

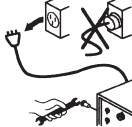


# ***MicroEdge and Omnicom Motherboard Replacement***

**Field Service Bulletin**

***806670 – Revision 0 – June 2010***

***Hypertherm®***

		<b>WARNING</b> <b>ELECTRIC SHOCK CAN KILL</b>
	<b>Engage the emergency Stop button on the CNC and disconnect electrical power before performing any maintenance.</b>	

Introduction

Purpose

This FSB describes the steps for replacing the motherboard in the MicroEdge and Ominicom CNCs.

Materials and tools

No. 2 Phillips screwdriver

Kit 228559 contents

Part number	Description	Qty
PCBS-0124	PCB: Motherboard	1
CABL-0277	Cable: 20C/24C Motherboard power 10"	1
CABL-0279	Cable: PS_ON, 24 ", Ominicom	1
CABL-0281	Cable: PS_ON, 10.5", MicroEdge	1
806670	FSB: MicroEdge and Ominicom Motherboard Replacement	1

### Remove the motherboard

Before you begin to remove the motherboard, take careful notes about the position and orientation of all cables as you disconnect them.

1. To open the front panel, remove the 6 screws that secure the top and bottom of the panel. Open the panel.
2. Unplug the cables on the motherboard.
3. Carefully remove the 512 MB DRAM module and set it aside so it can be reinstalled on the new motherboard.
4. Remove all the hardware that secures the PCBs to the motherboard.
5. Unplug cables to the PCBs.
6. Slide the PCBs from their connectors on the motherboard.
7. Remove the 6 screws that secure the motherboard to the subchassis.
8. Lift the motherboard out of the enclosure.

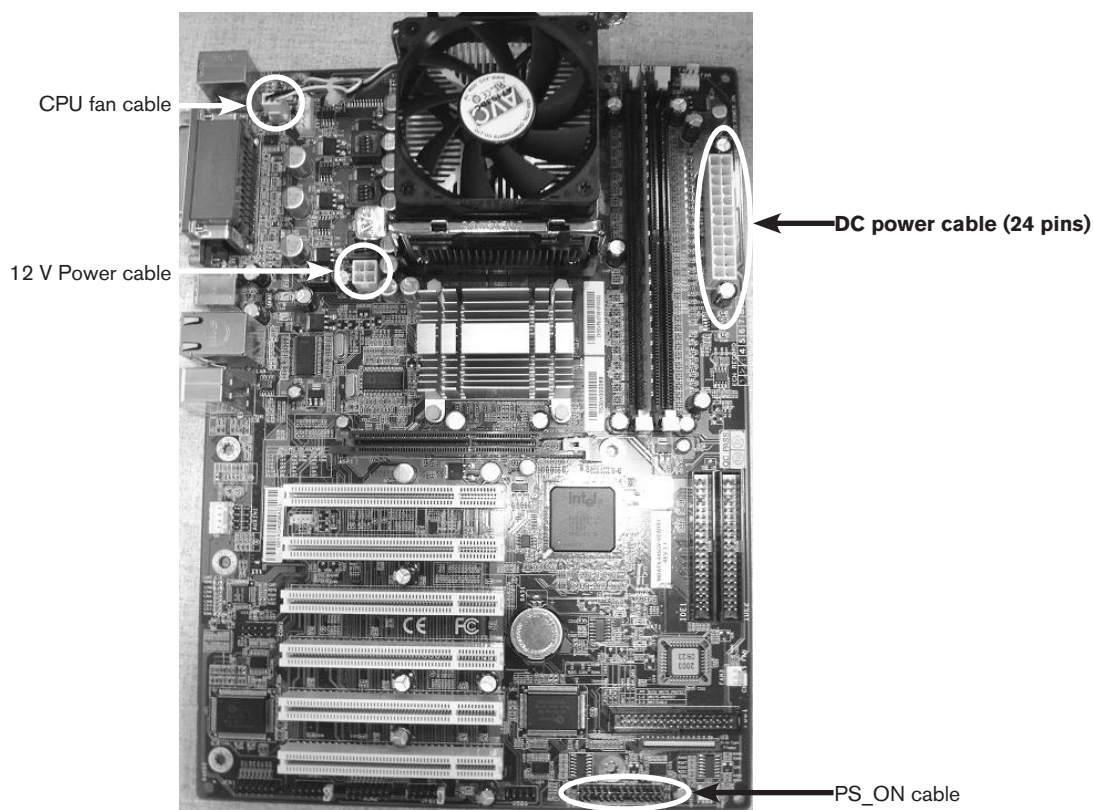
### Install the new motherboard

1. Remove the new motherboard from the packaging.
2. Align the mounting holes in the motherboard with the standoffs on the subchassis.
3. Refasten the screws to the standoffs.
4. Insert the PCBs into the appropriate slots on the motherboard.
5. Reconnect the PCB fasteners and cables you removed earlier.

