

# ***MAXPRO200*** ***Gas Manifold Replacement***

**Field Service Bulletin**

**807730 – Revision 0 – May 2013**

***Hypertherm***<sup>®</sup>

**Hypertherm, Inc.**

Etna Road, P.O. Box 5010

Hanover, NH 03755 USA

603-643-3441 Tel (Main Office)

603-643-5352 Fax (All Departments)

info@hypertherm.com (Main Office Email)

**800-643-9878 Tel (Technical Service)**

technical.service@hypertherm.com (Technical Service Email)

**800-737-2978 Tel (Customer Service)**

customer.service@hypertherm.com (Customer Service Email)

**866-643-7711 Tel (Return Materials Authorization)**

**877-371-2876 Fax (Return Materials Authorization)**

return.materials@hypertherm.com (RMA email)

**Hypertherm Plasmatechnik GmbH**

Technologiepark Hanau

Rodenbacher Chaussee 6

D-63457 Hanau-Wolfgang, Deutschland

49 6181 58 2100 Tel

49 6181 58 2134 Fax

**49 6181 58 2123 (Technical Service)**

**Hypertherm (S) Pte Ltd.**

82 Genting Lane

Media Centre

Annexe Block #A01-01

Singapore 349567, Republic of Singapore

65 6841 2489 Tel

65 6841 2490 Fax

**65 6841 2489 (Technical Service)**

**Hypertherm (Shanghai) Trading Co., Ltd.**

Unit 301, South Building

495 ShangZhong Road

Shanghai, 200231

PR China

86-21-60740003 Tel

86-21-60740393 Fax

**Hypertherm Europe B.V.**

Vaartveld 9

4704 SE

Roosendaal, Nederland

31 165 596907 Tel

31 165 596901 Fax

31 165 596908 Tel (Marketing)

**31 165 596900 Tel (Technical Service)**

**00 800 4973 7843 Tel (Technical Service)**

**Hypertherm Japan Ltd.**

Level 9, Edobori Center Building

2-1-1 Edobori, Nishi-ku

Osaka 550-0002 Japan

81 6 6225 1183 Tel

81 6 6225 1184 Fax

**Hypertherm Brasil Ltda.**

Rua Bras Cubas, 231 – Jardim Maia

Guarulhos, SP - Brasil

CEP 07115-030

55 11 2409 2636 Tel

55 11 2408 0462 Fax

**Hypertherm México, S.A. de C.V.**

Avenida Toluca No. 444, Anexo 1,

Colonia Olivar de los Padres

Delegación Álvaro Obregón

México, D.F. C.P. 01780

52 55 5681 8109 Tel

52 55 5683 2127 Fax

**Hypertherm Korea Branch**



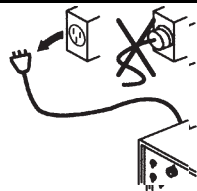
#3904 Centum Leaders Mark B/D,

1514 Woo-dong, Haeundae-gu, Busan

Korea, 612-889

82 51 747 0358 Tel

82 51 701 0358 Fax

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

## Introduction

### Purpose

This Field Service Bulletin explains how to replace the gas manifold in the MAXPRO200 power supply.

