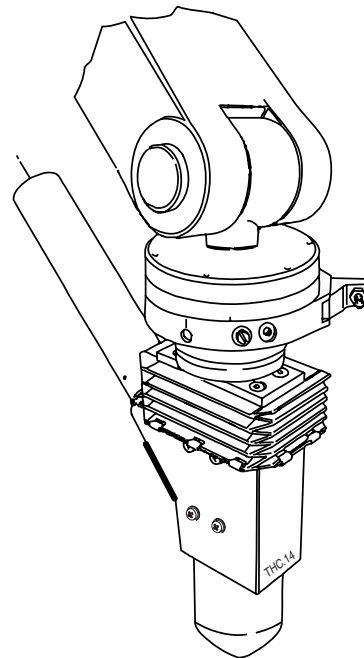
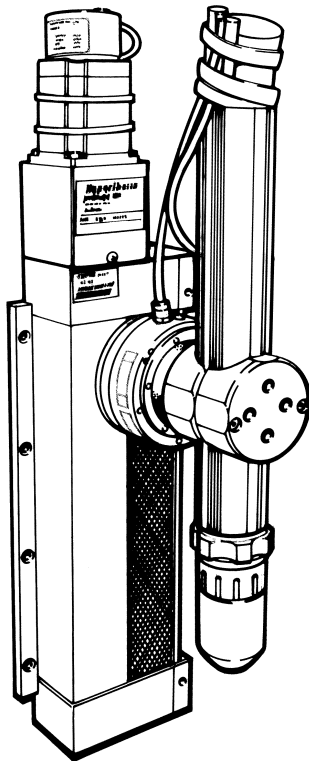


command[®] ***THC***

Control PC Board Replacement and Calibration

Kit 128407

Kit Instructions
803600 - Revision 2



Hypertherm
*The world leader in
plasma cutting technology*

Hypertherm

command THC

Control PC Board Replacement and Calibration

Kit 128407

**Kit Instructions
IM-360
(P/N 803600)**

Revision 2 - April 2000

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Command THC Control PC Board Calibration

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Command THC Control PC Board Calibration

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041507	Control Module PC Board
803600	Instructions

PURPOSE

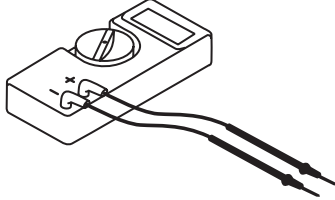


After installing the replacement PC board included with this kit, calibration of the THC system is required. These instructions provide calibration procedures.

Command THC Control PC Board Calibration

REQUIREMENTS

 <h1 style="font-size: 2em; margin: 0;">WARNING</h1>	
	<p>ELECTRIC SHOCK CAN KILL</p> <ul style="list-style-type: none">• Turn off the power and remove the input power plug from its receptacle before removing any access cover. If the power supply is directly connected to a line disconnect box, switch the line disconnect to OFF (O). In the U.S., use a "lock-out / tag-out" procedure until the service or maintenance work is complete. In other countries, follow appropriate national or local safety procedures.• Do not touch live electrical parts! If power is required for servicing, use extreme caution when working near live electrical circuits. Dangerous voltages exist inside the THC control module that can cause serious injury or death.
	<p>STATIC ELECTRICITY CAN DAMAGE CIRCUIT BOARDS</p> <ul style="list-style-type: none">• Put on a grounded wrist strap BEFORE handling PC boards.

