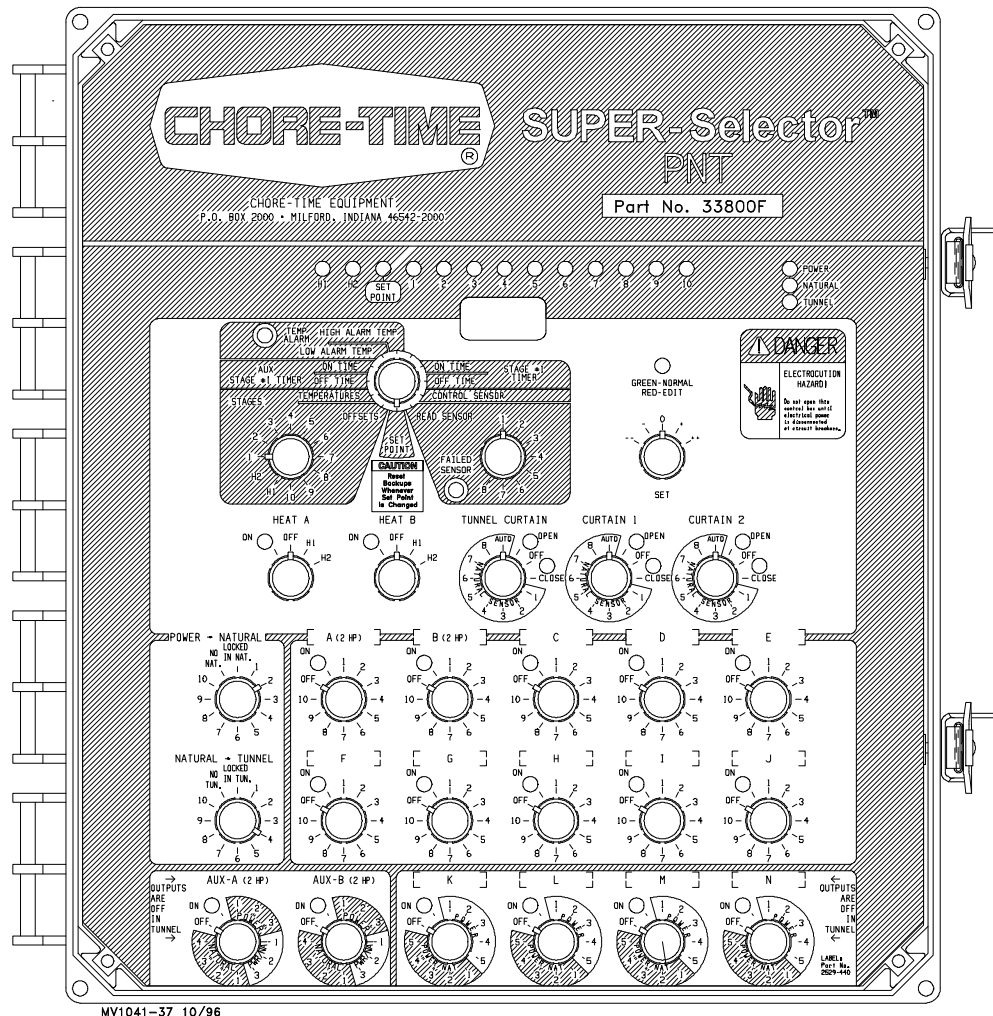


SUPER-Selector™ Control

Installation and Operation Manual

Part Numbers: 33800F, 33800FN, 33800C, & 33800CN



Support Information

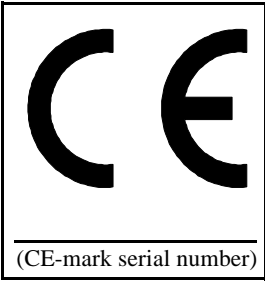
The Chore-Time SUPER-Selector PNT Control is designed to be used as a *tool* to manage ventilation in poultry and livestock applications. Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury and/or death.

This manual is designed to provide comprehensive, wiring, operation, and parts listing information. The Table of Contents provides a convenient overview of the information in this manual. The Table of Contents also specifies which pages contain information for the sales personal, installer, and customer (end user).

IMPORTANT: CE stands for *certified Europe*. It is a standard which equipment must meet or exceed in order to be sold in Europe. CE provides a benchmark for safety and manufacturing issues. CE is required only on equipment sold in Europe.

Chore-Time Equipment recognizes CE Mark and pursues compliance in all applicable products. Please fill in the CE-Mark serial number in the blank space provided for future reference.

Please include the names and address of your Chore-Time Distributor and installer.



Please fill in the following information about your system. Keep this manual in a clean, dry place for future reference.

Distributor's Name _____

Distributor's Address _____

Distributor's Phone _____ **Date of Purchase** _____

Installer's Name _____

Installer's Address _____

Installer's Phone _____ **Date of Installation** _____

System Specifications _____

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*Legend: C = Customer (end user), D = Distributor (sales), I = Installer

SAFETY INFORMATION

Caution, Warning and Danger Decals have been placed on the equipment to warn of potentially dangerous situations. Care should be taken to keep this information intact and easy to read at all times. Replace missing or damaged safety signs.

Using the equipment for purposes other than specified in this manual may cause personal injury or damage to the equipment.

Safety–Alert Symbol

This is a safety–alert symbol. When you see this symbol on your equipment, be alert to the potential for personal injury. Chore-Time equipment is designed to be installed and operated as safely as possible...however, hazards do exist.



Signal Words

Signal words are used in conjunction with the safety–alert symbol to identify the severity of the warning.

DANGER indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

WARNING indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

CAUTION indicates a hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.



DANGER



WARNING



CAUTION

DANGER—ELECTRICAL HAZARD

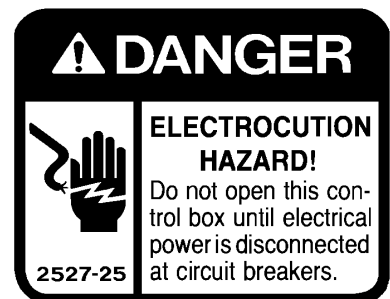
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

All electrical wiring must be done by a qualified electrician in accordance with local and national electric codes.

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

With the exception of motor overload protection, electrical disconnects and over current protection are not supplied with the equipment.



Part No. Definitions

33800F SUPER-Selector Control

The factory settings and sensor calibrations assume degrees Fahrenheit (F) operation. The control cannot be changed to degrees Celsius operation.

Outputs A through J **are not functional** when the control is in Natural Mode.

33800FN SUPER-Selector Control

The 33800FN SUPER-Selector Control is the same as the 33800F (above), except outputs A through J **are functional** in all modes.

33800C SUPER-Selector Control

The 33800C SUPER-Selector Control is the same as the 33800 (above), except that the factory settings and sensor calibrations assume degrees Celsius (C) operation. The control cannot be changed to degrees Fahrenheit operation.

Outputs A through J **are not functional** when the control is in Natural Mode.

33800CN SUPER-Selector Control

The 33800CN SUPER-Selector Control is the same as the 33800C (above), except outputs A through J **are functional** in all modes.

Mode Definitions

Power Ventilation

Power ventilation occurs when all curtains are closed and all ventilation is caused by fans. These fans can be located in the side walls or the end walls. The SUPER-Selector will place the house in this mode of operation whenever the temperature becomes cool enough that the curtains' closing cannot maintain the desired set temperature.

Natural Ventilation

Natural ventilation is when the curtains are at least partially open and the ventilation is totally natural (breeze, wind, etc.). The SUPER-Selector will place the house in this mode of operation when the air temperature warms up enough that the exhaust fans (that are programmed to run) cannot remove enough bird heat to maintain the desired temperature.

Tunnel Ventilation

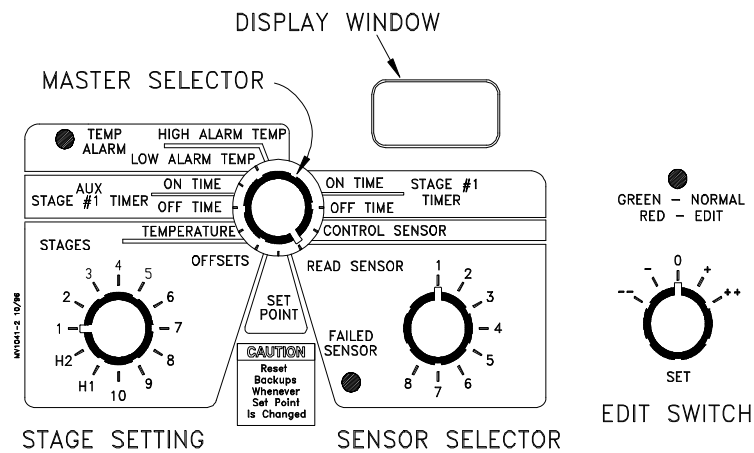
Tunnel ventilation is when the main side wall curtains are closed and the tunnel air inlet curtain is opened while multiple large fans (usually 48" fans) are running at the opposite end from the tunnel air inlet curtain. The air flow, when in tunnel mode, will be from one end of the house to the other and the air velocity helps cool the birds. The SUPER-Selector will place the house in this mode of operation when the temperature has risen to the point that with the curtains wide open the temperature rises to the stage that the SUPER-Selector is set to go from natural to tunnel. If natural ventilation is not being used, the transition to tunnel will occur when the number of fans running prior to the stage selected to go to tunnel ventilation cannot hold the temperature below that stage's temperature.

Programming the SUPER-Selector

The SUPER-Selector front panel is divided into different areas to clarify the types of programming required. Each of the following must be properly set.

1. Setting stage temperatures, timers, and alarm limits.
2. Assigning the stage at which each output will be activated.
3. Assigning the stage that the control will go from power ventilation mode to natural ventilation mode as well as the stage that the control will go from natural ventilation mode to tunnel ventilation mode.

Setting Stage Temperatures, etc.



