

Master Control Panel

User Manual

Section I Introduction

Main Control Box.....	2
Relay Box Connection (Single/Dual Vacuum Pump).....	3
Vacuum Pump Relay Box Wiring Schematic	4
Master Water Control Valve Connection.....	5
Air Compressor Remote Connections.....	6
Rocker Switch Installation	6

Section II Wiring Schematics

MP - 100 / 300	7
MP - 400	8
MP - 700	9
MP - 900	10
MP - 1000.....	11
MP - 1100.....	12
MP - 2000	13
MP - 2200	14

Limited Warranty	15
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Main Control Box



WARNING

Before proceeding with any electrical installation, comply with and maintain all applicable local electrical codes(s) and regulations.

NOTICE

All wiring between the main control box and equipment should be Class B, low-voltage. In most cases, a conduit is not required when using this type of wiring.

1. Position the main control mounting box so that the master control panel switches are easily visible and in a convenient location *(near the office entrance/exit)*.
2. Once the main control mounting box is in position, secure it using the brackets provided.

NOTE: To ensure proper installation of the finished master control panel, the mud flange must be recessed by dry wall thickness.

3. Install the main control box wires as follows:
 - a. Using a hammer and pliers, remove the appropriate knock-out from the main control mounting box.
 - b. Fit a nylon grommet in the knock-out. *(This protects the wires from chaffing and shorting out.)*
 - c. Run the appropriate wires to their respective equipment location, then connect the wires according to the instructions on the following pages.
4. After all wiring connections are completed correctly, position and secure the master control panel to the main control box using the screws provided.

Wiring Chart

Model No.	No. of Wires	Wire Under 500 Ft.	Wire Over 500 Ft.
CV-101	3	18 AWG	16 AWG
CV-102	3	18 AWG	16 AWG
MC-201	6	18 AWG	16 AWG
MC-202	6	18 AWG	16 AWG
Air Compressor	3	18 AWG	16 AWG
MWCV Solenoid Valve	2	18 AWG	16 AWG
MWCV Transformer	2	18 AWG	16 AWG

Relay Box Connection

Single/Dual Vacuum Pump (All Panses, Except Turbine)



WARNING

Before proceeding with the single / dual vacuum pump relay box connection, make sure the electrical power supply to the vacuum pump is turned **OFF**.



CAUTION

Before making any wiring connections to the main control box, the vacuum unit should be completely installed.

NOTICE

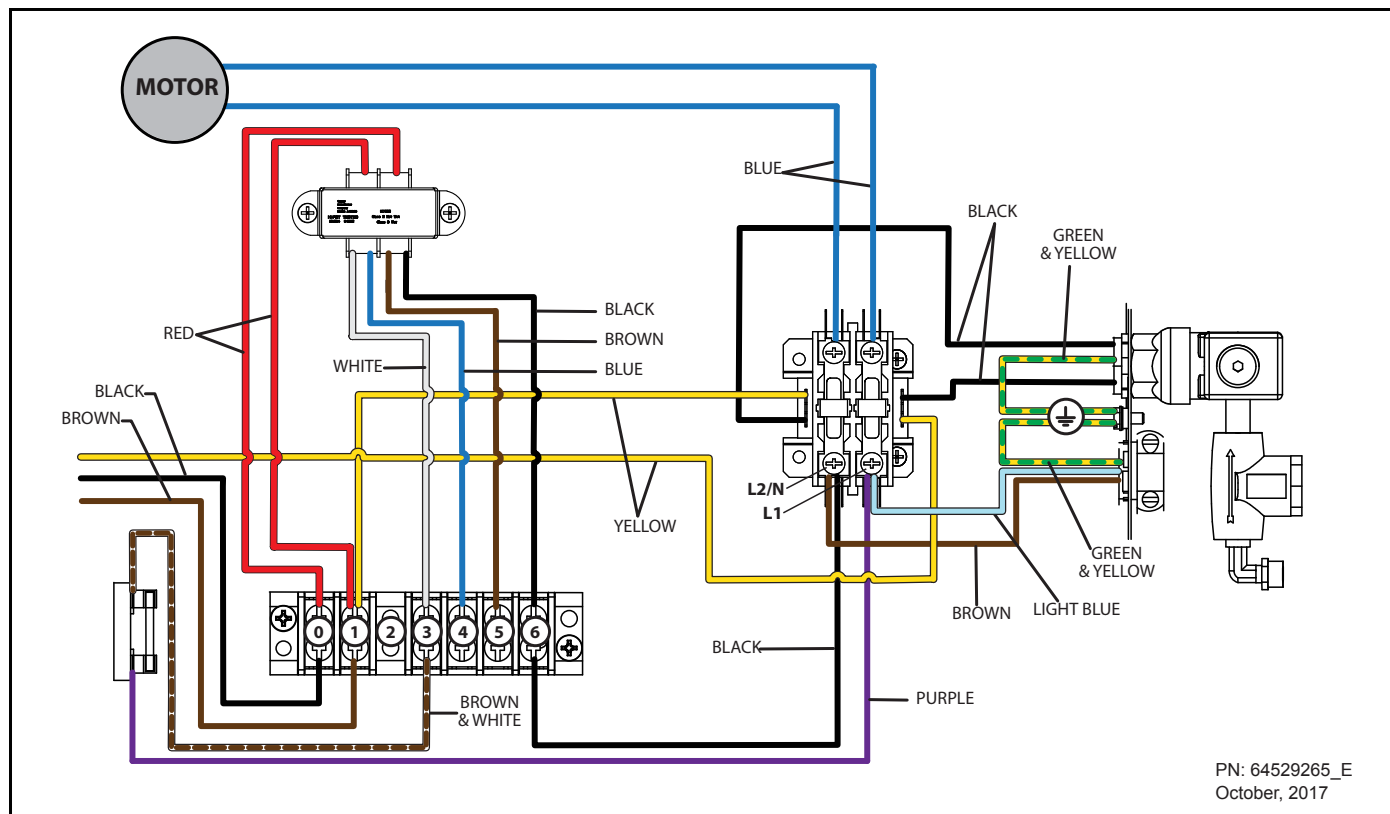
All pumps (single or dual) must have three, low-voltage wires installed from the top of each relay box going to the main control box in order to operate the master control panel lighted **ON** / **OFF** switches.

