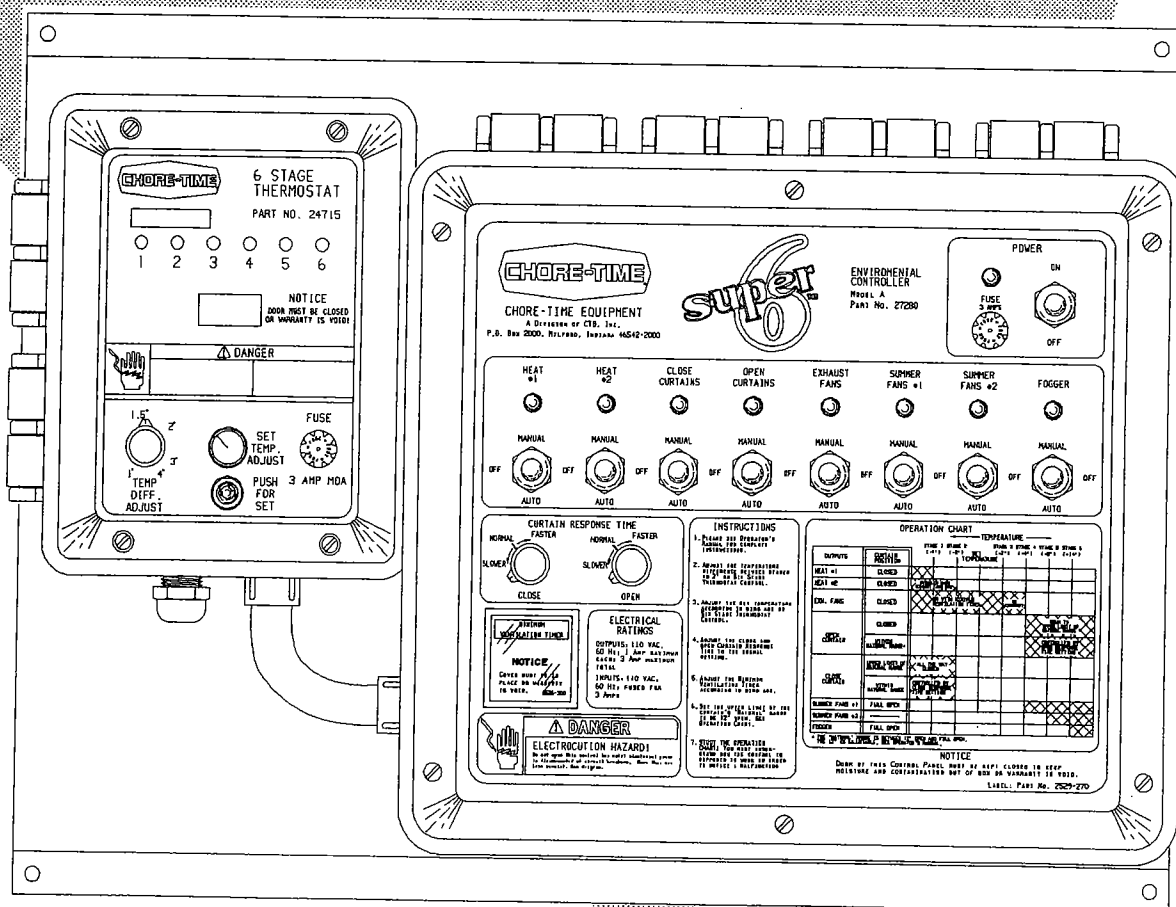


# CHORE-TIME®

## SUPER 6™ Model "A"



MV993A16-393

## 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. 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. 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.
4. Chore-Time manufactured roll-formed steel auger tubes for ten years from date of installation.
- \* 5. Laying cages that become unusable within ten years. Warranty prorated after three years usage.
- \* 6. 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.

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 "WARRANTY ADDITION" as to these products

CHORE-TIME EQUIPMENT, A Division of CTB, Inc.  
P.O. Box 2000, Milford, Indiana 46542-2000 U.S.A.

## **CHORE-TIME'S "SUPER 6" CONTROL**

### **MODEL "A"**

#### **Three regions of operation:**

##### **I. POWER VENTILATION (Cold outside temperature)**

- a) Curtains closed, except for limited inlet openings that create negative static pressure when the exhaust fans turn on.
- b) Three or four side wall exhaust fans.
- c) Two stages of heaters can only come on when in this region.
- d) First stage of heat is disabled when exhaust fans run.
- e) Minimum ventilation guaranteed by timer on the exhaust fans.

##### **II. NATURAL VENTILATION (Moderate outside temperature)**

- a) Fans do not run in this region.
- b) Curtains do not stop between fully closed and 12" open.
- c) Curtain position controlled by temperature and curtain-response timer.
- d) Separate timers for close and open.

##### **III. SUMMER VENTILATION (Hot outside temperature)**

- a) Curtains are fully open.
- b) Summer fans staged in two groups.
- c) Fogger turns on if temperature continues to rise.

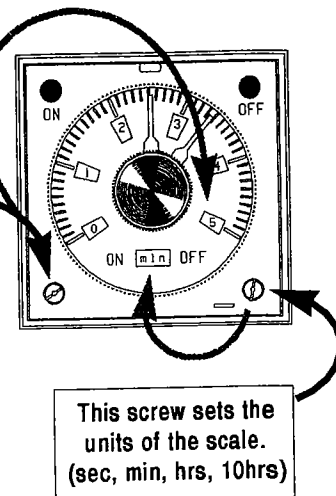
## OPERATING INSTRUCTIONS

### SUPER 6 MODEL "A"

#### Minimum Ventilation Timer

The timer is set at the factory to the minutes scale with 5 minutes as the full scale reading. Double check that this is the case. Also note the orange pointer is for ON-TIME and the yellow pointer is for OFF-TIME. When the curtain first hits the top limit switch and POWER VENTILATION mode begins, the timer begins with OFF-TIME which you can tell because the OFF indicator light will come on.

