



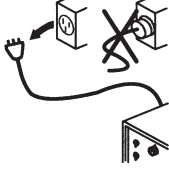
***HPR and HPRXD Power Supply
Control Board Replacement
HPR130, HPR260, HPR130XD, and
HPR260XD***

Field Service Bulletin

806470 – Revision 1 – March, 2011

Hypertherm®

HPR AND HPRXD POWER SUPPLY CONTROL BOARD REPLACEMENT

		WARNING ELECTRIC SHOCK CAN KILL
	Disconnect electrical power before performing any maintenance. All work requiring removal of the power supply cover must be performed by a qualified technician. See the <i>Safety Section</i> of the system's Manual for more safety precautions.	

Introduction

Purpose

This field service bulletin provides the instructions necessary to replace the power supply control board in an HPR130, HPR260, HPR130XD, or HPR260XD power supply.

Kit 228548 contents

Part number	Description	Quantity
041993	PCB assembly: HPR130XD/HPR260XD control board	1
229386	Wire group: HPR chopper assembly	1

HPR AND HPRXD POWER SUPPLY CONTROL BOARD REPLACEMENT

Power supply control board configuration



Caution: Do not discard the old control board until the installation is complete. All jumpers and dip switches on the new control board must match the settings on the old control board for the system to work correctly.

Jumpers

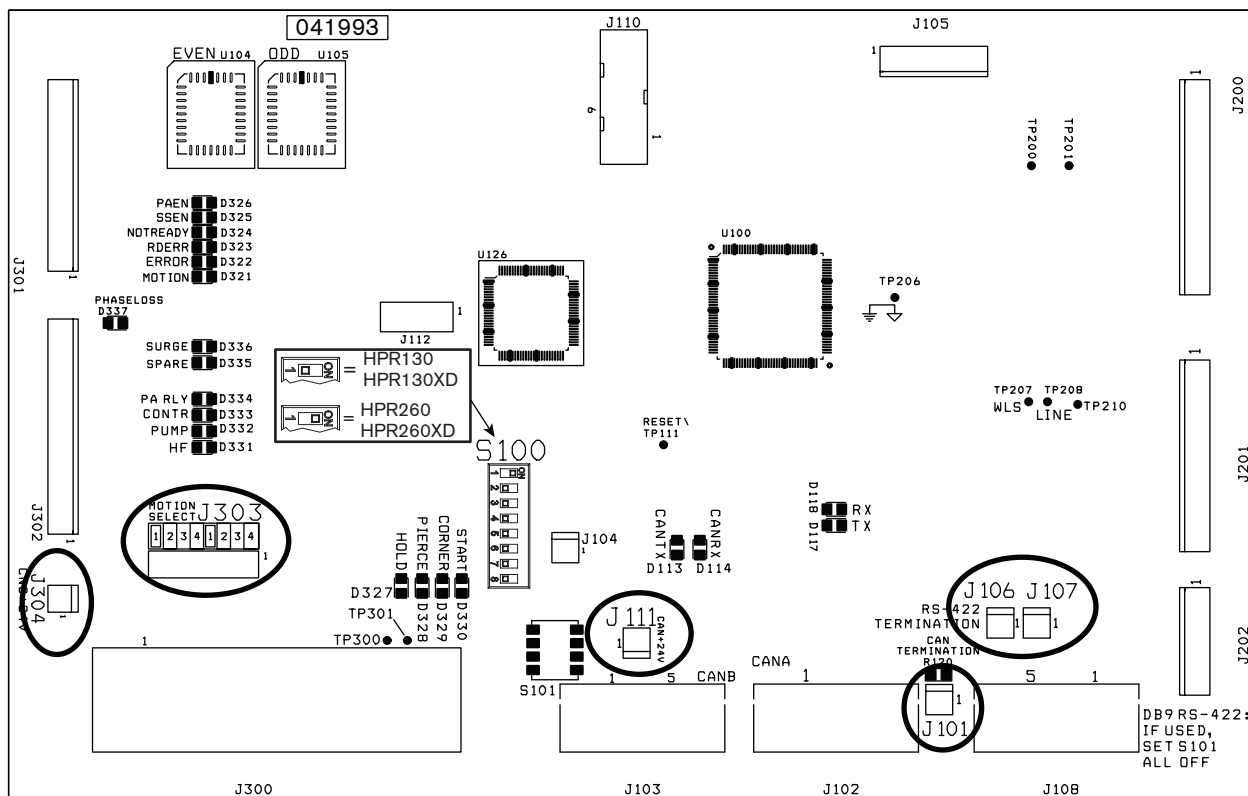
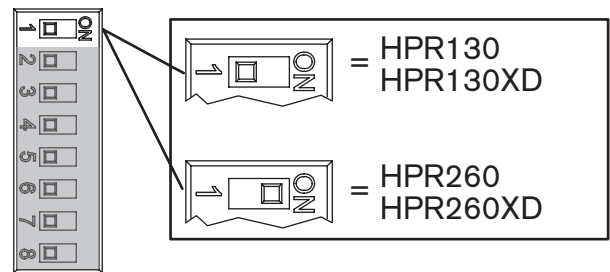
The jumpers on the new control board must match the jumpers present on the old control board. Configure the jumpers on the new control board to match the jumpers on the old control board in the corresponding locations. See the figure below for jumper locations.

