CAUTION

DO NOT ATTEMPT TO OPERATE A WIREFEEDER WITH A 115VAC RETURN WITH THE **PowCon** 630SMP UNLESS THE RELAY OPTION HAS BEEN INSTALLED, OR DAMAGE TO THE UNIT MAY RESULT.

PROCEDURE FOR INPUT VOLTAGE CHANGE-OVER

There are two (2) voltage change-over locations and both must be connected for the same primary voltage. The two voltage change-over locations are as follows:

A) Upper change-over bracket positions 1 through 12 (copper buss bars).

B) Lower change-over bracket positions 13 through 24 (copper buss bars).

NOTE

READ ENTIRE PROCEDURE PRIOR TO PERFORMANCE OF VOLTAGE CHANGE OVER.

IN ORDER TO AVOID AN ELECTRICAL SHOCK,

DANGER

THE UNIT MUST BE TURNED OFF AND DISCONNECTED FROM THE INPUT CIRCUIT PRIOR TO PERFORMING THE VOLTAGE CHANGE-OVER PROCEDURE.

A) Open the top enclosure from the bottom enclosure as follows:

1) Unfasten and remove the 8 bolts and nuts holding the enclosure together.

2) Grab the top half handles firmly and gently pivot the top enclosure open.

3) Perform Capacitor High Voltage Discharge Procedure outlined in Discharge Resistor Assembly Section.

WARNING

THE CAPACITORS IN THE **PowCon** 630SMP WELDING POWER SOURCE ARE CHARGED WITH HIGH VOLTAGE. THE CAPACITORS WILL DISCHARGE OVER A LONG PERIOD OF TIME UNDER NORMAL SHUTDOWN PROCEDURES. HOWEVER, IN ORDER TO AVOID AN ELECTRICAL SHOCK WHEN THE ENCLOSURE IS OPENED, THE CAPACITORS MUST BE DISCHARGED BY THE USE OF A BLEEDER RESISTOR ASSEMBLY, DESCRIBED IN BLEEDER RESISTOR ASSEMBLY SECTION.

B) Identify the voltage change-over instruction labels for the copper buss bars as shown in Figure 4.

LOCATION 1: TOP ENCLOSURE CHANGE-OVER BRACKET ASSEMBLY

A) Locate and read the instructions located on the cover of the upper change-over bracket assembly (shown in location 1, Figure 4).

B) To gain access to the buss bars, perform the following:

1) Remove the four cover screws.

2) Remove the cover from the bracket.

C) Perform the required operation on the copper buss bars for the proper primary voltage as shown on the cover.

D) To cover the change-over bracket perform the following:

1) Replace the cover in the recessed area of the upper change-over bracket.

2) Fasten the four screws in the cover.

LOCATION 2: BOTTOM ENCLOSURE CHANGE-OVER BRACKET ASSEMBLY

A) Locate and read the instructions located on the cover of the lower change-over bracket assembly (shown in location 2, Figure 5).

B) To gain access to the buss bars, perform the following:

1) Remove the four cover screws.

2) Remove the cover from the bracket.

C) Perform the required operation on the copper buss bars for the proper primary voltage.

D) To cover the change-over bracket perform the following:

1) Replace the cover in the recessed area of the lower change-over bracket.

2) Fasten the four screws in the cover.