This screw sets the full scale reading. (.5, 1.0, 5.0, 10.)



In the absence of guidelines from the poultry company, the minimum ventilation timer should be set at 15 seconds ON-TIME and 4 minutes 45 seconds OFF-TIME if two 36" fans are in the brood area. If there is one 36" fan in the brood area set 30 seconds ON-TIME and 4 minutes 30 seconds OFF-TIME. **THIS IS A STARTING POINT FOR BABY CHICKS ONLY.** We recommend that the sum of ON-TIME plus OFF-TIME be approximately 5 minutes. The Minimum Ventilation Timer is the main influence on air quality. It should not be adjusted based on outside temperature, but rather, inside air quality. The right setting will vary mainly upon bird age and age of the litter. As birds grow, the amount of ON-TIME required will increase. Adjust the setting early in the morning when the house has been in the POWER VENTILATION mode for at least several hours. If it is warm enough outside that the curtains are open (natural ventilation), the minimum ventilation timer will have no effect on air quality because the exhaust fans will not be operating.

The minimum ventilation timer has a big influence on the litter moisture. The longer the run time, the dryer the litter. It also affects the amount of gas burned. The longer the run time, the more gas will be burned. The object is to minimize the run time and gas usage while maintaining adequate air quality.

#### Manual-Auto operation

All outputs can be turned on manually with the toggle switches on the cover. In the case of the OPEN and CLOSE curtain functions, placing either of the main curtain switches in the MANUAL position will override the auto output of the other. If both switches are placed in the MANUAL position, nothing will happen (each switch overrides the other).

**A WORD OF CAUTION:** Whenever you place any of these switches in the OFF or MANUAL position you are disabling the automatic functionality of the control. Be sure you have a good reason to do so. If you leave the control with ANY switches in the OFF or MANUAL position, be sure you fully understand what the control will and will not do while the switches are not set on automatic. **STUDY THE OPERATION CHART ON PAGE 6.** If you don't understand what the control is supposed to do, you will not be able to detect malfunction, or understand the consequences of manual operation. The best approach is to leave all switches in auto position. A prime example of the hazard is turn the open curtain switch to the "off" position, at stage 4 the exhaust fans will shut off and the curtain will not go open because the switch is in the off position. The result of that could be to wipe out the house if the back up thermostat is not set low enough.

#### Changing Set Temperature

Rotating the set temperature knob on the six-stage thermostat changes the set temperature, regardless of whether or not the push-button is depressed. Depressing the push-button simply allows you to see what the set temperature is as you are changing it.

#### Curtain Response Timers

The open and close response timers are both five minute percentage timers. Under normal weather conditions, the "normal" setting will be fine. During early spring or late fall when temperatures fall quickly at the end of the day, setting the close timer faster will keep up with the temperature drop somewhat better. At the "NORMAL" setting the curtain will move approximately 1-1/2 minutes out of every five minutes whenever the temperature calls for the curtain to move. This will move the curtain approximately six inches once every five minutes if the temperature calls for a change.

## Operation without curtain power unit

If it is necessary to operate with a disabled curtain power unit, the following steps must be taken:

- Unplug the disconnect at the curtain power unit.
- Place the CLOSE CURTAIN toggle switch in the MANUAL position. If this isn't done, the exhaust fans will be disabled at four degrees above set temperature. If the curtain is closed, there will be no ventilation whatsoever. With the toggle switch in the MANUAL CLOSE position, the exhaust fans will continue to run if the inside temperature rises above +4.
- Make sure the top limit switch of the tower is triggered if you want exhaust fans to operate.
- REMEMBER**—you must move the curtain with the hand winches during the time the curtain power unit is disabled.

## Lightning protection

The lightning protection consists of two surge suppressors (M.O.V.s) on the input line voltage on the control side of the input 3 amp fuses. (One in the six stage thermostat and one in the main control box). The fuse(s) may be blown if there is a lightning strike in the immediate area of the house. This will protect the control from destruction, the control will be OFF. It is very possible for lighting to disable the control and still have power to the building.

Because of this, it is **IMPERATIVE** that whatever type of alarm system is used to detect power loss (curtain drop, telephone dialer, siren, etc.), is connected to the terminal marked "FUSED 110 V" on the output terminal strip of the control. If the fuse(s) is blown for any reason, this terminal will go dead.

**WARNING!** Operation ***WITHOUT*** an alarm system or back-up system of some sort is ***NOT RECOMMENDED.***

## Back-Up thermostat

The exhaust fan output **MUST** be backed up with a mechanical thermostat set 7 or 8 degrees above the set temperature of the control during the times of the year when power ventilation would occur. This thermostat setting should be raised during hot weather because exhaust fans do not need to operate when the curtain is open.

Other outputs, except for open and close curtain outputs, can also be backed up with mechanical thermostats, if desired. See "Back-Up Thermostat Wiring" drawing on page 11.

## What To Do if a Storm is Approaching

Simply place the close curtain toggle switch in the manual position. This will close the curtain continuously, and it will stay closed with the exhaust fans running continuously (assuming the house temperature is greater than two degrees above set temperature). Reset the CLOSE CURTAIN SWITCH to AUTOMATIC as soon as possible after the weather conditions settle.

# SYSTEM OPERATION & HOUSE LAYOUT

## Air Inlet

All exhaust fans come on simultaneously, thus, the air inlet area required to give an appropriate static pressure is constant. A continuous 1" crack or slot on the side opposite the exhaust fans, the entire length of the house works very well (assuming reasonably tight, new house construction and one 36" fan for every 100 feet of building length). The fact that the slot is so narrow (1") significantly minimizes the amount of cold air penetration due to wind when the fans are off. If powered air inlets are required by the poultry company, the Super 6 system will work quite well. The inlets will simply open and close as the exhaust fans cycle.