Tools Needed

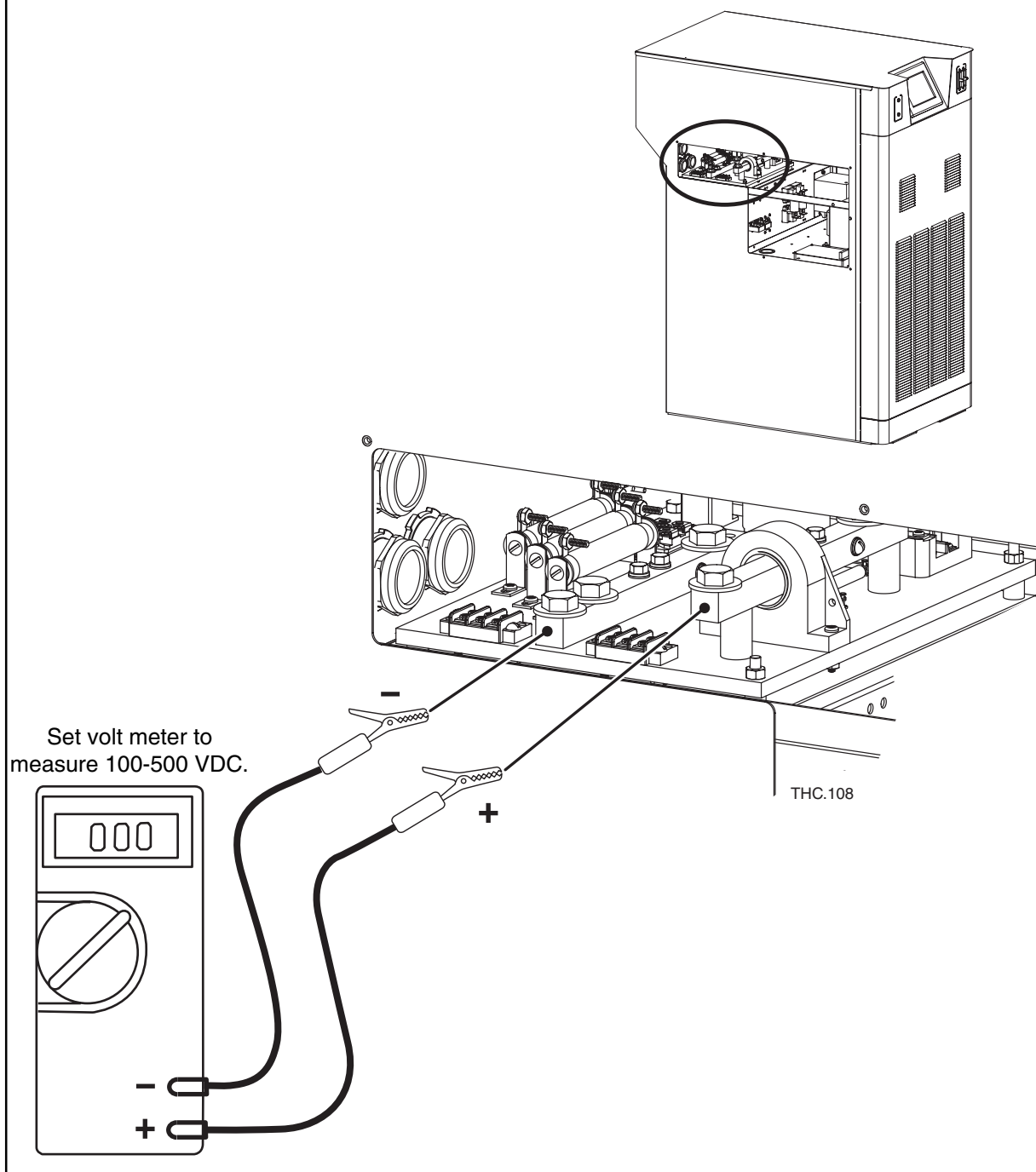
 <p>Digital Volt Meter</p>	 <p>#2 Phillips Screw Driver</p>  <p>Small, Flat Screw Driver</p>
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HD4070 THC Control PC Board Calibration

HD4070 PROCEDURE

1. Turn off the power to the power supply.
2. Install the replacement PC board in to the power supply and attach all electrical connections.

