

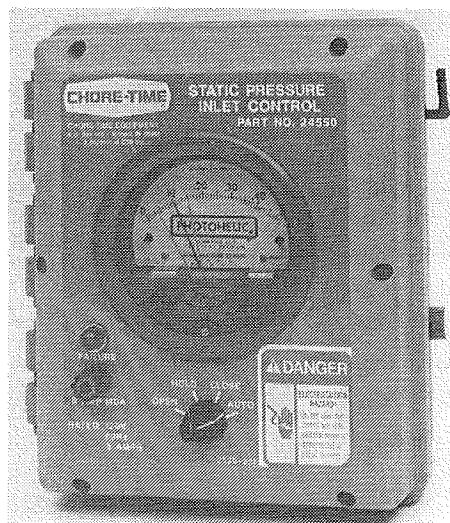
CHORE-TIME[®]



Automatic Inlet Control System featuring the 24550

Static Pressure Inlet Control

Installation • Operation • Troubleshooting • Parts List



MV765E16-989

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. 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.
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WIRING NOTES

DISCONNECT ELECTRICAL POWER BEFORE INSPECTING OR SERVICING THE EQUIPMENT, UNLESS THE MAINTENANCE INSTRUCTIONS SPECIFICALLY STATE OTHERWISE.

WIRE THE ELECTRICAL EQUIPMENT ACCORDING TO THE WIRING DIAGRAMS IN THIS MANUAL. ALL FIELD ELECTRICAL WIRING MUST BE DONE BY A QUALIFIED ELECTRICIAN, ACCORDING TO LOCAL AND NATIONAL CODES.

GROUND ALL ELECTRICAL EQUIPMENT.



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

IMPORTANT

CHECK SHIPMENT FOR DAMAGES AND SHORTAGES.

ALL CLAIMS FOR DAMAGES OR SHORTAGES RESULTING FROM SHIPMENT MUST BE FILED WITH THE CARRIER.

ALL PARTS SHOULD BE ORDERED BY PART NUMBER AND DESCRIPTION AS GIVEN IN THE PARTS LISTS IN THIS INSTRUCTION MANUAL.

ALL PARTS ARE BILLED WHEN SHIPPED.

IF A RETURNED PART IS DEFECTIVE AND WITHIN WARRANTY, CREDIT WILL BE ALLOWED AGAINST BILLING.

Thank-you for purchasing a Chore-Time Automatic Inlet Control System.

Please read the installation instructions in this manual prior to beginning the installation. This manual is designed to give the necessary information on the installation, operation, and maintenance of the System.

White rust is caused by moisture trapped between galvanized parts. If moisture is present, separate parts IMMEDIATELY for good air circulation. Store parts in a warm, dry place.

This bar demotes changes made to this instruction since the last printing. It will appear in the left or right hand border, near the revised information.

**General Information**

The CHORE-TIME Automatic Inlet Control System is designed to adjust CHORE-TIME Air Inlets to maintain proper air velocity for good air movement and ventilation. The Automatic Inlet Controls eliminate the need for manual adjustment of the inlets and make the system automatically responsive to fan operation. This is especially helpful during period of wide daily temperature extremes, such as during Spring and Fall.

The Automatic Inlet Control System consists of a Static Pressure Inlet Control and one or more Inlet Power Packs. The Static Pressure Inlet Control measures static air pressure inside the building and signals the power pack(s) to open or close the inlet doors to maintain static pressure within the pre-set range.

The 7210 Inlet Power Pack is designed to handle up to 40 Inlets. Additional power packs must be used when more inlets are installed and operated from one Static Pressure Inlet Control. For multiple power pack installations, an inlet power relay must be used with each Power Pack.

Figure 1 shows a typical installation of the Automatic Inlet Control System.

Mount the Static Pressure Inlet Control in a convenient location which is not subject to "jarring" such as from closing a door or gate. Lag screws are provided for attaching it to the wall. The Static Pressure Inlet Control can be located in the same room with the animals, but is often mounted in another room. If it is mounted in another room, a 7565 Remote Pressure Sensing Kit is used in the room with the animals to act as the pressure sensor.

Mount the bottle assembly in the attic to protect it from wind and weather for a more stable pressure reading. For proper operation the attic must be vented to the outside but sealed from the animal chamber. The bottle should not be placed in an attic that is fan ventilated.

If attic installation is not satisfactory, then the bottle should be mounted outside under the eaves. Position the bottle upright to prevent dust from settling on the vent plug or condensation from going into the static monitor.

! IMPORTANT !

CHORE-TIME STRONGLY RECOMMENDS THAT A GOOD ALARM SYSTEM SHOULD BE INSTALLED IN CONFINEMENT BUILDINGS TO WARN OF POWER FAILURE AND HIGH TEMPERATURE.

ADDITIONALLY, CHORE-TIME RECOMMENDS THAT AN ALTERNATE POWER SOURCE BE AVAILABLE FOR CONFINEMENT BUILDINGS IN CASE OF POWER FAILURE.

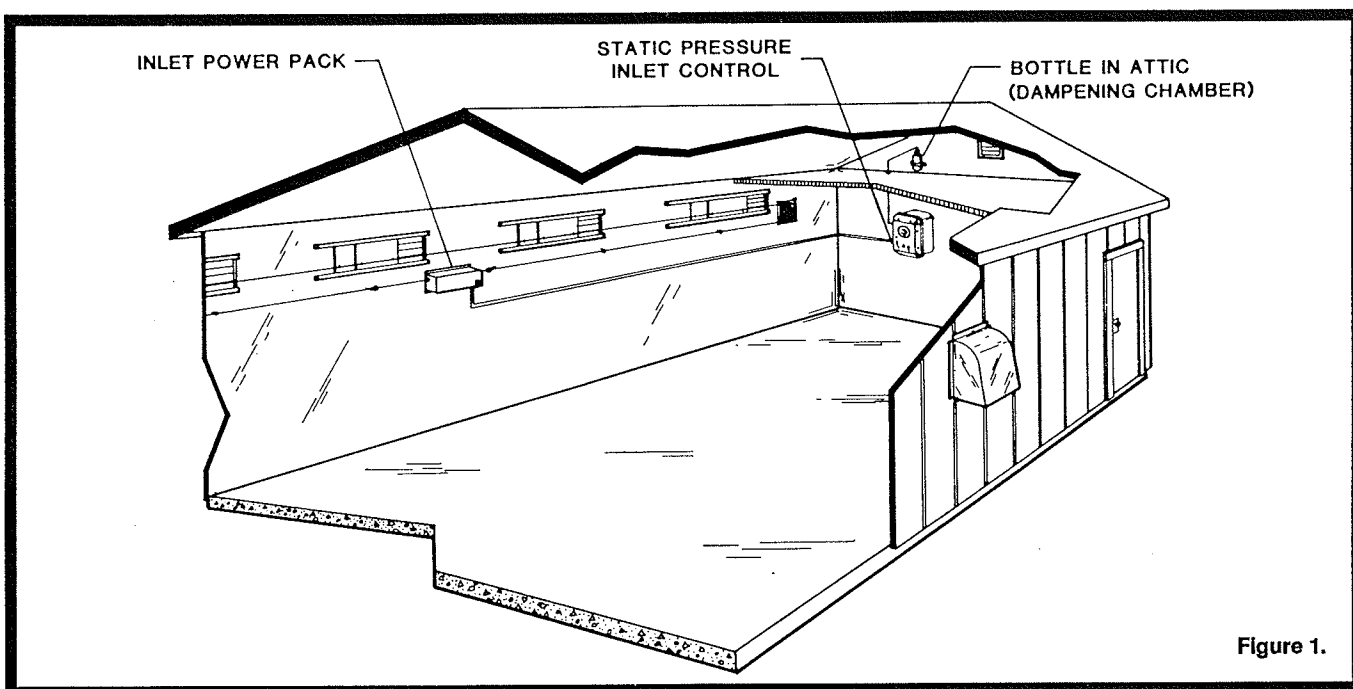


Figure 1.