## Exhaust Fans

It is recommended that there is at least one 36" exhaust fan in the side wall for every 100 feet of building length. The fewer fans used, the lower the outside temperature will be when the exhaust fans won't be able to keep up with the heat produced by the birds. The control will then go to natural ventilation, and if it's windy and cool outside, it might quickly cycle back to power ventilation. The air quality resulting will be acceptable, but the temperature variations involved are not desirable.

## Natural Ventilation

The Super 6 Model A Control utilizes natural ventilation where possible. The Limit Switch Tower uses three switches to define the upper & lower limits of the total curtain travel as well as locate the curtain position during natural ventilation.

The top (close) switch on the tower defines the uppermost limit that the curtain can travel. The second switch defines the top of the natural ventilation range. The control does not allow the curtain to stop when between these two settings (top and second switch). In other words, the control will continuously open the curtain until it reaches the second switch in order to prevent poor air conditions in the house due to inadequate air exchange while still in the natural ventilation range. Likewise, the control will continuously close the curtain above the second switch to prevent inadequate ventilation. Chore-Time recommends the second switch be set so that there is nominally one foot of curtain travel between the top and second curtain switches.

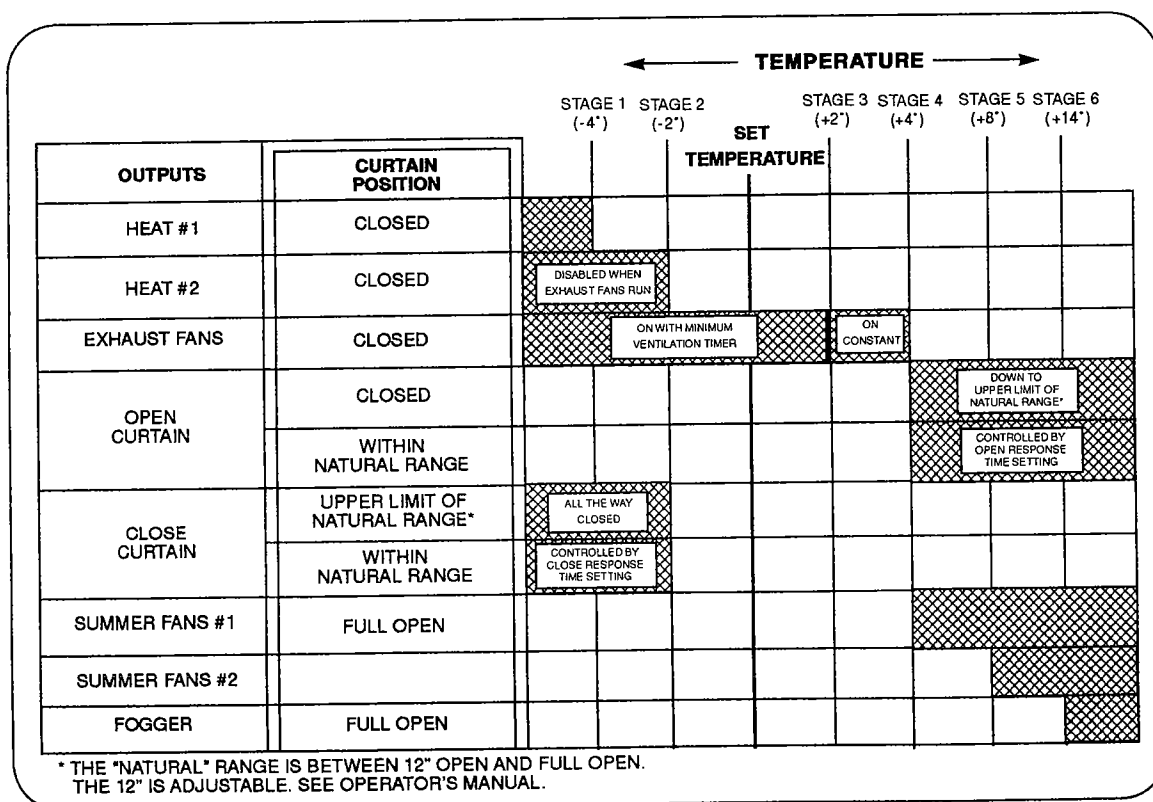
The Exhaust Fans section, above, describes the potential for the control system to continuously "search" for an environmental balance by cycling in and out of power ventilation under windy conditions and if the exhaust fan capacity cannot control the heat produced by the birds. The control cycling situation is more likely to occur at the end of the flock growout in building where there is less than one 36" fan per 100' of building length. The upper limit of the natural ventilation range of the curtain is adjustable to further reduce the control cycling situation. The amount of cycling in and out of natural ventilation can be reduced by adjusting the nominal one foot opening to 9", for example. This restricts the amount of air entering the building during windy conditions. The appropriate setting for your building will vary with outdoor wind conditions.

The third (open) switch defines the lower limit of the curtain travel and the lower limit of the natural ventilation range. The first summer cooling stage (summer fans #1) can be activated once this switch is triggered.

## Summer Fans & Foggers

The example shows summer fans install along the length of the house in the center. The spacing and placement of summer fans and foggers is left to the discretion of the poultry company, since local weather conditions and bird type grown determine the best approach.

