

Voltage Regulators

Service Information

Conversion Kit for pre-CL-6A Control Panels to Dead Front Back Panel, Kit #57A64322400A

S225-50-30

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GENERAL

The purpose of this kit is to enable the ability to use a Cooper Power Systems voltage regulator control panel, CL5E and earlier control series back to a CL2 control panel, with the dead front back panel plug connection supplied on the control panel supplied with a CL-6A control assembly.

TABLE 1
Parts Supplied

Item	Part Number	Description	Qty.
1	57A64322400A	Adapter Harness	1

TABLE 2
Tools Required

Description	Qty
Phillips Screwdriver	1
Standard Screwdriver	1

INSTALLATION INSTRUCTIONS

1. On the control front panel turn all switch to the off position.
2. On the control cabinet back panel locate the V switches and C switch on TB1. TB1 is the top terminal board on the back panel (See Figure 2).
3. Open the V1 switch and V6 switch if available.
4. Close the C switch. This switch shorts out the Current Transformer.

Warning: If the CT is not shorted by closing the C switch a possible hazard can be created due to the Current Transformer voltage floating.

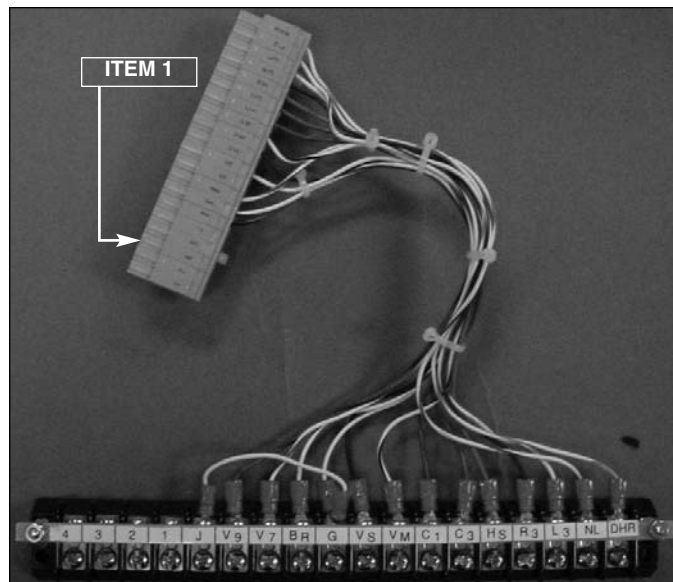


Figure 1.
Adapter Harness.

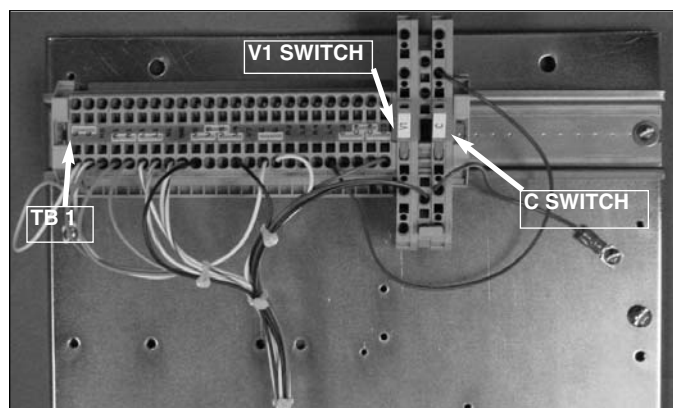


Figure 2.
TB1 Terminal Board and Switches.

These instructions do not claim to cover all details or variations in the equipment, procedure, or process described, nor to provide directions for meeting every contingency during installation, operation, or maintenance. When additional information is desired to satisfy a problem not covered sufficiently for the user's purpose, please contact your Cooper Power Systems sales engineer.



SAFETY FOR LIFE



Cooper Power Systems products meet or exceed all applicable industry standards relating to product safety. We actively promote safe practices in the use and maintenance of our products through our service literature, instructional training programs, and the continuous efforts of all Cooper Power Systems employees involved in product design, manufacture, marketing, and service.

