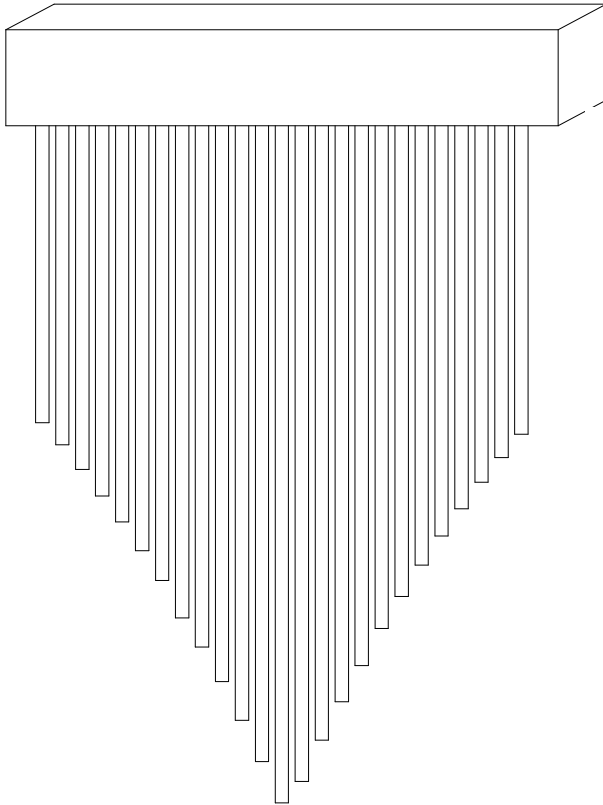




# ORGAN SUPPLY INDUSTRIES



**CHIME**

**INSTALLATION**

**INSTRUCTIONS**

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## **CHIME INSTALLATION INSTRUCTIONS**

### **INTRODUCTION**

Congratulations on your purchase of Deagan or Mayland chimes. We know that these distinctive units will provide many years of musical inspiration and enjoyment for both musicians and members of the community. Deagan and Mayland chimes have been manufactured exclusively by Organ Supply Industries since 1993. These quality musical instruments are constructed to the highest standards, carrying on the over 100 year history and tradition of these distinctive organ chimes. We ask that you take a few moments to read these instructions and to familiarize yourself with the installation, regulation and maintenance of your purchase.

### **CHECK CONTENTS**

Your chime order was inspected and carefully packed before it was shipped. It is important that you check each package for any visible or hidden damage. If there is damage it must be noted when you sign for the package. If there is concealed damage, the delivering carrier must be notified as soon as possible. This is for your protection in filing any claim against the carrier. Your parts were in good condition when they left Organ Supply Industries. The carrier is responsible for any damage. If there are any missing parts, please report it to us as soon as possible.

### **LOCATION AND SPACE REQUIREMENTS**

When chimes are installed in a chamber, a location should be selected that is in line of sight with the tone opening for best egress of sound, high enough so that the longest chime will clear objects below them by at least 3" and in a place that will allow service access to the solenoid striking mechanism. For visual installations with wood finished canopy, the selected location should be against a firm supporting wall structure for best sound projection. Consideration should be given to access by ladder for service of the chime mechanism. Space required for installation of chimes without canopy (add 4" in height for canopy) are:

- Deagan 21 note: 68" high x 44" wide x 8" deep
- Deagan 25 note: 72" high x 51" wide x 8" deep
- Mayland 21 note: 71" high x 44" wide x 8" deep
- Mayland 25 note: 76" high x 51" wide x 8" deep

### **ATTENTION**

**To insure proper regulation of chime volume and uniformity of sound, the chime rail and chimes MUST BE MOUNTED so the action is LEVEL. An unlevel installation will result in uneven tone and poor regulation.**

## **WIRING CHIME ACTION RAIL**

If the chime action has been ordered unwired, the wiring of the chime rail should be completed prior to installation. The chime coils installed on the rail are wired to a common buss which terminates on an appropriate fuse holder. Wire chime coils with no less than 22 gauge wire. If unit has been furnished wired, each coil will have been wired according to the cable wiring color code and the configuration requested. (SEE CHARTS 1 & 2)

## **INSTALLATION OF CHIME RAIL**

Because mounting methods and wall surfaces vary, you will need to supply 6 appropriate 1/4" diameter fasteners and/or anchors as required for mounting brackets to the wall or supporting structure. (See Figure 1) The chime rail is installed on wall brackets, using the four 1/4" x 20 x 2 1/4" round head machine screws, washers and nuts provided.

## **CHIME TUBE/BAR HANGERS**

Figure 2 shows the three different chime hangers used on Deagan, Mayland and special diameter graduated actions. The Deagan Class "M" 1 1/4" brass tube is bored for the hanging cord 1" from the top of the tube. The hanger is two notches incorporated in the passive damper support.

The Mayland 1 1/4" aluminum bar is bored for the hanging cord 2 1/2" from the top of the bar. Because of the longer distance from the hanging notches, an additional two arm standoff is incorporated on the front of the action to hold the chime twine away from the bar.

Special graduated actions incorporate a wider hanger plate installed on top of the passive damper. They are custom fabricated for specified existing chime diameters. Graduated chimes require a special length rail and canopy.

## **INSTALLING CHIME TUBES/BARS**

Furnished with the chime cords is a 1 1/2" x 1 1/2" x 15/16" block of wood. This spacer is used to tie the chime cords prior to hanging the chimes. (See Figure 2) A square knot is recommended. Ends of the cords can be stabilized with a heat gun or electric soldering iron. To prevent damage to the finish of the chime tubes, keep the heat source away from the chime tubes. Chimes are now ready to hang on the chime rail in the configuration required.

## **MOUNT CANOPY**

When long wall brackets are installed and a canopy is furnished, place the canopy over the electric action rail with the back flush against the wall, resting on top of the wall brackets. Secure using two #8 x 3/4" round head wood screws.



## CONNECTIONS TO ORGAN

The free end of the cable from the chime rail will now be wired to 1) solid state relay, 2) mechanical relay, 3) under key contacts or 4) independent keyboard.

