

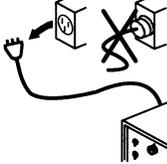
***HyPerformance™ HD4070® Upgrade
HD4070
Field Service Bulletin***

804910 – Revision 2 – November, 2005

Hypertherm®

*The world leader in
plasma cutting technology™*

Hypertherm, Inc.
*Etna Road, P.O. Box 5010
Hanover, NH 03755 USA
603-643-3441 Tel 603-643-5352 Fax
www.hypertherm.com*

		<p>WARNING ELECTRIC SHOCK CAN KILL</p>
 <p>Disconnect electrical power before performing any maintenance. All work requiring removal of the power supply cover must be performed by a qualified technician. See <i>Section 1</i> of the Operator Manual for more safety precautions.</p>		

Introduction

Purpose

Describes necessary steps to upgrade the system firmware, cutchart database, the display software and the torch and leads.

Kit 128943 contents

Part Number	Description	Qty
128909	Disks for firmware upgrade	
081056	Firmware: HD4070 Upgrade	1
081101	Firmware: HPR/HD4070 Main System	1
081098	Firmware: HPR/HD4070 Display	1
081099	Firmware: HPR/HD4070 Cutchart Files	1
228048	HPR Machine Torch with extended sleeve	1
128890	Leads: HPR torch with HD4070 lead 1.8 m (6 ft)	1
804900	Instruction manual: HPR HD4070	1
110526	Decal: CH4/F5	1
110527	Decal: HPR HD4070 (left and right side of power supply)	2
110528	Decal: HPR HD4070 (front of power supply)	1
104119	Tool: HPR consumables	1
805110	FSB: HPR HD4070 upgrade customer reply form	1
027647	Floppy disk drive: 3 1/2" 1.44 MB	1

Kit 128944 contents

This kit includes all the parts listed in kit 128943 except it has a 3 m (10 ft) lead set, P/N - 128891.

Kit 128945 contents

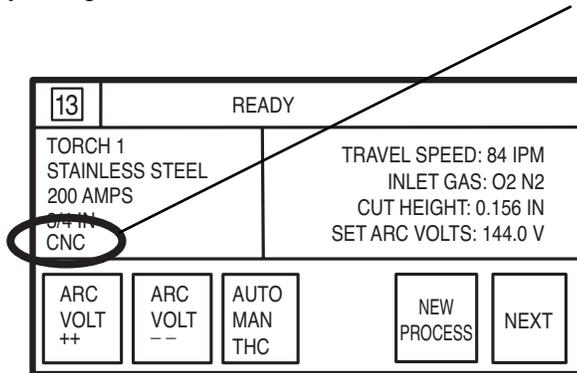
This kit includes all the parts listed in kit 128943 except it has a 4.5 m (15 ft) lead set, P/N - 128892.

Determine the CNC interface

IMPORTANT: If your HD4070 system is serially interfaced to a CNC, contact the CNC manufacturer or OEM before continuing with this installation to ensure compatibility with the upgrade kit.

How to check for serial interface

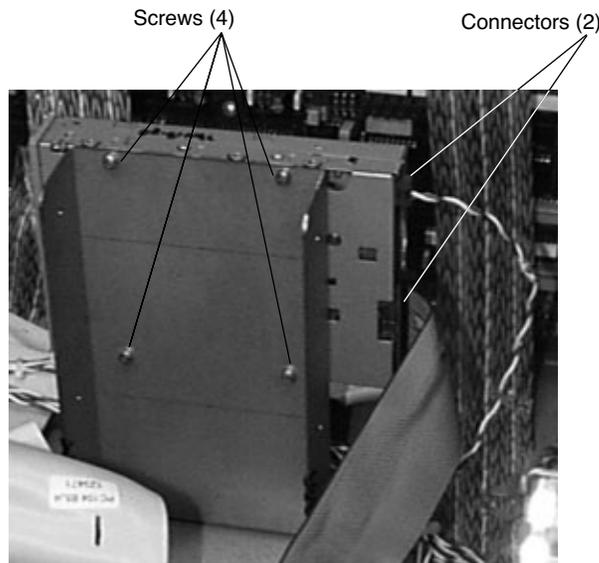
If your HD4070 does not have a touch screen display the system is serially interfaced. If the system does have a touch screen display, navigate to screen number 13 and look for "CNC". See example below.