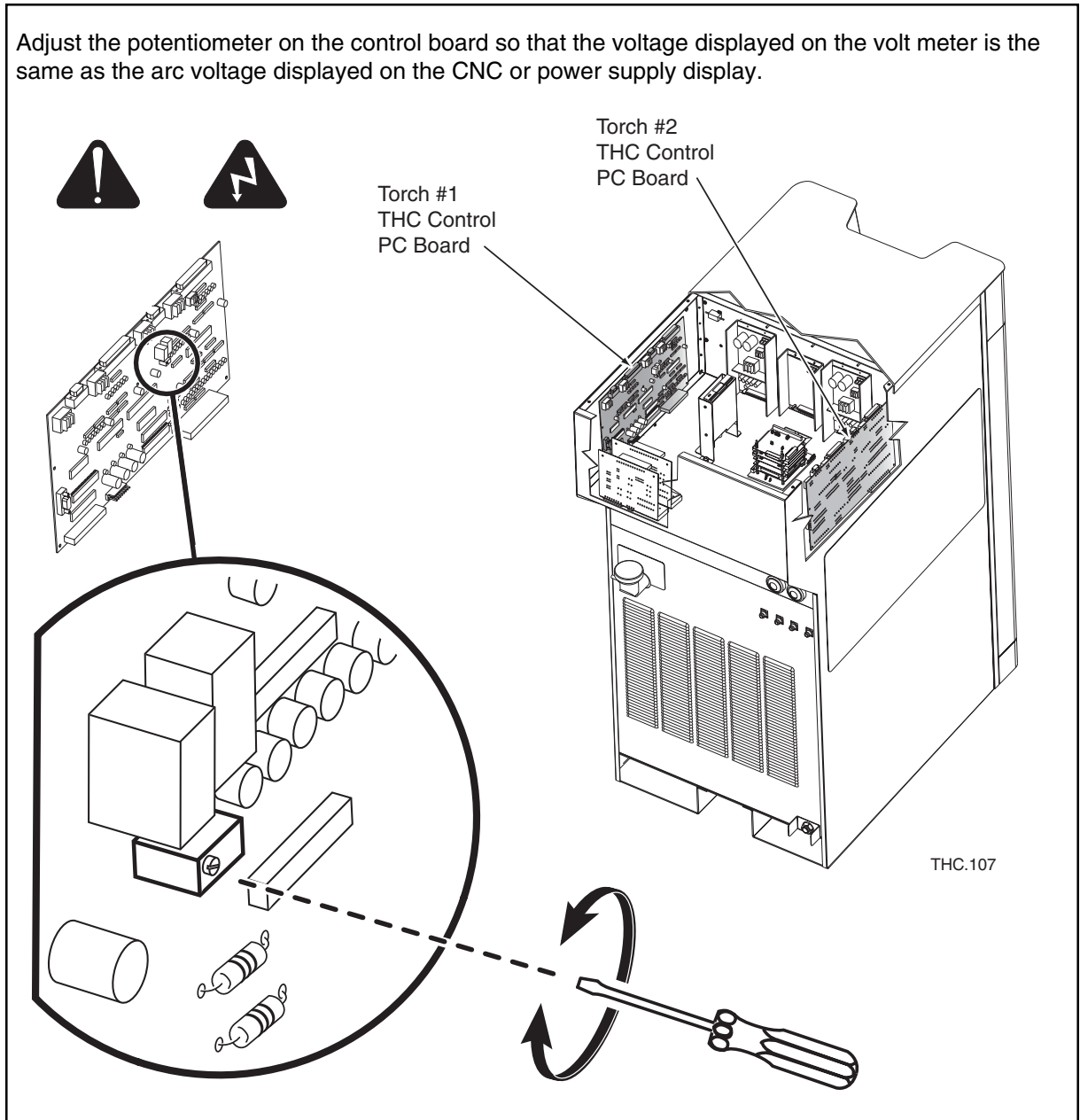
3. Attach the volt meter to measure the arc voltage between power supply I/O board bus bars as shown below.



HD4070 THC Control PC Board Calibration

4. Turn on power to the power supply.
5. Put the Command THC in MANUAL MODE.
6. For 2-torch systems, select the applicable torch.
7. Begin a cutting process and compare the voltage displayed on the volt meter to the arc voltage displayed on the CNC or power supply display.

