

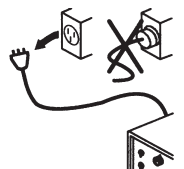


XD Upgrade ***HPR130 and HPR260***

Field Service Bulletin

806480 – Revision 1 – March, 2010

Hypertherm®

		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 upgrade an existing HPR130 or HPR260 system to an XD system. The XD torch and lead set must be ordered separately. A new selection console is needed to use the argon processes for marking with an auto gas system.

Kit 228524 contents

Part number	Description	Quantity
027338	Tool: Firmware chip extractor	1
041993	PCB assembly: HPR130XD/HPR260XD control board	1
081110	Firmware and media assembly: HPR auto gas control	2 sets (4 chips)
110697	label: HPR400XD technology	1
110798	label: HPR XD upgrade	2
229341	Adaptor: Left hand thread, "A", female, 1/4" push-in	1
229342	Adaptor: Right hand thread, "A", female, 1/4" push-in	1
229386	Wire group: HPR chopper assembly	1

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

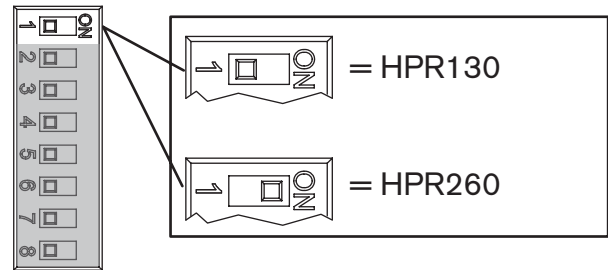
Jumpers on the new control board (041993) must match the jumpers present on the old control board (041909). Configure the jumpers on the new control board to match the jumpers on the old control board in the corresponding locations. See the figure on the next page for jumper locations.