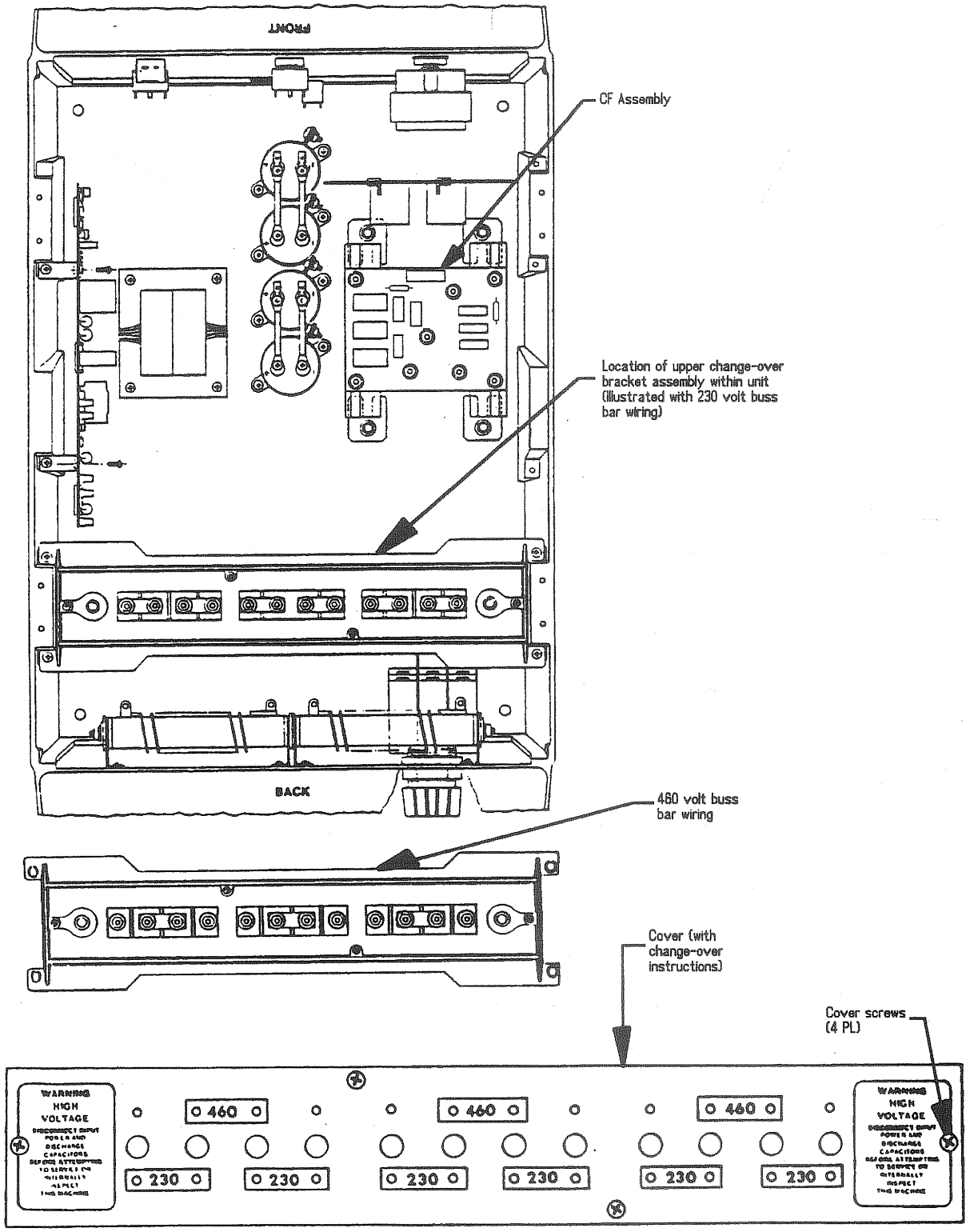
E) Close the top enclosure on the bottom as follows:

1) Check for loose wire and potential pinch points.