Please refer to the appropriate appendix for a guide to each type. Connection for the volume control switch, bridge rectifier and transformers are shown. Plug the transformer into a 120 VAC outlet. This outlet can either be always on or switched with the organ.

## SOUND REGULATION

Each chime coil has been adjusted during final testing. If adjustment is required, simply turn the black knob at the back of the coil. Turn "in" toward the chime tube to make the chime softer, turn "out" away from the chime tube to increase volume.

## MAINTENANCE

Periodic cleaning of the solenoid plungers and coils is recommended for the optimum operation of the electric striker action. Lint, dust and airborne particles accumulate in the chime actions over a period of time, producing erratic operation.

To clean plungers, remove by pushing down on adjustment knob retaining spring. Wash plungers in a neutral agent such as denatured alcohol. Clean coil core with lint free cloth moistened with the cleaner. Lubricate the plungers and coils with powdered graphite or a dry lubricant such as Molykote. Reinstall plungers in coils and check for regulation.

## REPLACEMENT PARTS

Replacement or additional chime parts may be ordered from Organ Supply Industries, Inc. Visa and MasterCard purchases are welcome.

## WARRANTY

All chime parts and tubes/bars, mechanical and solid state relays are warranted to the original purchaser for a period of one year after date of shipment against defective workmanship and material. Any parts of goods deemed defective must be returned to us transportation charges prepaid, and if upon examination, we deem same to come under terms of our warranty, we will repair or replace same free of charge. Should repairs or replacement be necessary due to improper installation, usage, or other causes for which we are not responsible, a charge for repairs will be made.

The men and women at Organ Supply Industries, Inc. are proud to have provided you with Deagan or Mayland chime equipment. We wish you many years of musical enjoyment. If we can further serve your chime needs, please let us know.

21 NOTE PVC CABLE			25 NOTE PVC CABLE		
NOTE NO.	PITCH	COLOR CODE	NOTE NO.	PITCH	COLOR
1	A	Black	1	G	Black
2	A#	Brown	2	G#	Black/Red
3	B	Red	3	A	Black/Red/White
4	C	Orange	4	A#	Black/White
5	C#	Yellow	5	B	Red
6	D	Green	6	C	Red/Black
7	D#	Blue	7	C#	Red/Black/Green
8	E	Violet	8	D	Red/Black/White
9	F	Grey	9	D#	Red/Green
10	F#	White	10	E	Red/White
11	G	White/Black	11	F	Orange
12	G#	White/Brown	12	F#	Orange/Black
13	A	White/Red	13	G	Orange/Black/White
14	A#	White/Orange	14	G#	Orange/Red
15	B	White/Yellow	15	A	Orange/Green
16	C	White/Green	16	A#	Green
17	C#	White/Blue	17	B	Green/Black
18	D	White/Violet	18	C	Green/Black/White
19	D#	White/Grey	19	C#	Green/White
20	E	White/Red/Black	20	D	Blue
21	F	Red/Black	21	D#	Blue/Black
	<b>STOP CONTROL</b>	Red/Yellow	22	E	Blue/Black/White
	<b>SPARES:</b>	Red/Green	23	F	Blue/Red
		Pink	24	F#	Blue/White
		Putty	25	G	White
				<b>Common:</b>	White/Black White/Black/Red White/Red
				<b>Spares:</b>	White/Red/Green Black/Red/Green

CHART 1

21 NOTE CAROL CHIME CABLE				25 NOTE CAROL CHIME CABLE			
NOTE NO.	PITCH	COLOR CODE		NOTE NO.	PITCH		
1	A	Black	1	G	Black		
2	A#	Black/White	2	G#	Black/White		
3	B	Black/Red	3	A	Black/Red		
4	C	Black/Red/White	4	A#	Black/Red/White		
5	C#	Blue	5	B	Black/Red/Green		
6	D	Blue/White	6	C	Blue		
7	D#	Blue/Black	7	C#	Blue/White		
8	E	Blue/Red	8	D	Blue/Black		
9	F	Green	9	D#	Blue/Red		
10	F#	Green/White	10	E	Blue/Black/White		
11	G	Green/Black	11	F	Green		
12	G#	Green/Black/White	12	F#	Green/White		
13	A	Orange	13	G	Green/Black		
14	A#	Orange/Black	14	G#	Green/Black/White		
15	B	Orange/Red	15	A	Orange		
16	C	Orange/Green	16	A#	Orange/Black		
17	C#	Red	17	B	Orange/Red		
18	D	Red/White	18	C	Orange/Green		
19	D#	Red/Black	19	C#	Orange/Black/White		
20	E	Red/Green	20	D	Red		
21	F	Red/White/Black	21	D#	Red/White		
	<b>COMMON</b>	White	22	E	Red/Black		
		White/Black	23	F	Red/Green		
	<b>SPARES:</b>	White/Red	24	F#	Red/Black/White		
		White/Red/Black	25	G	Red/Green/Black		
				<b>COMMON</b>	White		
					White/Black		
					White/Red		
				<b>SPARES:</b>	White/Red/Black		
					White/Red/Green		