## MODEL "A" OPERATION CHART



## HOUSE WIRING LAYOUT RECOMMENDATIONS

### Exhaust Fans

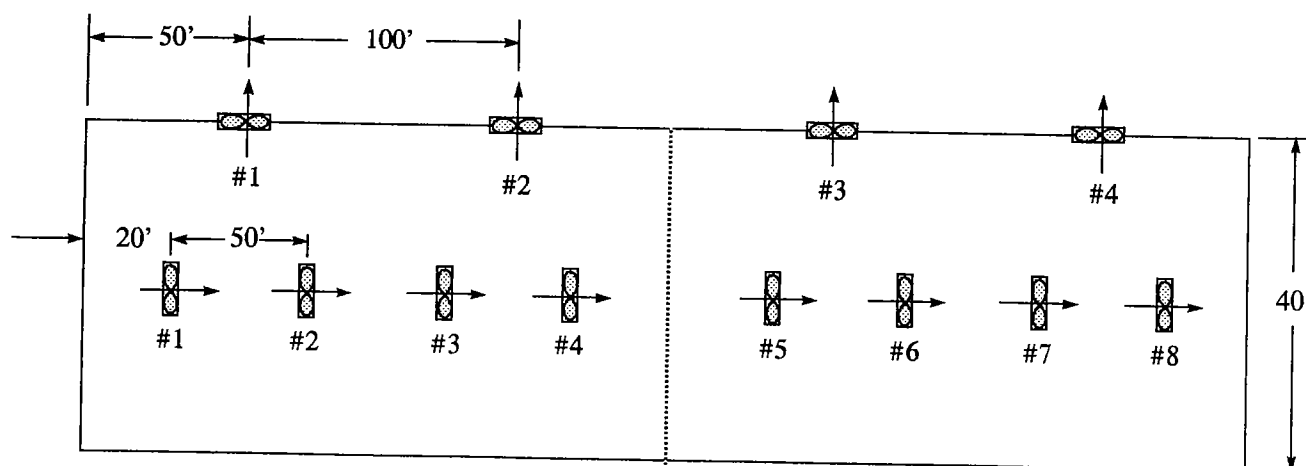
- Fans 1 & 2 on one circuit breaker.
- Fans 3 & 4 on one circuit breaker.
- All four fans controlled by one 110 V coil contactor (relay) which is triggered by the exhaust fan output of the Super 6 Control.
- All four fans have disconnects at the fans.

### Summer Fans (Center)

- Fans 1 & 3 on one circuit breaker.
- Fans 5 & 7 on one circuit breaker.
- Fans 2 & 4 on one circuit breaker.
- Fans 6 & 8 on one circuit breaker.
- Fans 1, 3, 5, 7 controlled by one 110V coil contactor (relay), which is triggered by Summer #1 output.
- Fans 2, 4, 6, 8 controlled by one 110V coil contactor (relay), which is triggered by Summer #2 output.
- All eight fans have disconnects at the fans.

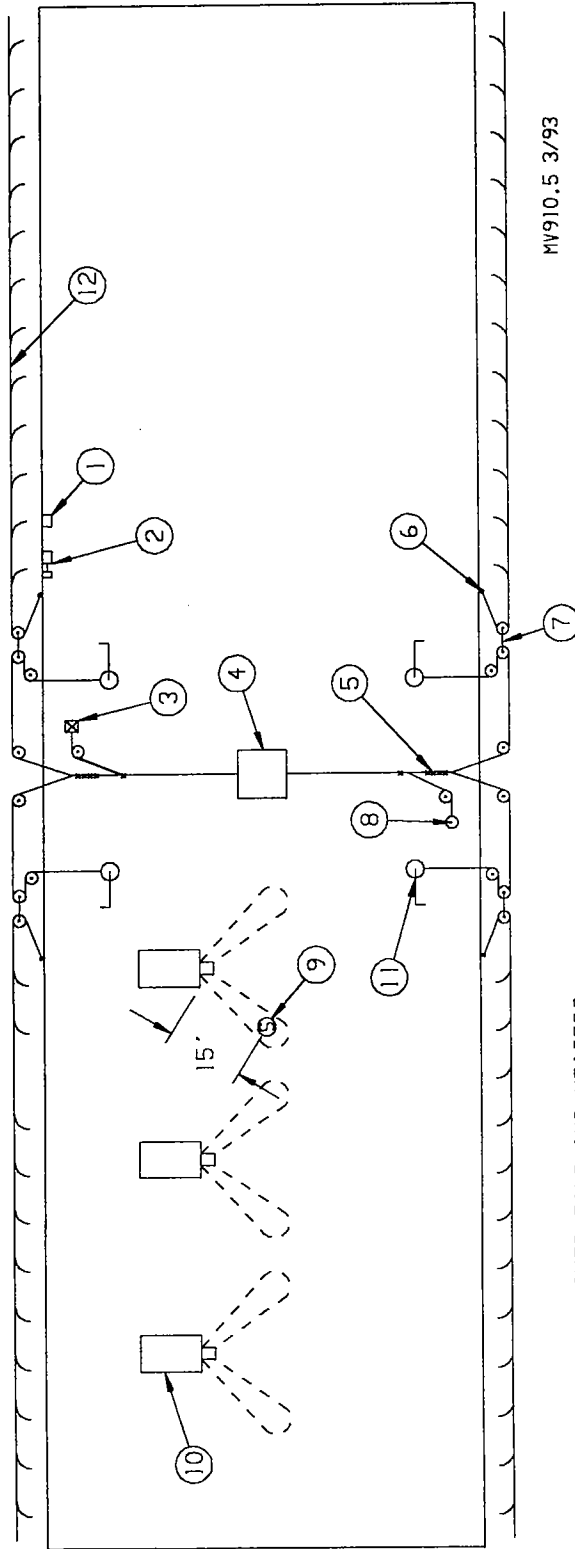
### Heaters and/or Brooders

- If only one type of heat source is used, control it with Heat #2 output (one contactor). (Brood area on one breaker, rest of house on second breaker).
- If both space heaters and brooders are used, control one with Heat #1 and the other with Heat #2 (brood area on one breaker, rest of house on second breaker).



TYPICAL 40' X 400' EXAMPLE

# HOUSE LAYOUT



MV910.5 3/93

1: CONTACTORS TO POWER FANS AND HEATERS

2: CONTROL

3: LIMIT SWITCH ASSEMBLY (P/N 29829-3). REFER TO LIMIT SWITCH INSTALLATION INSTRUCTIONS.

4: CURTAIN POWER UNIT. REFER TO POWER UNIT INSTALLATION INSTRUCTIONS.