INLET POWER PACK INSTALLATION

1. Mount a 6074 Cable Adjustment Pulley at each end of the row of inlets, in line with the eyebolt on the inlet doors, as shown in Figure 2.
2. Below each inlet, and in line with the bottom of the adjustment pulley, install the Screw Eye provided with each inlet.
3. Run the inlet cable through the inlet door eyebolts, around the 6074 Adjustment Pulleys, and through the screw eyes below the inlets.
4. The 7210 Power Pack can be installed anywhere along the re-

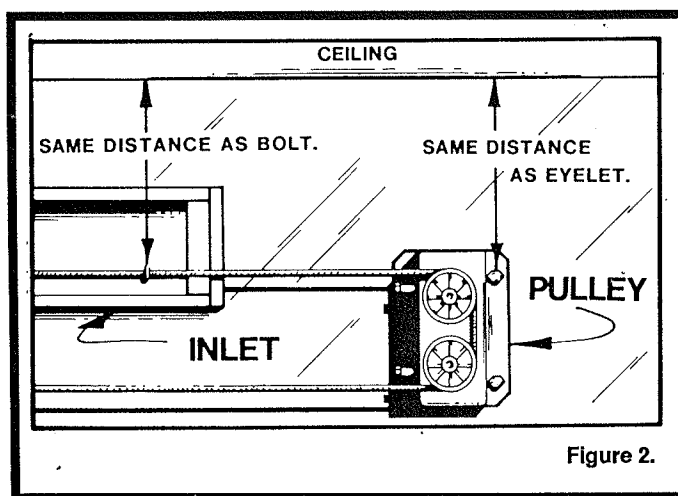


Figure 2.

turn side of the cable except within 4 feet (1.2 m) of the cable adjustment pulley at either end. Mount the Power Pack so that the cable is in line with the eyebolts guiding the chain on the Power Pack. The Power Pack must be mounted on the wall with the motor below the chain so the Power Pack will not interfere with the cable or inlet door movement. See Figure 3.

5. Cut the Return Cable at the Power Pack. Thread the ends of the cable through the second link from each end of the chain, as shown in Figure 4.
6. Form a loop and fasten the cable with a split-bolt type cable clamp. See Figure 4.

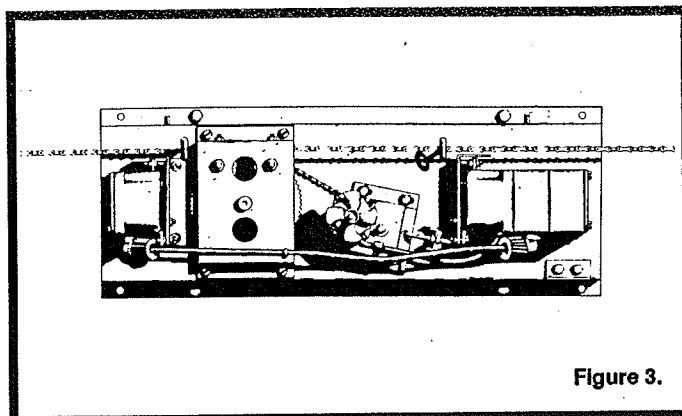


Figure 3.

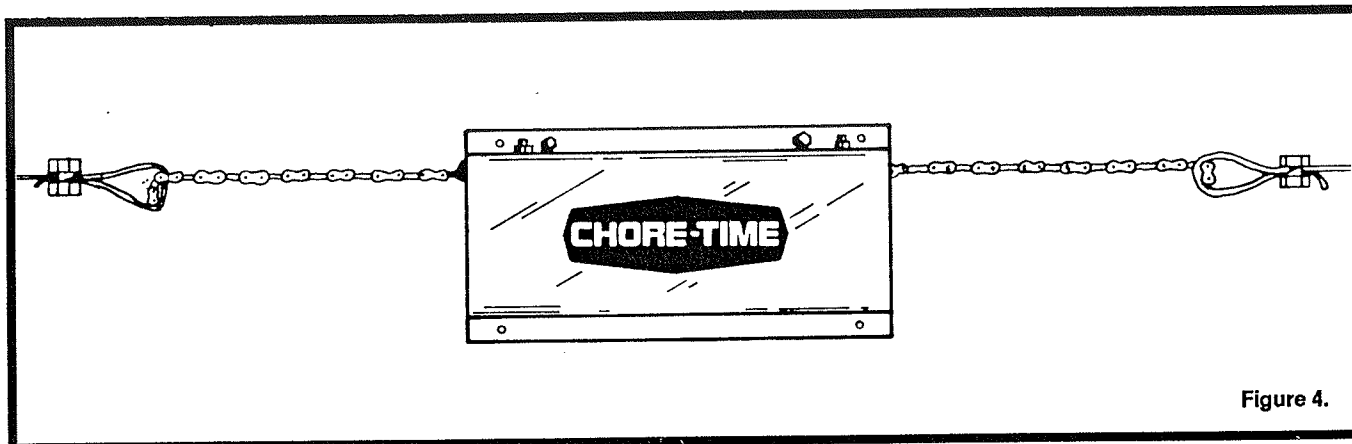


Figure 4.

STATIC PRESSURE INLET CONTROL AND POWER PACK CONNECTION

IMPORTANT: Before beginning to set the amount of travel on the Power Pack, be certain the inlet doors are not fastened to the cable.

1. Adjust the black pointer on the Static Pressure Inlet Control pressure gauge so it is exactly at the zero mark. Use the "ZERO ADJUST" screw located near the bottom of the gauge face to move the pointer.
2. With the adjustment switch on "HOLD", connect the tubing from the bottle to the hose stem on the pressure gauge of the Static Pressure Inlet Control.
3. Remove the cover from the Power Pack and center the chain so that approximately the same amount of chain extends out each side to hook up with the cable. This instruction shows the procedure for installing the 7210 Power Pack. Allow approximately 2 feet (609 mm) of chain travel as shown in Figure 5. Install the eyebolt and nut on the chain so that it will activate the switch, stopping chain travel when the doors close.
4. Set the Static Pressure Inlet Control to "CLOSE". Allow the chain on the Power Pack to travel until the switch actuates, stopping chain movement.
5. Place the adjustment switch on the Static Pressure Inlet Control to "Hold".
6. Close all inlet doors by hand. Leave a 1/4" (6 mm) opening in the inlets and tighten cable clamps to hold doors to cable.
7. Use the Static Pressure Inlet Control selector switch to open the inlet doors. When the doors are open, place the Static Pressure Inlet Control selector switch in the "HOLD" position. **CAUTION: POWER PACK WILL NOT STOP AUTOMATICALLY AT THIS POINT!**
8. Install the eyebolt and nut on the chain at the Actuator Switch which stops chain travel when the doors are opening. See