NOTE: For dual vacuum pump relay box to the main control box connection, Steps 1 through 8 listed below must be performed for each vacuum pump. Refer to the vacuum pump relay box wiring schematic on the next page.

NOTE: For vacuum pump relay boxes with factory installed yellow, black and brown wires, it is not necessary to perform Steps 1 through 8 below.

1. Loosen the top and bottom retainer screws from the vacuum pump relay box and remove the cover.
2. Remove the black strain relief grommet from the top of the vacuum pump relay box.
3. Place the tap connector slot over the yellow transformer wire, and insert the brown wire into the end of the tap connector.
4. Squeeze the metal connector tight, and snap the attached cover in place.
5. Route the brown wire out through the strain relief grommet hole along with the yellow and black wires.
6. Reinstall the strain relief grommet around the yellow, black and brown wires.
7. Reinstall the relay box cover and tighten the top and bottom retainer screws.
8. Run and connect the low-voltage wires to the main control panel mounting box according to the applicable wiring schematic in Section II, Wiring Schematics.

Vacuum Pump Relay Box Wiring Schematic



Master Water Control Valve Connection

(With 24-Volt Lighted Control Switch)

**WARNING**

To prevent any chance of electrical shock, always disconnect power when indicated.

**WARNING**

Do not plug in the transformer until all electrical connections are complete.

NOTICE

When using low voltage to operate the master water control valve (MWCV), a 115-volt electrical receptacle for the MWCV "plug-in" transformer must be supplied.

1. Make sure all power is properly disconnected.
 2. Remove the MWCV from the shipping container or locate a previously installed MWCV in the office.
 3. Dismantle the coil assembly.
 4. Replace the 115-volt coil with the 24-volt coil included in the kit.
 5. Connect the two low-voltage wires from the transformer according to the applicable master control panel wiring schematic in Section II.
6. Test the MWCV and transformer as follows:
 - a. Turn the light switch to the **OFF** position. (The light should be off.)
 - b. Turn the light switch to the **ON** position. (The light should be on.)
 - c. When the switch is activated, the MWCV should make a clicking sound, which indicates the valve is working properly.
 - d. If the light fails to come on, or if the MWCV fails to function, check all connections referring to the applicable master control panel wiring schematic in Section II.

NOTE: If a light stays **ON** while the switch is in the **OFF** position, simply reverse the wires numbered **2** and **3** on the switch. The light should then operate correctly.

Air Compressor Remote Connection

**WARNING**

To prevent any chance of electrical shock, always disconnect power when indicated.

1. Disconnect power to the air compressor.
2. Mount the compressor relay box near the junction box on the air compressor.
3. Connect the power source supply lines to L1 and L2 on the compressor relay box for new installation.

NOTE: For existing installation, first remove the power source supply lines from the junction box.

4. Connect conduit from the compressor relay box to the junction box.
5. Connect the two lines from T1 and T2 to the two compressor power lines in the junction box.
6. Run and connect low-voltage wires to the main control box according to the applicable master control panel wiring schematic in Section II.

Rocker Switch Installation

When connecting a pump, replace the VAC switch in the master control panel with the loose switch supplied.

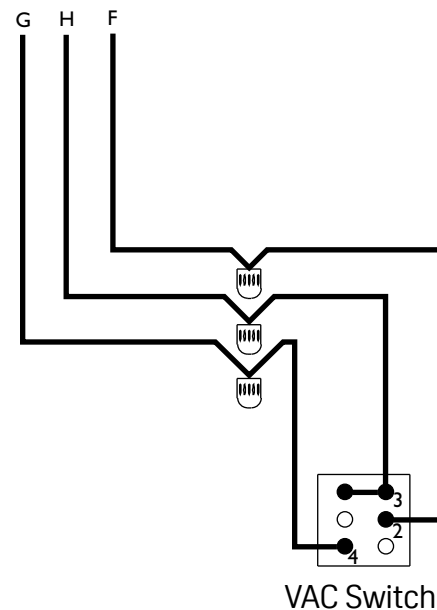
Refer to the schematic on the right for rocker switch installation in the following panels:

<u>PANEL</u>	<u>PART #</u>
MP - 300	64652017
MP - 1000	64568077
MP - 2000	64568110
MP - 2200	64568111
MP - 1000A	64568171
MP - 2000A	64568174
MP - 2200A	64568175

Connect to an S1 Electrols as follows:

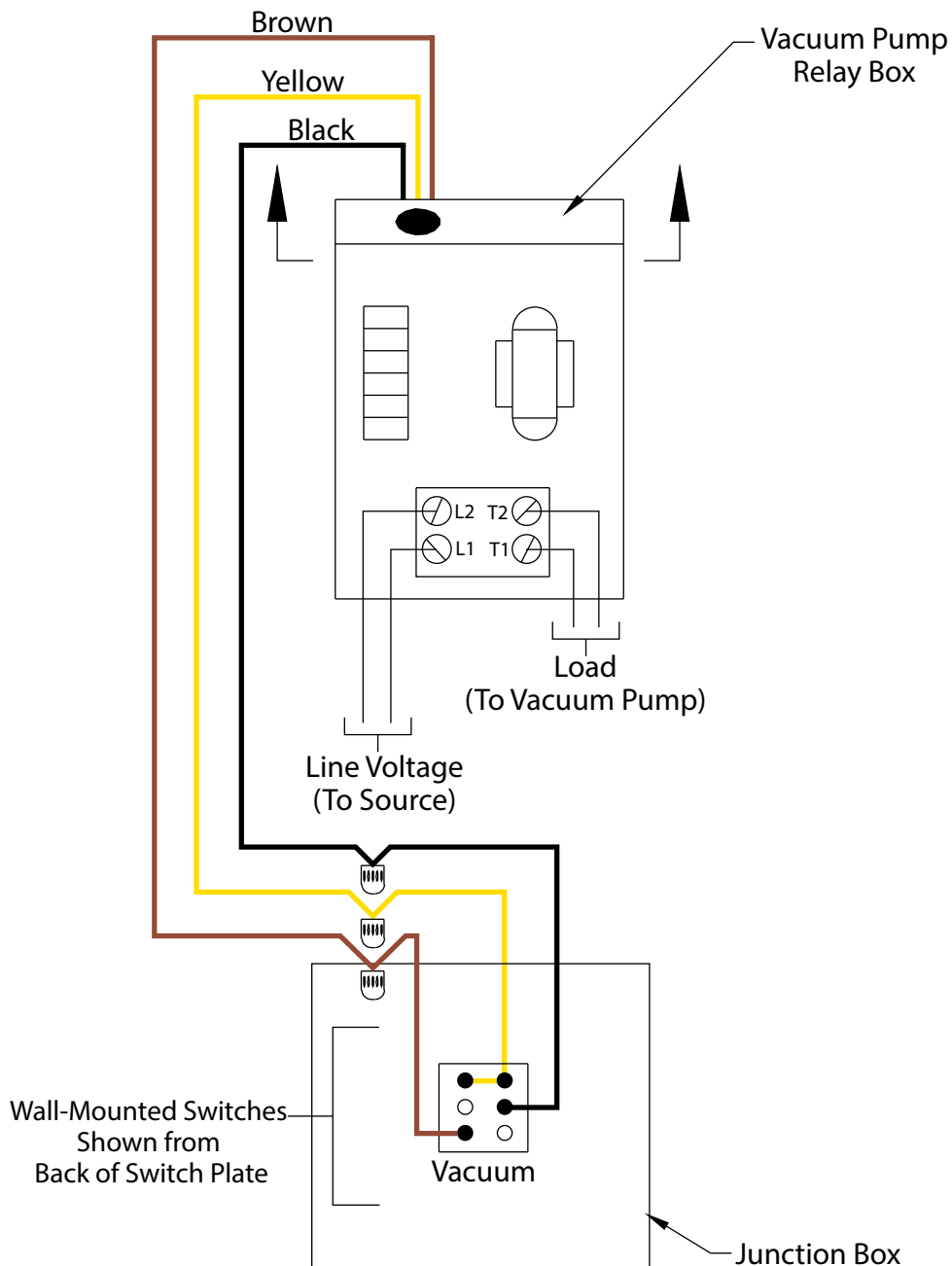
Terminal #4 - connect to S1 terminal "G"
 Terminal #3 - connect to S1 terminal "H"
 Terminal #2 - connect to S1 terminal "F"