The *master selector* determines what information is to appear in the *display window*. The *edit switch* is used to change that setting. When the *master selector* is pointing toward the *stage setting* switch or the *sensor selector* switch, those switches determine what is shown in the display.

Stage #1 Timer

All outputs (except AUX-A and AUX-B) will time ON and OFF with the STAGE #1 timer if the output knob is pointing towards 1. Above STAGE #1 the output will be on steady as with a thermostat override.

The ON and OFF timers are in seconds and can be adjusted from 0 to 2000. The appropriate amount of time to program depends on bird age, litter condition, and the number of fans assigned to stage 1.

Control Sensor

The Control Sensor reads the temperature and determines which stage the control is in.

When the *master selector* is pointed toward CONTROL SENSOR, the display window will reflect which sensor is serving as the Control Sensor (any of the sensors may be chosen as the CONTROL SENSOR). Use the edit switch to choose which sensor is to be the Control Sensor.

One to eight sensors may be installed. Refer to the section titled "Telling the Control the Number of Sensors Installed" on page 14. The positions used on the terminal strip must be in numerical order (i.e. 1, 2, 3, not 1, 3, 6, etc.).

! CAUTION !

The Control Sensor must be located in the bird or animal area being controlled.

Room Temp

When the *master selector* switch points toward READ SENSOR, the display will show the temperature reading of the sensor chosen. The reading cannot be edited by the *edit switch*. It is a reading of the temperature at that sensor and is not subject to being edited.

Whenever any of the sensors fail, the alarm relay will be energized and the FAILED SENSOR light will flash. Use the *sensor selector* knob to determine which sensor has failed.

If the CONTROL SENSOR fails, the control will lock itself into the stage and mode it is in at the moment the sensor failure occurs.

For instance, if the control is at set temp and in power ventilation with the exhaust fans cycling on and off, and the CONTROL SENSOR fails, the control will continue operating in that mode. Replacing the sensor, or simply changing the CONTROL SENSOR to a good sensor position will return the control to automatic operation.

Set Point

The set point (desired temp) is edited when the *master selector* is pointing at the SET POINT position. The set point can be set from 0.0 to 200.0

Stages: Temperatures & Offsets

When the *master selector* switch is pointed toward OFFSETS the *edit switch* will set the temperature difference between the previous stage and the stage that is selected. For instance, if the offset for stage 1 = 2.0, the offset for stage 2 = 3.0, and the offset for stage 3 = 4.0, then the STAGE 3 absolute temperature will be Set Temp + 2.0 + 3.0 + 4.0. Changing a temperature difference will affect the absolute temperature of that stage and all stages above that stage. It will not affect the absolute temperature of any stages below that stage.

Heat Stage 1 and Heat Stage 2 behave in a similar manner except that they are heat stages and are below the set temperature instead of above.

The cool stages (stages 1 through 10) turn on at the stages temperature when the temperature is rising and turn off at the previous stages temperature when the temperature is falling.

The heat stages have 0.3° on-off differentials (for both degrees F. and C.).

Pointing the *master selector* switch to TEMPERATURES causes the display to indicate the absolute temperature of the stage selected by the *stage setting* knob. These absolute temperatures cannot be edited. The intent of this feature is to aid the user in determining the absolute temperature of each stage. To change the absolute temperatures of the stages, it is necessary to change the temperature offsets between stages.

The stage offsets can be set from 0.0 to 200.0 degrees.

Aux Stage #1 Timer

The AUX STAGE #1 TIMER applies to the AUX A and AUX B outputs in the same manner as the STAGE #1 TIMER applies to all the other outputs. Namely, if either the AUX A or AUX B output is set on 1, it will turn on and off

per the AUX STAGE #1 TIMER settings when the temperature is below stage #1, and on constantly for temperatures above stage #1.

Outputs I and J are also affected by the AUX STAGE #1 TIMER in a different manner intended for running cooling pads or foggers through a timer. For instance, if Output I were set on 7, it would be off below stage #7 and ON and OFF per the AUX STAGE #1 TIMER above STAGE #7.

The AUX STAGE #1 TIMER ON and OFF time can be set between 0 and 2000 seconds. If Output I and/or Output J are not to be timed, set the AUX TIMER OFF TIME to 0.

High And Low Alarm Temp

The ALARM relay will be energized if temperatures exceed the HIGH ALARM TEMP or drops below the LOW ALARM TEMP or any sensor fails.

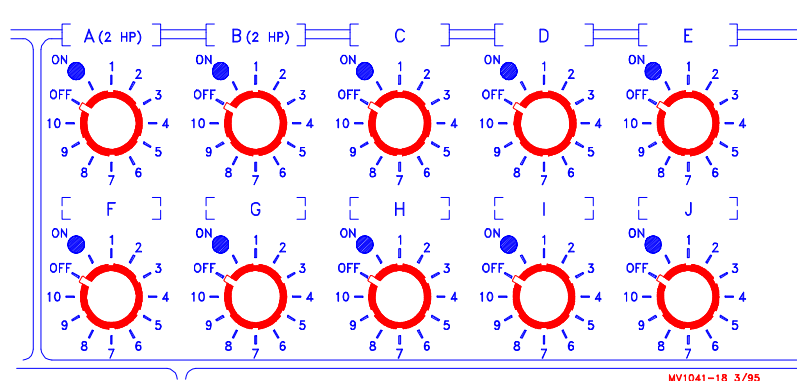
In addition, both heat outputs will be turned on whenever the temperature goes below the low alarm temperature (unless that heat output is turned off). This happens regardless of whether the control is in power ventilation or not.

If the high or low alarm is activated, the Temperature Alarm Light will flash.

Power, Natural, and Tunnel Mode Outputs

There are three relays that are energized to indicate which mode the control is in. Obviously, only one of these relays can be energized at a time since the control can only be in one mode at a time (power, natural, or tunnel). These relays can be used to create special functions, such as described in Assigning Sensors to Curtain Outputs (see page 13), etc.

Assigning Stages to Outputs



HEAT A, HEAT B, Outputs A through N, AUX A, and AUX B must be assigned to a stage if the output is used. Also each of these outputs may be manually turned on or off with its switch by using the on or off position.

Heat A And Heat B

There are 2 heat stages, H1 and H2. If both brooders and space heaters were used, a good approach would be to attach the brooders to the HEAT A output and set its stage to H1 and the space heaters to HEAT B with its stage H2. This would allow changing the primary heat from brooders to space heaters by merely changing HEAT A to stage H2 and HEAT B to H1.

Outputs A Thru H

33800F & 33800C Controls: These outputs are allowed to operate during power and tunnel mode of operation. These outputs are mainly intended for tunnel fans and would be normally set at or above the stage that the control is set to go from natural or power to tunnel ventilation. These outputs may also be used to control a fan for both power and tunnel mode if the output's stage is set to be lower than the stage set to go from power to natural mode.

33800FN & 33800CN Controls: Same as above, except that outputs A through H will **not** turn off while in natural ventilation mode.

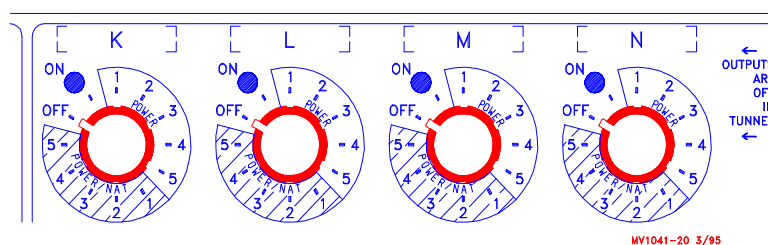
Outputs A and B have two output relays each in order to control two 1 HP fans if desired.

Outputs I And J

Outputs I and J are the same as outputs A thru H except that they are routed through the AUX TIMER. This feature is intended for foggers or cooling pads where it is desired to run them with a timer above the stage temperature.

If timing of these outputs is not desired, program the OFF TIME of the AUX TIMER to 0. Program the ON TIME to be anything other than 0.

Outputs K Thru N

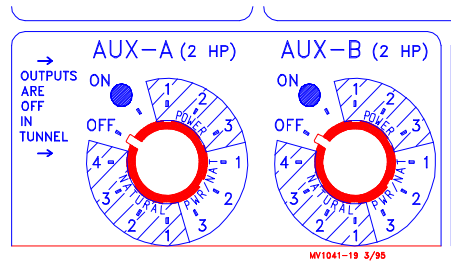


Outputs K through N are intended for exhaust fans. They are turned off during tunnel operation. They will run during both power and natural ventilation if set in the red area of the switch for use where the fans might be swung out during summer operation (non-tunnel houses).

Aux A and B

Aux A and B have two output relays with each switch and are intended for controlling center or circulating fans. The Stage #1 Timer is intended to be the minimum ventilation timer for the exhaust fans while the Aux Stage #1 Timer is for the circulating fans with quite different considerations. Like the Stage #1 Timer, the Aux Stage #1 Timer is attached to the Stage #1 only.

Note that AUX A and B can be set to operate in power, power and natural, or natural mode. Aux A and B are off in the tunnel mode similar to Outputs K through N.



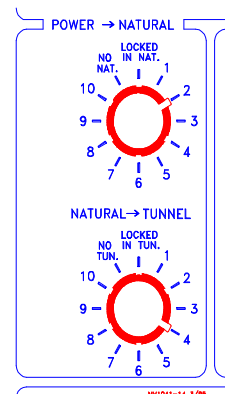
Assigning Stages to Mode Changes

On the left of the control panel are two switches which set the stages that the control will change modes. The upper one sets the stage that the control will go from power to natural mode. The lower switch sets the stage that the control goes from natural to tunnel mode.

Using these switches, it is possible to force the control to stay in power mode (no natural, no tunnel), force the control into natural mode (locked in natural), or force the control into tunnel mode (locked in tunnel with the power/natural switch in any position other than locked in natural). If the control is locked in natural it will override the locked in tunnel setting.