Note: If you have any problems during this upgrade contact Hypertherm Technical Service at 1-800-643-9878.

Disk drive replacement

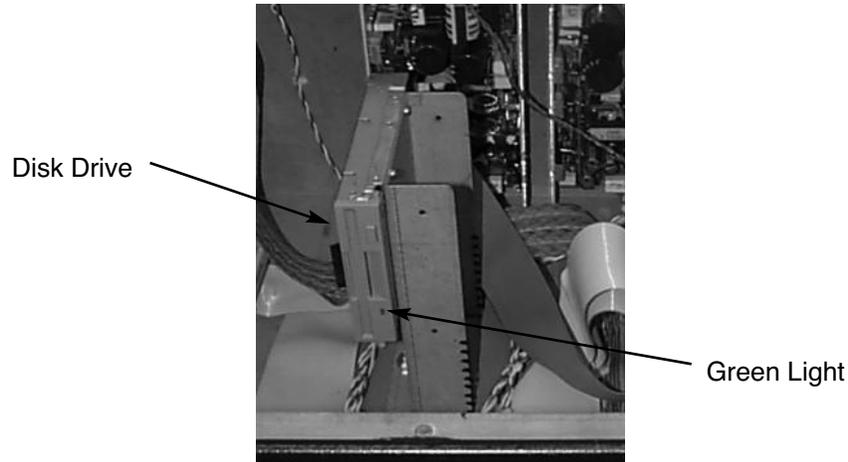
1. Turn OFF all power to the system.
2. Remove the 2 connectors from the back of the disk drive. See figure below.
3. Remove and save the 4 screws that hold the disk drive to the bracket.
4. Install the new disk drive using the 4 screws removed in step 3
5. Insert the 2 connectors into the new disk drive



Note: The door interlocks must be satisfied when any panel is removed from the power supply. If the display says “door interlock” at any time during the upgrade, the fault must be corrected before the upgrade will continue. See Error Codes in the *maintenance* section of the HyPerformance HD4070 instruction manual (804900) for more information.

HPR HD4070 system software upgrade

1. Turn OFF all power to the system.
2. Remove the top cover of the power supply.
3. Insert system upgrade disk 1 (081056; installation disk) into the disk drive (see figure below).



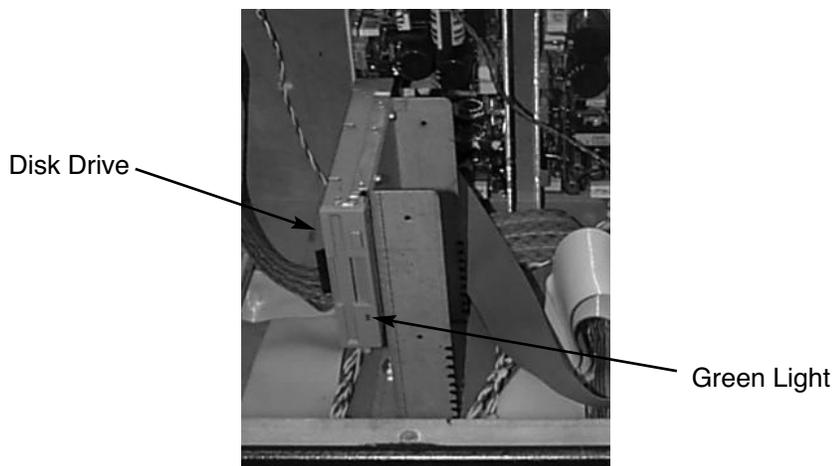
4. Turn ON the power supply, with the top cover interlock satisfied. The system will take about 30 seconds to read disk 1. The touch screen display will say “insert source floppy then hit enter” when the update is finished. The update is complete when the disk stops running and the green light on the disk drive extinguishes.
5. Remove system upgrade disk 1 from the disk drive.

Note: If the update is not complete after 1 minute the disk drive is not working properly and should be replaced. See disk drive replacement on page 4. Start the update again at step 1 after replacing the disk drive.

6. Insert system upgrade disk 2 (081101, “source disk”) and press “ENTER” on the display. The system will take about 30 seconds to read disk 2. The display will say “updating files”. When the upgrade is complete, the display will say “remove floppy and repower the system”.
7. Remove system upgrade disk 2 from the disk drive.