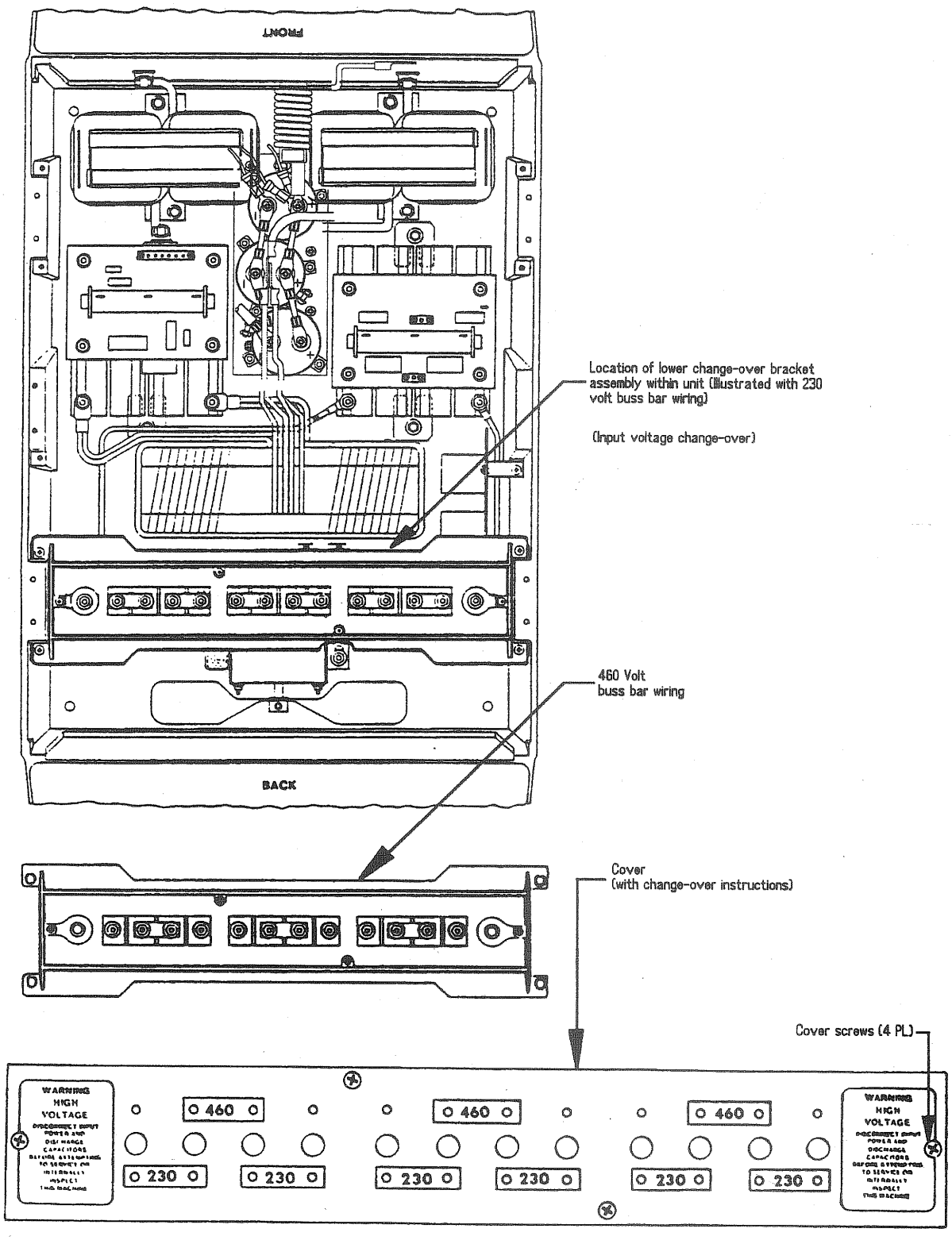
2) Pivot top half and shut on bottom.

3) Install nuts and bolts in the four flange holes, and four handle holes and tighten firmly.

F) Check for correct input voltage of primary source and insure the fuse and plug are UL approved for the rated primary load (shown in Table 2).



Location 1, Upper Voltage Change-Over
Figure 4



Location 2, Lower Voltage Change-Over
Figure 5

BLEEDER RESISTOR ASSEMBLY

CONSTRUCTION

This assembly must consist of the following components to be considered acceptable for capacitor bleed off.

RESISTOR: . . . . . Minimum requirements - 50 watts, 5 ohm

CONDUCTOR:. . . . #16 AWG 1000 VDC insulation rating

CLIPS: . . . . . #16 AWG 1000 VDC insulation rating

All connections must be hard wired (soldered). Conductors should be approximately six (6) inches in length.

The entire resistor body and soldered connections to the resistor must be encapsulated with 1000 VDC rated "heat-shrink" insulation.

A discharge resistor assembly is available from PowCon, P/N 250040-001. Contact your local distributor or the factory if you wish to obtain it.

USE

Once an acceptable discharge device (as described above) is available, perform the following:

NOTE

READ ENTIRE PROCEDURE PRIOR TO PERFORMING VOLTAGE BLEEDING PROCEDURE.

DANGER

DO NOT ATTEMPT TO PERFORM THIS PROCEDURE WITHOUT THE POWER SUPPLY BEING TURNED OFF AND DISCONNECTED FROM THE PRIMARY INPUT.

A) Turn Range Switch to highest range.

CAUTION

FAILURE TO TURN RANGE SWITCH TO HIGHEST RANGE WILL PREVENT DISCHARGE OF ALL THE CAPACITORS.

B) Locate the C.F. assembly inside the unit as shown in Figure 4. The C.F. assembly can be identified by two aluminum heatsinks which contain three diodes each set beneath a circuit board.

C) Connect one end of the Discharge Resistor assembly to one of the heatsinks and attach the other end of the Discharge Resistor assembly to the other heatsink. This action will bleed the capacitors.

NOTE

A SPARK DISCHARGE MAY BE NOTICED.

D) Leave the Discharge Resistor assembly connected for at least 10 seconds.

E) Remove the Discharge Resistor assembly from the unit and continue with the voltage change-over.

WARNING

DO NOT ATTEMPT TO DISCHARGE THIS POWER SOURCE BY ANY OTHER MEANS THAN THAT DESCRIBED ABOVE.