IF LOCKED IN TUNNEL, THE MINIMUM NUMBER OF FANS ALLOWED TO RUN WHEN IN TUNNEL MUST BE LOCKED ON. (SWITCHES SET IN THE ON POSITION).

The (3) lights in the upper right corner of the control indicate the mode the control is in.



Mode Transitions

Power to Natural

The main motivation to use natural ventilation is to reduce the usage of electricity. Because of this, most curtain sided houses that are intended to naturally ventilate will have a relatively small amount of exhaust fan capacity. Depending on bird age, the outside air temperature can be considerably colder than the desired set temperature when the fans cannot keep up with the bird heat. For larger birds, the outside temperature will be quite cool when the fans cannot keep up. Regardless of the bird age, the outside air temperature will be lower than the inside temperature when the fans cannot keep up with the bird heat. Because of this fact, the transition from power to natural ventilation will be quite unstable during windy weather conditions.

The control will do the best job of dealing with these conditions if the magnitude of the initial opening of the main curtains is 8 to 10 inches (20 to 25 cm). For the 33800F and 33800FN, the first opening movement will be 3 inches (75 mm) for every degree F. the power to natural stage temperature is programmed to be above the set temperature. For the 33800C and 33800CN, the first opening movement will be 5.4 inches (14 cm) for every degree C. the power to natural stage temperature is programmed to be above the set temperature. Best results will occur if the first opening movement is 8 to 10 inches (20 to 25 cm). If it is breezy when the control first opens the curtains, such that the control sensor drops to the previous stages' temperature within 5 minutes from the time the curtain first opens, the control will immediately return to power ventilation. This happens without the temperature having to fall below set temperature. The 3rd switch in the main SUPER-LIFT Control must be adjusted as described on page 11 & 12 for this to happen.

Setting the power to natural stage switch on #1 will cause the control to try natural ventilation at as much as 20 degrees F. (11 degrees C.) colder outside temperature than when the power to natural transition would be set at stage #2 or a higher stage. This will result in serious litter caking along the side walls.

Setting the power to natural stage too close to the set temperature will result in a temperature overshoot (with bigger birds) because the first movement of the curtains will be too small. The control will wait for 5 minutes and then move 3 inches (75 mm) for each degree F. (5.4 inches per degree Celsius) the temperature is greater than the set temperature at that time. Due to the temperature overshoot caused by the initial opening being too small, the second movement will be too great and result in a large negative temperature swing before the curtain finally gets closed. This cycle will occur every 30 to 45 minutes, if allowed to happen. Temperature swings of 15° to 20° F may be expected.

Program the stage offsets so that the power to natural stage temperature difference from set temperature causes the first curtain movement to be 8 to 10 inches (20 to 25 cm) of curtain opening.

Natural to Tunnel

It is important that the sensor chosen to be the *control sensor* is located in a position where the temperature does not decrease very much during the process of converting from the natural ventilation mode to the tunnel ventilation mode. In general, the temperature will fall the most at the tunnel inlet curtain end of the house during this transition and fall the least, if at all, at the tunnel fan end of the house.

The stage offset programmed for the stage selected as the natural to tunnel stage should be 4 to 6 degrees F. to prevent rapid cycling in and out of tunnel.

Tunnel to Natural

The transition from tunnel back to natural occurs at the stage temperature directly below the stage temperature set to go from natural to tunnel.

Natural to Power

The transition from natural back to power ventilation occurs when the 3rd switch of both curtain 1 and curtain 2 are triggered while the curtains are closing.

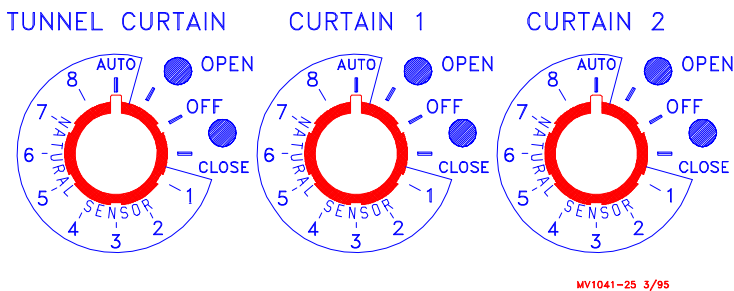
"No Natural" Operation

This is sometimes referred to as "PT" operation (power-tunnel). The power to tunnel transition is quite critical for this type of operation. The sensor chosen as the control sensor should be located at the tunnel fan end of the house.

There needs to be at least four (preferably five) 48" fans running prior to going to Tunnel Mode.

Another important factor regarding operating with no natural, is that you need enough powered inlets (baffles) to handle 80 to 100 thousand cfm. A continuous opening as the air inlet at the top of the curtain on one or both sides of the house is not a reasonable approach to this type of operation. You would have to be equipped such that the main curtain would control static pressure while in Power Mode. Chore-Time does not recommend this type of operation.

Curtain Operation



The curtain outputs are not governed by the stages. When the control goes to natural mode, each curtain responds to its own 5 minute timer. Each curtain moves every 5 minutes (if the temperature is outside ± 1.3 degree Fahrenheit or $\pm .7$ degree Celsius). The amount it moves is determined by how far away from set temperature the sensor assigned to that curtain is at the beginning of each 5 minute period. The movement is 3 inches or 75 mm every 5 minutes for each degree F. (5.4 inches or 14 cm for each degree Celsius) the temperature is above or below set point. The maximum movement is 24" (610 mm) every 5 minutes when the temperature is 8 degrees F. (4.4 degrees Celsius) or more above set point.

If the room temperature is 8 degrees F. (4.4 degrees Celsius) or more below set point at the beginning of a 5 minute cycle, the curtain will close continually for 5 minutes. This feature is intended to deal with quick drops in outside temperature.

These characteristics of the curtain's response to conditions are fixed by the software and cannot be modified by the user.

Adjusting the 3rd Switch in the SUPER-LIFT Control Box

The 3rd switch in the SUPER-LIFT Control box must be adjusted properly. It should be set so that when the control is moving towards the closed position, the switch will be triggered when the curtain is still open approximately 10 inches (25 cm). It is very important to test this with the curtain actually moving. The most important aspect of the adjustment of the 3rd switch is that when the

power to natural transition occurs, the first opening movement of the curtain stops at a point that the 3rd switch is activated. If the temperature drops from the power to natural stage to the next lower stage during the first 5 minutes after the curtain opens, the control will immediately go back to the power mode. This feature eliminates the large temperature swing that will occur if it is windy when natural ventilation is attempted.

Note: If two SUPER-LIFT Winches are used, both must have their 3rd switch set according to the instruction above.

Assigning Sensors to Curtain Outputs

During natural ventilation (and only then) each of the three possible curtain outputs will respond to the sensor number that is assigned to that curtain output. The assignment of that sensor number is done by simply setting each curtains' output switch to point to the sensor number desired. If set on AUTO, whatever sensor is chosen as the CONTROL SENSOR will be the sensor that controls that curtain output during natural ventilation. See the figure above.

Note that as soon as the CONTROL SENSOR reaches the stage to go to tunnel, the control will go to tunnel mode and curtain #1 and curtain # 2 outputs will be continuous close signals while the tunnel curtain output will be continuous open. During power mode, all curtain outputs will be continuous close.

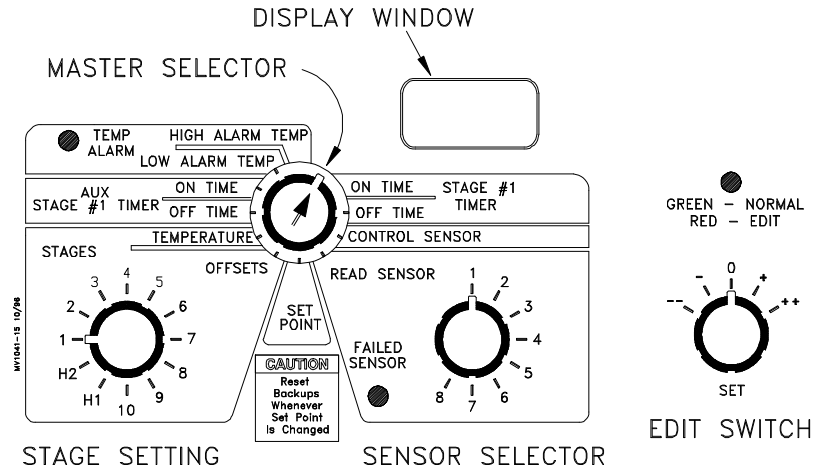
If it is desired to have the tunnel curtain's opening governed by static pressure while in tunnel mode, the tunnel output mode relay exists which is energized whenever the control is in the tunnel mode. This relay can be used to power a static pressure controller that would control the tunnel curtain power units. If there are powered inlets for power ventilation which are controlled by a static pressure controller, that same static pressure controller can be used for the tunnel curtain power unit by adding an external relay to transfer the outputs of the static pressure controller to the tunnel curtain power unit when in tunnel mode.

Dual Main Curtain Power Unit Operation

If curtain 1 output and curtain 2 output are used to control two independent main curtain power units on opposite sides of the house, it is necessary to have separate temperature sensors assigned to those two curtain outputs for natural operation. These two sensors must be located appropriately near each side of the house such that those sensors will be affected by their corresponding curtain's movement. Care must be taken that the sensor mounted on the sun side (south side in the northern hemisphere of the world) is not in direct sunlight when the sun side curtain is open.

Dual main curtain Power Unit installations: It is preferred that the sensor controlling the sun side curtain be defined as the control sensor whenever natural ventilation is allowed to happen.

Unlabeled Master Selector Position



The unlabeled position (see the figure above) performs the following special setup functions.

1. Telling the Control the curtain's speed.
2. Telling the Control the number of sensors installed.
3. Calibrating the Sensors.

DO NOT ATTEMPT TO PERFORM THESE FUNCTIONS UNTIL YOU FULLY UNDERSTAND THESE PROCEDURES.