DIP switch location and settings

The dip switches on the new board must match the dip switches on the old board.

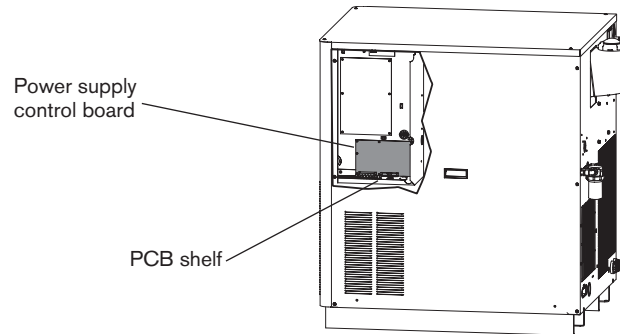
Switch number 1 determines if the board is being used in an HPR130/HPR130XD (OFF position) or an HPR260/HPR260XD (ON position).

Switches 2 and 3 are used when the plasma system has more than one power supply in series (also referred to as multi-drop systems). Switches 4 through 8 must be in the OFF position. See the wiring diagrams in your instruction manual for more information on multi-drop systems.



HPR and HPRXD power supply control board

Power supply control board installation



Control board location for HPR130, HPR260, HPR130XD, and HPR260XD

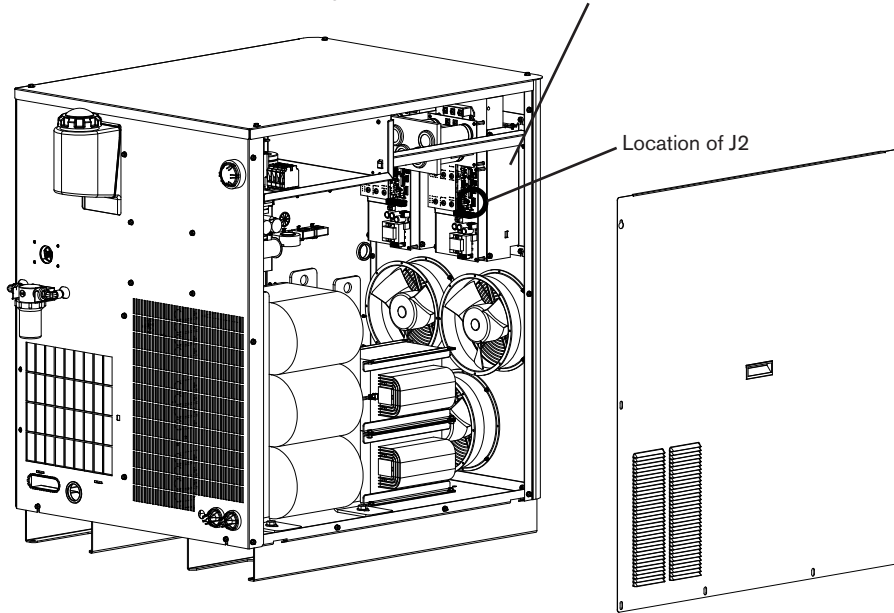
1. Turn OFF all power to the system.
2. Remove the right side cover from the power supply to access the control PCB. See figure above. The location of the control board is the same for the HPR130, HPR260, HPR130XD and HPR260XD.
3. Remove all the connectors from the control board. Also remove the 4-40 standoffs on the dsub connectors that attach the control board to the PCB shelf. Save the standoffs for use when installing the new control board.
4. Remove the old control board from the power supply.
5. Install the new, properly configured, control board in the power supply, reinstall the 4-40 standoffs, and plug in all the connectors.
6. Replace the right side panel and the installation is complete.
7. If the power supply control board is being replaced in an HPR260, also install the 229386 wire group. Continue to the next page for instructions on installing the wire group.