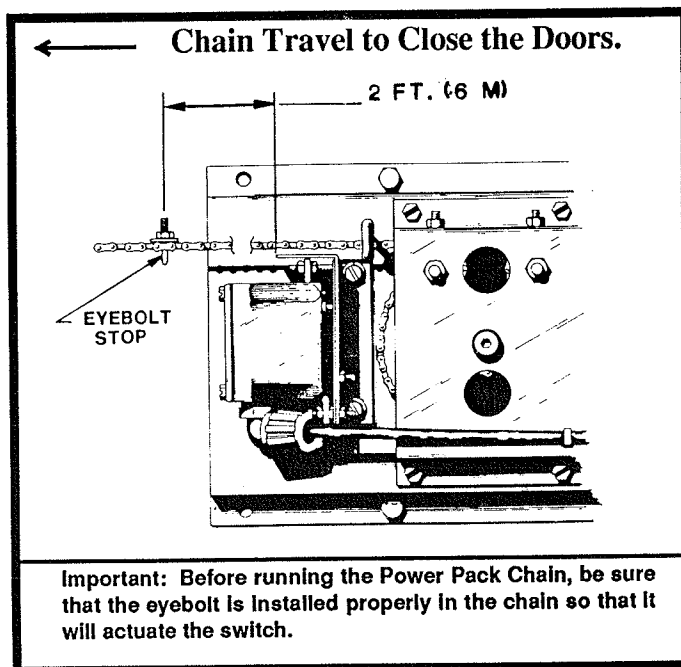


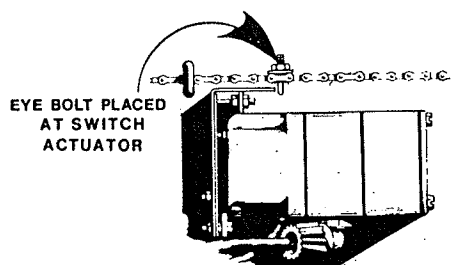
Figure 6.

9. Open and close the inlet doors using the selector switch on the Static Pressure Inlet Control. Check to make sure the eyebolts and nuts control switch action at both power pack switches. Check to be sure doors open and close without interference. Adjust chain travel if necessary.

Operational Recommendations and Guidelines

For Static Pressure Inlet Control

Figure 6.



Chain Travel to Close the Doors.

Install the eyebolt at the switch actuator with the inlet doors fully open.

Note: The nut and eyebolt used in the chain to activate the switches on the power pack are shipped in a hardware package with the Power Pack Unit.

- Before beginning to operate the system, disconnect the hose and check Static Pressure Gauge on the Static Pressure Inlet Control. Adjust the BLACK needle on the pressure gauge exactly to the zero mark. Use the adjustment screw located near the bottom of the face of the gauge to make the adjustment.
- Turn the Static Pressure Inlet Control selector switch to HOLD.
- Connect plastic tube from sensing bottle to the hose stem on the side of the Control Box.
- Set the desired pressure range on the gauge of the Static Pressure Inlet Control. Position one red needle on the low limit, and the second red needle at the high limit.
To set the low needle, .02 per 10 feet (3 m) of building width is a good beginning point. For example, set the lower needle at .06 in a building that is 30 feet (9.1 m) wide.
Set high pressure .02 above the low needle. Spreading the needles farther than .02 apart will cause the Static Pressure Inlet Control to make fewer changes of inlet door position. This lessened sensitivity may be desirable in windy weather. To minimize fluctuations even further, due to windy conditions, there is a delay of 14 seconds built in. The pressure difference has to be outside the preset desired range for this amount of time before the appropriate output is energized. Similarly, when the pressure returns to the preset desired range, a 3 to 4 second delay occurs prior to the output shutting off. These delays start counting from zero each time the black needle moves past the particular red needle.
- The failure light indicates that the control is trying to give both output signals at once. The most likely reason for this is a burnt out light bulb behind the "Dwyer" in the center of the photohelic. The control will shut off both outputs when this occurs. The "Dwyer" light will only turn on when the selector switch is in the 'Auto' position.
- The 'Open' and 'Close' position of the selector switch, totally by passes the Photohelic and Circuit Card and allows manual operation.

For Power Packs and Inlets

- Adjust the inlet wall inserts to direct the flow of incoming air. To adjust the louvers on the insert, grab both ends and pull or push steadily to change the position of the louver. Avoid directing air flow directly at ventilation controls.
- Adjust chain travel on the power pack if minor adjustment is needed. Operate the power pack using the Static Pressure Inlet Control selector switch. In a fully-closed position, inlet doors should have 1/4-1/2" (6-13 mm) opening for minimal ventilation. **Doors must not be fully closed!**

Wiring the System

Refer to the appropriate diagram, below and on page 7, depending on whether the installation calls for a single or multiple power pack operation.

Other Related Instructions

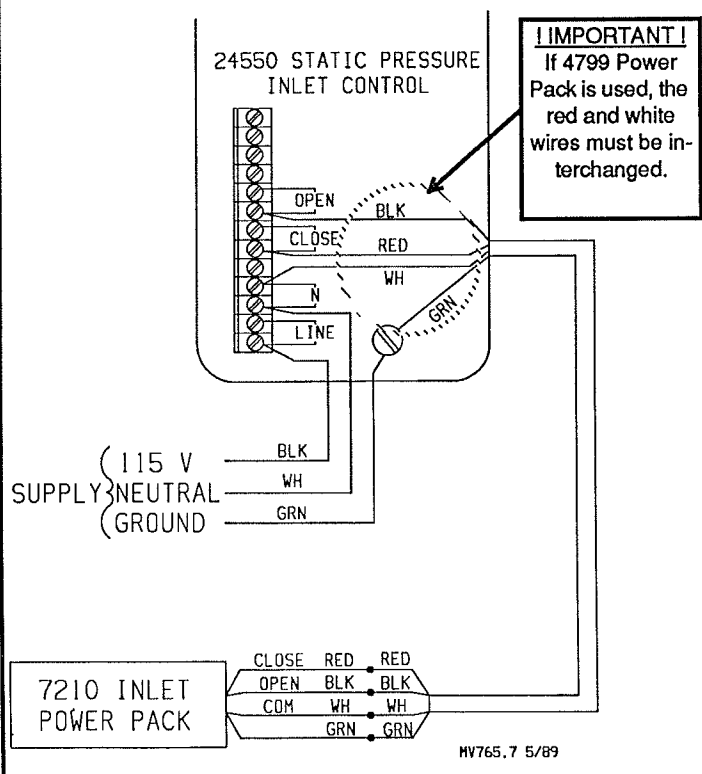
Refer to Chore-Time Instruction #MV224 AIR INLETS for installation of the Air Inlets and cable system.

Refer to Chore-Time Instruction #MV530 AIR SYSTEMS OPERATOR'S MANUAL for additional information about the complete ventilation system.



- Adjust cable tension and inlet doors if necessary.
- Set Static Pressure Inlet Control selector switch as desired.