Telling the Control the curtain's speed.

1. Set the *master selector* switch to the unlabeled position. The *display window* will show (- - -) do not attempt to edit the display while (- - -) is displayed. Set the HEAT A switch one position left of ON. The display window will now show 0 for the 33800C or 33800CN Controls. The display window will now show 1 for the 33800F or 33800FN Controls.
2. Use the Edit Switch to change the display to any number from 32 to 63.
3. The display window will then show the factory set number "90" (for 33800F & 33800FN controls). This is the amount of time in seconds it takes the main curtain to move 18" (460 mm) when traveling continuously while being driven by the SUPER-LIFT™ Winch. Use the *edit switch* to set this number to be the time in seconds it takes the curtain to move 18 inches (460 mm) when moving continually with the actual curtain machine installed. For the 33800C and 33800CN Controls, set the display number to be the amount of time in seconds it takes the control to move the curtain (continuously) 32 inches (830 mm). The 33800C and 33800CN Controls are shipped from the factory set at "162".
4. The control now knows how fast the curtain moves. This allows the control to calculate the appropriate amount of time to run the curtains each 5 minutes.

To exit this function, turn the *master selector* switch to any setting outside the unlabeled position and RETURN THE HEAT A SWITCH BACK TO ITS APPROPRIATE SETTING.

Telling the Control the number of sensors installed.

1. Set the *master selector* switch to the unlabeled position. The *display window* will show (- - -) do not attempt to edit the display while (- - -) is displayed. Set the *HEAT A* switch one position left of ON. The display window will now show 0 for the 33800C or 33800CN Controls. The display window will now show 1 for the 33800F or 33800FN Controls.
2. Use the Edit Switch to change the display to any number from 64 to 127.
3. The *display window* will then change to the number "3". This represents the factory setting of 3 sensors. This number may be increased up to 8 using the edit switch. When the desired number of sensors is displayed, turn the edit switch to "0".
4. The control has just been programmed for the number of sensors to be used.

To exit this function, turn the *master selector* switch to any setting outside the unlabeled position and RETURN THE *HEAT A SWITCH* TO ITS APPROPRIATE SETTING.

Calibrating the Sensors

In order to calibrate a sensor, it will be necessary to attach an accurate calibration thermometer directly to that sensor for several minutes. Use the same calibration thermometer for each sensor calibrated. From the factory the sensors should be accurate within ± 1.5 degrees F. ($\pm .8$ degrees C.).

1. Set the *master selector* switch to the unlabeled position. The *display window* will show (- - -) do not attempt to edit the display while (- - -) is displayed. Set the *HEAT A* switch one position left of ON. The display window will now show 0 for the 33800C or 33800CN Controls. The display window will now show 1 for the 33800F or 33800FN Controls.
2. Use the Edit Switch to change the display to any number from 128 to 255.
3. The *display window* will now show the temperature being read by the sensor selected by the *sensor selector*.
4. Use the edit switch to change the reading to be the temperature shown by the calibration thermometer.
5. Turn the edit switch back to "0".

The selected sensor has just been calibrated.

6. Turn the sensor selector to the next sensor to be calibrated and move the calibration thermometer to the next sensor to be calibrated.

Perform steps 4 & 5 on this sensor.

7. Perform steps 4, 5, & 6 on each of the remaining sensors to be calibrated.
8. To exit this function, turn the *master selector* switch to any setting outside the unlabeled position and RETURN THE *HEAT A SWITCH* BACK TO ITS APPROPRIATE POSITION.

All the sensors can be calibrated at once prior to installation by placing them all in a bucket of water along with an accurate calibration thermometer. The water must be stirred as you perform the calibration. Failure to do this might actually degrade the accuracy.

Alarm Output

The alarm output relay is energized whenever the main sensor reads higher than the high alarm setting, lower than the low alarm setting, or any of the installed sensors fail. If the CONTROL SENSOR fails, the control also locks itself into the stage that the control was in at the moment of failure and continues to operate in that stage and mode.

Powered Inlets

Chore-Time recommends using a separate, independent, static pressure monitor controlled, power inlet system as part of the total ventilation system to most fully realize the benefits of staging fans while in power ventilation mode.

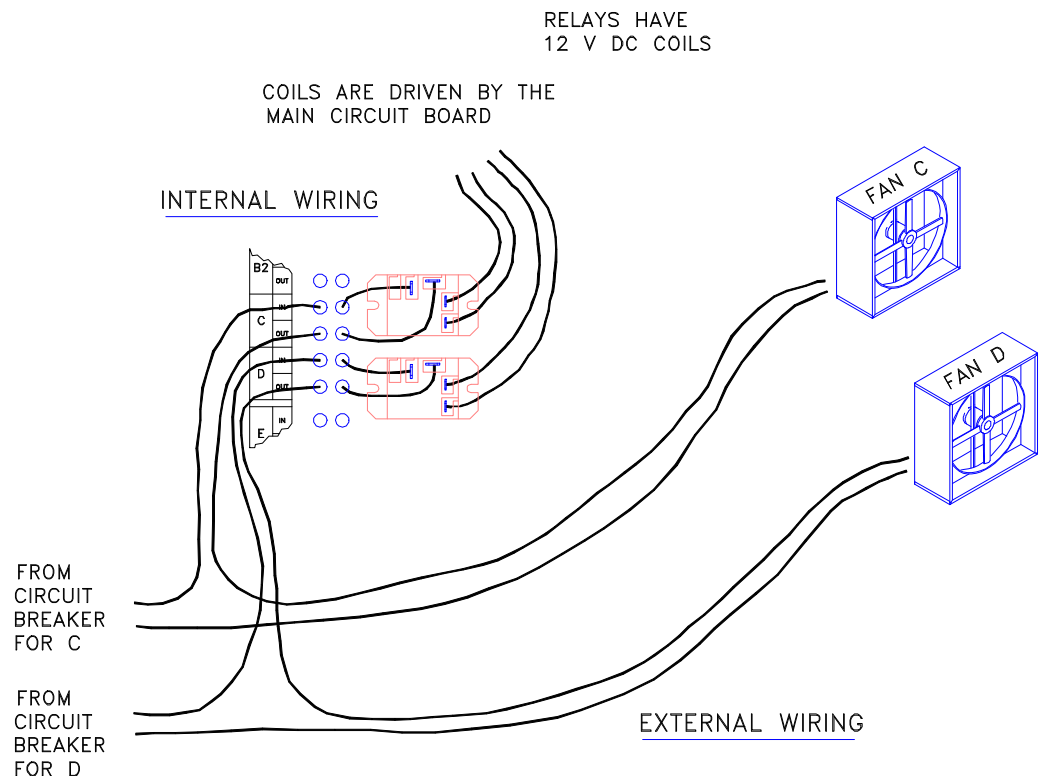
Wiring the System

Chore-Time recommends limiting the load for each relay to 1 H.P. This is to help insure years of trouble-free operation from your control.

There are enough relays that no external contactors are required. Because of the concentration of wires into one box, it is recommended that the wire entry into the box be through conduits(s) as opposed to romex connectors.

A ground lug is provided in the lower center of the box and must be used. In addition to the safety issue, the circuitry that depends on the 3rd switches of curtain 1 & 2 being triggered to put the control into power mode requires that the ground lugs be connected to earth ground. It is also a very important part of the lightning protection.

All outputs on the terminal strips are from SPST relays. Each input is connected to the common terminal of the SPST Relay and the output is the normally open terminal of that same relay. The only exception to this is the curtain outputs. Each curtain output is the normally open terminal of its SPST relay, but all six (3 open & 3 close) relay inputs are tied together and labeled as "ALL CURTAINS IN."



Backup Considerations

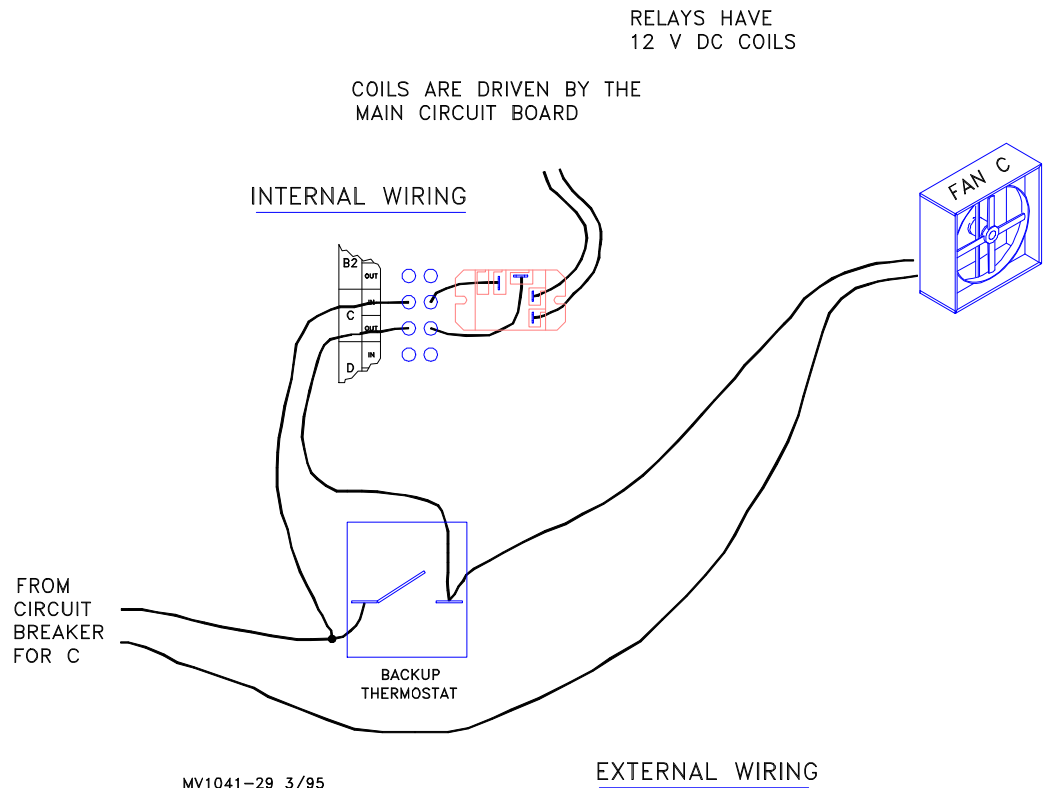
While there are differing backup devices and philosophies, there is one indisputable fact. This control is made from mechanical and electrical devices that have a finite lifetime. The question is not "if", but rather "when", will this control stop functioning correctly. If inadequate measures are taken to deal with this fact, poultry and livestock may die as a result. IT IS ABSOLUTELY MANDATORY THAT A REASONABLE LEVEL OF SAFETY DEVICES AND ALARMS BE INSTALLED. The alarm output of the SUPER-Selector can be a part of these, but should never be considered as the total backup system. Obviously, if the SUPER-Selector alarm output is not functional, it would be unable to send an appropriate signal to an alarm or other backup device(s). The only possible useful output of a non-functioning SUPER-Selector is the fused 230V pair of terminals. A blown fuse caused by a nearby lightning strike will remove the presence of 230 volts from these two terminals even though power is still available at the input to the control. A device must be connected to these two terminals that is designed to detect the absence of 230VAC, and take appropriate action. On a regular basis, all backup devices should be exercised and tested.