We strongly urge that you always follow all locally approved safety procedures and safety instructions when working around high voltage lines and equipment and support our “Safety For Life” mission.

SAFETY INFORMATION

The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians who are familiar with this equipment should install, operate, and service it.

A competent technician has these qualifications:

- Is thoroughly familiar with these instructions.
- Is trained in industry-accepted high- and low-voltage safe operating practices and procedures.
- Is trained and authorized to energize, de-energize, clear, and ground power distribution equipment.
- Is trained in the care and use of protective equipment such as flash clothing, safety glasses, face shield, hard hat, rubber gloves, hotstick, etc.

Following is important safety information. For safe installation and operation of this equipment, be sure to read and understand all cautions and warnings.

Safety Instructions

Following are general caution and warning statements that apply to this equipment. Additional statements, related to specific tasks and procedures, are located throughout the manual.



DANGER: Hazardous voltage. Contact with hazardous voltage will cause death or severe personal injury. Follow all locally approved safety procedures when working around high- and low-voltage lines and equipment.

G103.3



WARNING: Before installing, operating, maintaining, or testing this equipment, carefully read and understand the contents of this manual. Improper operation, handling or maintenance can result in death, severe personal injury, and equipment damage.

G101.0



WARNING: This equipment is not intended to protect human life. Follow all locally approved procedures and safety practices when installing or operating this equipment. Failure to comply can result in death, severe personal injury, and equipment damage.

G102.1



WARNING: Power distribution equipment must be properly selected for the intended application. It must be installed and serviced by competent personnel who have been trained and understand proper safety procedures. These instructions are written for such personnel and are not a substitute for adequate training and experience in safety procedures. Failure to properly select, install, or maintain power distribution equipment can result in death, severe personal injury, and equipment damage.

G122.2

Hazard Statement Definitions

This manual may contain four types of hazard statements:



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 potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in equipment damage only.

5. Unplug the CL6 wiring harness from TB2, the bottom terminal board on the back panel (See Figure 3).

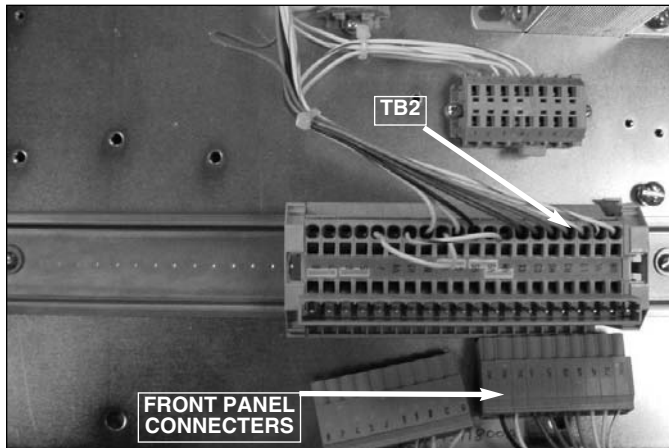


Figure 3.
TB2 and CL-6A Front Panel Connector.

6. Use a standard screwdriver, loosen and remove the screw fastening the control panel green ground wire to the back panel (See Figure 4).

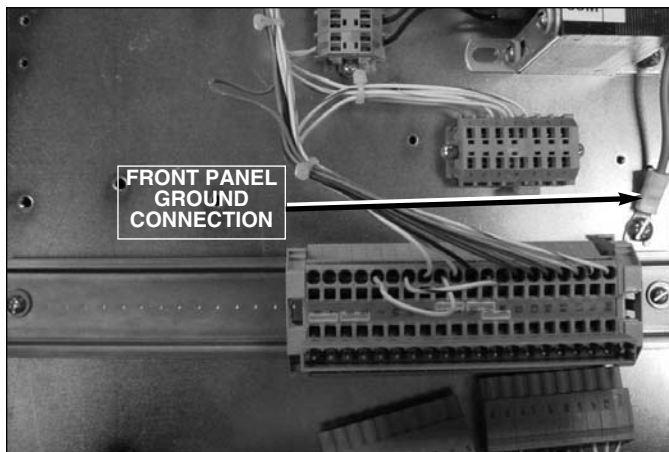


Figure 4.
Front Panel to Back Panel Ground Connection.