5: USE FOUR CLAMPS HERE WHERE CABLE FROM POWER UNIT SPLITS TO GO EACH WAY. TIGHTEN WITH A WRENCH. NOT A NUT DRIVER.

6: MINIMIZE THE DISTANCE FROM THE PULLEY PAIR TO DEAD HEAD.

7: THE PULLEY PAIR WILL ONLY MOVE HALF THE TOTAL CURTAIN TRAVEL.

8: IT IS RECOMMENDED THAT A TEN POUND COUNTERWEIGHT BE ATTACHED TO THE MAIN CABLE WITHIN THE HOUSE (ON THE SIDE OF THE CURTAIN POWER UNIT OPPOSITE THE LIMIT SWITCH ASSEMBLY) IN ORDER TO MAINTAIN TENSION ON THE CABLE IF THE CURTAIN HANGS UP OR THE CURTAIN DROP IS ACTIVATED.

9: SENSOR PLACEMENT; MOUNT SENSOR 15' FROM THE OUTPUT OF A HEATER, DIRECTLY IN THE PATH OF THE HEATED AIR. AND TWO OR THREE FEET ABOVE THE LITTER. THIS POSITION GIVES TIGHTEST CONTROL OF HOUSE TEMPERATURE AND MINIMIZES FUEL USAGE. SIMILARLY, IF BROODERS ARE BEING USED INSTEAD OF HEATERS, PLACE THE SENSOR APPROXIMATELY 2' FROM THE EDGE OF THE BROODER HOOD AND 2' ABOVE THE LITTER SURFACE.