Backup Wiring

The two figures (below and on page 17) reflect possible ways of implementing backup thermostats.

Case #1

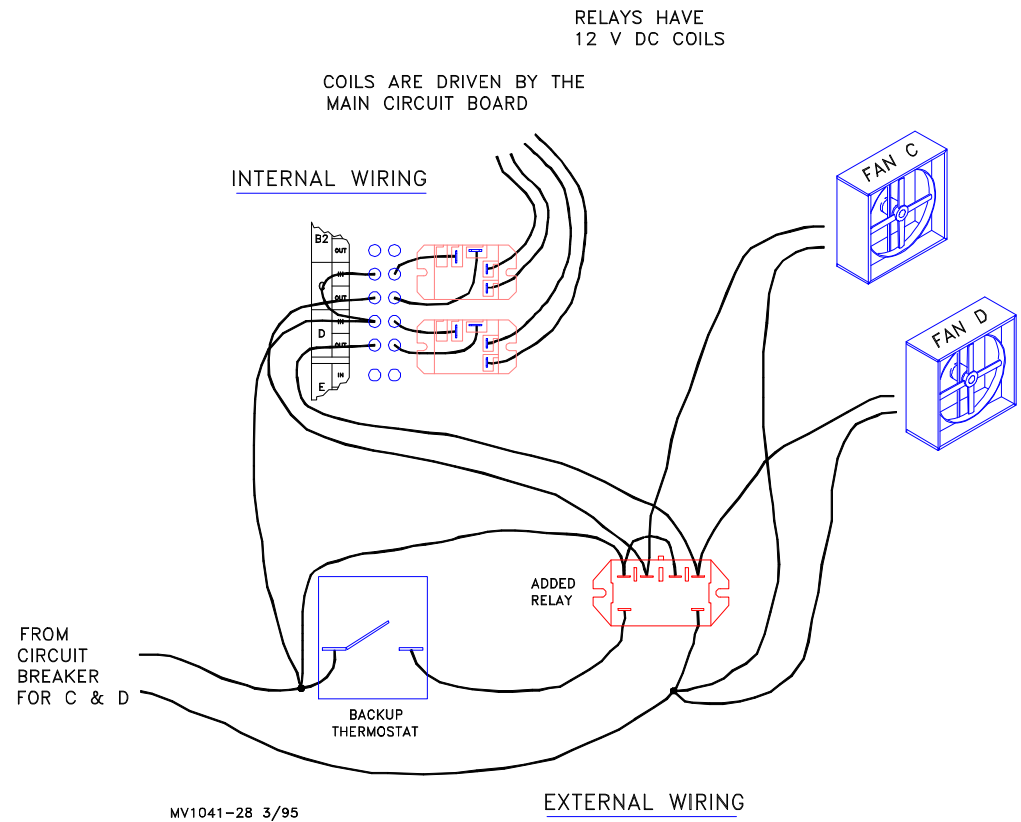
One thermostat per output backed up is used in this application.



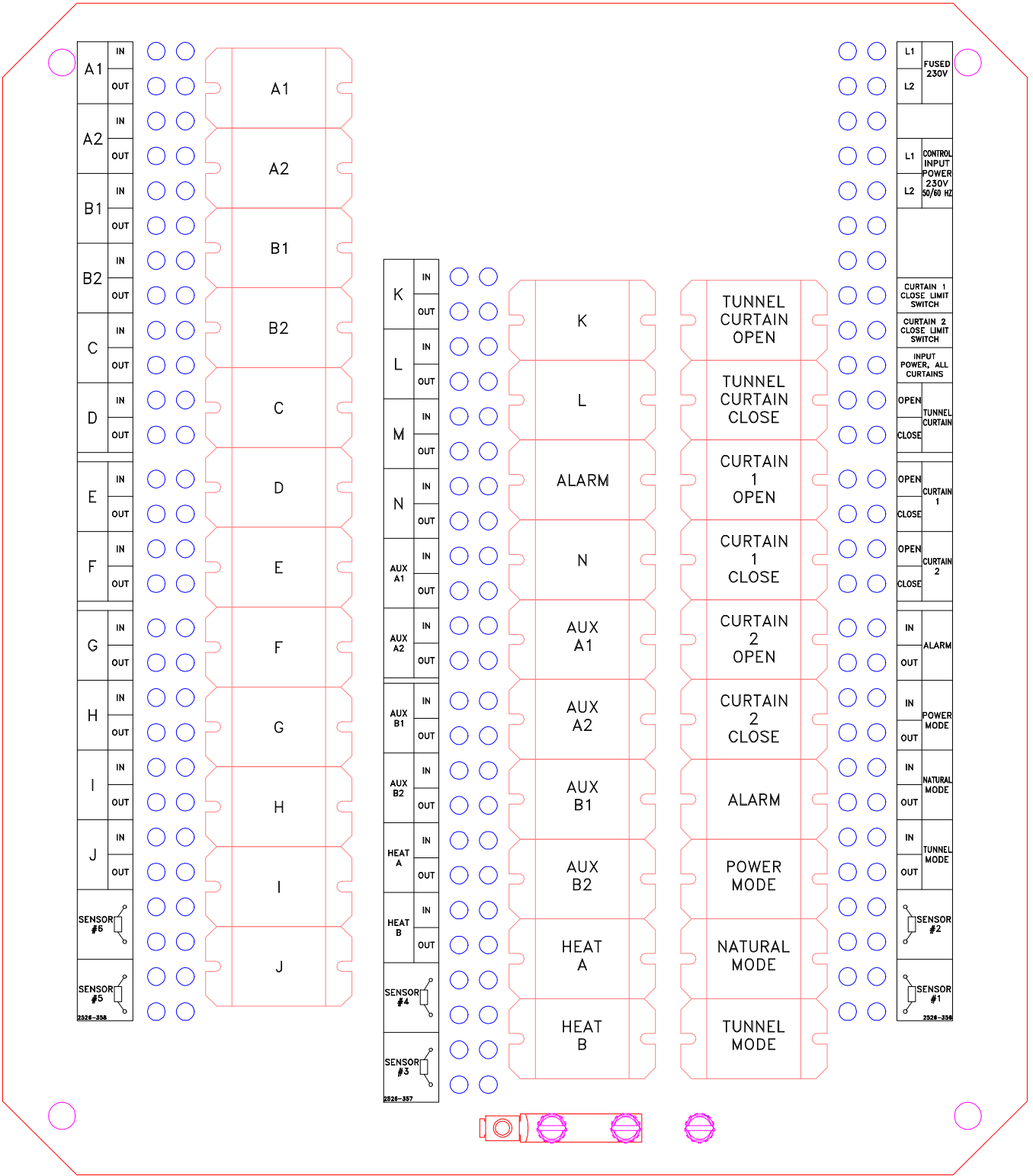
Case #2

To back up more than one output with a single thermostat, it is necessary to add a relay contact for each output backed up and drive the relay coil(s) from a single thermostat.