7. Remove the control panel from the cabinet hinges.
8. Remove the harness adapter kit from the package (See Figure 5).

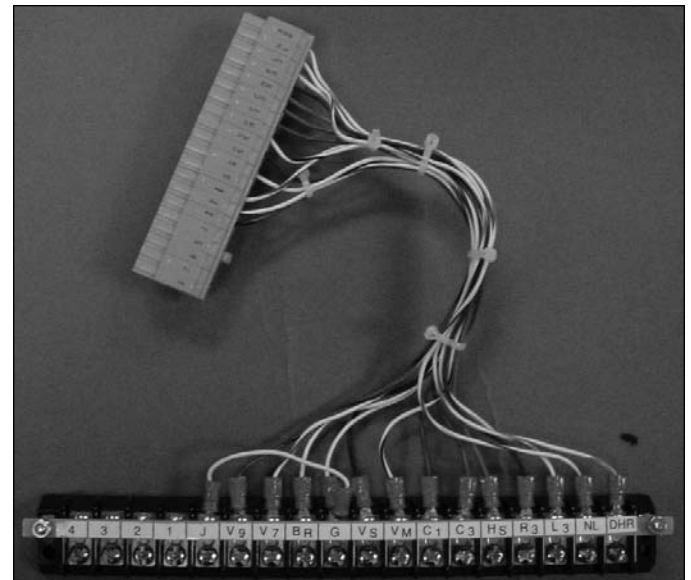


Figure 5.
Harness Adapter.

9. Plug the harness plug end into TB2. Terminal 8 and terminal DHR must line up with 8 and DHR on the TB2 terminal board (See Figure 6).

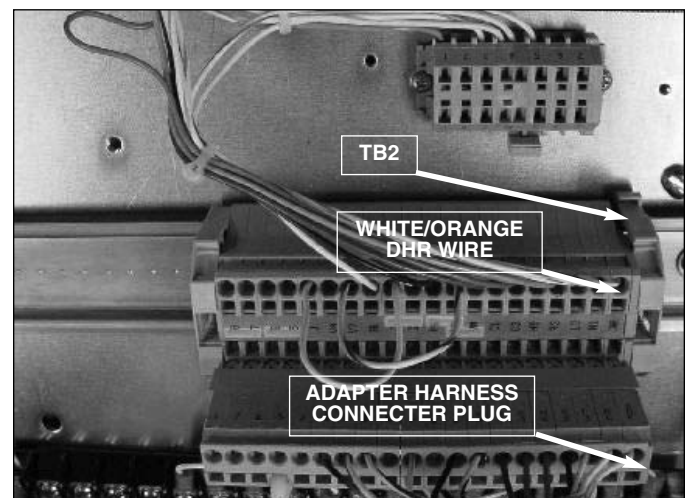


Figure 6.
Adapter Harness Plug and TB2 Interface.

10. Clean the bottom inside of the control cabinet removing any dust, dirt, debris, oil or grease film, and rust where the kits terminal board will attach to the bottom of the cabinet (See Figure 7).
11. Peel off the protective covering on the backside of the 18-position open face terminal board. The open face terminal board is the terminal board with screws.
12. Position the Open face terminal board onto the bottom of the control cabinet, locating the terminal board under the plug-in connector leaving enough room between the terminal board and back of the cabinet to allow for connecting wires to terminal 1- 4 (See Figure 7). Make sure that after the fanning strip from the control panel is connected it will not touch

the metal shield on the backside of the control panel when the control panel is closed.