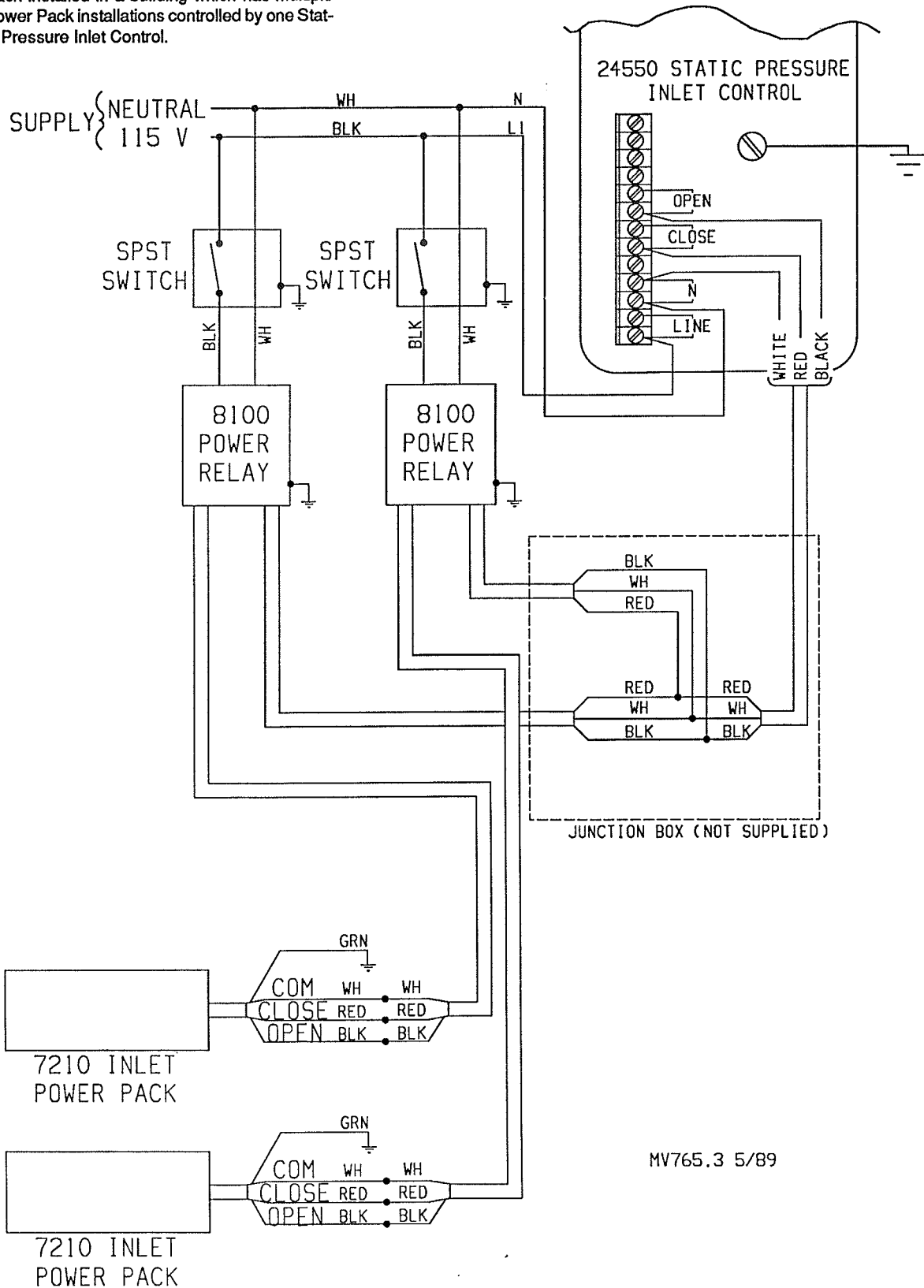
Single Power Pack Wiring Diagram



Multiple Power Pack Wiring Connection Diagram

with 8100 Power Relays and 7210 Power Packs

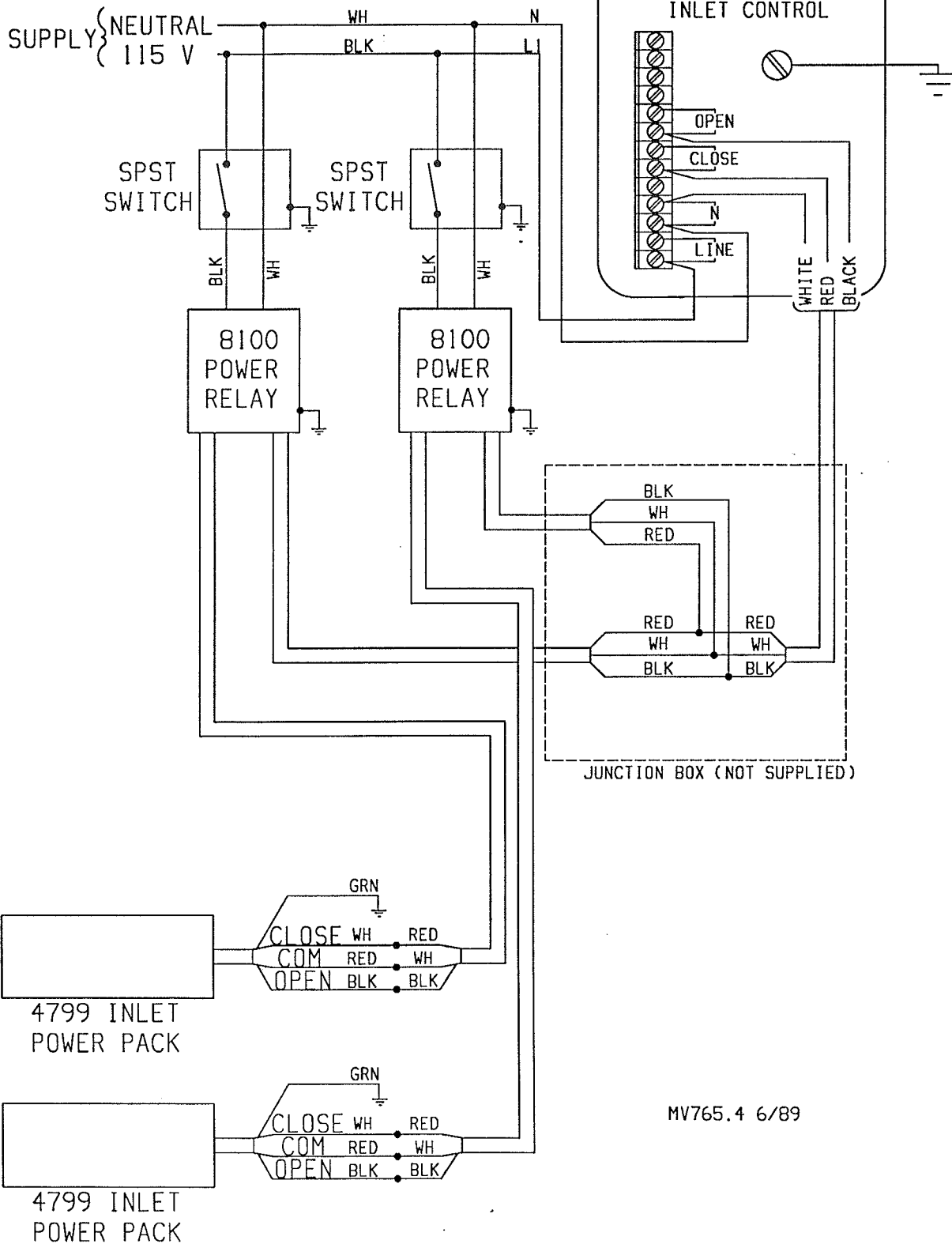
A Power Relay is required for each Inlet Power Pack installed in a building which has multiple Power Pack installations controlled by one Static Pressure Inlet Control.



Multiple Power Pack Wiring Connection Diagram

with 8100 Power Relays and 4799 Power Packs

A Power Relay is required for each Inlet Power Pack installed in a building which has multiple Power Pack installations controlled by one Static Pressure Inlet Control.