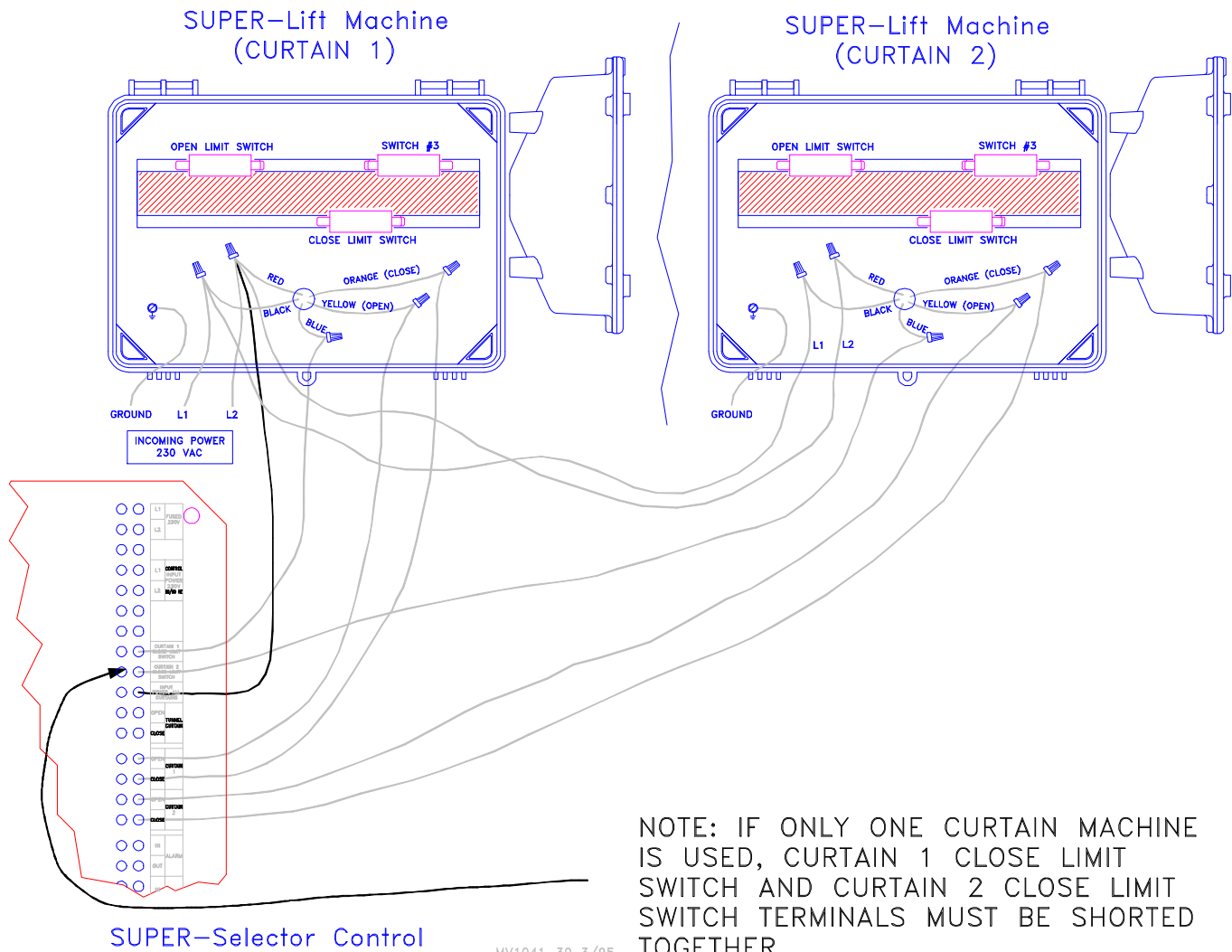
The figure below reflects a control with two outputs backed up by one thermostat and one DPST added relay.



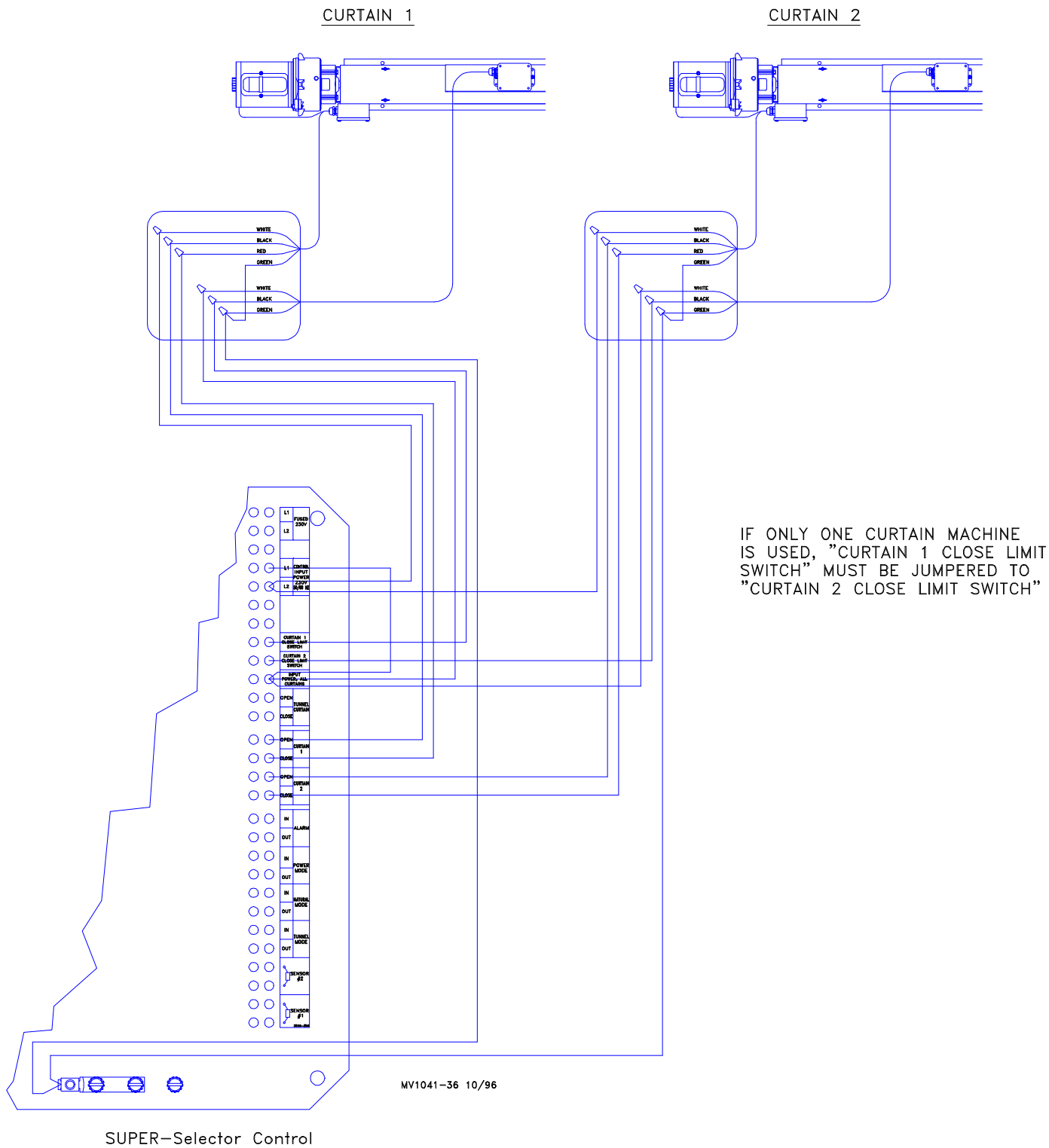
Output Relay Layout



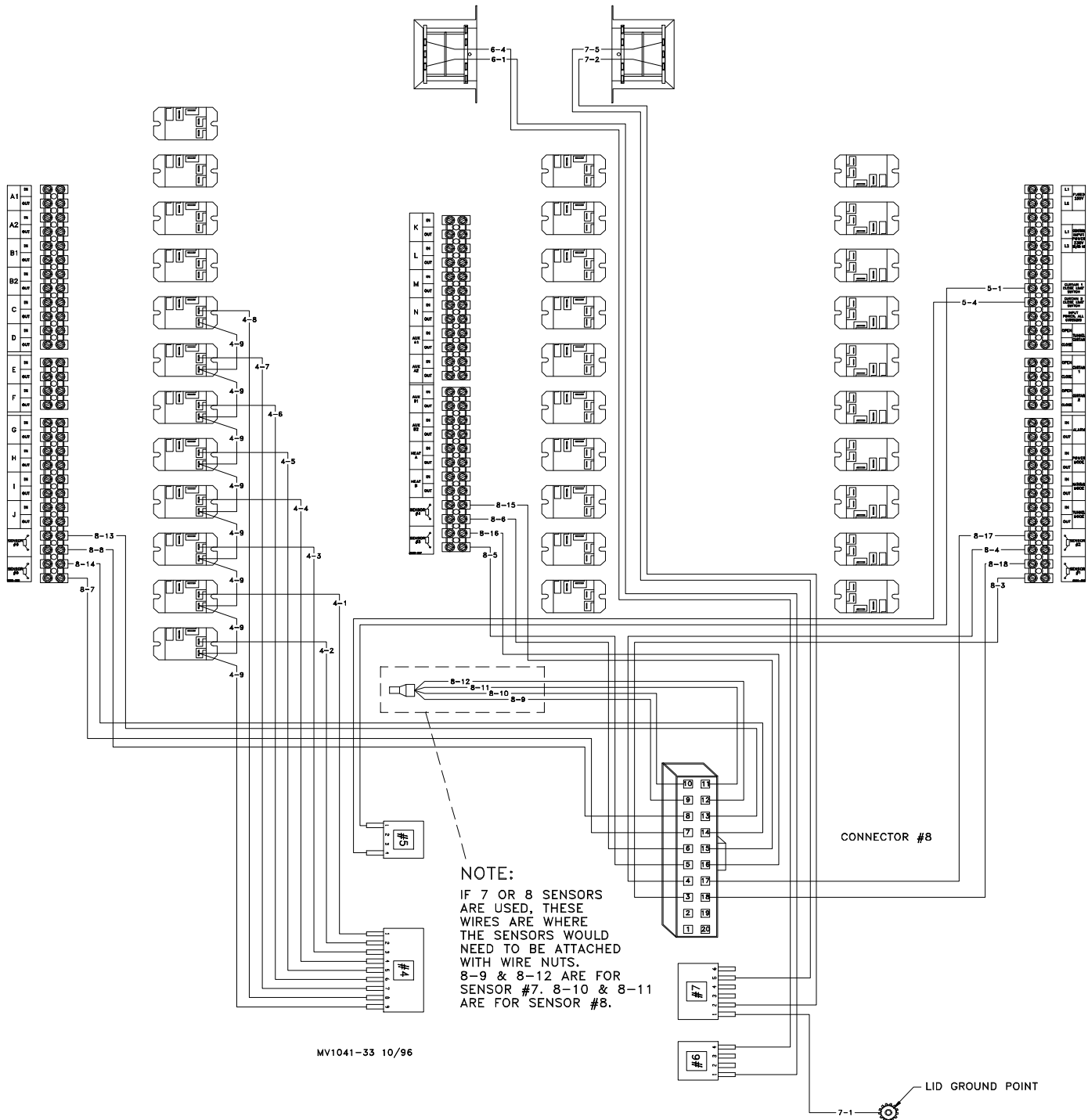
SUPER-LIFT Wiring Diagram (w/SUPER-Selector)