CHART 2

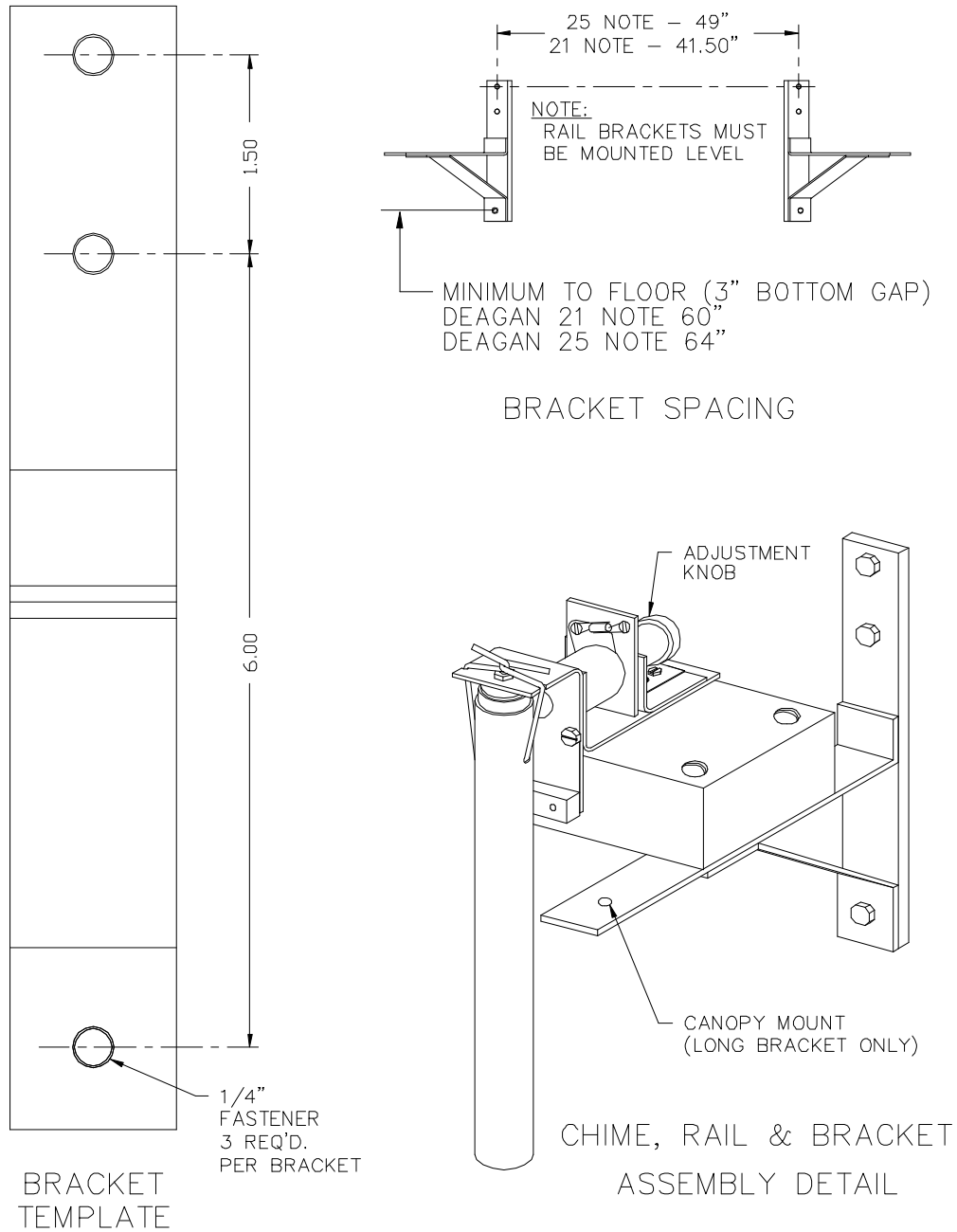


FIGURE 1



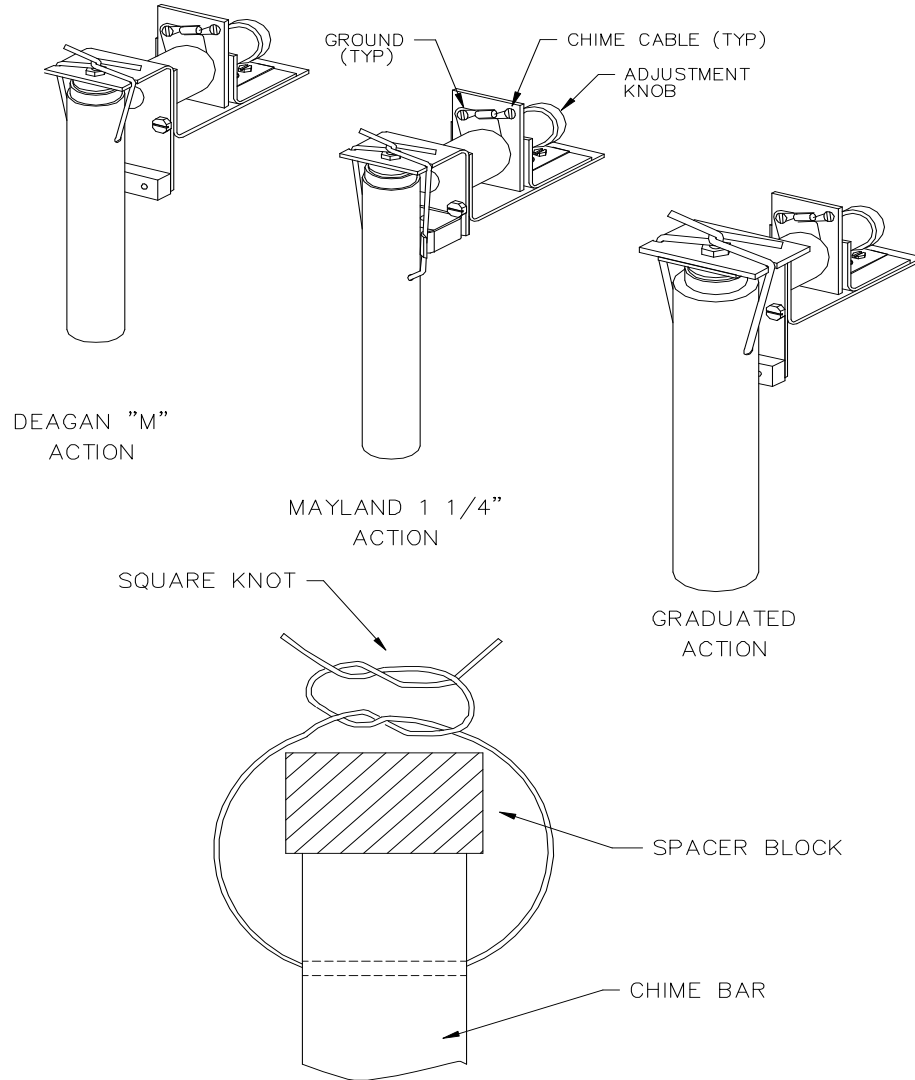


FIGURE 2

## APPENDIX A

# SOLID STATE RELAY

### ***INSTALLING SOLID STATE RELAY BOARD-***

**Most applications generally match one of the following typical configurations, or a simple variation thereof. If you have a custom application which does not seem to fit, contact Organ Supply Industries, Inc. for assistance.**