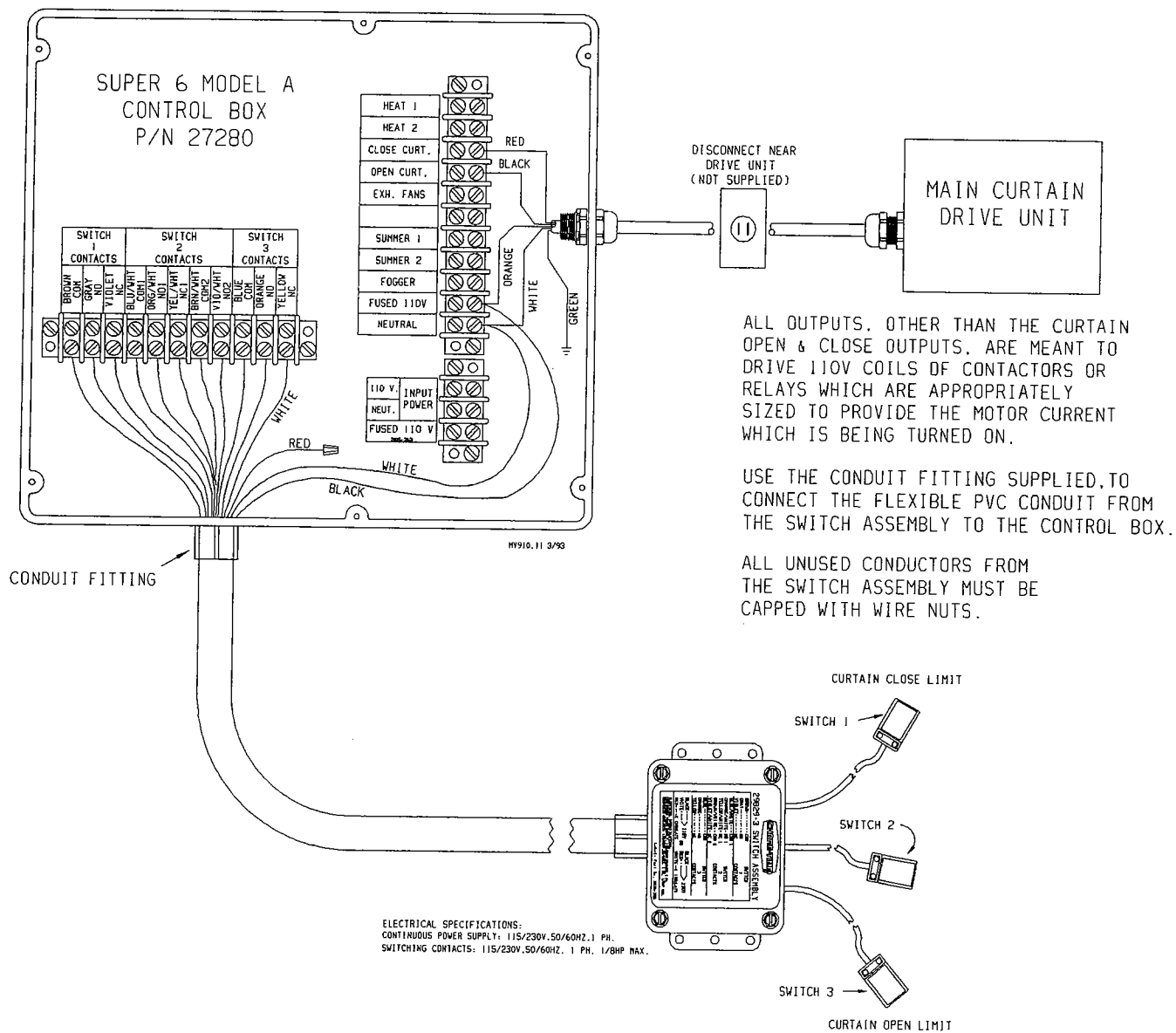
10: HEATERS

11: HAND WINCH

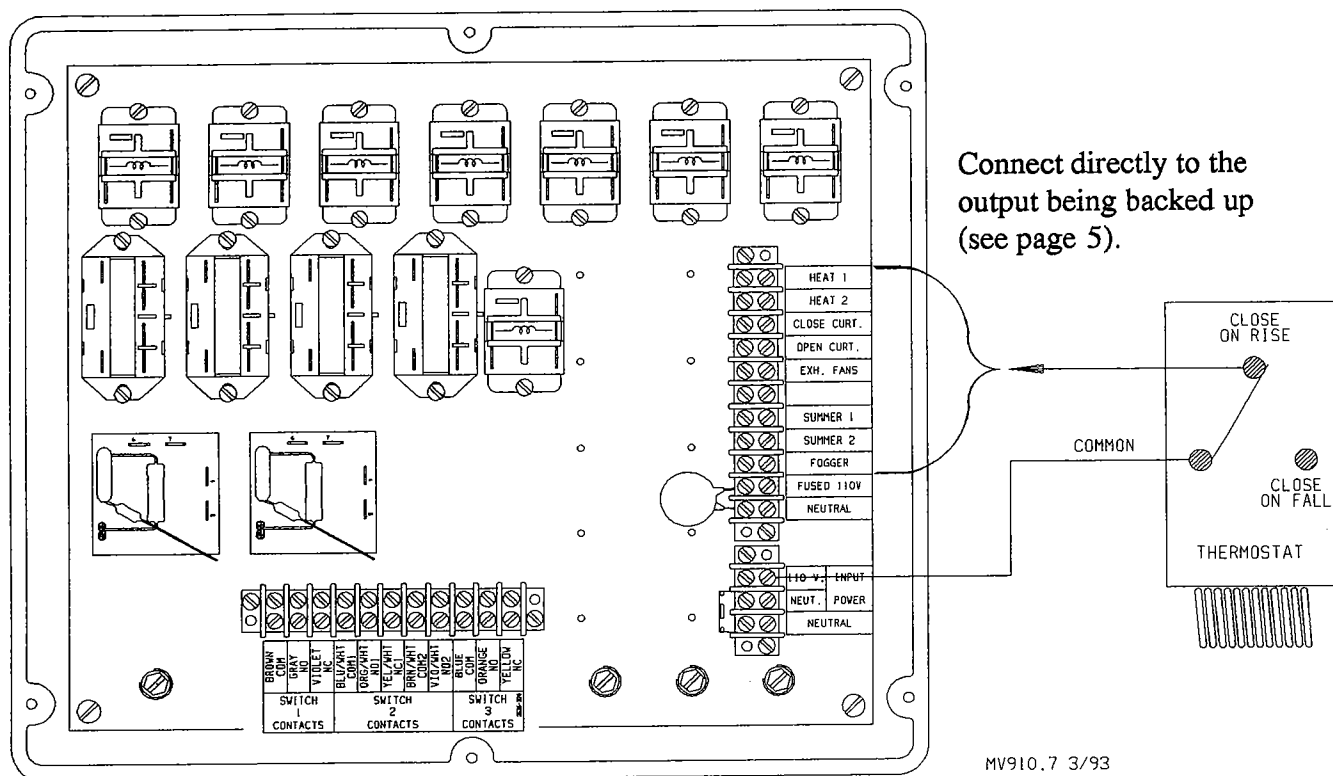
12: MAIN CURTAIN CABLE



# Curtain Drive Unit Wiring

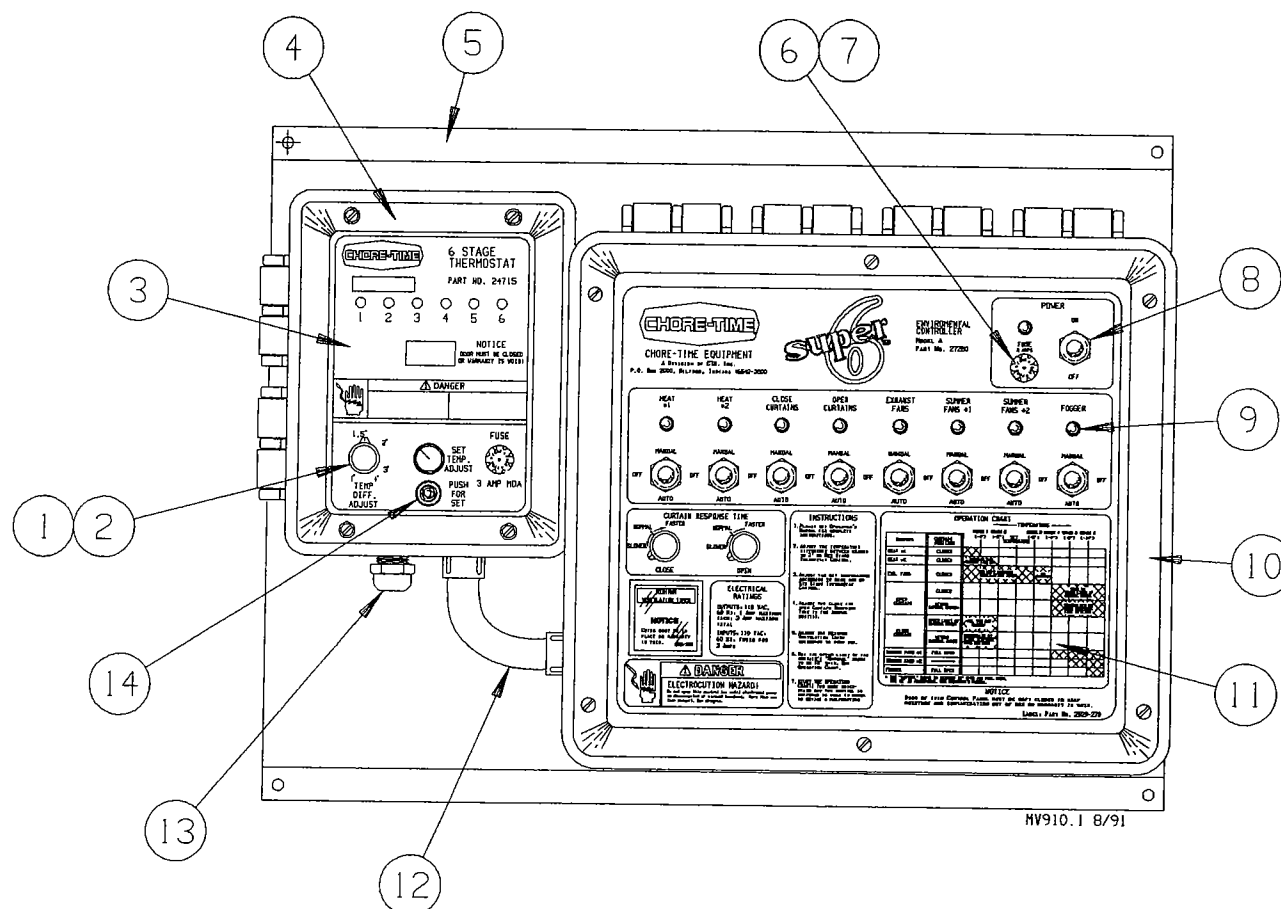