8. Adjust the potentiometer on the control board so that the voltage displayed on the volt meter is the same as the arc voltage displayed on the CNC or power supply display.

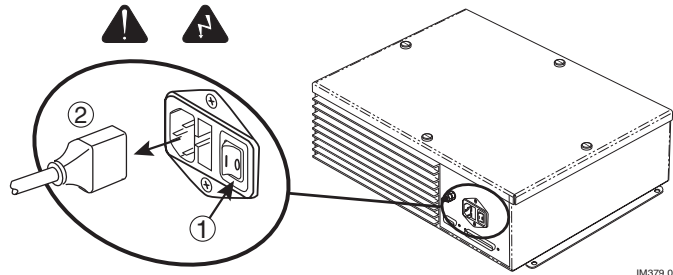


9. Turn off the power to the power supply.
10. Remove the volt meter from the power supply.
11. Replace the access covers to the power supply.

HT4400 THC Control PC Board Calibration

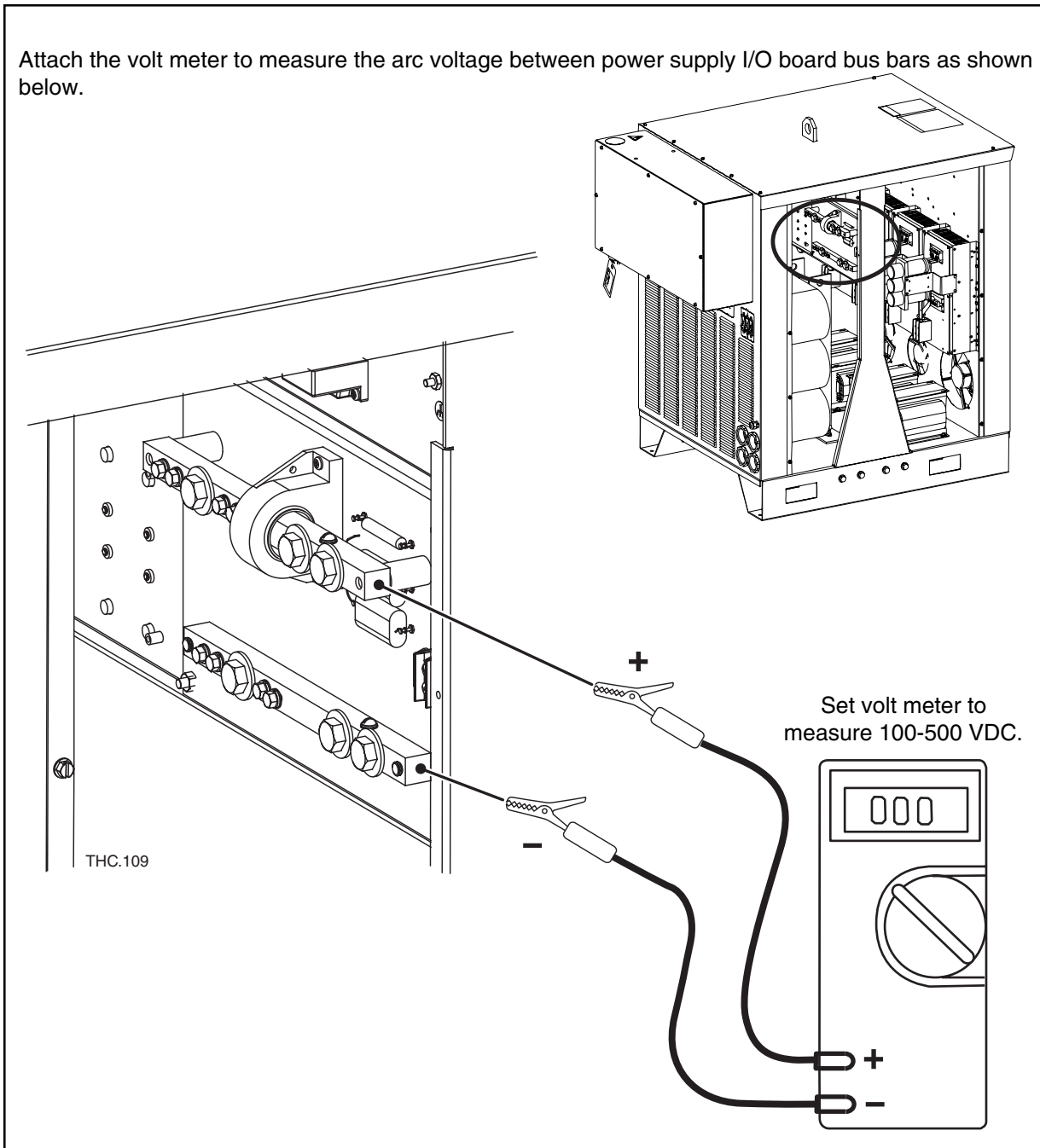
HT4400 PROCEDURE

1. Turn off the power to the THC control module and to the power supply.



2. Install the replacement PC board in to the THC control module and attach the electrical connections.

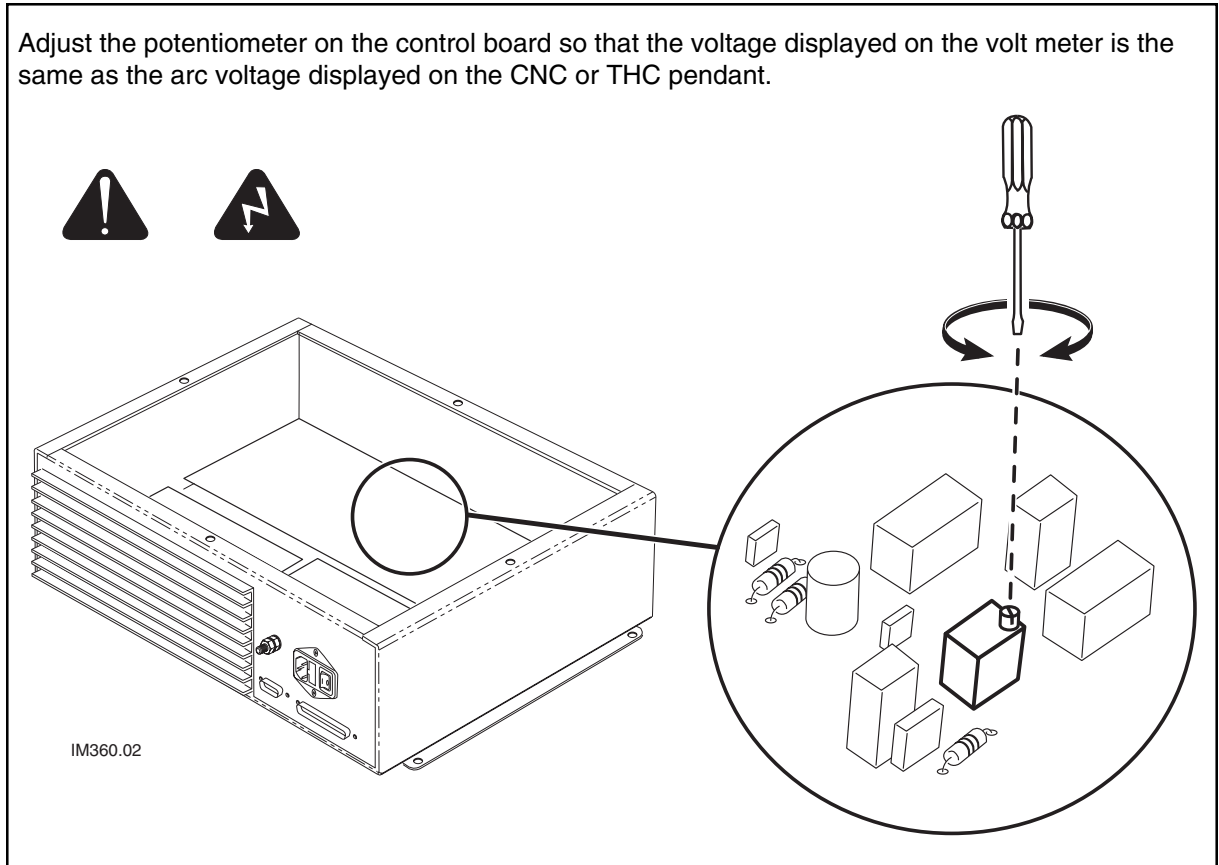
3. Attach the volt meter to measure the arc voltage between power supply I/O board bus bars as shown below.