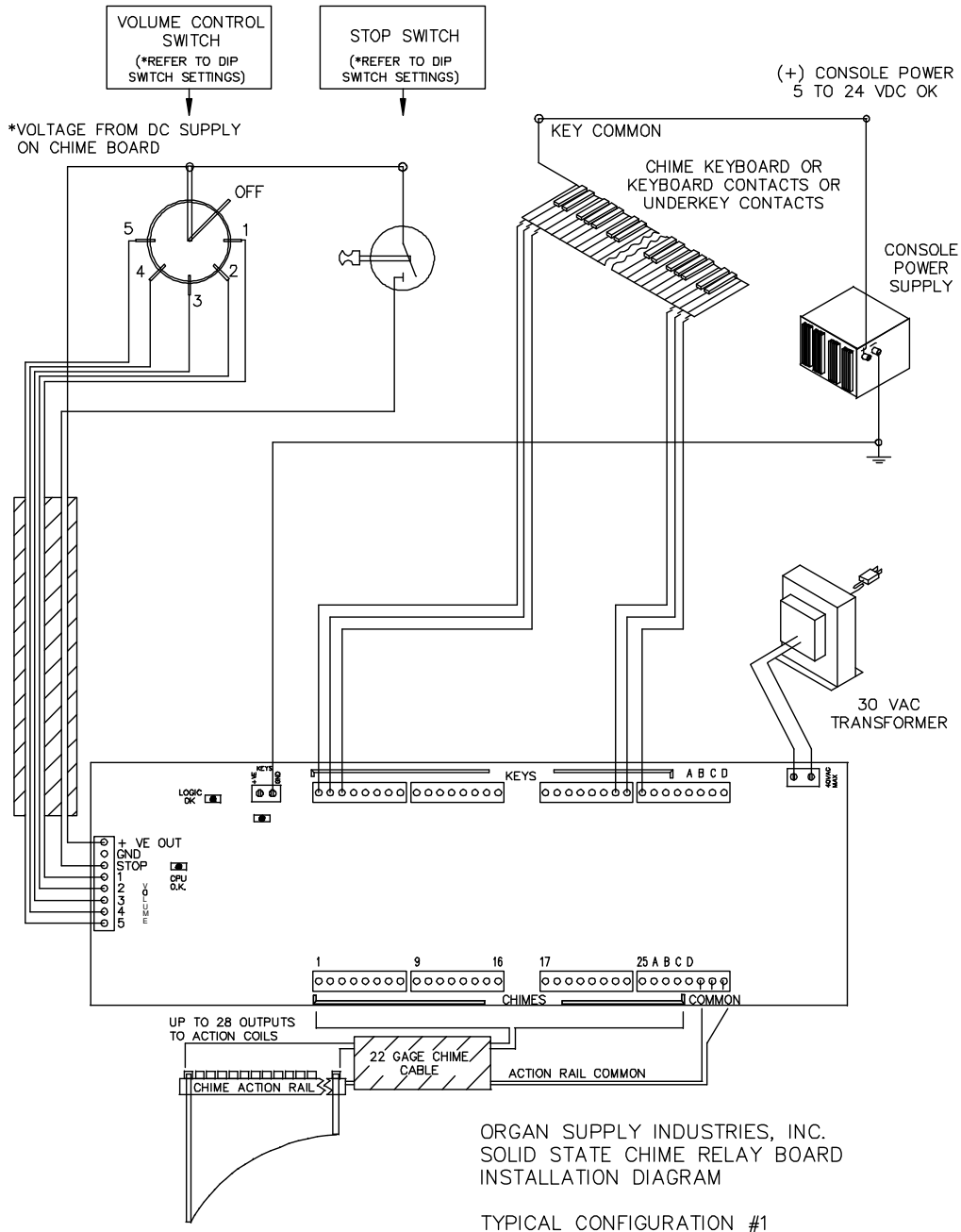
**General Installation Instructions:**

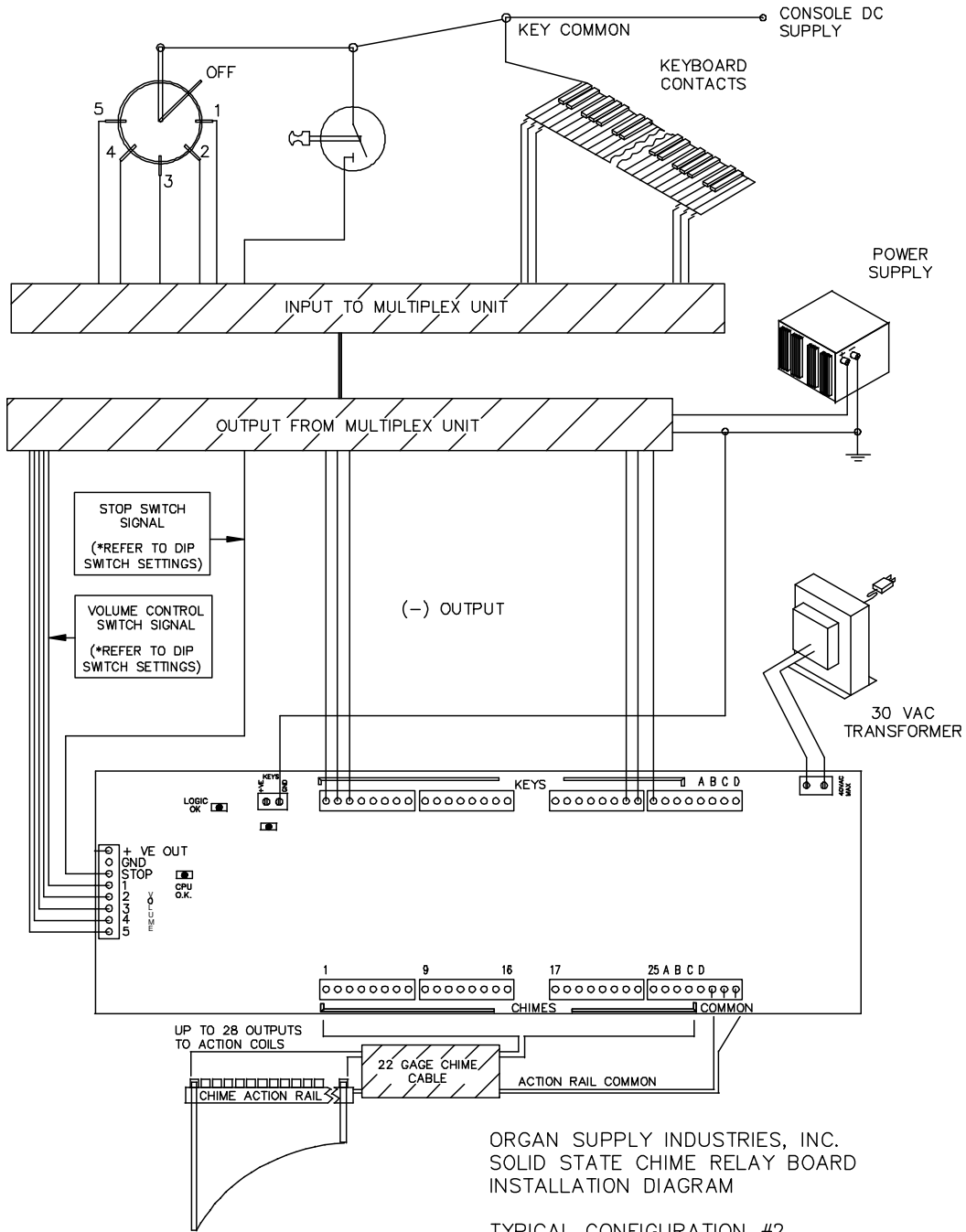
- Mount the board in a convenient location, preferably, close to the chime action.
- Connect all input leads to the board by wire wrapping, soldering, or affixing the insulated leads to IDC connectors and plugging the connectors into the board. (See **BOARD LAYOUT**.)