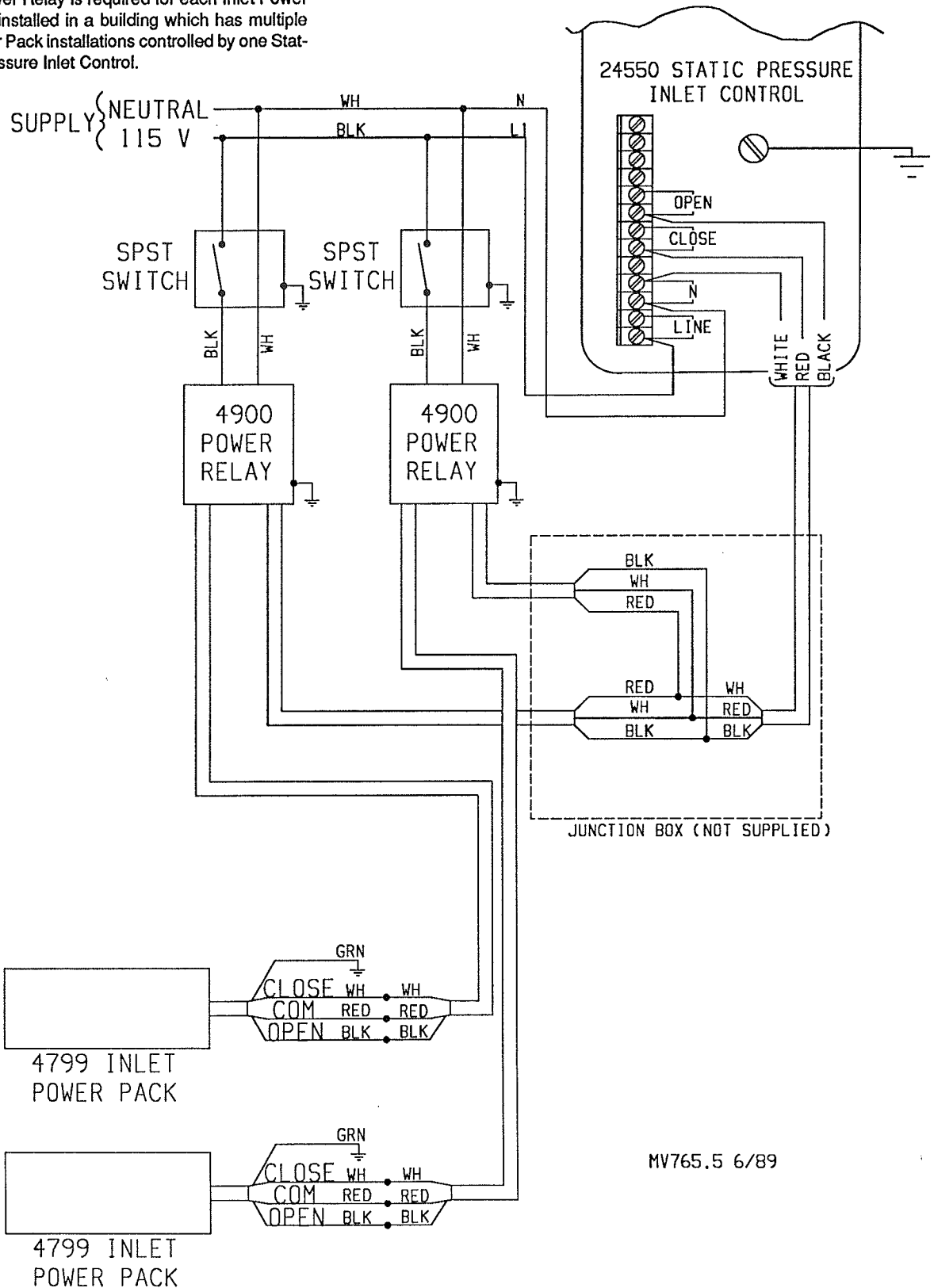


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Multiple Power Pack Wiring Connection Diagram

with 4900 Power Relays and 4799 Power Packs

A Power Relay is required for each Inlet Power Pack installed in a building which has multiple Power Pack installations controlled by one Static Pressure Inlet Control.

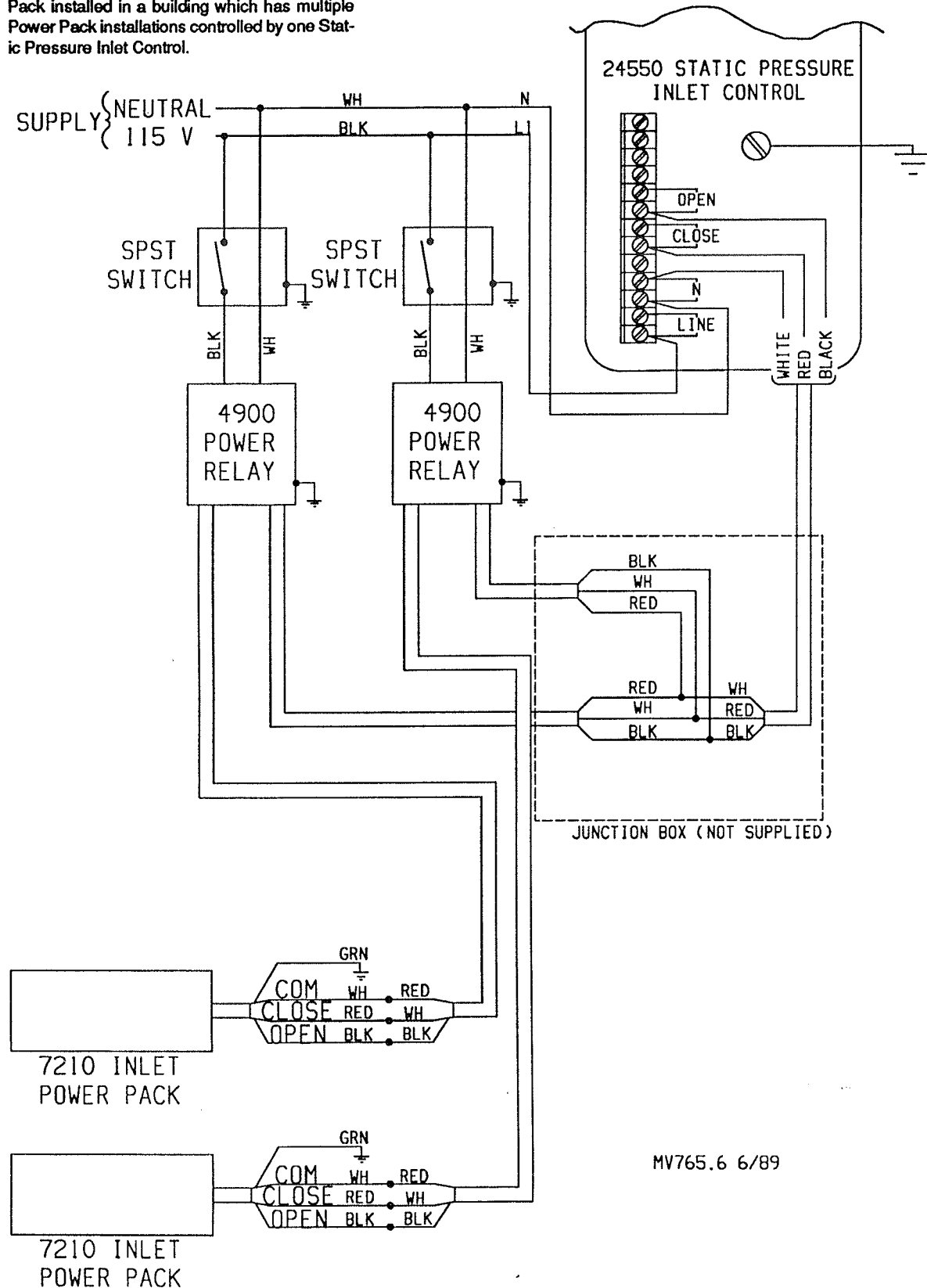


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Multiple Power Pack Wiring Connection Diagram