S1 Electrols Terminals

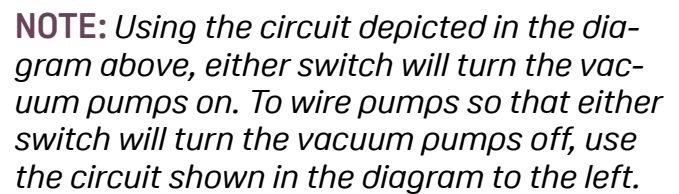


MP - 100 / 300

One Switch, Single Vacuum

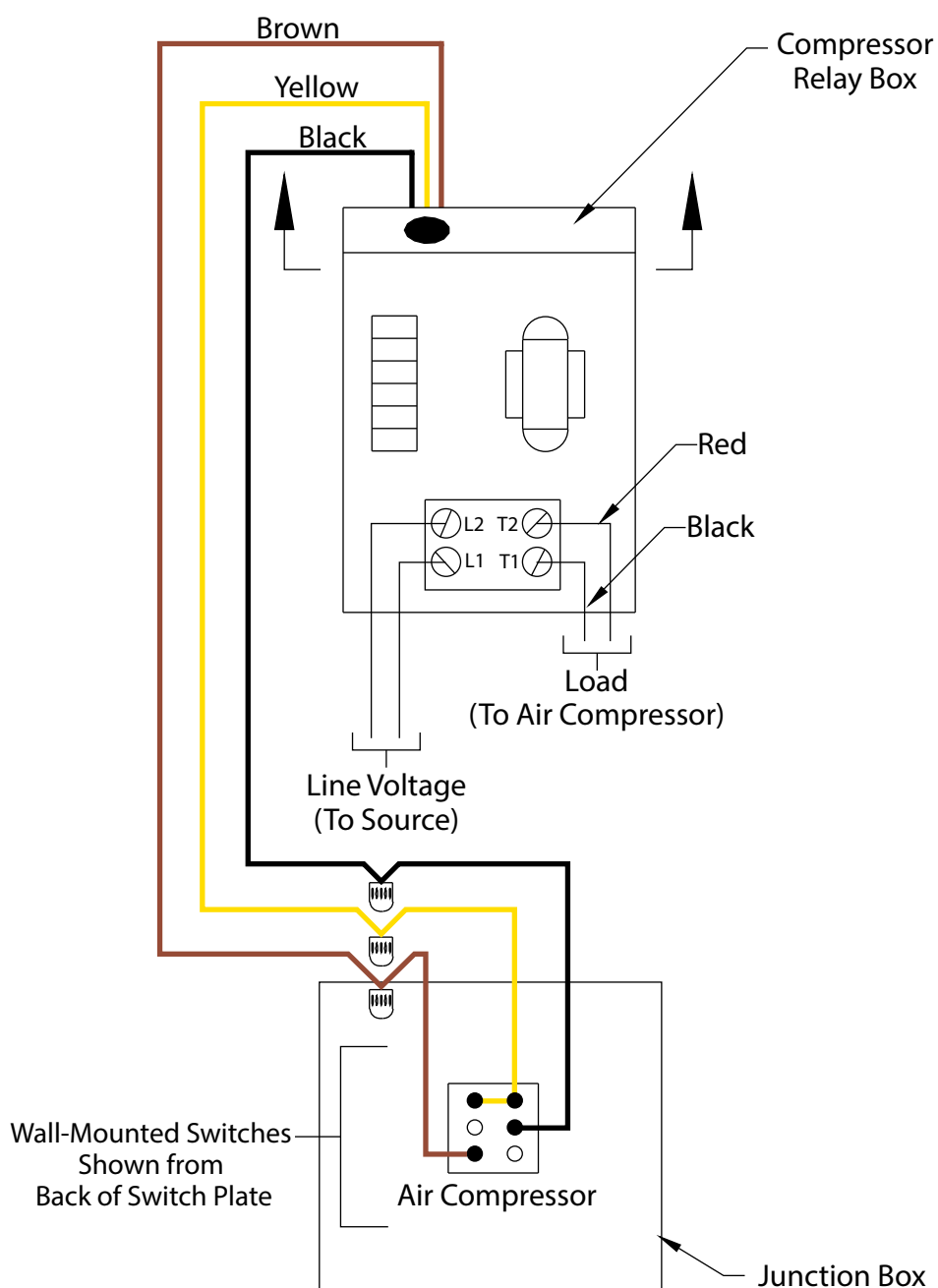


Two Switch, Dual Vacuum



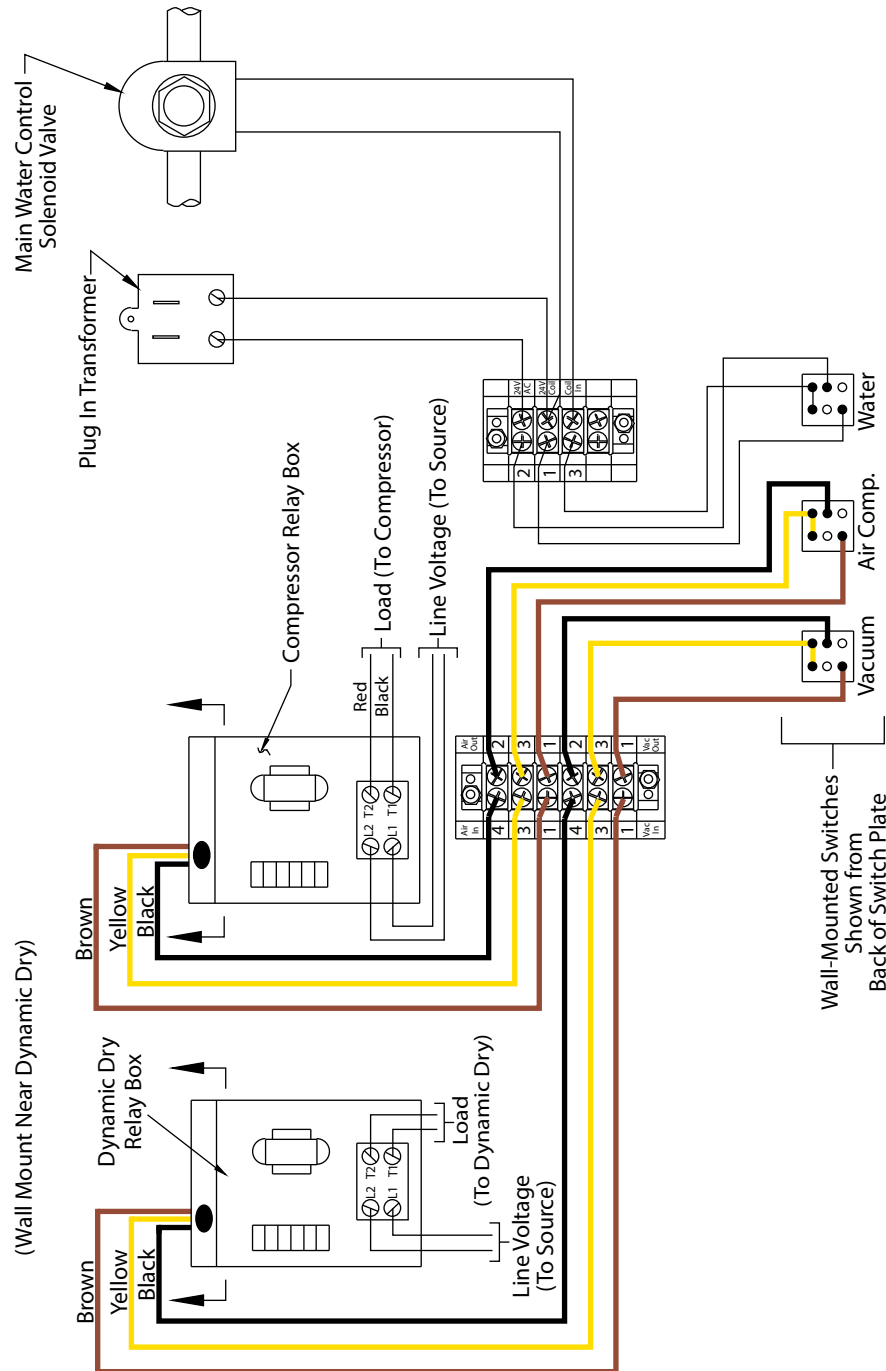
MP - 700

One Switch, Air Compressor



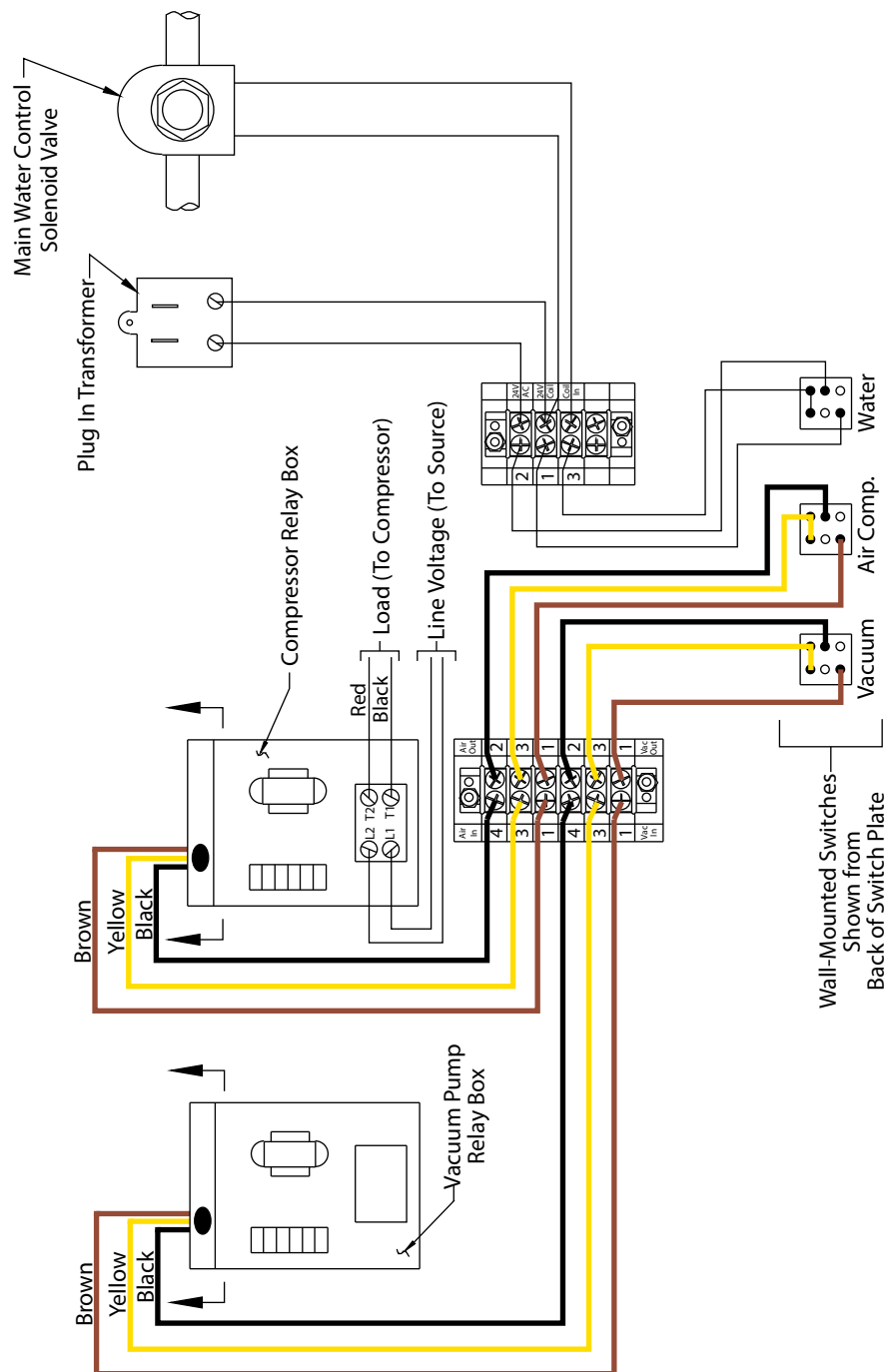
MP - 900

Three Switch, (Dynamic Dry) Single Vacuum, Air Compressor, Water



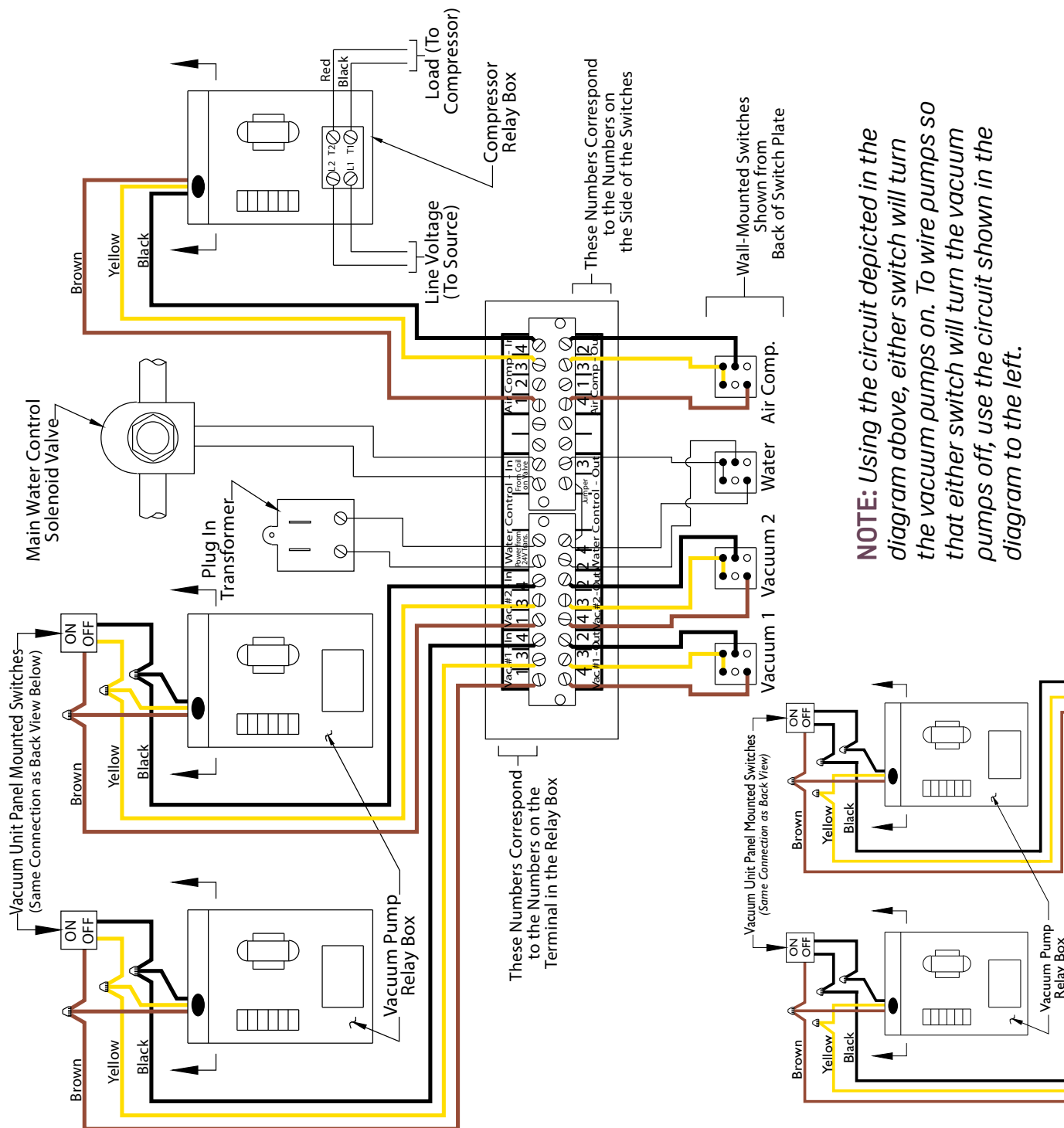
MP - 1000

Three Switch, Single Vacuum, Air Compressor, Water



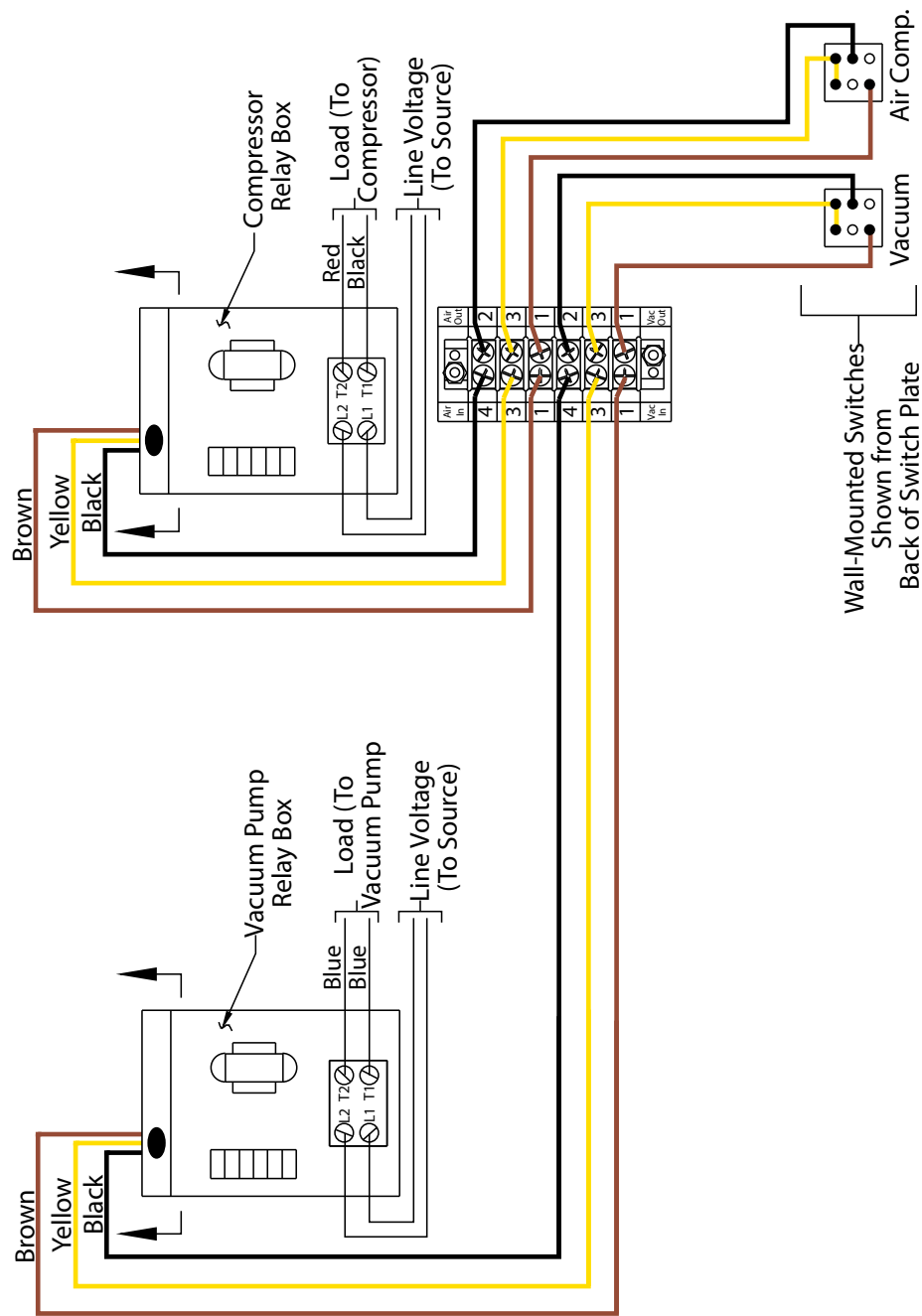
MP - 1100

Four Switch, Dual Vacuum, Air Compressor, Water



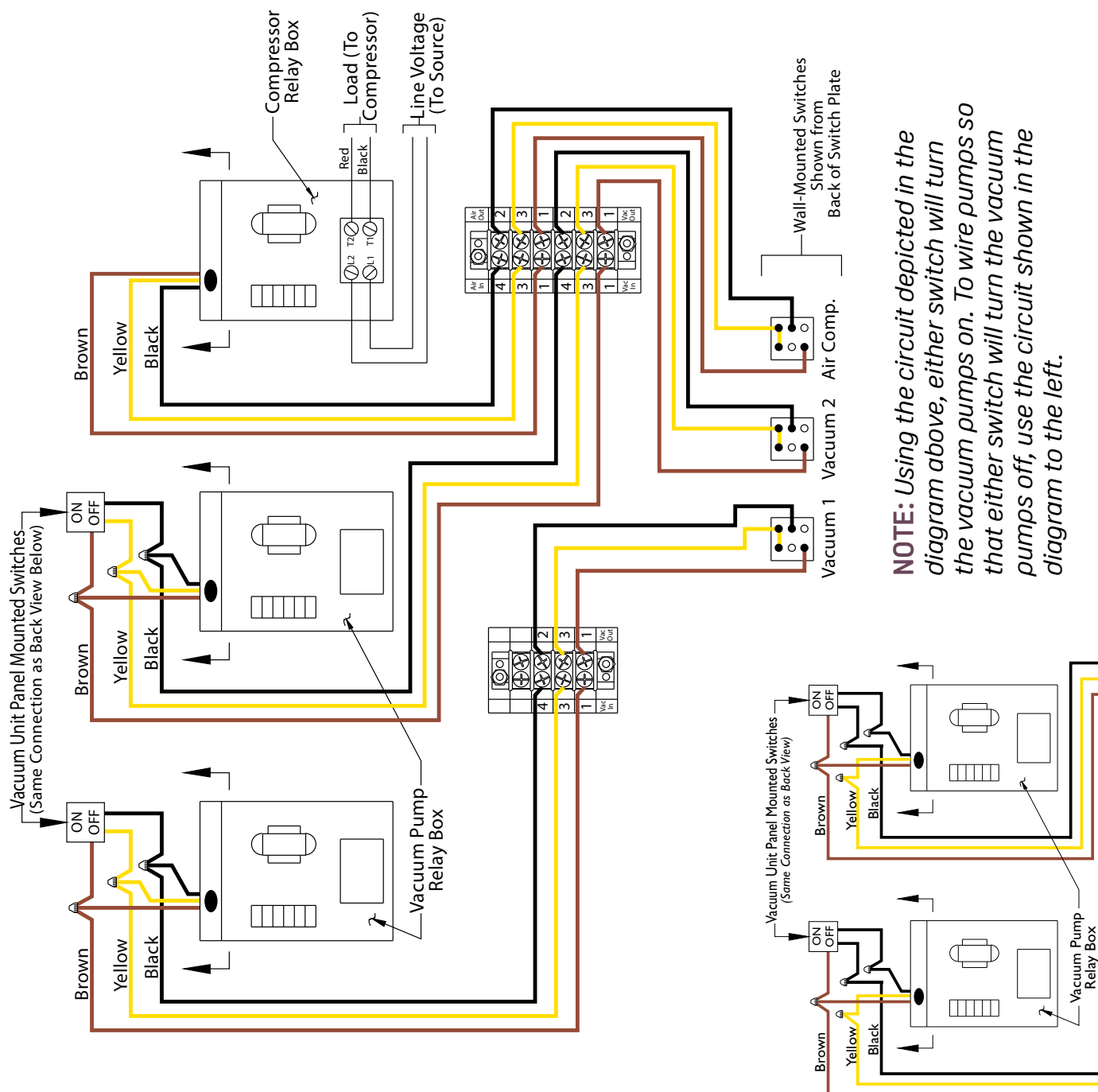
MP - 2000

Two Switch, Single Vacuum, Air Compressor



MP - 2200

Three Switch, Dual Vacuum, Air Compressor



Master Control Panel