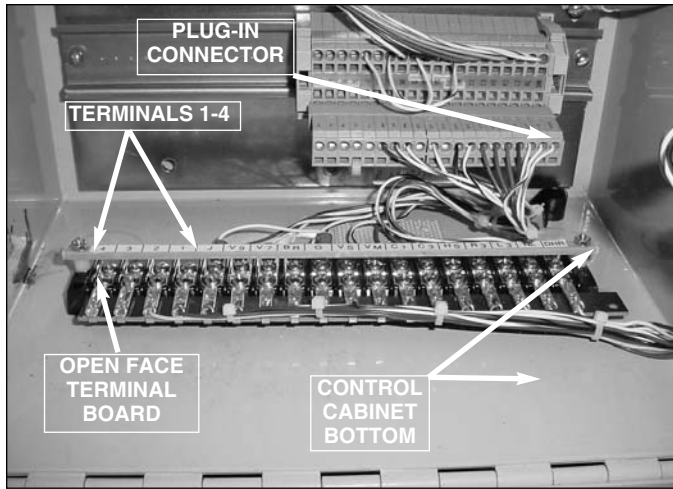


Figure 7.
Adapter kit 18 position terminal board.

18. Place the control front panel's green ground wire, if using a CL4 or CL5 series control, under the ground screw above the right hand side of TB2. Use a standard screwdriver and tighten the screw (See Figure 9).

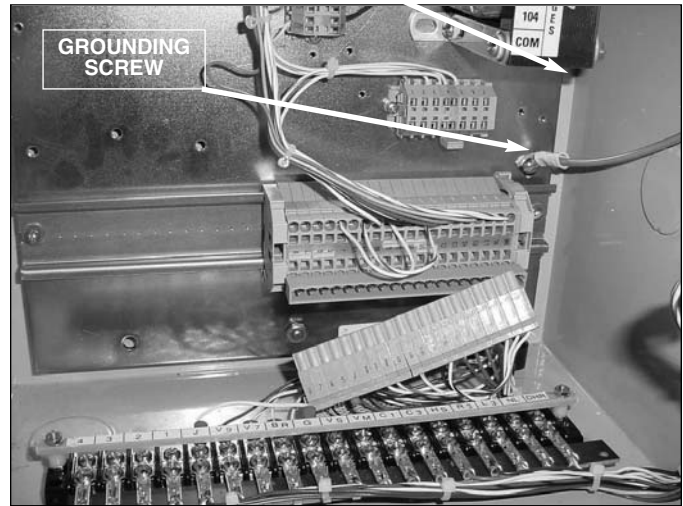


Figure 9.
Front Panel ground lead connection.

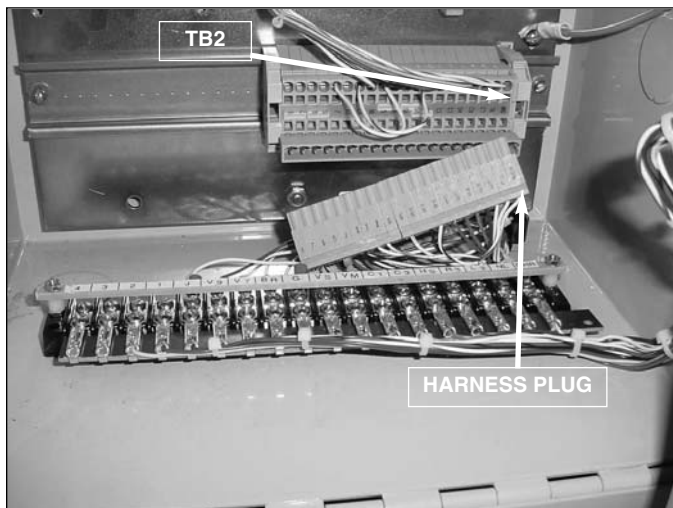


Figure 8.
Kit interface plug.