Cutchart Upgrade

1. Turn OFF all power to the system.
2. Insert cutchart database upgrade disk (081099; installation disk) into the disk drive (see figure below).



3. Turn ON the power supply, with the top cover interlock still satisfied. The PC starts to run and automatically copies over the necessary files. This will take about 30 seconds.
4. The update is complete when the disk stops running and the green light on the disk drive extinguishes.
5. Turn OFF the power, and remove the disk.

Display Upgrade

1. With all power to the system still OFF, insert the Display Upgrade disk (081098; installation disk) into the disk drive.
2. Turn ON the power supply, with the top cover interlock still satisfied. The PC starts to run and automatically copies over the necessary files. The display will say HD4070 at the start of the update. The screen will go blank for a short period of time during the update. The display will say "HyPerformance HD4070" when the update is complete. This will take about 4 minutes.
3. The update is complete when disk stops running and the green light on the disk drive extinguishes.
4. Turn OFF the power and remove the disk.

Replace torch and leads

See the *installation section* of the HyPerformance HD4070 manual (804900) included in this kit for instructions.

Perform a test cut

Perform one or more test cuts to ensure proper system performance.

HD4070 System Reinstallation

If it becomes necessary to revert to the original HD4070 settings you will need the following part numbers from kit # 128709.

- 081056 – Disk 1 of 2: HD4070 system upgrade
- 081059 – Disk 2 of 2: HD4070 system upgrade
- 081058 – Disk 1 of 1: Display upgrade

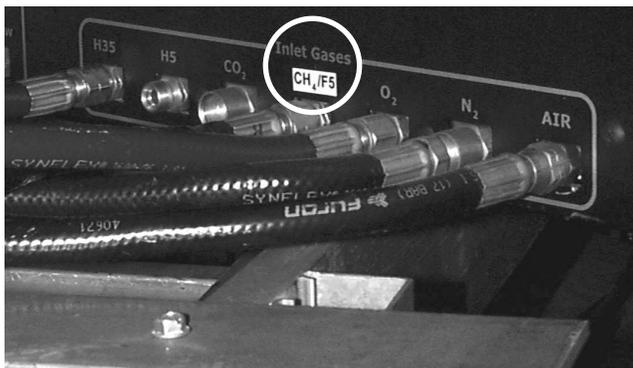
1. Turn OFF all power to the system.
2. Install the original torch and leads.
3. Remove the top cover of the Power Supply.
4. Insert Disk 1 of 2 (081056) into the disk drive.
5. Turn ON the power supply, with the 3 interlocks satisfied. The upgrade will start and the touch Screen display will instruct the user to insert disk 2.
6. Insert Disk 2 of 2 (081059) and press ENTER on the display. When the display indicates the upgrade is complete, turn OFF the power supply.
7. Insert the display upgrade disk (081058) into the disk drive.
8. Turn ON the power supply, with the 3 interlocks satisfied. The PC starts to run and automatically copies over the necessary files.
9. Update is complete when the disk stops running, (green light goes out).
10. Turn OFF the power, remove the disk, replace the cover and turn ON the power.

Note: Custom processes will also be reloaded.

Decal placement

It is very important that all the decals are attached in the appropriate places when this upgrade is completed. The decals provide Hypertherm with technical information that will be required if you need to contact technical service.

1. Place decal (110526) on the rear panel of the gas console as shown.



2. Place decals (110527) on the right and left side of the power supply. Left side shown.



3. Place decal (110528) on the front panel of the power supply as shown.
4. Fill out and return the customer reply card.

HPR HD4070 upgrade checklist

1. Disk drive (027647) replaced

2. System upgrade disk 1 (081056) and system upgrade disk 2 (081101) installed

3. Cutchart database update disk (081099) installed

4. Display upgrade disk (081098) installed

5. New torch (228048) and lead (128890, 128891 or 128892) installed

6. Test cut(s) performed

7. Decal placement
 - Gas console decal (110526) installed

 - Left and right side power supply decals (110527) installed

 - Front panel power supply decal (110528) installed

8. Discard the original HD4070 manual

9. Customer reply card filled out and mailed

© Copyright 2005 Hypertherm, Inc.
All Rights Reserved

Hypertherm, HD4070 and HyPerformance are trademarks of Hypertherm, Inc.
and may be registered in the United States and/or other countries.