## Back-Up Thermostat Wiring Diagram



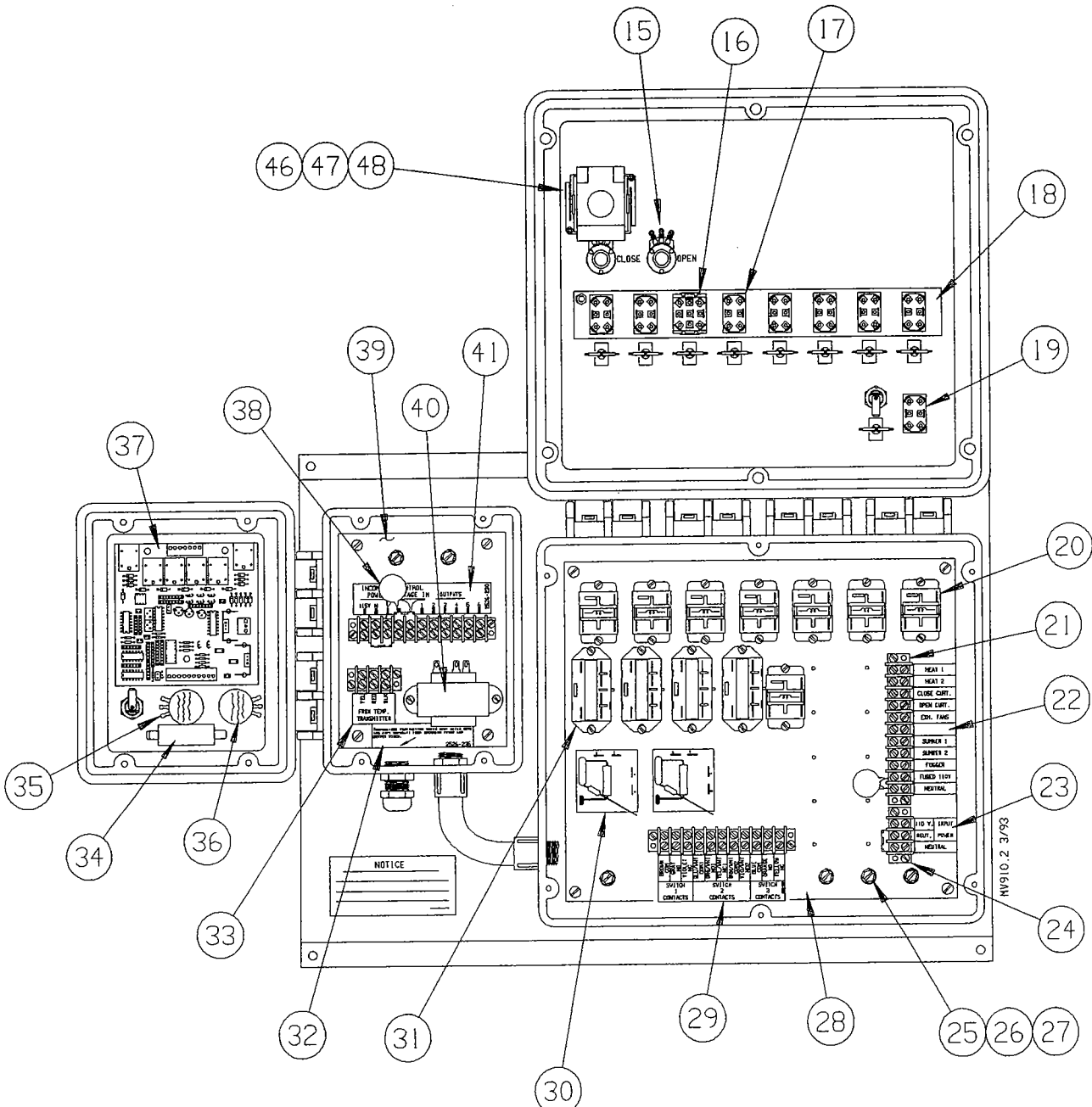
If a Heat Stage is backed up, the "Close on Fall" output of the thermostat should be connected instead of the "Close on Rise."  
DO NOT use Back-Up thermostats for curtain operation.