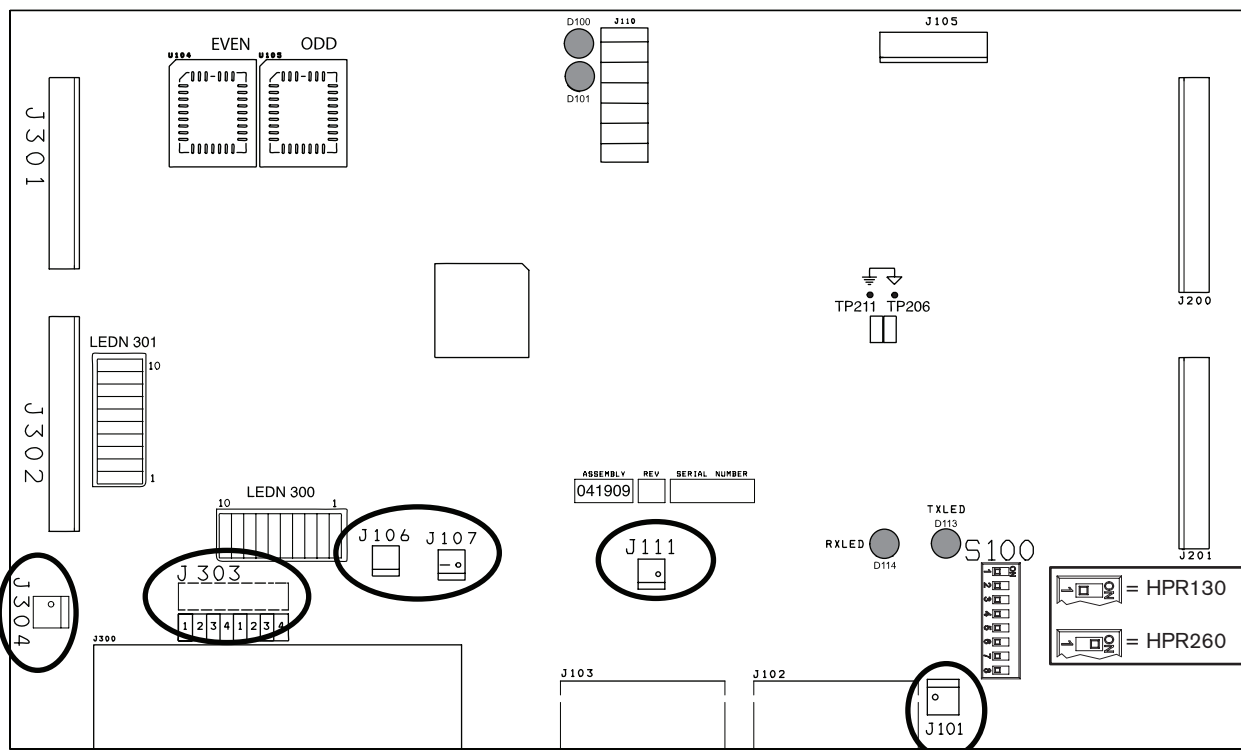
DIP switch location and settings

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

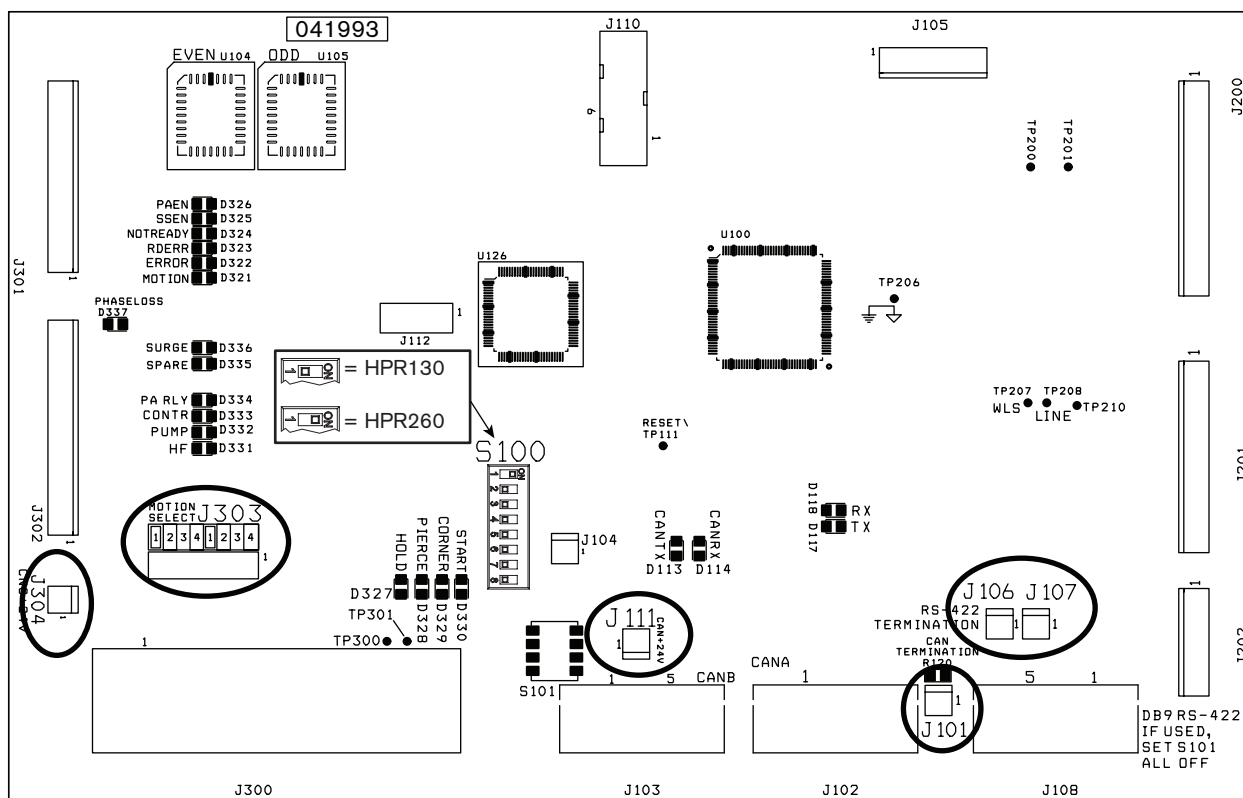
Switch number 1 determines if the board is being used in an HPR130 (OFF position) or an HPR260 (ON position).

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).