### Kit contents 428034 contents

Part number	Description	Quantity
229473	Gas manifold	1

### Required tools and materials

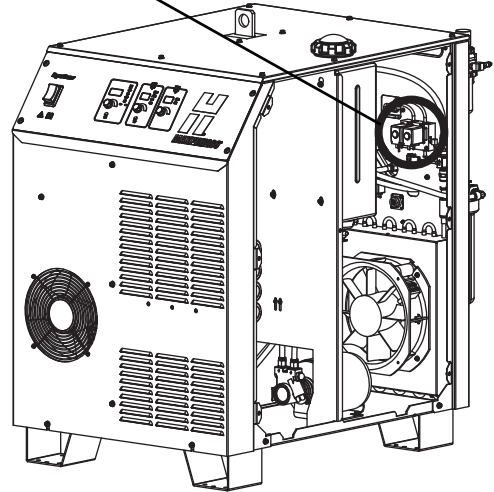
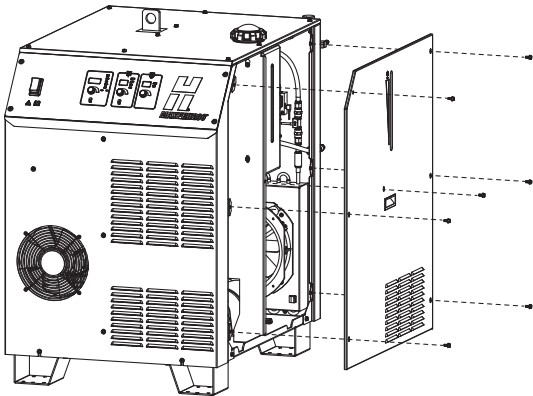
- Number 1 phillips screwdriver
- Number 2 phillips screwdriver
- Blade Screwdriver

### Turn OFF all supply gases at the source

With the supply gases OFF, turn ON the power to the system. The system will show error code 044 for low plasma gas pressure or 053 for low shield gas pressure and will not advance from status 002 (gas purge). Turn OFF the power again. This will open the inline valve and release any remaining pressure in the plasma gas line.

### Remove right-side panel

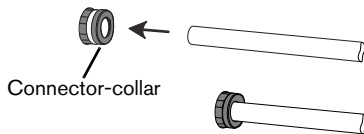
1. Turn OFF power to the system. Disconnect line power by turning OFF the main disconnect switch. Make sure the switch on the power supply operator panel is in the OFF position.
2. Turn OFF all supply gases.
3. Use a 3/8 inch wrench to remove the side panel screws. Locate the gas manifold.



### Push-to-Connect fittings

The gas hose connections use push-to-connect fittings.

- To make a connection, push the hose fitting into the connector until it stops.



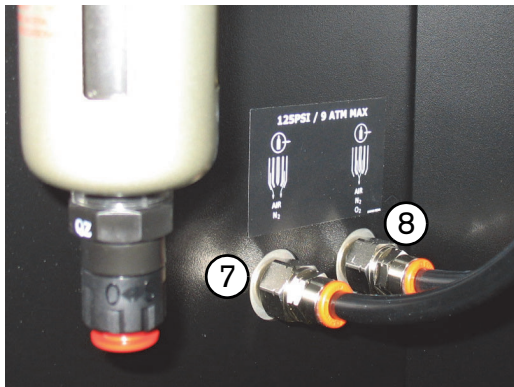
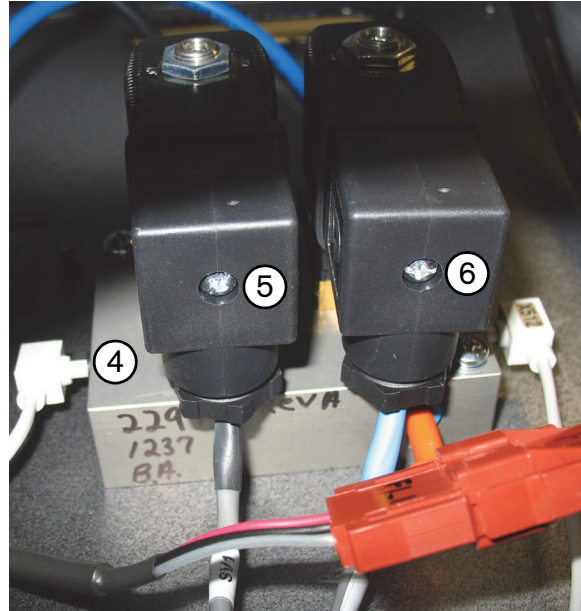
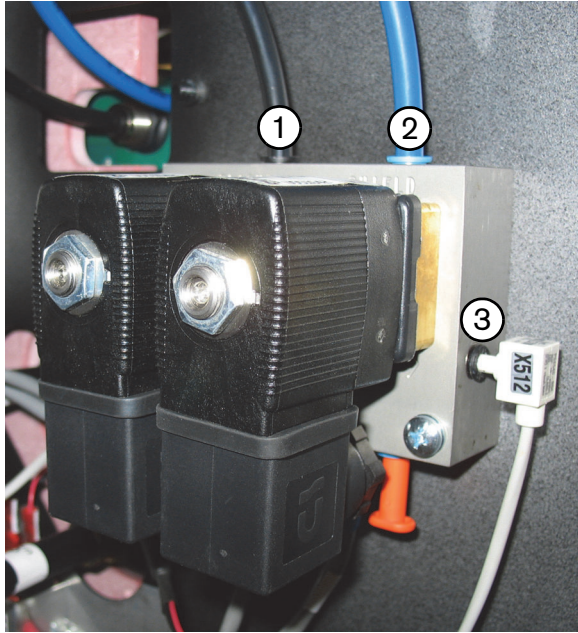
- To disconnect a fitting, push the connector-collar toward the fitting, hold the collar in place and pull the hose away from the fitting.