Install the chopper wire group (HPR260 only)

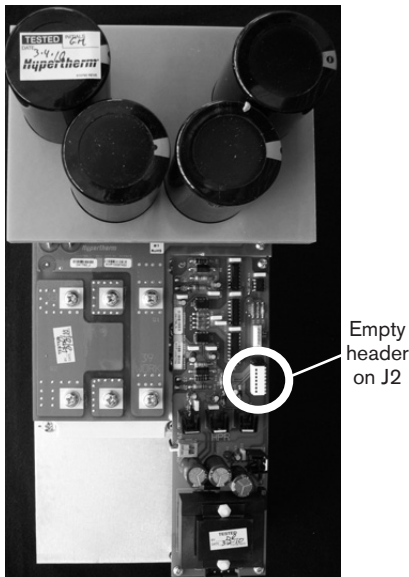


Caution: Failure to install this wire group in an HPR260 power supply can result in damage to the chopper.

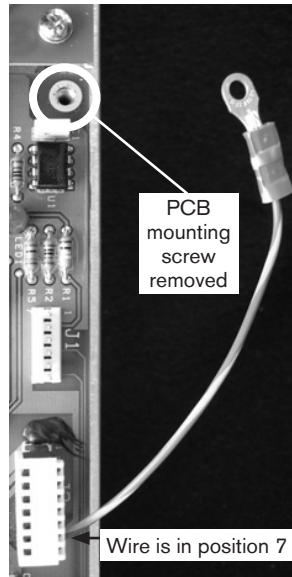
1. Turn OFF all power to the system.
2. Remove the left side cover from the power supply to access chopper "B".



3. Remove the empty header (plug with no wires) from receptacle J2 on the chopper.



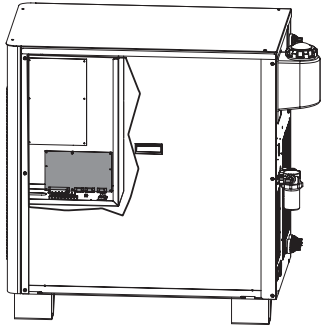
4. Install the new wire group (229386) on J2 and remove the PCB mounting screw.