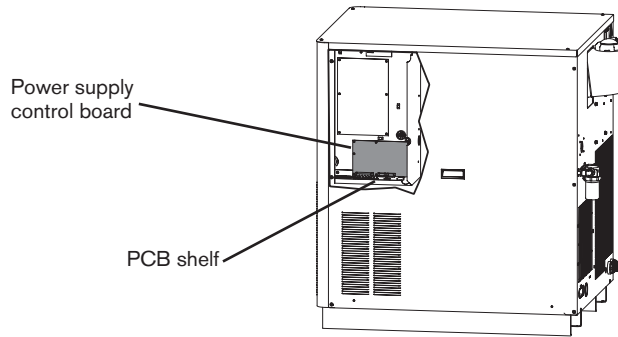


Old power supply control board (041909)



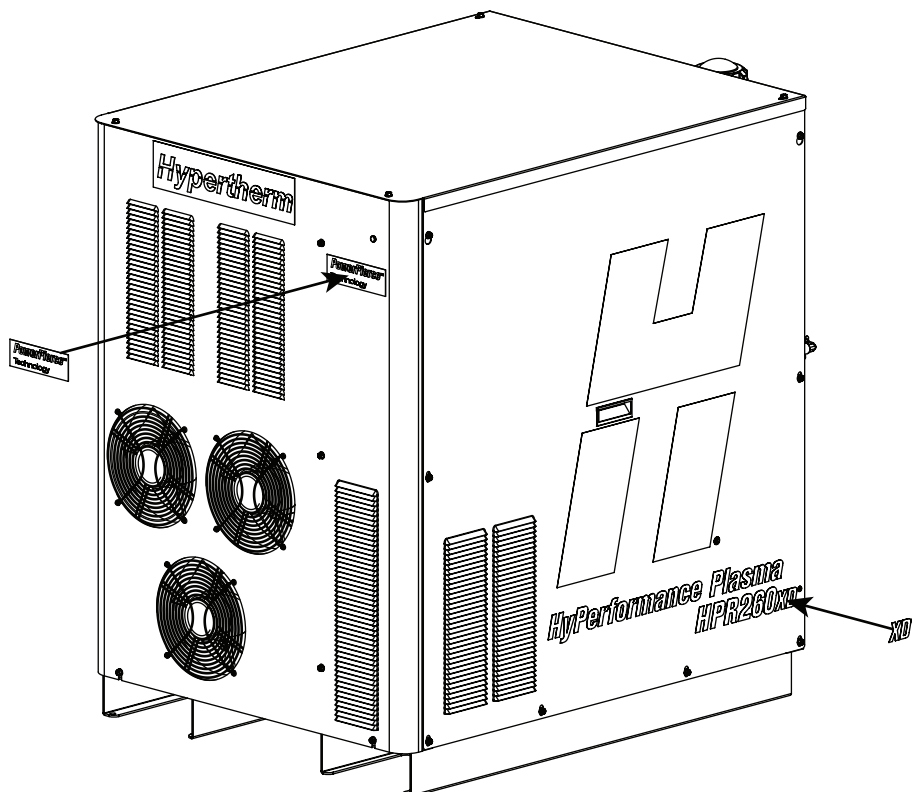
New power supply control board (041993)

Power supply control board installation



HPR130 and HPR260 control board location

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 and HPR260.
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 (041909) from the power supply.
5. Install the new, properly configured, control board (041993) in the power supply, reinstall the 4-40 standoffs, and plug in all the connectors.
6. Replace the right side panel and install the labels supplied in this kit on both side panels and the front panel of the power supply. The labels are an important way for the user, and any technical service representatives, to know that the system has been upgraded to an XD system.
7. No gas console changes are required for manual gas systems.

