

HT40C/100

Insulation Cutting Option

Field Installation Bulletin
801520 - Rev. 0

HYPERTHERM[®]


HT40C/100
Insulation Cutting Option

Field Installation Bulletin
IM-152
(P/N 801520)

Revision 0 February 1992

HYPERTHERM, Inc.
P.O. Box A-10 Etna Road
Hanover, New Hampshire 03755
(603) 643-3441

Hypertherm Offices Worldwide:

Hypertherm, Inc.

Etna Road, P.O. Box 5010
Hanover, NH 03755 USA
Tel.: (603) 643-3441 (Main Office)
Fax: (603) 643-5352 (All Departments)
Tel.: (800) 643-9878 (Technical Service – toll-free in USA and Canada)
Tel.: (800) 737-2978 (Customer Service – toll-free in USA and Canada)
email: info@hypertherm.com (General Information)
email: service@hypertherm.com (Technical/Customer Services)

Hypertherm Plasmatechnik GmbH

Technologiepark Hanau
Rodenbacher Chaussee 6
D-63457 Hanau-Wolfgang, Germany
Tel.: 49 6181 58 2100
Fax: 49 6181 58 2134

Hypertherm (S) Pte Ltd

No. 19 Kaki Bukit Road 2
K.B. Warehouse Complex
Singapore 417847
Tel.: 65 841 2489
Fax: 65 841 2490

Hypertherm UK Ltd

9 Berkeley Court, Manor Park
Runcorn, Cheshire, England WA7 1TQ
Tel.: 44 1928 579 074
Fax: 44 1928 579 604

France

15 Impasse des Rosiers
95610 Eragny, France
Tel.: 33 1 30 37 15 28
Fax: 33 1 30 37 15 79

Hypertherm S.r.L.

Via Torino 2
20123 Milan, Italy
Tel.: 39 02 725 46 312 (Customer Service)
Tel.: 39 02 725 46 314 (Technical Service)
Fax: 39 02 725 46 400 (All Departments)

Hypertherm B.V.

Burg, Haverkampstraat 13
7091 CN Dinxperlo, The Netherlands
Tel.: 31 315 655 866 (Customer Service)
Fax: 31 315 655 886

European Technical Support Organization (ETSO)

Edisonstraat 12
3281 NC Numansdorp, The Netherlands
Tel.: 00 800 4973 7843 (00 800 Hypertherm) – (toll-free Technical Service)
Tel.: 31 186 659494
Fax: 31 186 659495

Japan

Shinjuku Park Tower
30th Floor
3-7-1 Nishi-Shinjuku
Shinjuku-ku, Tokyo
163-1030, Japan
Tel.: 81 03 5326 3142
Fax: 81 03 5326 3001

HT40C/100 INSULATION CUTTING RETROFIT

In this section:

Purpose	2
General	2
Customer Required Tools	2
Hypertherm Parts.....	2
Insulation Cutting Option Kit	2
Recommended Parts for Insulation Cutting	3
Retrofit Procedure.....	3

HT40C/100 INSULATION CUTTING RETROFIT

Purpose

The purpose of this field installation bulletin is to provide instructions to retrofit the HT40C power supply for optional operation in non-transferred mode.

General

With an electrical modification and attachment of MAX100 torch and leads, the HT40C is capable of cutting fiberglass insulation. In a non-transferred mode, the arc is made between the electrode and the nozzle (pilot arc) rather than between the electrode and the workpiece (transferred arc).

Customer Required Tools

- Regular head and Phillips-head screwdrivers
- .169" and .500" drill bits
- Electric drill
- Pencil

Hypertherm Parts

The format to list and call out Hypertherm parts is as follows:

Part No.	Description
XXXXXX	Bold heading indicates parent item or kit containing one or more items.
XXXXXX	Indented item in normal type indicates a part contained under the parent item or kit.
XXXXXX	Indented bold heading indicates subassembly under parent item that also contains one or more items.