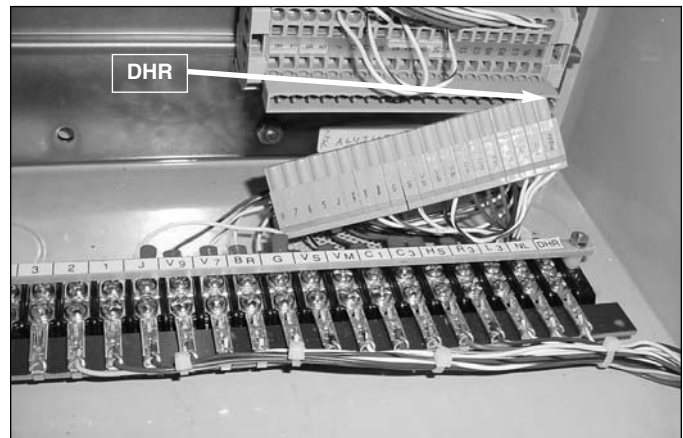


Figure 10.
Fanning strip connection.

13. Press down on the open face terminal board until the adhesive holds the terminal board to the bottom of the cabinet.
14. Unplug the harness plug from the TB2 connector. This allows easier connection of the fanning strip to the 18 position terminal board (See Figure 8).
15. Use a Phillips screwdriver and loosen all 18 screws on the roll of screw closest to you.
16. Turn all switches to the off position on the control front panel that is to be installed and remove the motor fuse.
17. Place the control front panel on to the control cabinet hinges.

19. Place the control panel's fanning strip under the 18 screws. Note: The white/orange wire on the fanning strip must line up with the white/orange DHR wire on the 18 position terminal board (See Figure 10).
20. Use a Phillips screwdriver and tighten all 18 screws.
21. Plug the adapter harness plug into TB2.

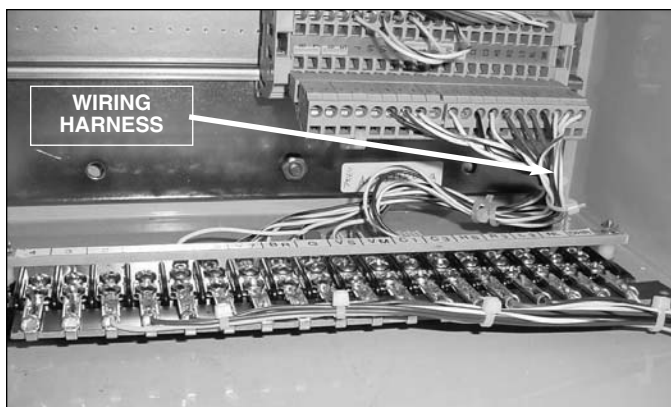


Figure 11.
Harness shaping.

22. Shape the control panel wiring harness so that the leads do not interfere with other components (See Figure 11).
23. Close the swing panel to ensure that there is no interference between the fanning strip and the control panel. If there is interference make position adjustments.
24. If there is no interference close the V1 switch and V6 switch if present. Open the C switch.

25. Replace the motor fuse.
26. Turn “On” the internal/external power switch to the method that power is being applied to the regulator.
27. Program the control panel.
28. Perform an operation test on the regulator.

Note: If remote latching voltage reduction is to be used, use vacant termination terminals 1, 2, 3, and 4 on the open face terminal board to connect your suppliers relay contacts (See Figure 12). Refer to the control manual for the control being installed for information on voltage reduction.

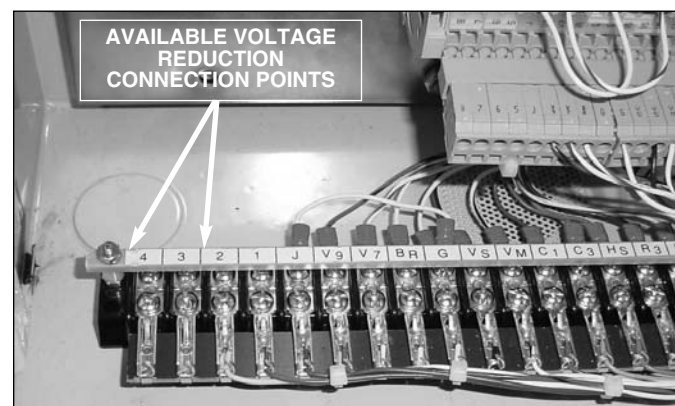


Figure 12.
Voltage Reduction connection available.



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