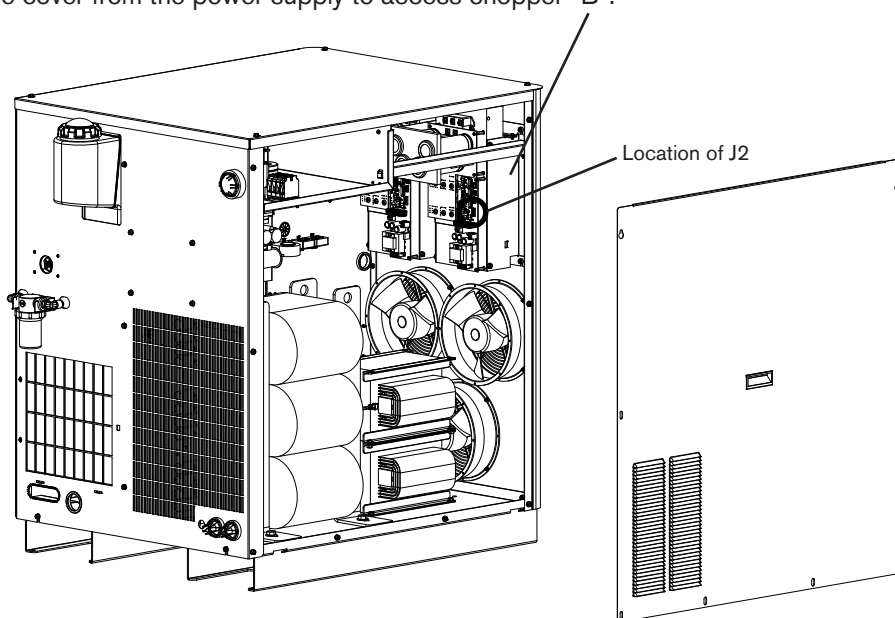


Install the chopper wire group (HPR260 only)

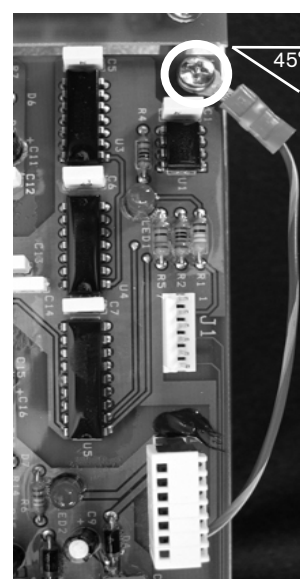
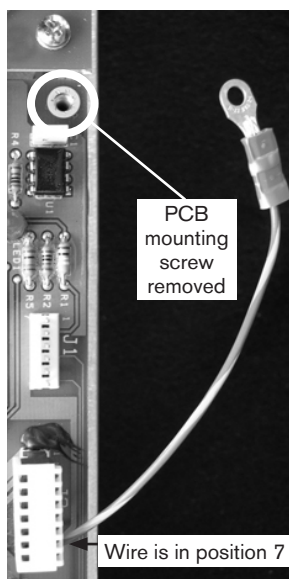
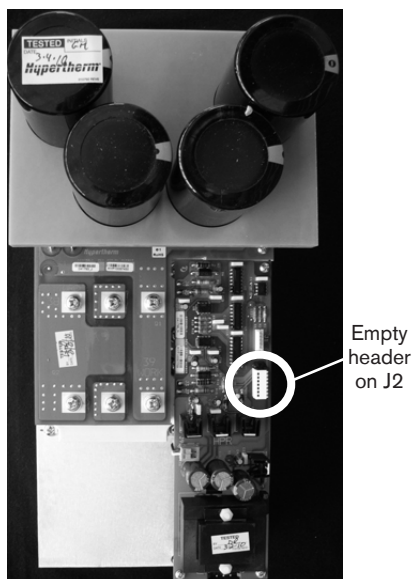


Caution: Failure to install this wire group in an HPR260 power supply can result in damaged to the chopper.