Insulation Cutting Option Kit

Part No.	Description	Qty.
028504	Insulation cutting option kit	1
003021	Relay, 120VAC NO SPST	1
005044	SW TG SPDT SC TM MNT ON/ON	1
075078	M/S, 8-32 X 5/8, PH, PAN	2
075159	Keprnut, 8-32, S/Z	2
010521	Sw PI/Dr Templ: HT40C Insul	1
801520	HT40C/100 Insulation cutting Field Installation Bulletin	1
029654	Loose wire GP: HT40C Insul Ctg	1

HT40C/100 INSULATION CUTTING RETROFIT

Recommended Parts for Insulation Cutting

Part No.	Description	Qty.
028494	Torch assy, MAX100-40A Machine	1
028326	Leads, Torch, MAX100 25' Shld	1
028330	Leads, Torch, MAX100 35' Shld	1
028327	Leads, Torch, MAX100 50' Shld	1
028493	Kit, Cons Parts MAX100-40A	1
001067	Box:Gra Plstc	1
015111	Adapt, 1/4 NPT X 'B' LH Inert	1
020191	Electrode, Air MAX100/PAC130	10
020194	Swirl ring, MAX100/PAC130	2
020203	Nozzle, STD 40A MAX100	10
020333	Deflector MAX80/MAX100	2
020336	Cap, Shld 80A/100A MAX100	1
026018	O-Ring, Silcn	5
027055	Lubricant, Silcn, 1/4 Oz tube	1
027102	Wrench, Elec. MAX100, 3/8" nut	1



WARNING!



Extremely dangerous voltages are present in the HT40C power supply. Be certain that all power to the power supply is disconnected before attempting any retrofit work as described below.

Retrofit Procedure

To install the insulation cutting option on your HT40C, refer to Figures 1 and 2, and proceed as follows:

1. Disconnect all power to the HT40C power supply and cutting machine.
2. Using a Phillips-head screwdriver, remove the six (6) screws that secure the back panel.
3. Cut out the drill template for switch and relay as described on page 7 and punch out the hole centers with a pencil.

HT40C/100 INSULATION CUTTING RETROFIT

4. Take the template and align to left side of HT40C power supply as shown in Figure 1. Make marks with a pencil through the 3 holes on to the power supply.
5. Remove the template and drill the two smaller holes using a .169" drill bit. Deburr holes. Be certain to clean any metal particles out from the inside of the power unit.
6. Drill the one larger hole using a 1/2" drill bit. Deburr holes. Be certain to clean any metal particles out from the inside of the power unit.
7. Push the switch from the inside of the power supply through the 1/2" hole and secure with provided hardware.
8. Line up the relay from the inside of the power supply to the two .169" holes. Secure with the two 8-32 screws and nuts provided with the kit.
9. Attach the cable marked 44 from the new relay (2CR) to the existing relay (1CR) as shown in Figure 2.
10. Attach the cable marked 46 from the new relay (2CR) to the work cable location as shown in Figure 2.
11. Attach the wire marked 4 from the new relay (2CR) to terminal 4 of 1TB as shown in Figure 2.
12. Attach the wire from the bottom terminal of the switch marked 2 to terminal 2 of 1TB as indicated in Figure 2.
13. Attach the wire from the middle terminal of the switch to the new relay (2CR) as indicated in Figure 2.
14. Remove the existing torch and leads from the HT40C and the cutting machine.
15. Route and attach the new (MAX100) torch and leads exactly where the old leads were routed and attached.
16. Take the decal provided with the kit and place over the new switch.
17. Power up the HT40C and verify that the toggle switch closes the relay when in the insulation cutting "ON" position (continuous pilot-arc mode).
18. Turn off power and replace the rear cover using the six Phillips-head screws.

Installation is now complete.