HT4400 THC Control PC Board Calibration

4. Turn on the power to the THC control module and to the power supply.
5. Put the Command THC in MANUAL MODE.
6. Begin a cutting process and compare the voltage displayed on the volt meter to the arc voltage displayed on the CNC or THC pendant.

7. Adjust the potentiometer on the control board so that the voltage displayed on the volt meter is the same as the arc voltage displayed on the CNC or THC pendant.

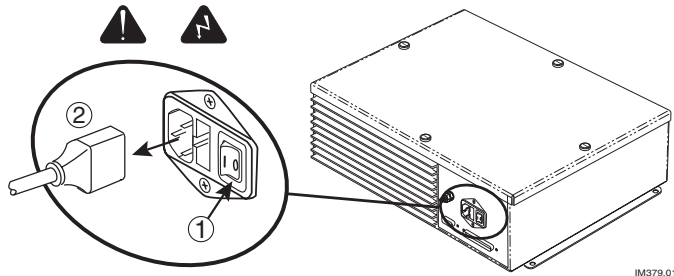


8. Turn off the power to the THC control module and to the power supply.
9. Remove the volt meter from the power supply.
10. Replace the access covers to the THC control module and to the power supply.

Powermax, MAX100, MAX200, HD3070, HT2000, HT2000LHF, and HT4001 THC Control PCB Calibration

