Hypertherm®

H401/H601

Feedback Circuit PCB Replacement

Field Service Bulletin P/N 804410

Revision 0 – January, 2002

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Introduction

Purpose

Describes necessary steps to replace the feedback PCB (P/N 040233) in an H401or H601 power supply.

Contents

Part Number	Description
040233	Feedback PCB

Qty 1

Procedure

- 1 Disconnect all power to the power supply. Leave old PCB in the power supply until instructed to replace it.
- 2 Remove screws from the panel on the front of the machine, see below. Pull panel forward to access PCB. Remove left side panel to access shunts.



3 – Visually confirm that wires from shunt match the schematic in the instruction manual (800410). Polarity must be maintained: Wire #109 is connected from the inductor side of the shunt to terminal #9 on the PCB and wire # 110 is connected from the output side of the shunt to terminal #10 on the PCB.





H401

4 – Check signal from shunt using a digital voltmeter, with Old PCB still installed.

Black lead to terminal #4 on the feedback PCB Red lead to test point A (R20) on the feedback PCB While cutting at 400 Amp output the reading should be approximately:

- +1V (positive) for the H601
- +2V (positive) for the H401

If the reading is -1V or -2V (negative) then switch wires on terminals 9 and 10 to reverse polarity.



Installation

1 – Locate the dipswitch (S1) on the new PCB and set the switches to the proper setting. See table and figures below.



H401 setting



Switch	H401	H601
S1-1	OFF	ON
S1-2	OFF	ON
S1-3	OFF	OFF
S1-4	OFF	OFF





- 2 Before removing old PCB, mark each wire with the appropriate terminal number.
- 3 Remove old PCB.
 - A Push panel back towards power supply
 - B Remove right side access panel (not shown)
 - C Remove screws (2) from back end of PCB





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- 3 Remove old PCB (continued).
 - D Pull panel forward
 - E Disconnect wires from terminals
 - $\mathsf{F}-\mathsf{Remove}$ screws (2) from front end of PCB
- 4 Install new PCB (reverse procedure in step 3).