- Set/check the DIP switch and jumper settings. (See **DIP SWITCH AND JUMPER SET-UP**.)
- Connect power and activate the system. Set volume level potentiometers as needed. (See **VOLUME LEVEL ADJUSTMENT**.)
- Apply strain relief wire-ties as required.

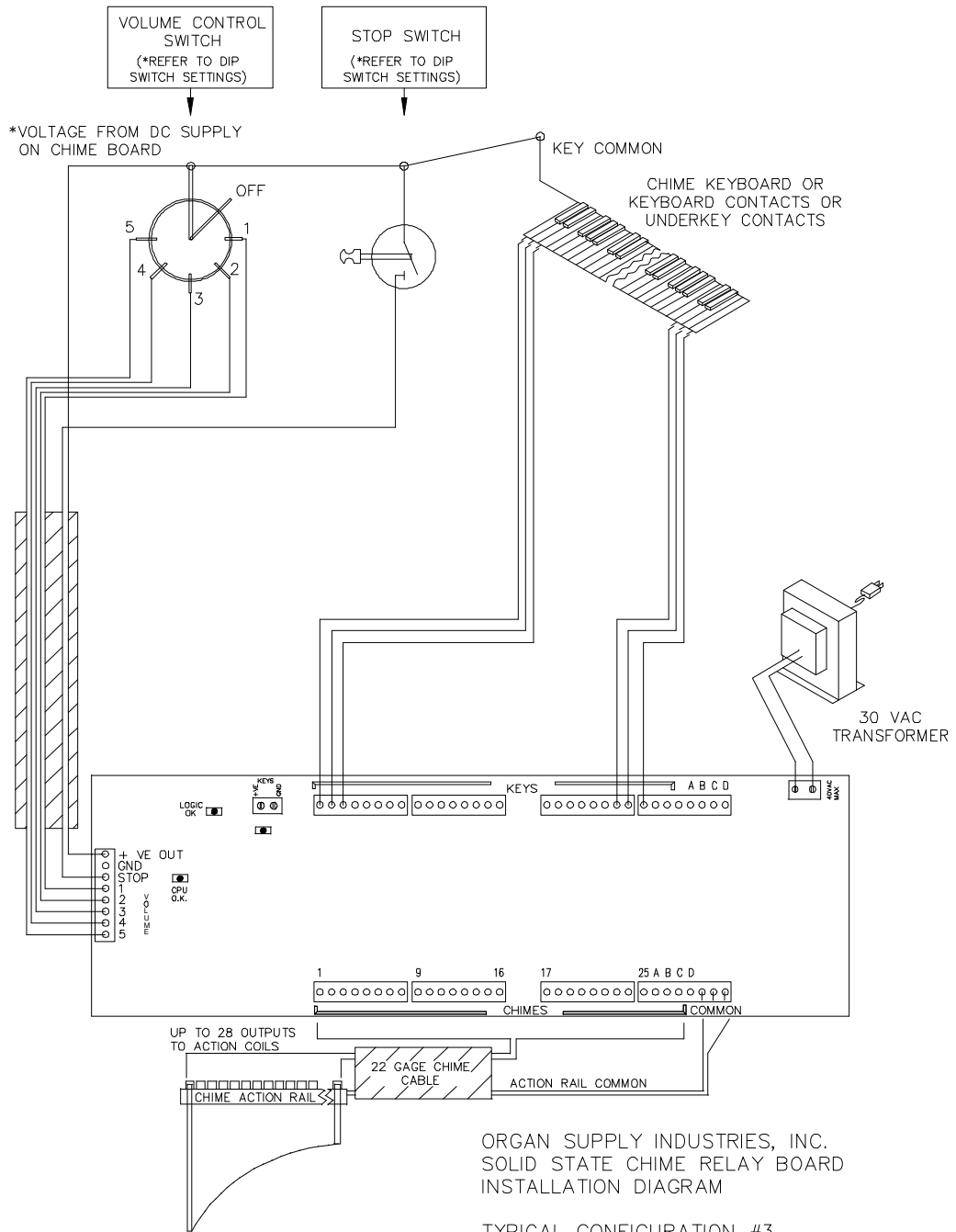
**CONFIGURATION 1:** In this configuration, the relay board receives KEY inputs powered by the organ rectifier. (See **CONFIGURATION 1**)