DentalEZ and its employees are proud of the products we provide to the dental community. We stand behind these products with a warranty against defects in material and workmanship as provided below.

In the event that you experience difficulty with the application or operation of any of our products, please contact our technical service department at our expense at (866)DTE-INFO.

If we cannot resolve the issue by telephone, we will arrange for a representative to contact you or suggest that the product be repaired by a dealer service technician.

If product repair or return is required, we will provide you with a Return Authorization number and shipping instructions to return the product to the proper facility. If the product is under warranty we will ask you to provide proof of purchase such as a copy of your invoice. Please be sure to include the Return Authorization number on the package you are returning. Products returned without a return authorization number cannot be repaired.

Freight costs for product returns are the responsibility of the customer. Products under warranty will be repaired or replaced, at our sole discretion, and returned at our expense. Products outside the warranty limits will be repaired and returned with costs invoiced to the customer. We are not responsible for shipping damages. We will, however, help you file a claim with the freight carrier. Written repair estimates are available.

DentalEZ warrants the Master Control Panel to be free of defects in material and workmanship, under normal usage, for a period of **two (2) years from date of installation.***

Please note the following additional terms of our warranty and return policy:

- Warranties cover manufacturing defects only and do not cover defects resulting from abuse, improper handling, cleaning, care or maintenance, normal wear and tear or non-observance of operating, maintenance or installation instructions. Failure to use authorized parts or an authorized repair facility voids this warranty.
- **Liability is limited to repair or replacement of the defective product at our sole discretion. All other liabilities, in particular liability for damages, including, without limitation, consequential or incidental damages are excluded.**
- THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO EMPLOYEE, REPRESENTATIVE OR DEALER IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR TO GRANT ANY OTHER WARRANTY.

WARRANTY REPAIRS: Parts repaired or replaced on a product that is in warranty will be warranted for the duration of that product's original warranty.

NON-WARRANTY REPAIRS: The warranty on parts either repaired or replaced on an out-of-warranty product will cover the repaired part only and will be for the time frame of a new parts warranty period.

PRODUCT RETURN: Opened products or product returns more than a year old cannot be returned for credit. There will be a 15% (\$25.00 minimum) restocking charge on all items authorized for return.

*Provided conditions defined in the instruction manual are met.

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Printed in USA

PN: 64710071D
January, 2018