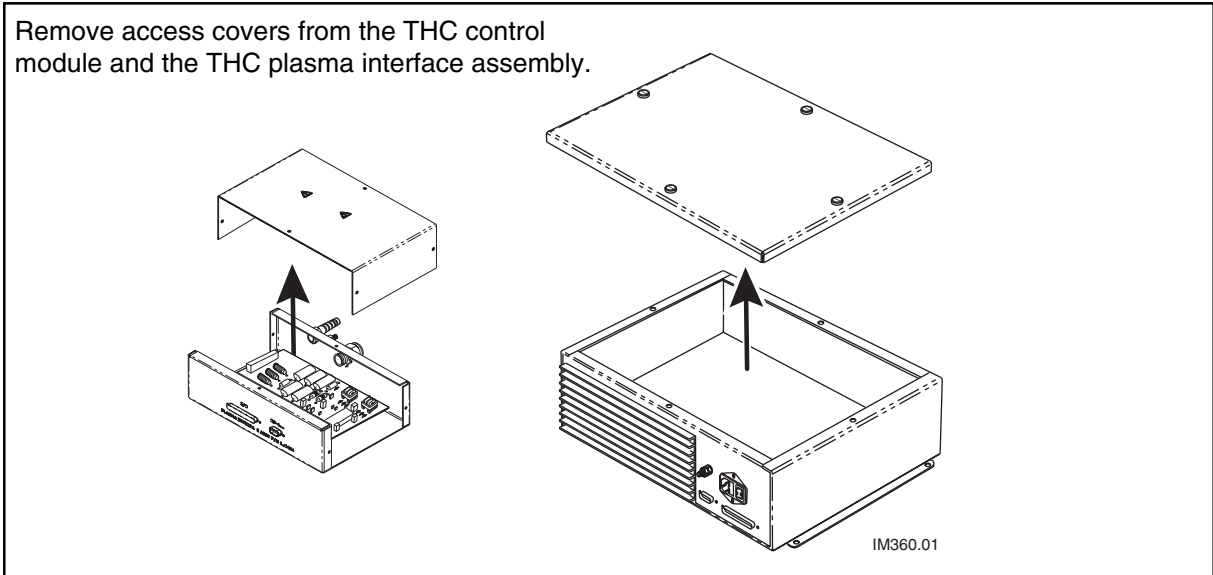
POWERMAX, MAX100, MAX200, HD3070, HT2000, HT2000LHF, AND HT4001 PROCEDURE

1. Turn off the power to the power supply.
2. Turn off power to THC system and remove power cord.



IM379.01

3. Remove access covers from the THC control module and the THC plasma interface assembly.

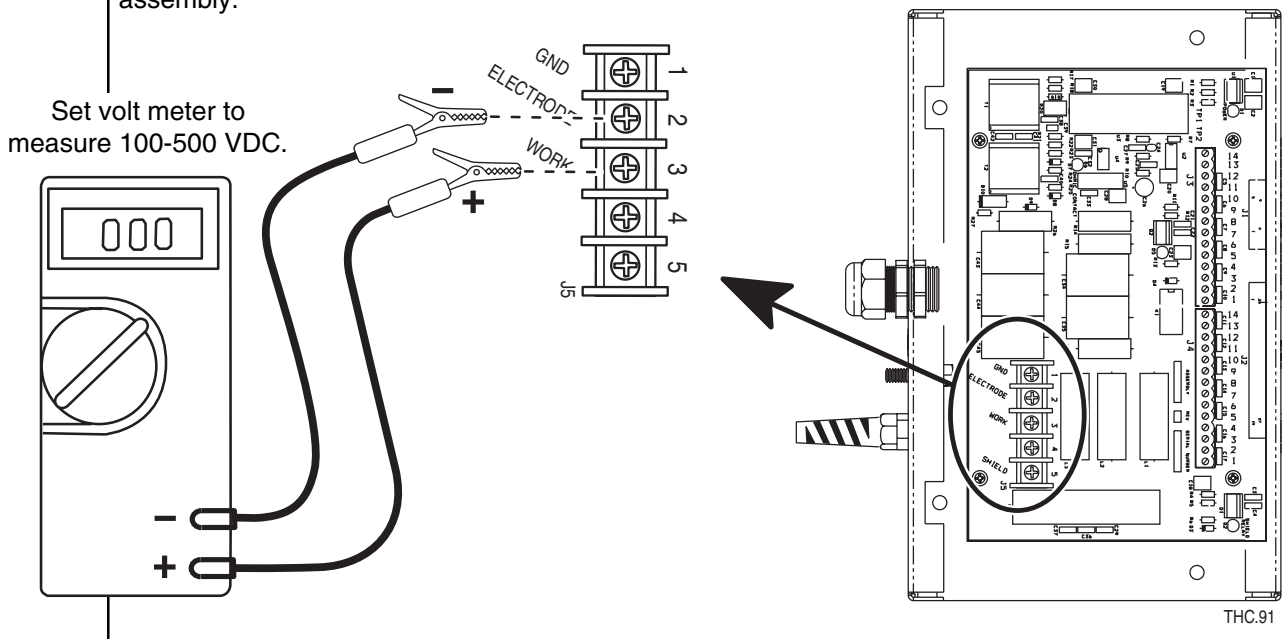


IM360.01

4. Install the replacement PC board in to the THC control module and attach electrical connections.

5. Attach the volt meter to measure the arc voltage between J5-2 and J5-3 in the plasma interface assembly.

Set volt meter to measure 100-500 VDC.