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

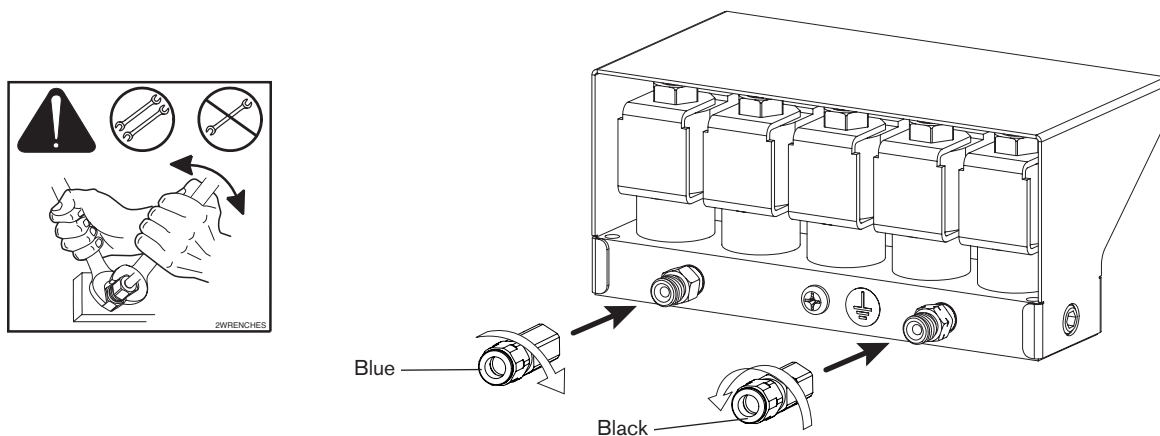


3. Remove the empty header (plug with no wires) from receptacle J2 on the chopper.
4. Install the new wire group (229386) on J2 and remove the PCB mounting screw.
5. Secure the ring terminal to the PCB at a 45 degree angle, using the screw removed in step 4.



Install the off-valve adaptors (manual gas systems only)

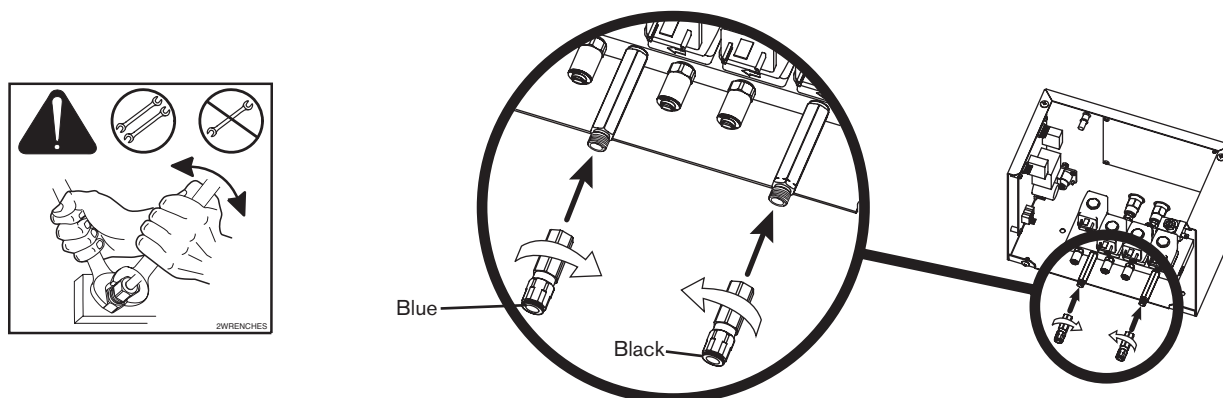
1. Turn OFF all power to the system.
2. Remove the cover from the off-valve.
3. Use 2 wrenches to install the adaptors as shown below. 1 has right hand threads and the other has left hand threads.
4. The new torch leads can now be used with the off-valve.