# Super-6 Model "A" Parts List

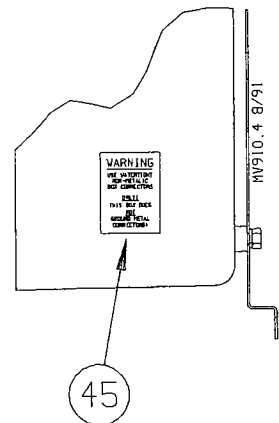
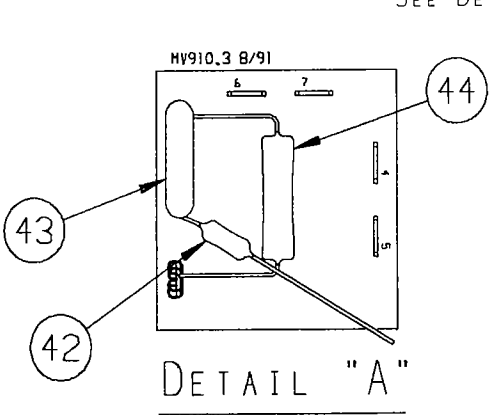


Item	Description	Part No.	Item	Description	Part No.
1.	Pointer Knob	7906	25.	Screw 10-32	4968
2.	Rotary Shaft Seal	7348	26.	Lockwasher	305
3.	6-Stage Cover Decal	2529-238	27.	Cup Washer	5775
4.	Cover & Box Ass'y	27755	28.	Base Plate	27490
5.	Mounting Plate	27486	29.	Limit Switch Decal (Model "A")	2526-320
6.	Fuse Holder	24431	30.	Timer, 5 Minute	27492
7.	Fuse, Slow Blow (3 Amp)	20472	31.	Power Relay	27051
8.	Toggle Switch Boot	1739	32.	Transmitter Wire Decal	2526-235
9.	Pilot Light (w/clip)	5311	33.	Temp. Trans. Wire Decal	2526-229
10.	Control Box	27487	34.	Push Button Switch	20829
11.	Cover Decal	2529-270	35.	Potentiometer	26869
12.	Conduit Ass'y	27489	36.	Potentiometer	27512
13.	Connector 1/2"	23779	37.	Circuit Board	27488
14.	Push Button Boot	14447	38.	M.O.V.	14063-2
15.	Dual Potentiometer	27494	39.	Base Plate	25417
16.	Toggle Switch (3PDT)	14385	40.	Transformer	26991
17.	Toggle Switch (2PDT)	20135	41.	Terminal Block Decal	2526-230
18.	Ground Plate	27493	42.	Resistor, 100 Ohm 1 Watt	1709-17
19.	Toggle Switch	6014	43.	Capacitor, .1 uf 630vac	24518
20.	Power Relay (SPDT)	27491	44.	Resistor, 8.2K Ohm 5 watt	1709-16
21.	Terminal Block	7347	45.	Warning Decal	2527-15
22.	Output Decal "A"	2526-262	46.	Timer	29488
23.	Input Decal "A"	2526-301	47.	Socket	29489
24.	Terminal Block	26862	48.	Mounting Adapter	25478

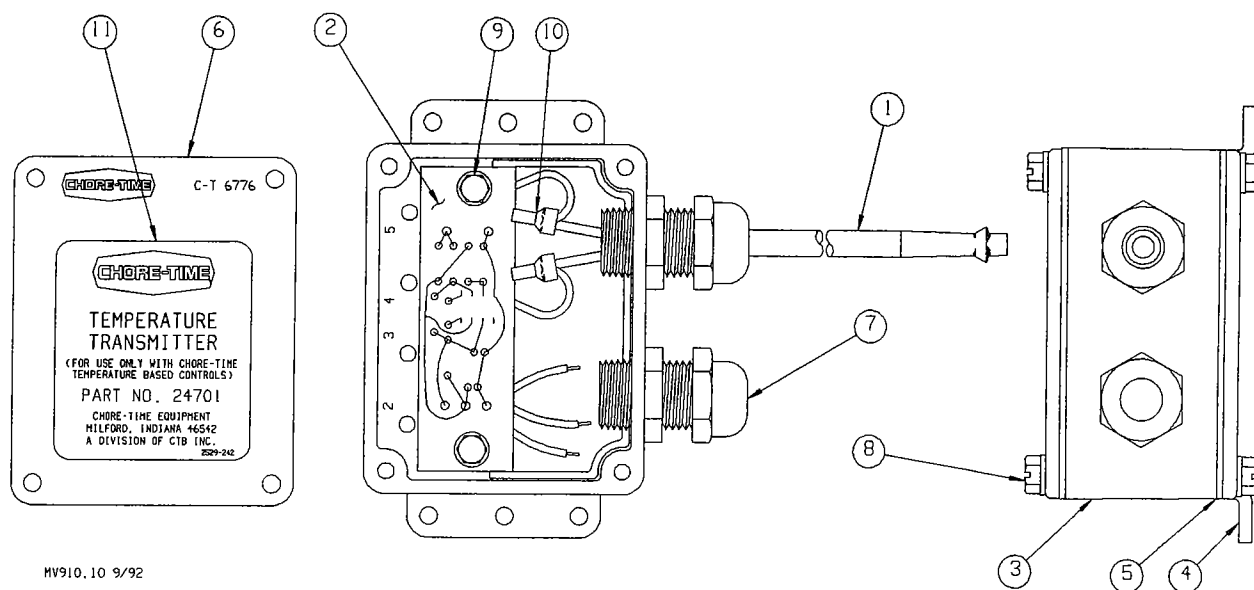
Super-6 Model "A" Parts List Cont.



SEE DETAIL "A"



## # 24701 Temperature Transmitter



MV910.10 9/92

<u>Item</u>	<u>Description</u>	<u>Part No.</u>
1.	Thermistor Probe Ass'y	24845
2.	Circuit Board	24351
3.	Terminal Box	25164
4.	Mounting Cover	6956
5.	Gasket	6777
6.	Switch Box Cover	6776
7.	1/2" Liquid Tight Conn.	23779
8.	Twin Helix Screw	6980
9.	#10 Twin helix Screw	28075
10.	Pigtail Connector	5907-1
11.	Temp. Transmitter Decal	2529-242

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T h i s   p a g e   i n t e n t i o n a l l y   l e f t   b l a n k .

**Super 6 Model "A"**



**Made to work.  
Built to last.**

Contact your nearby Chore-Time distributor or representative for additional parts and information.  
Chore-Time Equipment, A Division of CTB, Inc.  
P.O. Box 2000, Milford, Indiana 46542-2000 U.S.A.