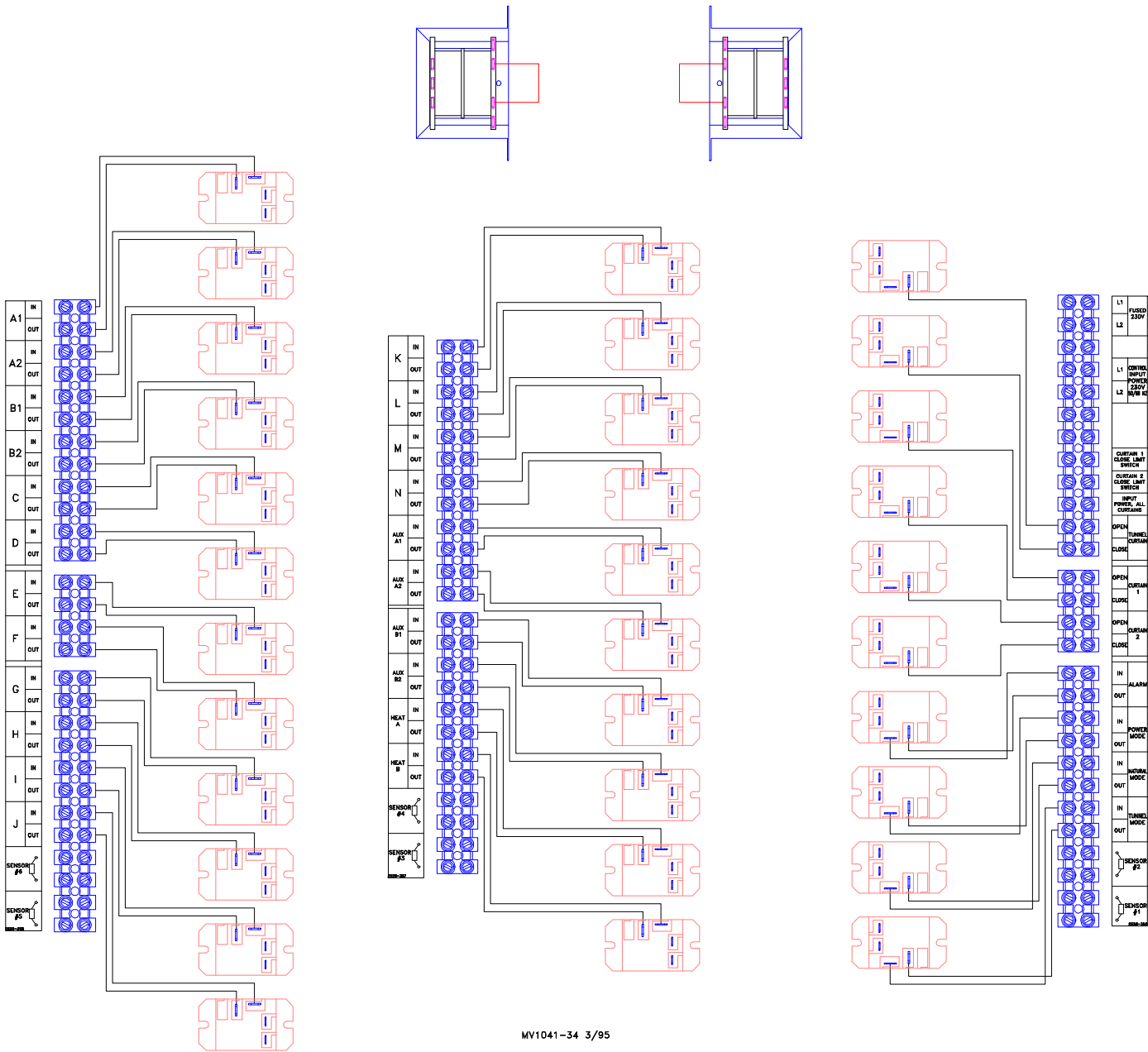
SUPER-LIFT Wiring Diagram (w/LINEAR-LIFT)



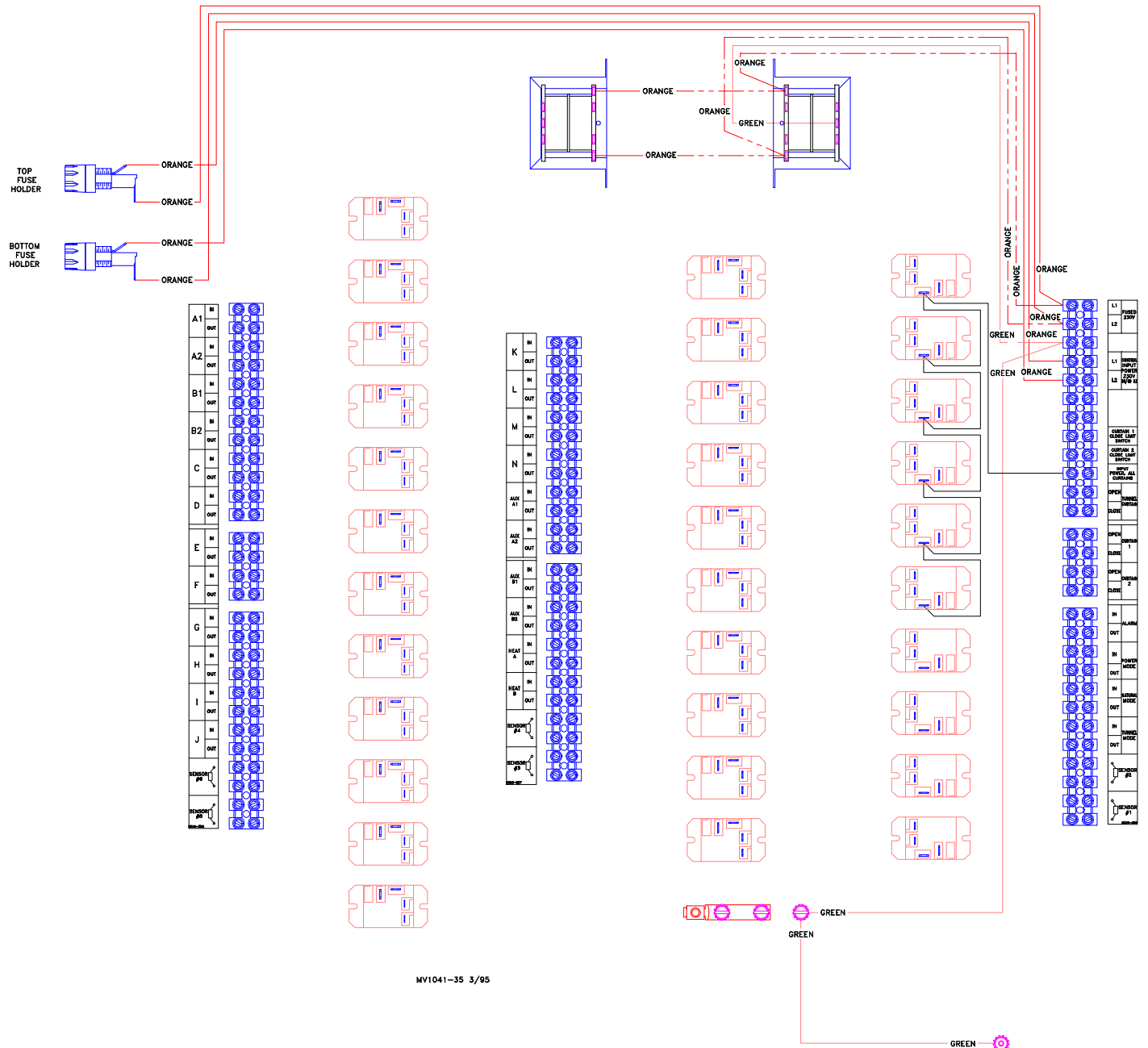
SUPER-Selector Internal Wiring Diagram (sheet 1 of 4)



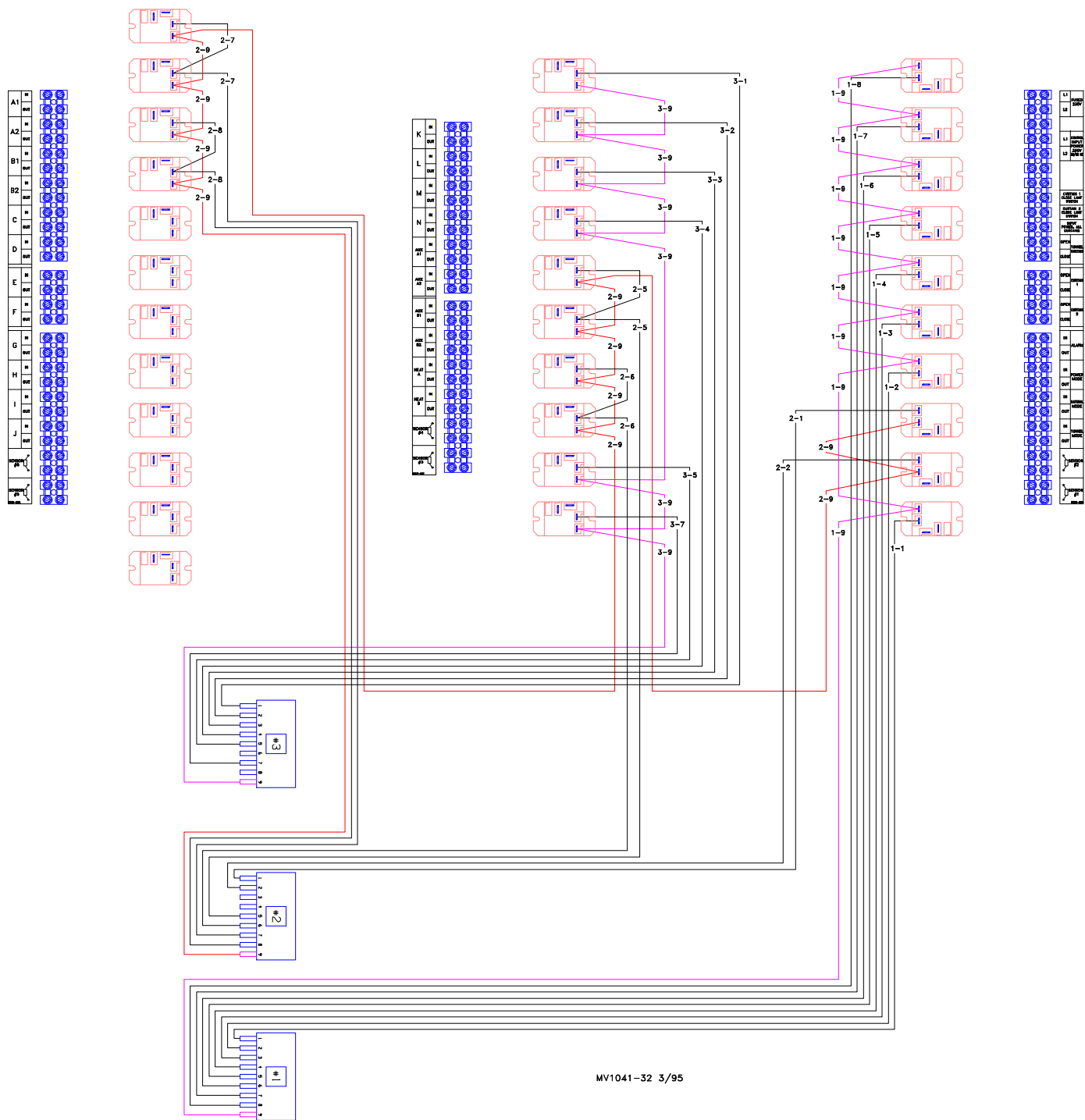
SUPER-Selector Internal Wiring Diagram (sheet 2 of 4)