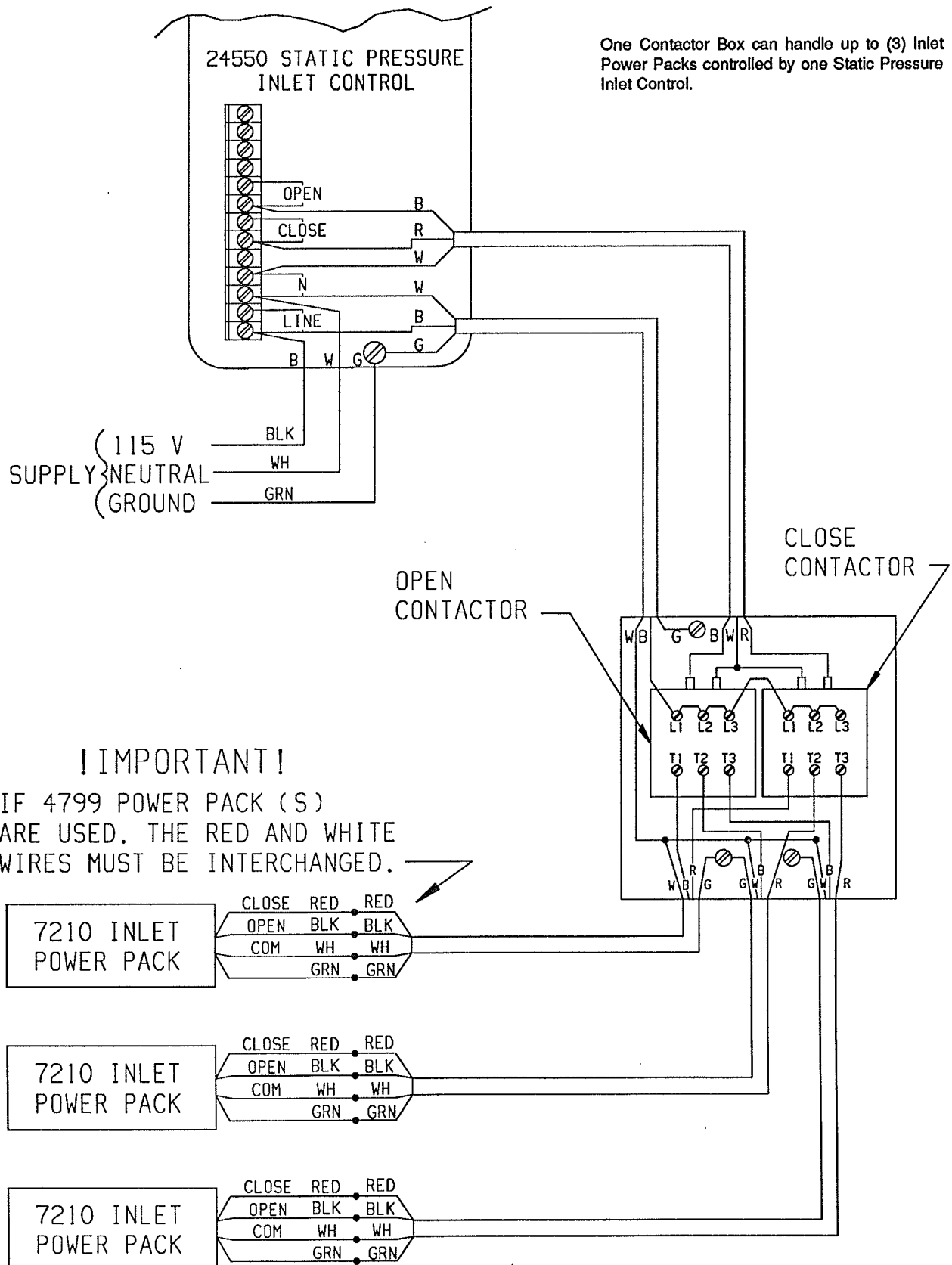
with 4900 Power Relays and 7210 Power Packs

A Power Relay is required for each Inlet Power Pack installed in a building which has multiple Power Pack installations controlled by one Static Pressure Inlet Control.

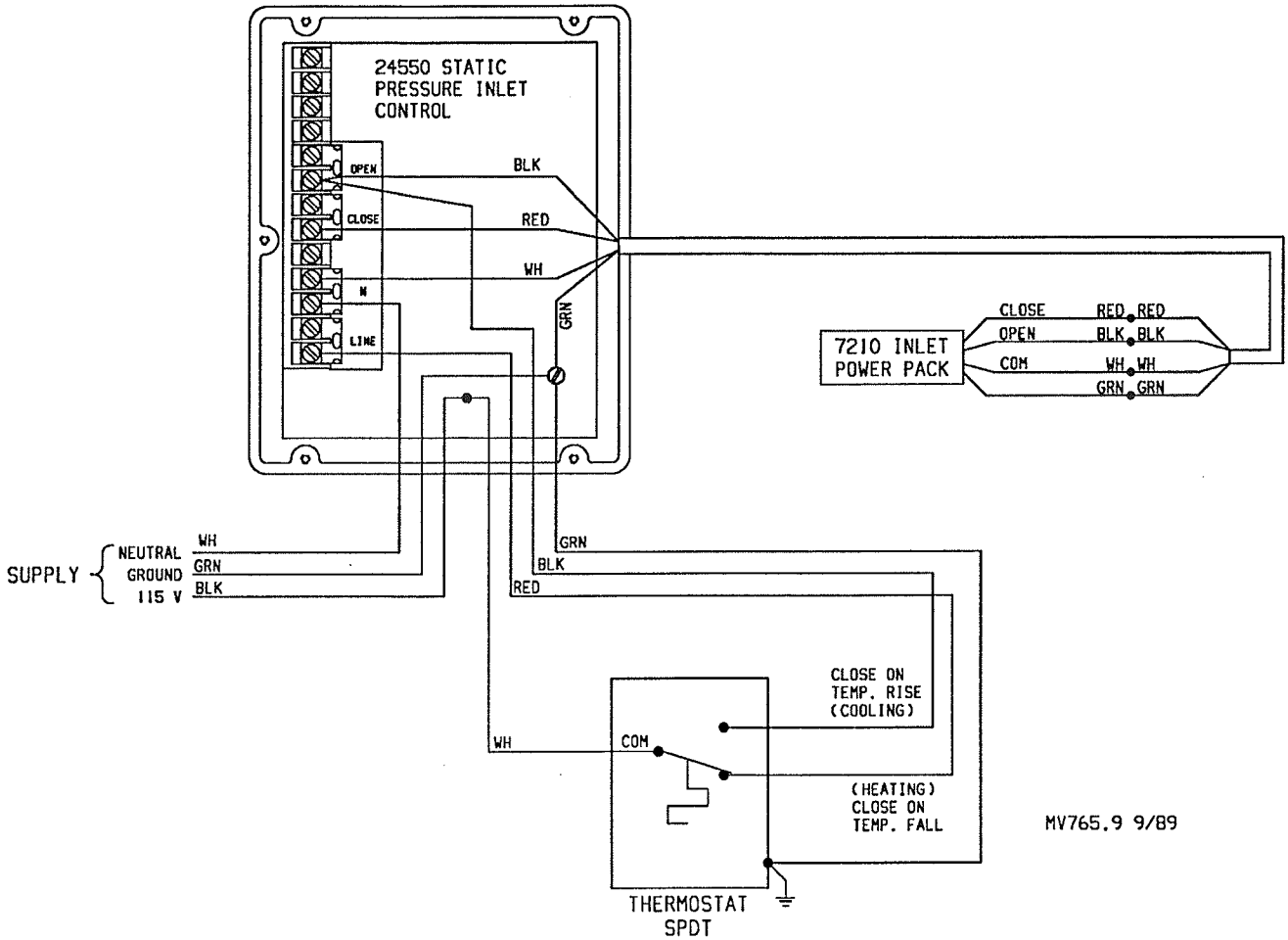


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Multiple Power Pack Wiring Connection Diagram with 24545-2 Contactor Box