5. Secure the ring terminal to the PCB at a 45 degree angle, using the screw removed in step 4.

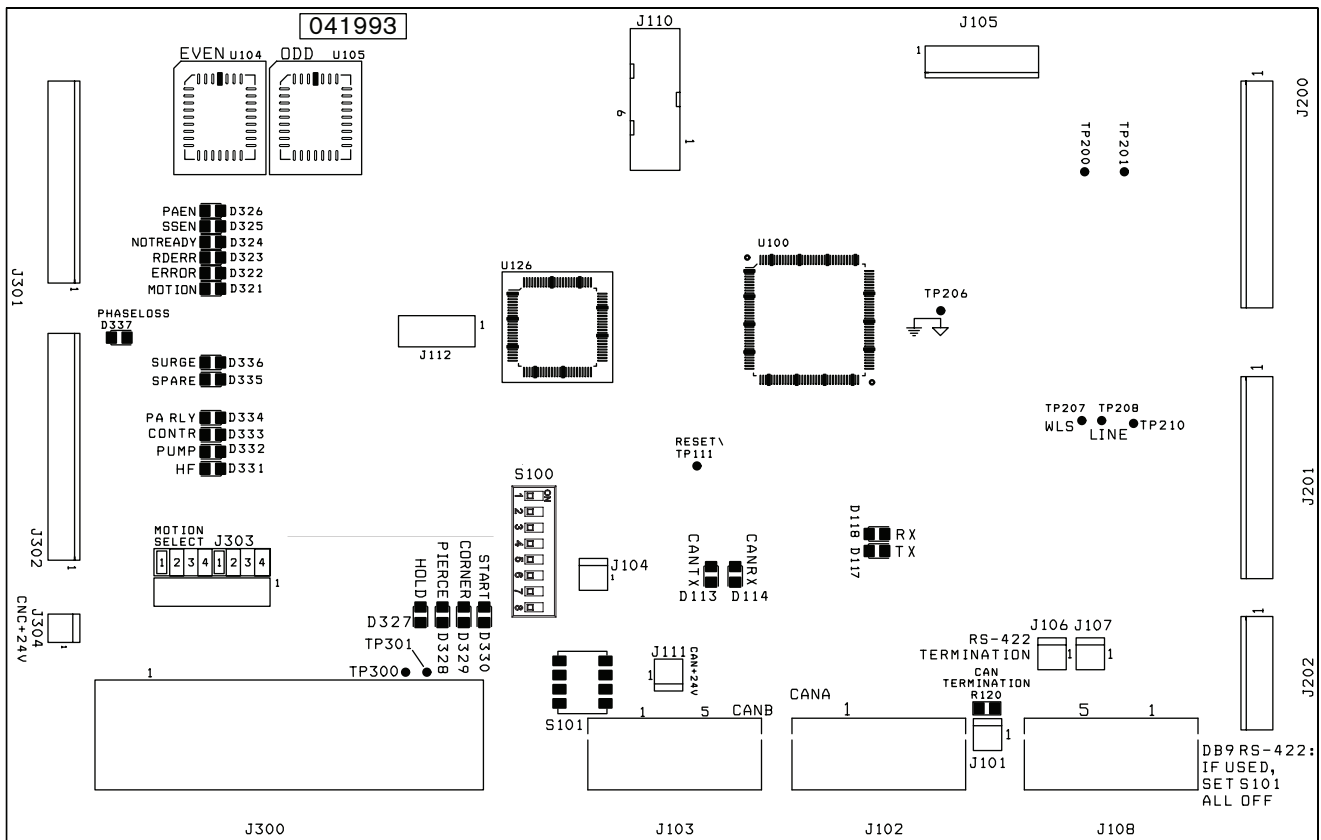


Power supply control board LED and firmware information



Control PCB LED list		
LED	Signal name	Notes
D100	+5 VDC	
D101	+3.3 VDC	
D113	CAN TX	Constant blinking
D114	CAN RX	Constant blinking
D117	RS-422 TX	
D118	RS-422 RX	

Control PCB3 firmware list	
Item	Part number
U104	081169 EVEN
U105	081169 ODD



Control PCB LED list			
LED	Output	Input	Notes
D321	Machine motion		
D322	Error		
D323	Rampdown error		
D324	Not ready		
D325	Spare		Not used
D326	Pilot arc enable		
D327		Hold	
D328		Pierce	
D329		Corner current	
D330		Plasma start	

Control PCB LED list			
LED	Output	Input	Notes
D331	HV transformer		
D332	Pump motor enable		
D333	Contactor		
D334	Pilot arc relay		
D335	Spare		
D336	Surge select		
D337		Phase loss	

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