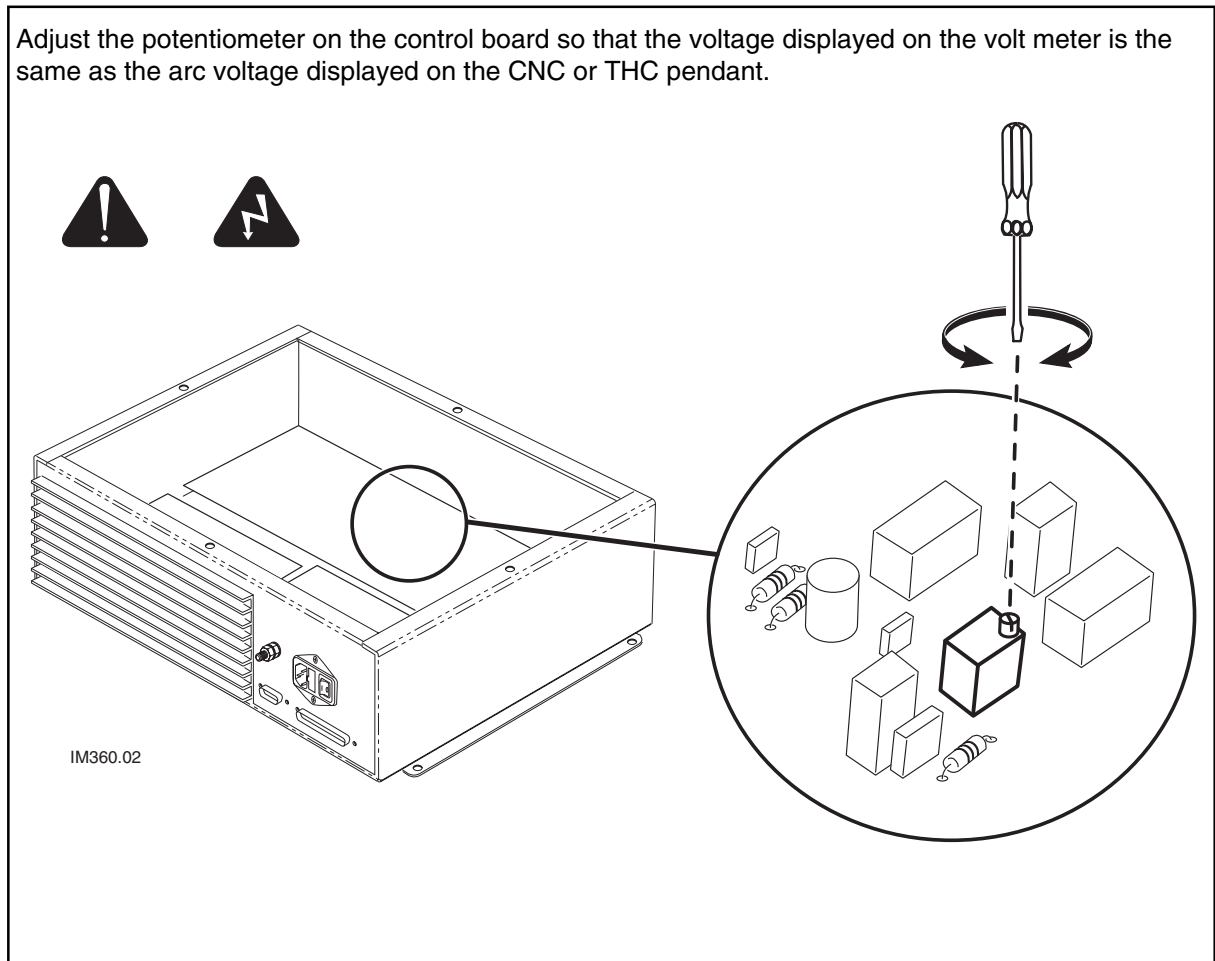


THC.91

Powermax, MAX100, MAX200, HD3070, HT2000, HT2000LHF, and HT4001 THC Control PCB Calibration

6. Replace power cord to the THC control module.
7. Turn on power to the THC and to the power supply.
8. Put the Command THC in MANUAL MODE.
9. Begin a cutting process and compare the voltage displayed on the volt meter to the arc voltage displayed on the CNC or THC pendant.

10. Adjust the potentiometer on the control board so that the voltage displayed on the volt meter is the same as the arc voltage displayed on the CNC or THC pendant.



11. Turn off power to power supply and to THC system.
12. Remove volt meter from the plasma interface assembly.
13. Replace access covers to the THC control module and the THC plasma interface assembly.

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