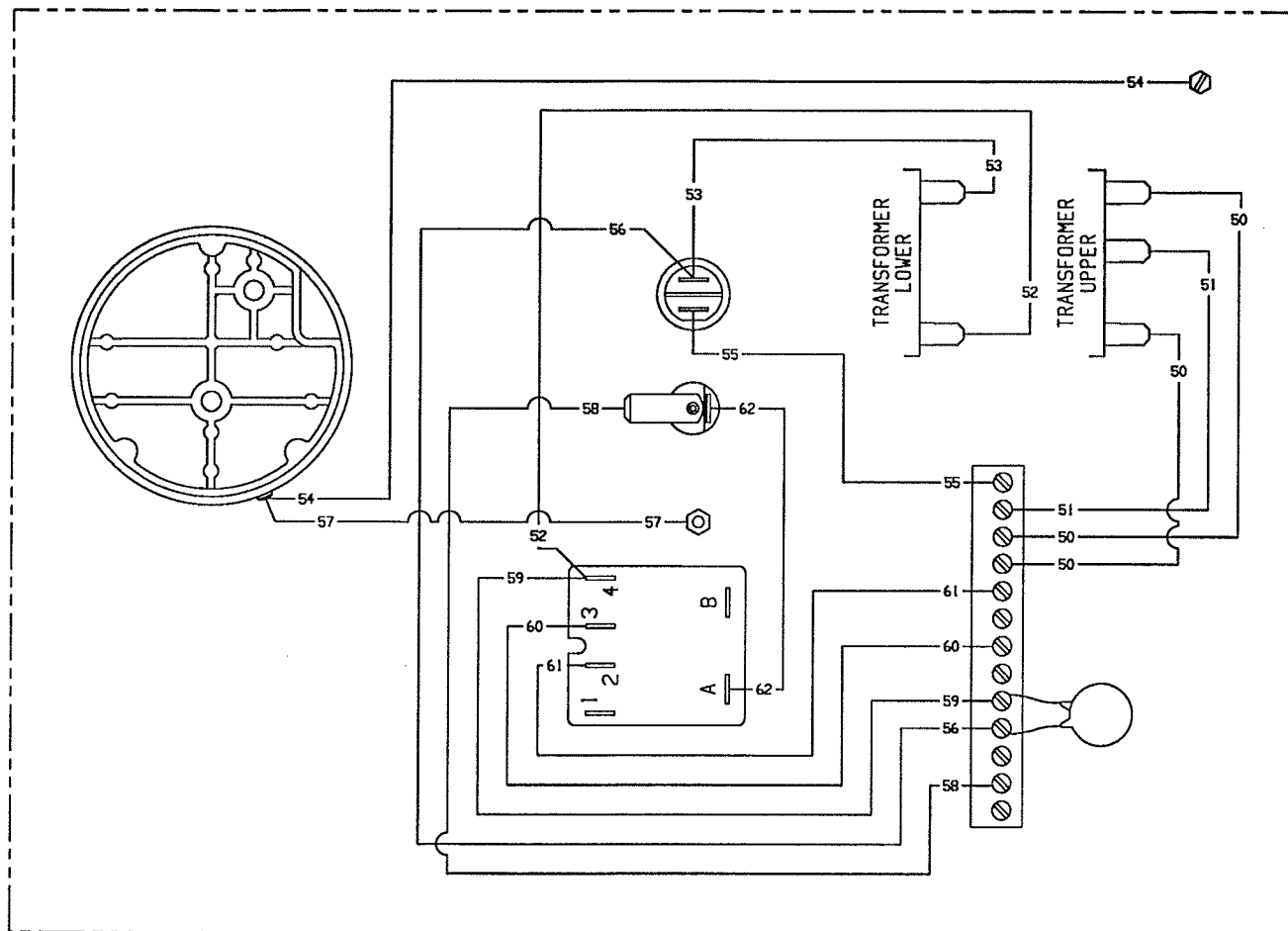
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CHORE-TIME RECOMMENDS INSTALLING A THERMOSTAT TO GUARD AGAINST VACUUM LINE FAILURE.



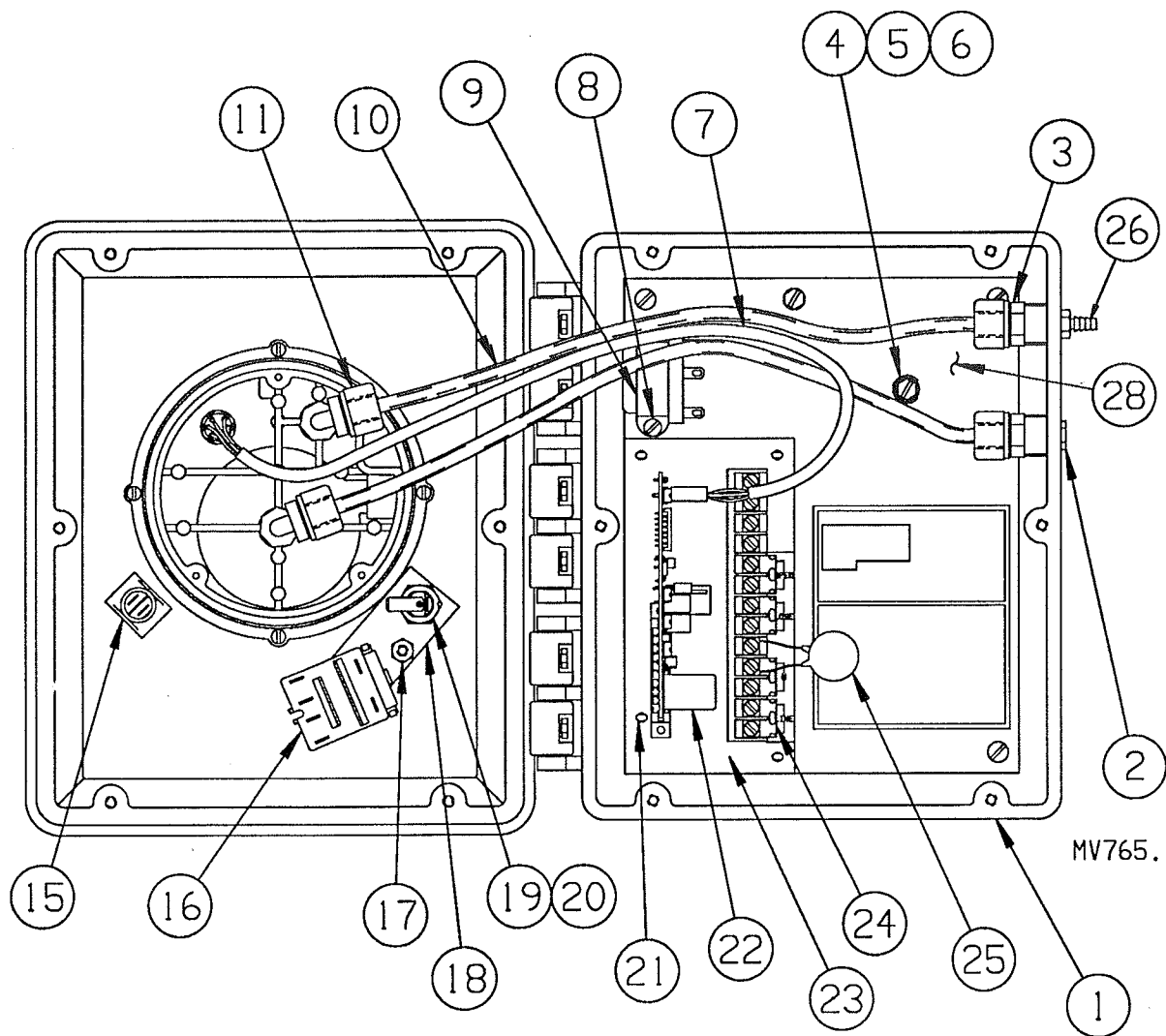
24550 Internal Wiring Diagram



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62	2240-17	1	5.00	ORANGE	18	14725	14725
61	2240-11	1	20.00	BLACK	18	14725	.38
60	2240-14	1	20.00	RED	18	14725	.38
59	2240-17	1	20.00	ORANGE	18	9296	.38
58	2240-17	1	20.00	ORANGE	18	14725	.38
57	2240-13	1	5.00	GREEN	18	7799	7799
56	2240-12	1	21.00	WHITE	18	14725	.38
55	2240-16	1	21.00	YELLOW	18	14725	.38
54	2240-13	1	16.00	GREEN	18	7799	7799
53	2240-12	1	21.00	WHITE	18	7241	9296
52	2240-17	1	17.00	ORANGE	18	7241	14725
51	2240-12	1	7.00	WHITE	18	7241	.38
50	2240-15	2	7.00	BLUE	18	7241	.38
ITEM	PART NO.	QTY.	WIRE LENGTH	WIRE COLOR	WIRE GA.	LEFT END TREATMENT	RIGHT END TREATMENT

24550 Automatic Inlet Control Parts List



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IMPORTANT

CHECK SHIPMENT FOR DAMAGES AND
SHORTAGES.