**CONFIGURATION 2:** In this configuration, the relay board receives KEY inputs from a computerized organ control system. (See **CONFIGURATION 2**)

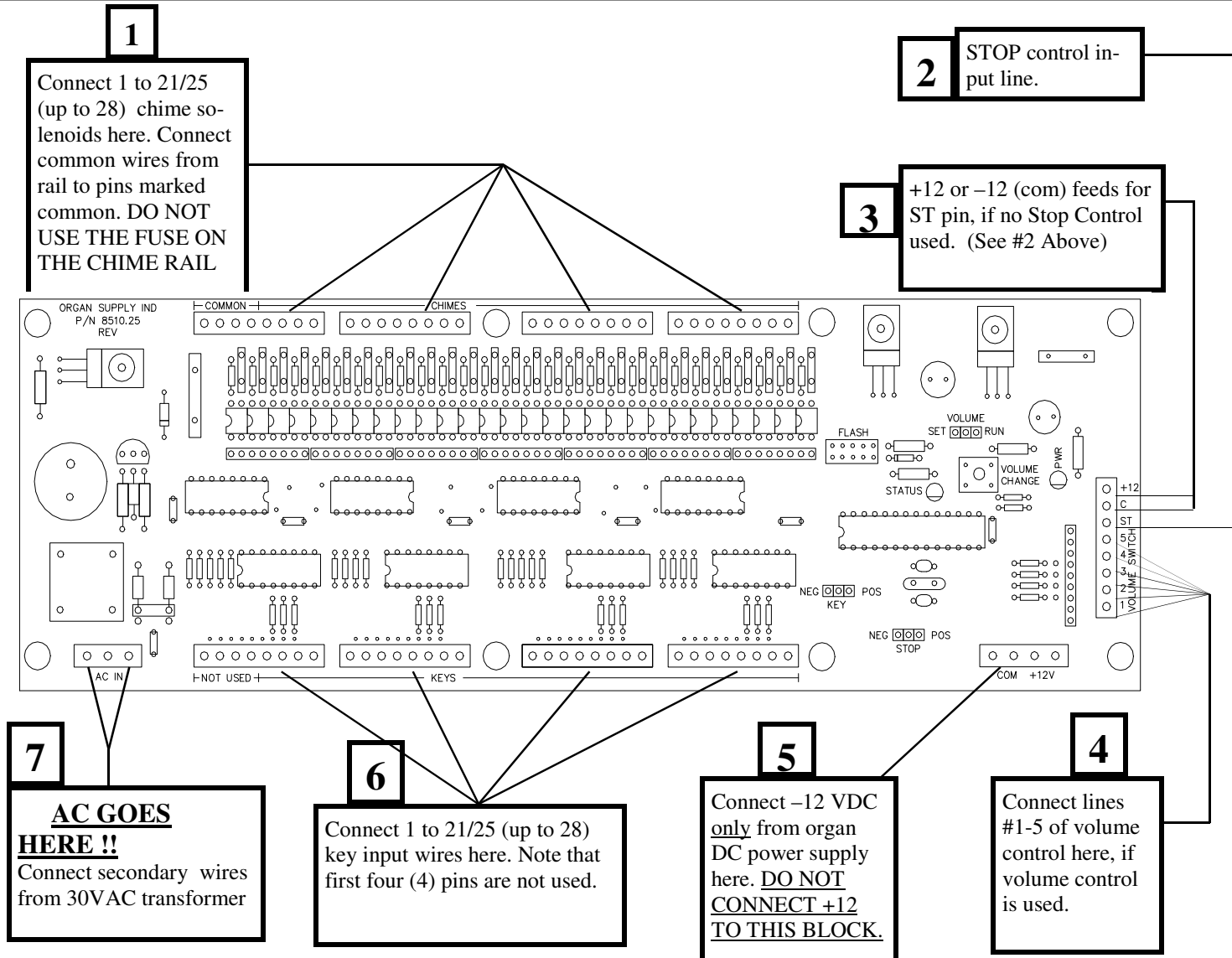
**CONFIGURATION 3:** In this configuration, the chime relay board supplies voltage for control/input signals for a stand alone chime system. (See **CONFIGURATION 3**)



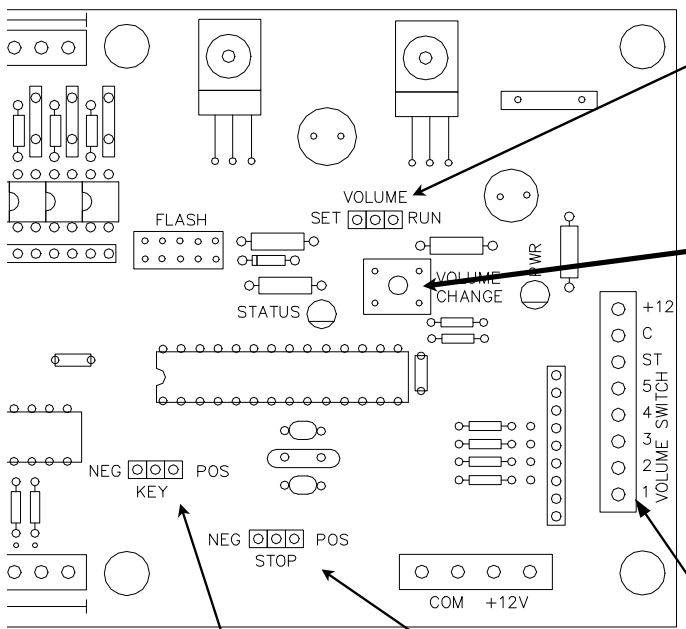




# CHIME SOLID-STATE RELAY HOOK-UP AT A GLANCE



# CHIME SOLID-STATE RELAY SET-UP AT A GLANCE



**A** **KEY Feed:** Place jumper over left pin and middle pin for NEG assert or right pin and middle pin for POS assert for key inputs.