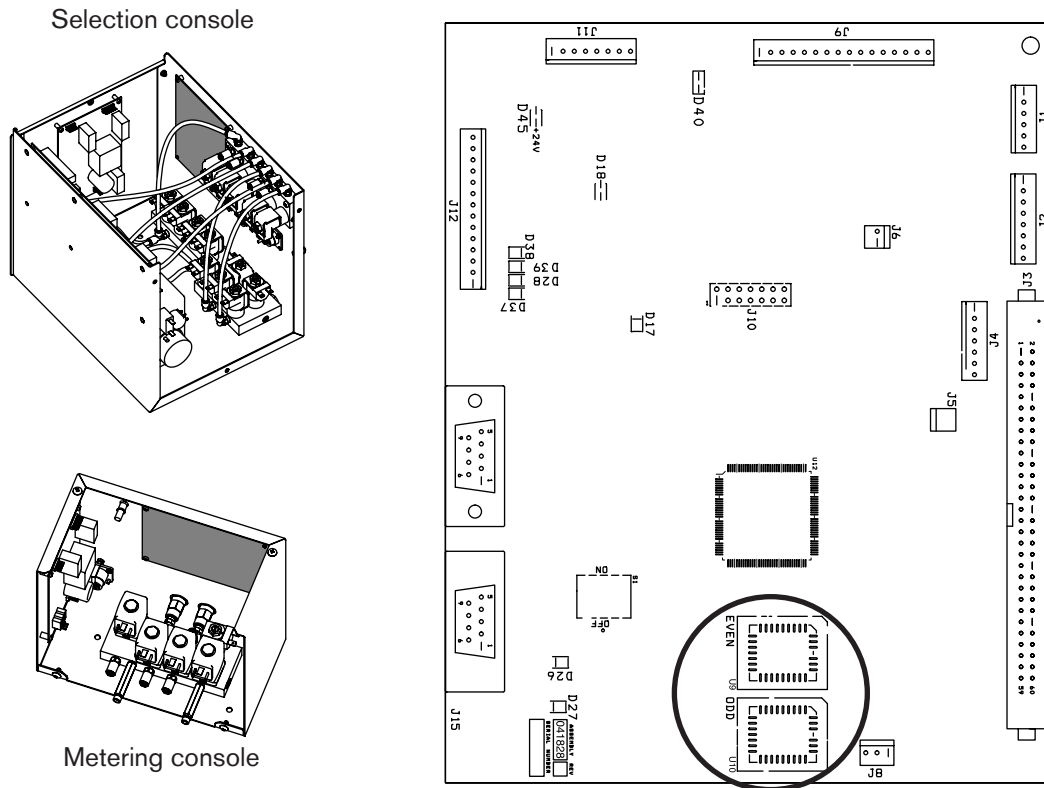
Update the selection and metering consoles (auto gas systems only)

Install the metering console adapters

1. Turn OFF all power to the system.
2. Remove the cover from the metering console.
3. Use 2 wrenches to install the adapters as shown below. 1 has right hand threads and the other has left hand threads.
4. The new torch leads can now be used with the metering console.

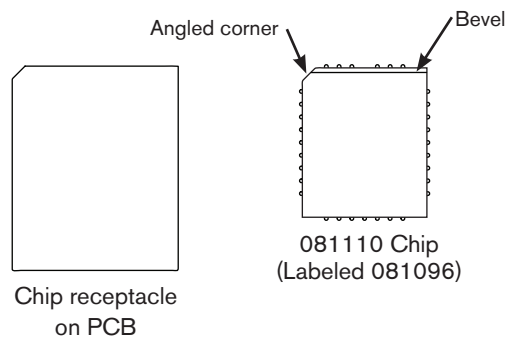


Update the firmware



1. Turn OFF all power to the system.
2. Remove the covers from the selection console and the metering console to access the control PCB (see figure above).
3. Remove the even (U9) and odd (U10) chips from the boards using the extraction tool (027338) provided in this kit.
4. Install the new chips 081110 (labeled 081096) onto the control board.

NOTE: Make sure the chips are oriented correctly before installation. There is a bevel on the top edge of each chip and the upper left corner is angled (see figure below).



5. Replace the covers and turn ON the power. The system will be idle while the software code is being updated. The update process may take up to 1 minute to complete. The system may show a "watchdog interlock" error after the update. Turn the power OFF and then ON to clear the error.

Install the new torch and lead set

See the appropriate HPR XD manual for detailed instructions for torch and lead installation.

Install the new selection console (optional)

See the appropriate HPR XD manual for detailed instructions for selection console installation.

Important Note:

The cut charts must be updated to take advantage of XD capabilities.

Contact your cutting table manufacturer for auto gas systems.

Use the cut chart settings in the appropriate HPRXD manual for manual gas systems.

The HPR XD instruction manuals can be accessed online at:

<https://www.hypertherm.com/Xnet/library/DocumentLibrary3.jsp>

Hard copies of the manuals can also be ordered by calling

603.643.3441 ext. 1294 – literature fulfillment or email literature.

request@hypertherm.com.

Part number	Description
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806320	HPR130XD Manual Gas
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806330	HPR130XD Auto Gas
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806340	HPR260XD Manual Gas
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806350	HPR260XD Auto Gas
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