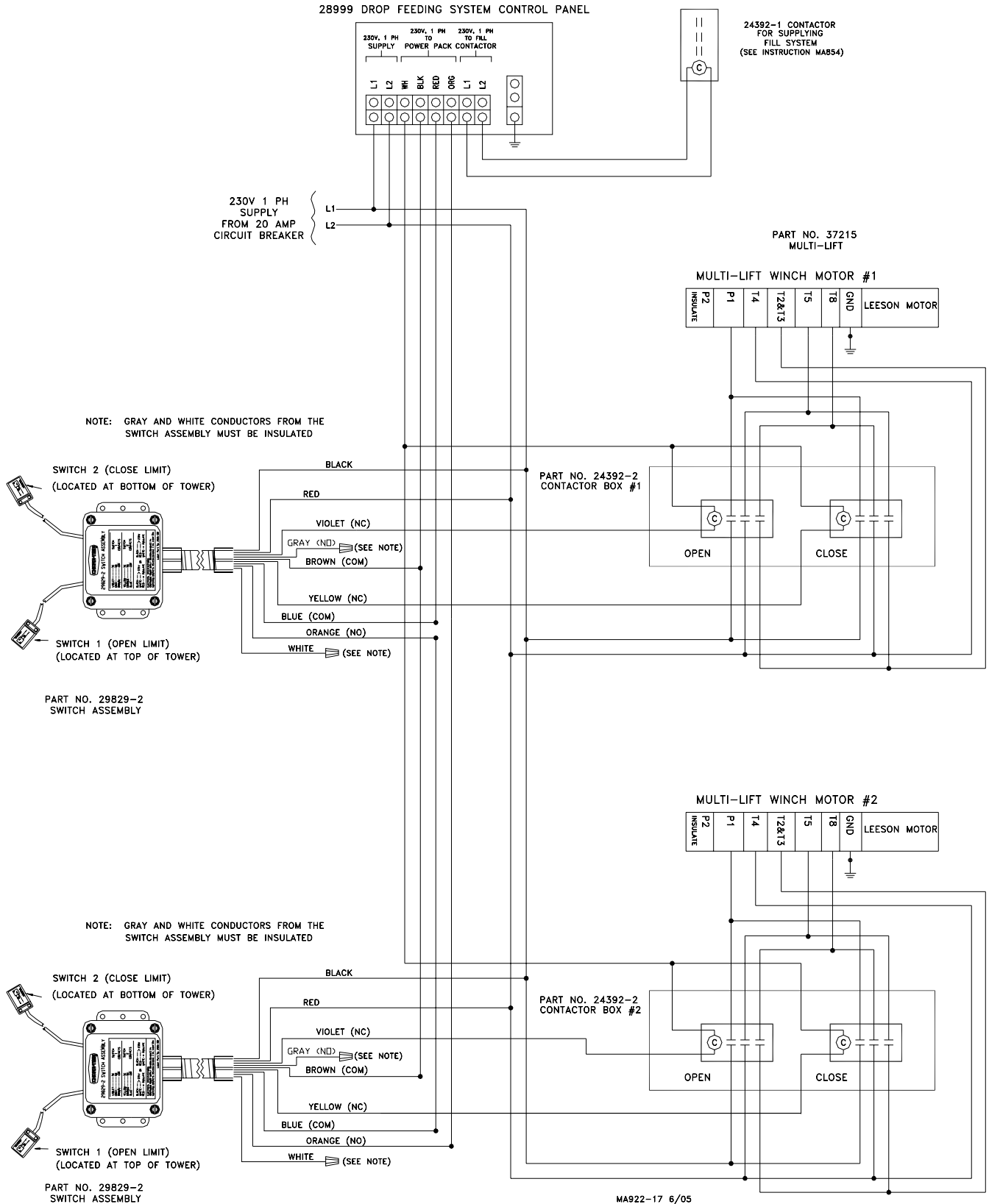
BLACK
RED
VIOLET (NC)
GRAY (ND) (SEE NOTE)
BROWN (COM)
YELLOW (NC)
BLUE (COM)
ORANGE (NO)
WHITE (SEE NOTE)