## Remove the connections to the gas manifold

Using the following photographs, disconnect the hoses and wires from the gas manifold. Each hose and connection is identified in the table.

**Note:** It is possible that there will still be trapped pressure in the gas lines that will be released when you remove the hoses. This is normal.



Number	label	Description
1	PLASMA	Outgoing plasma gas hose connection to the gas manifold
2	SHIELD	Outgoing shield gas hose connection to the gas manifold
3	P2	Pressure transducer for the shield gas
4	P1	Pressure transducer for the plasma gas
5	SV1	Solenoid valve controlling the plasma gas
6	SV2	Solenoid valve controlling the shield gas
7		Incoming shield gas hose (on the exterior of the rear panel)
8		Incoming plasma gas hose (on the exterior of the rear panel)

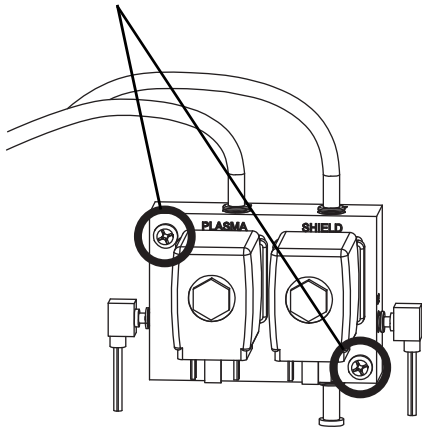
## Gas Manifold Replacement

---

1. Disconnect the plasma gas and the shield gas hoses from the gas manifold (number 1 and 2 in the pictures).
2. Disconnect the plasma gas and the shield gas pressure transducers from the gas manifold (number 3 and 4 in the pictures).

**Note:** Use a blade screw driver to press the push-to-connect collar against the gas manifold

3. Label the plasma connector before removal and use a number 1 phillips screw driver to remove the screws that secure the connectors to the solenoid valves (number 5 and 6 in the pictures). Unplug the connectors from the solenoid valves.
4. Disconnect the plasma and shield gas hoses from the connectors on the outside of the rear panel (number 7 and 8 in the pictures).
5. Remove the screws (2) that secure the gas manifold to the rear panel and remove the old gas manifold. Save the screws you removed for use when installing the new gas manifold.



## Install the new gas manifold

1. Use the 2 screws that you removed in the previous step to secure the new gas manifold to the rear panel of the power supply.
2. Reconnect all cables, hoses, and connectors to the new gas manifold. Use the table on page 3 as a guide to identifying the cables, hoses, and connectors.
3. Turn ON the supply gases and check for leaks at the connection points.
4. Replace the right-side panel.
5. Reconnect the line power by turning ON the main disconnect switch.