HT40C/100 INSULATION CUTTING RETROFIT

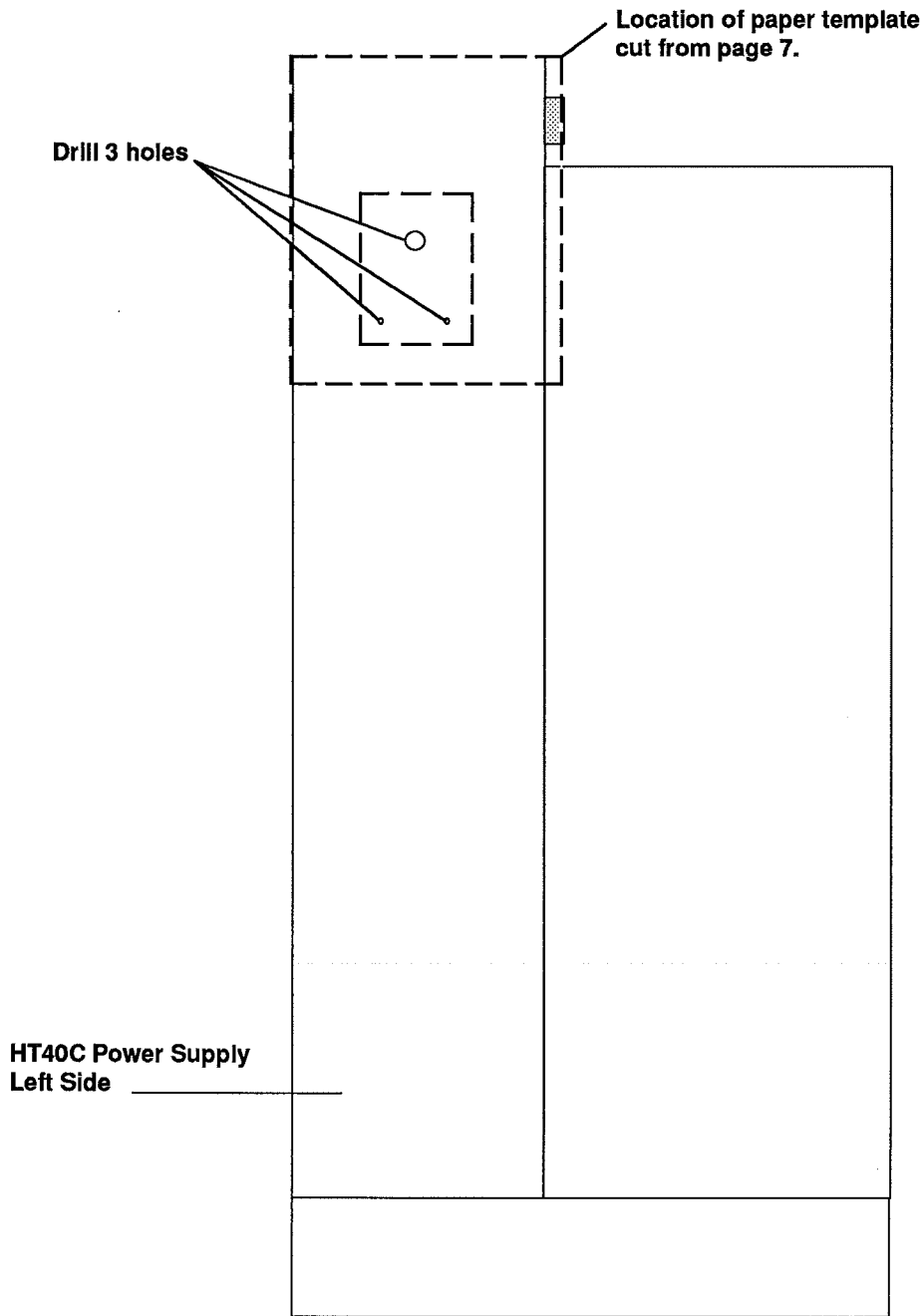


Figure 1 - Location of Template for Hole Drilling

HT40C/100 INSULATION CUTTING RETROFIT

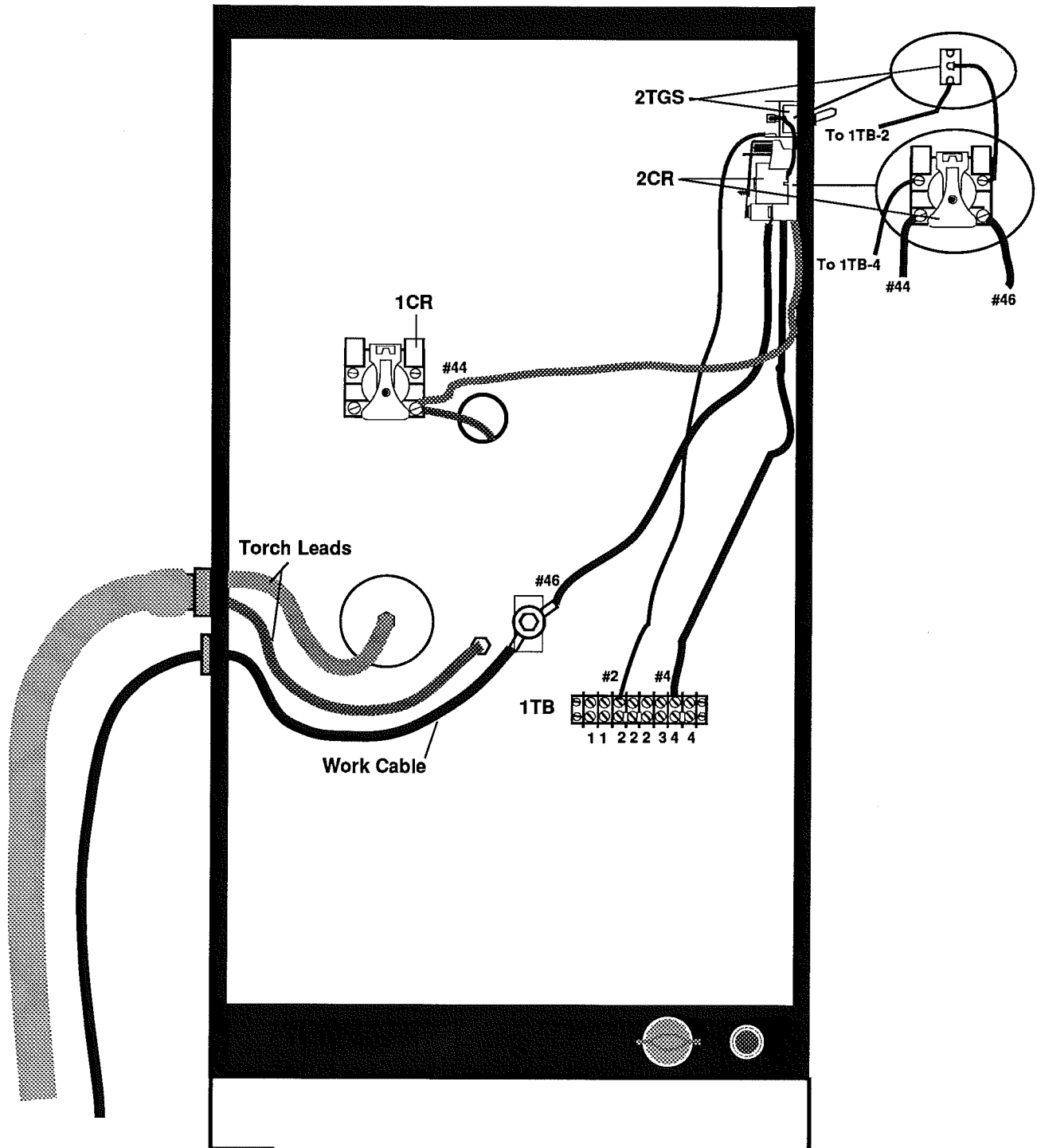


Figure 2 - HT40C Internal Connections