PART NO. 24392-2 CONTACTOR BOX

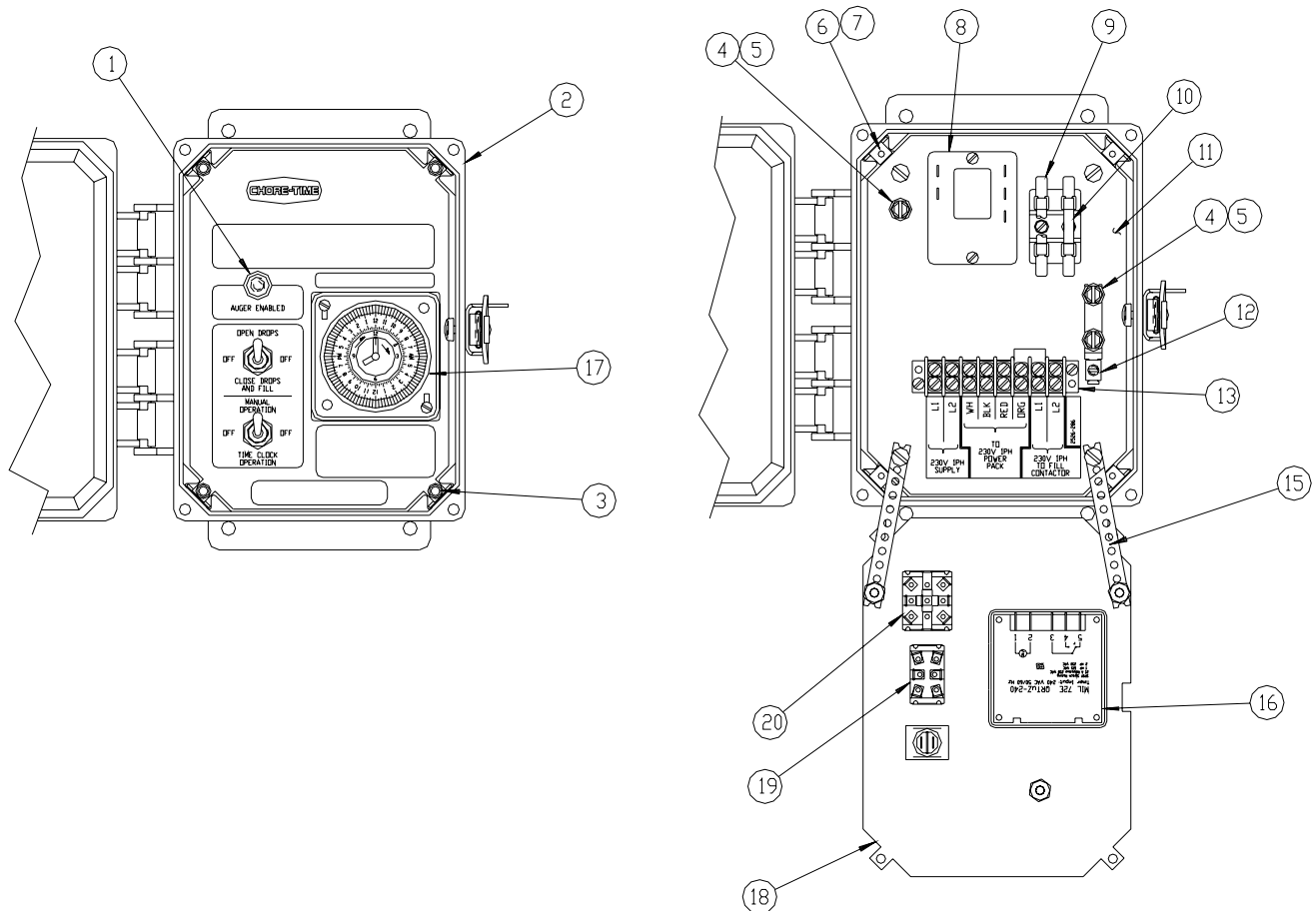
PART NO. 29829-2

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Drop Feeder Control Two MULTI-LIFT®/Two Tower Switches Wiring Diagram



Drop Feeder Control Parts Listing (Part No. 28999)



Item	Description	Part No.
1	Pilot Light	7044
2	Control Box	28821
3	Push Nut Retainer	29879
4	10-32 Ground Screw	4968
5	#10 External Lock Washer	305
6	Corner Bracket	29013-1
7	Sheet Edge Insert	29878
8	Time Delay Relay (230 V)	29890
9	Fuse Block	7588
10	5 amp Normal Blow Fuse	7001
11	Mounting Plate	28689
12	Copper Lug	28822
13	Terminal Block	7270
14	----	----
15	Strapping	29014-2
16	Mounting Adapter	25480
17	Time Clock	26795
18	Front Panel	28685
19	Toggle Switch	20135
20	Toggle Switch	29727



Made to work.SM

Built to last.

Contact your nearby Chore-Time distributor or representative for additional parts and information.

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