**B** **STOP Feed:** Place jumper over left pin and middle pin for NEG assert or right pin and middle pin for POS assert for stop input and volume control inputs.  
  
NOTE: This jumper also controls the volume control signal.

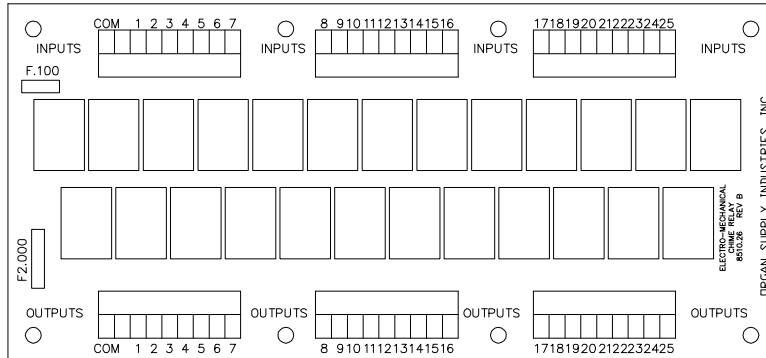
**D** **VOLUME set:** Place jumper over left pin and middle pin to enter into "volume set mode". Place jumper

**E** **VOLUME:** To set volume, place VOLUME set jumper into "set" position. Set volume control on organ console to position # 2. Press volume change pushbutton until you find a comfortable level. Place VOLUME set jumper into "run" position.

If you are using...	ST pin goes	1,2,3,4,5 pins go
No stop, No Volume Control, Neg assert on stop.	To com	(Select 1 only) to com
No stop, No Volume Control, Pos assert on stop.	To +12	(Select 1 only) to +12
No stop, Volume Control, Neg assert on stop.	To com	#1-5 to Volume control. Wiper to com. Can use or-
No stop, Volume Control, Pos assert on stop.	To +12	#1-5 to volume control. Wiper to +12. Can use or-
Stop, Volume Control, Neg assert on stop.	To Stop Switch on console to com. Can use or-	#1-5 to Volume control. Wiper to com. Can use or-
Stop, Volume Control, Pos assert on stop.	To Stop Switch on console to +12. Can use organ	#1-5 to volume control. Wiper to +12. Can use or-

**APPENDIX B**

**MECHANICAL RELAY**



***INSTALLING MECHANICAL RELAY BOARD-***

**General Installation Instructions:**

- Mount the board in a convenient location, preferably, close to the chime action.
- Connect all input and output leads to the board by inserting tip of wire into the connectors and tightening the screw clamp.
- Connect power and activate the system.
- Apply strain relief wire-ties as required.

**Wiring The Inputs:**

The lines from whatever source you are using are attached to the input terminals numbered 1-25. The return wire for the inputs will be connected to the terminal marked COM on the input side.

**Wiring The Outputs:**

The lines to the chime rail are connected to the output terminals numbered 1-25 as above. The line for the incoming high powered voltage will be attached to the terminal marked COM on the output side.