SUPER-Selector Internal Wiring Diagram (sheet 3 of 4)

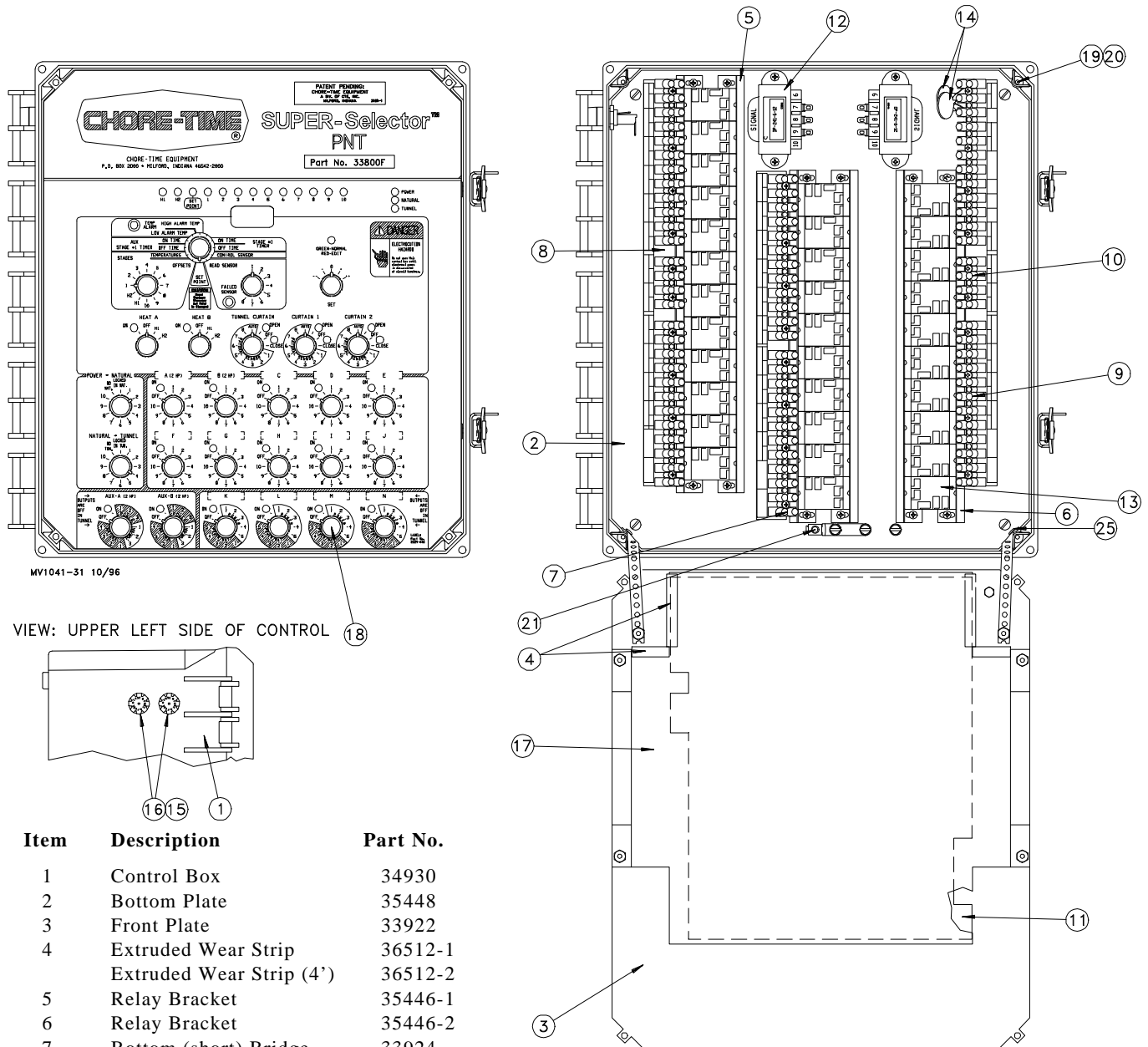


SUPER-Selector Internal Wiring Diagram (sheet 4 of 4)



SUPER-Selector Control

Part No. 33800F, 33800FN, 33800C, & 33800CN



VIEW: UPPER LEFT SIDE OF CONTROL (18)

| Item | Description | Part No. |
|------|-----------------------------|----------|
| 1 | Control Box | 34930 |
| 2 | Bottom Plate | 35448 |
| 3 | Front Plate | 33922 |
| 4 | Extruded Wear Strip | 36512-1 |
| | Extruded Wear Strip (4') | 36512-2 |
| 5 | Relay Bracket | 35446-1 |
| 6 | Relay Bracket | 35446-2 |
| 7 | Bottom (short) Bridge | 33924 |
| 8 | Bottom (long) Bridge | 33927 |
| 9 | Terminal Strip | 34925 |
| 10 | Terminal Strip | 34925-4 |
| 11 | Circuit Board (for 33800F) | 34928F |
| | Circuit Board (for 33800FN) | 34928FN |
| | Circuit Board (for 33800C) | 34928C |
| | Circuit Board (for 33800CN) | 34928CN |
| 12 | Transformer | 34743 |
| 13 | P&B SPST 12V Relay | 35444 |
| 14 | MOV | 14063-1 |
| 15 | Slow Blow Fuse | 20472 |
| 16 | Fuse Holder | 24431 |
| 17 | PC Board Cover | 34854 |
| 18 | Knob | 35877 |
| 19 | Corner Bracket | 29013-3 |
| 20 | Sheet Edge Insert | 29878 |
| 21 | Copper Lug | 28822 |

Not Shown Thermistor Probe Assembly 29968

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Warranty Information

Chore-Time Equipment warrants each new product manufactured by it to be free from defects in material or workmanship for one year from the date of initial installation by the original purchaser. If such a defect is found by Chore-Time to exist within the one year period, Chore-Time will, at its option, (a) repair or replace such product free of charge, F.O.B. the factory of manufacture, or (b) refund to the original purchaser the original purchase price, in lieu of such repair or replacement.

Additional extended warranties are herewith provided to the original purchaser as follows:

1. TURBO™ and RLX™ Fans, less motors, for three years from date of installation.
- *2. Poultry feeder pans that become unusable within five years from date of installation. Warranty prorated after three years usage.
3. MEAL-TIME® Hog Feeder pans that become unusable within five years of installation.
4. Rotating centerless augers, excluding applications involving High Moisture Corn (exceeding 18%), for ten years from date of installation. Note: MULTIFLO® and applications involving High Moisture Corn are subject to a one year warranty.
5. Chore-Time manufactured roll-formed steel auger tubes for ten years from date of installation.
- *6. Laying cages that become unusable within ten years. Warranty prorated after three years usage.
- *7. ULTRAFLO® Auger and ULTRAFLO® Feed Trough (except ULTRAFLO® Trough Liners) are warranted for a period of five (5) years from date of original purchase against repeated breakage of the auger or wear-through of the feed trough caused solely by the auger.

Conditions and limitations:

1. The product must be installed and operated in accordance with instructions published by Chore-Time or warranty will be void.
2. Warranty is void if all components of a system are not supplied by Chore-Time.
3. This product must be purchased from and installed by an authorized Chore-Time dealer 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 this warranty.
5. This warranty applies only to systems for the care of poultry and livestock. Other applications in industry or commerce are not covered by this warranty.

Chore-Time shall not be liable for any consequential or special damage which any purchaser may suffer or claim to have suffered 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 CHORE-TIME'S ENTIRE AND SOLE WARRANTY AND CHORE-TIME EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

Any exceptions to this warranty must be authorized in writing by an officer of the company. Chore-Time reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

*See separate Chore-Time Cage Wire Warranty as to these products.

CHORE-TIME EQUIPMENT, A Division of CTB, Inc.
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Revisions to this Manual

| Page No | Description of Change |
|----------------|--|
| -- | Updated entire manual to reflect information for (4) versions of Control (33800f, 33800FN, 33800C, & 33800CN). |
| -- | Added Thermistor Probe Assembly number to parts listing. |

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