HT40C/100 INSULATION CUTTING RETROFIT

Cut along heavy lines and align with top left side of HT40C power supply.
See Figure 1 for approximate location of template.

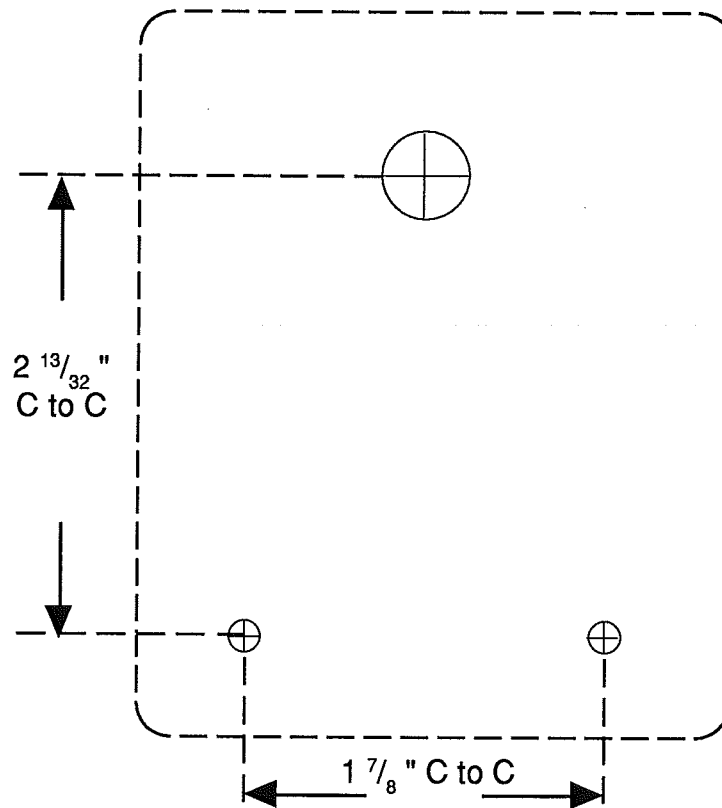


Figure 3 - Drill Template for Switch and Relay