**SEE FIGURE 3 FOR TYPICAL WIRING DIAGRAM**

**NOTE:** If you are using a mechanical volume control relay please see appendix "C"



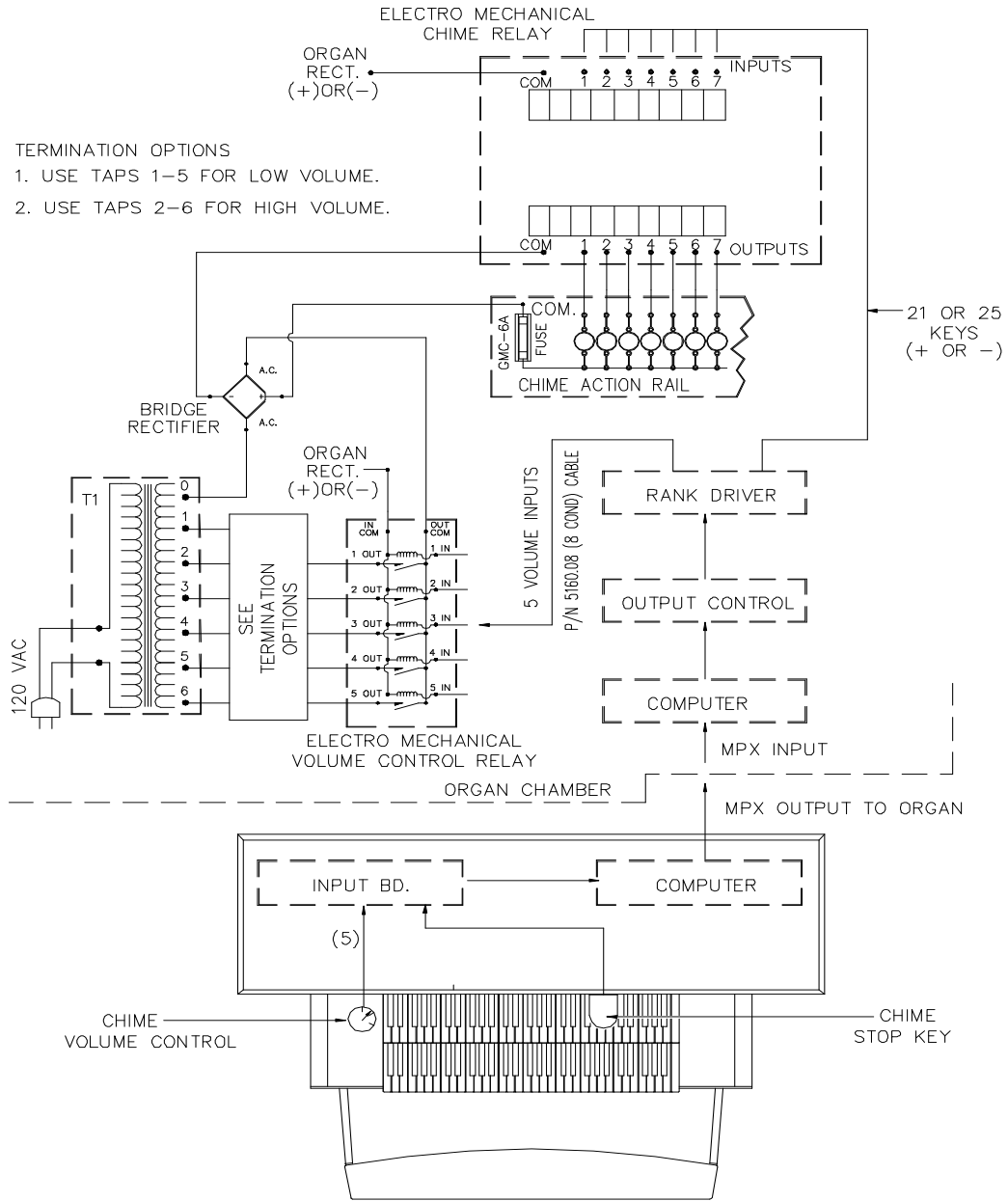


FIGURE 3

## **APPENDIX C**

# **MECHANICAL VOLUME** **CONTROL RELAY**

## ***INSTALLING MECHANICAL VOLUME CONTROL RELAY BOARD-***

### **General Installation Instructions:**

- Mount the board in a convenient location, preferably close to the mechanical chime relay board.
- Connect all input and output leads to the board by inserting tip of wire into the connectors and tightening the screw clamp.
- Connect power and activate the system.
- Apply strain relief wire-ties as required.

### **Wiring The Inputs:**

The lines from the volume control are attached to the input terminals numbered 1-5. The return wire for the inputs will be connected to the terminal marked COM on the input side.

### **Wiring The Outputs:**

The lines from the transformer are connected to the output terminals numbered 1-5 as above. The COM on the output side is the selected voltage and is connected to the mechanical chime relay board.

**SEE FIGURE 4 FOR TYPICAL WIRING DIAGRAM**

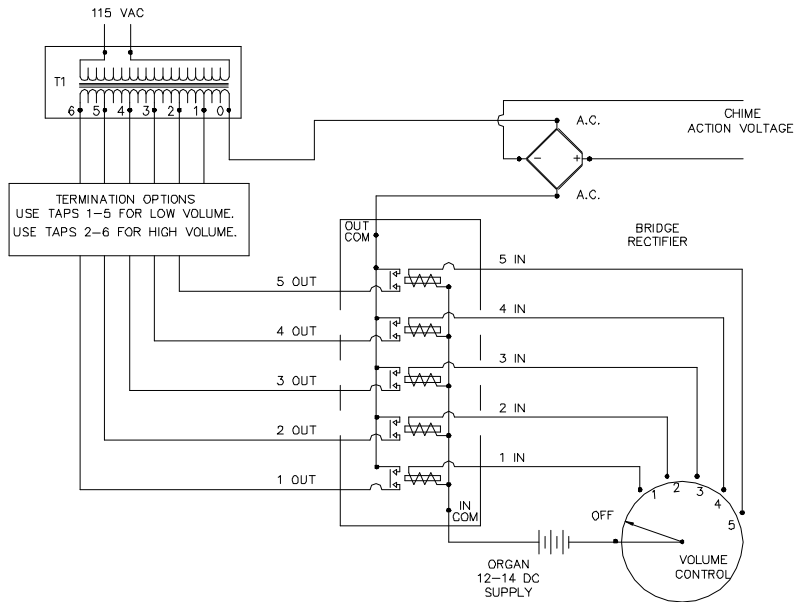
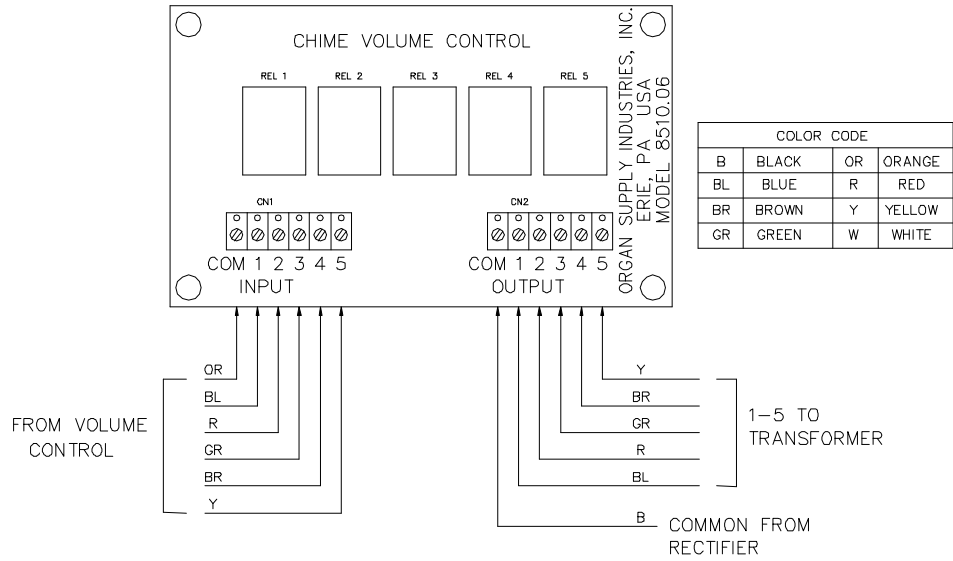


FIGURE 4



## **Organ Supply Industries, Inc.**

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