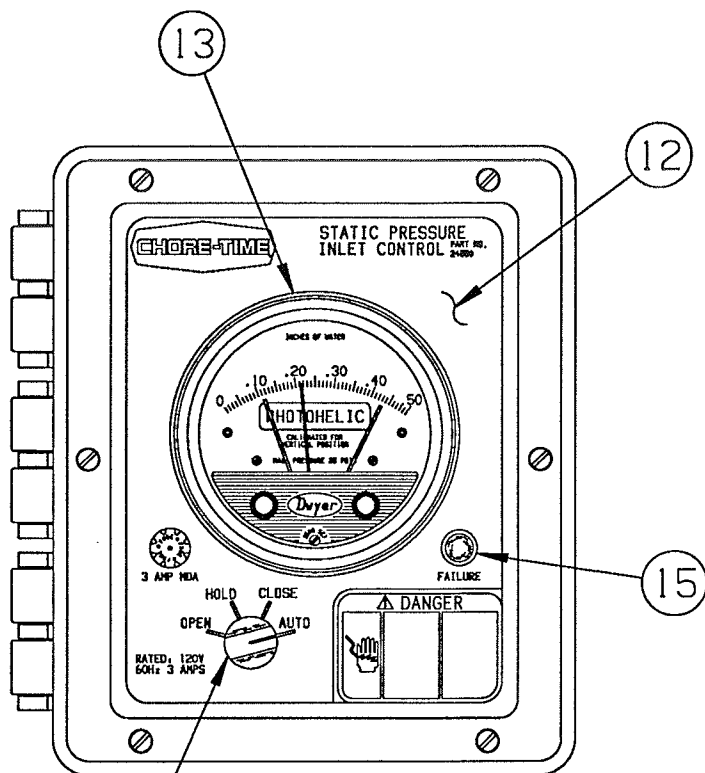
ALL CLAIMS FOR DAMAGES OR SHORTAGES
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ALL PARTS SHOULD BE ORDERED BY PART
NUMBER AND DESCRIPTION AS GIVEN IN THE
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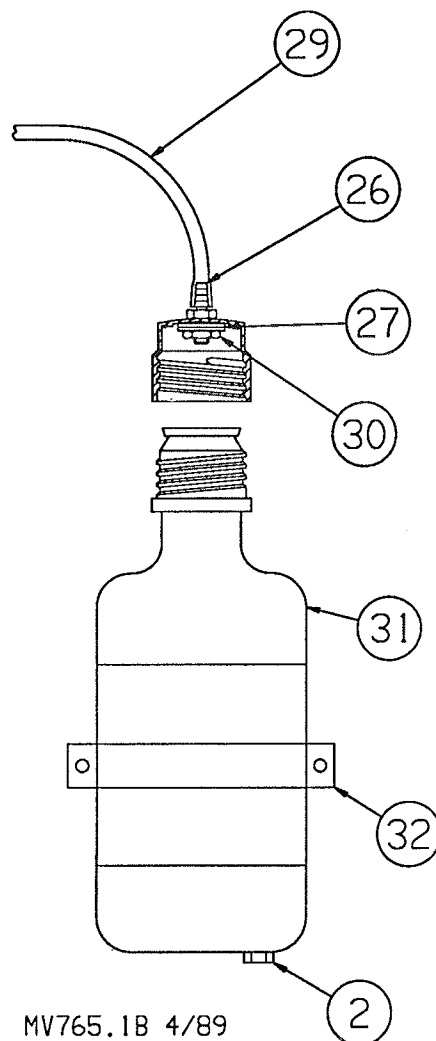
ALL PARTS ARE BILLED WHEN SHIPPED.

IF A RETURNED PART IS DEFECTIVE AND WITHIN
WARRANTY, CREDIT WILL BE ALLOWED AGAINST
BILLING.

<u>Item</u>	<u>Description</u>	<u>Part No.</u>
1	Box & Cover	24825
2*	Filter Vent Plug	4823
3	Female Connector Fitting	24828
4	#10-32 Ground Screw	4968
5	External Washer	305
6	Cup Washer	5775
7	Wiring Harness	24838
8	8-32x5/16 Pan Hd Screw	2365
9	Transformer	24829
10	1/4" O.D. Flexible Tubing	24837-1
11	Male Elbow Tube Fitting	24826
12	Static Monitor Decal	2529-221
13	Photohelic Pressure Switch	24830
14	Knob	
15	Pilot Light	24831
16	Rotary Switch	8005
17	#10-24 Std. Hex Nut	313



FRONT VIEW OF COVER



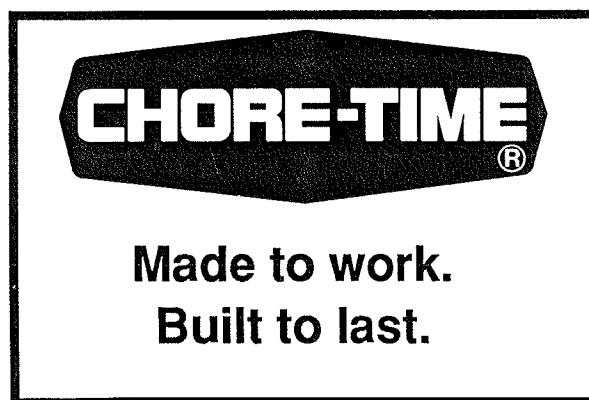
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Item	Description	Part No.
18	Switch Plate	24833
19	Fuse Holder	24431
20	3 Amp Fuse	20472
21	Stand-Off	
23001		
22	P.C. Board	24076
23	Fan-Out Board	24082
24	Jumper	
7349		
25	M.O.V.	
14063-2		
26*	1/8-27 NPT Hose Stem	5895
27*	Washer	
4967		
28	Static Monitor Base Plate	24824
29	Flexible Tubing	5898-1
30*	Electrical Fixture Nut	4825
31*	Plastic Bottle	4827



Troubleshooting Guide

<u>Problem / Symptom</u>	<u>Cause / Solution</u>
"Dwyer" light will not come on.	--Selector Switch not on "Auto" --Defective Photohelic --Defective Circuit Card --Defective Transformer --Blown Fuse --Circuit breaker tripped
Power Pack will open or close only.	--Red and white wires into Power Pack are reversed. --Defective Circuit Card --Defective Photohelic
"Dwyer" light comes on but neither output comes on when it should	--Defective Circuit Card --Defective Photohelic
Failure light is on constantly, and will not reset with power on/off.	--Defective Circuit Card
The actual limits are more than .01 different than where the red pointers are pointing.	--Defective Photohelic



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

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