### Replace cables

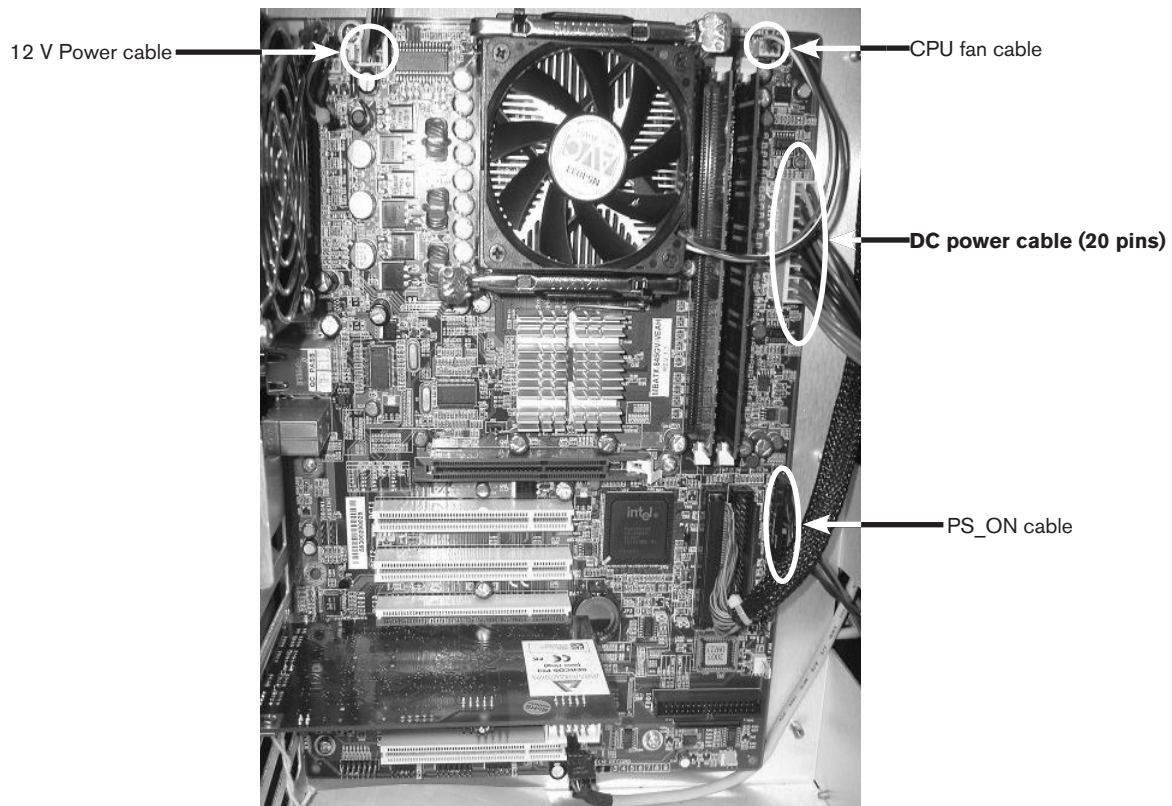
The cables that you connect to the new motherboard depend on the type of DC power cable that was used on the motherboard you removed.

To discover which cables to use, look at the DC power cable connector on the old motherboard. If it has 24 pins, you can use all the original cables on the new motherboard. Note, however, that the location of the connectors is different on the new motherboard. Refer to the following illustration for details.



**Motherboard with 24-pin DC power cable connector**

If the DC power cable connector on the old mother board has 20 pins, as shown below, you must use the DC power (CABL-0277) and PS\_ON (CABL-0281 or CABL-0279) cables that are supplied in this kit. Refer to *MicroEdge installation* or *Omnicom installation* for details.

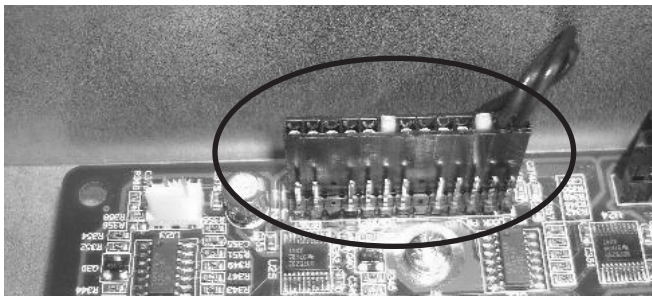


**Motherboard with 20-pin DC power cable connector**

### MicroEdge installation

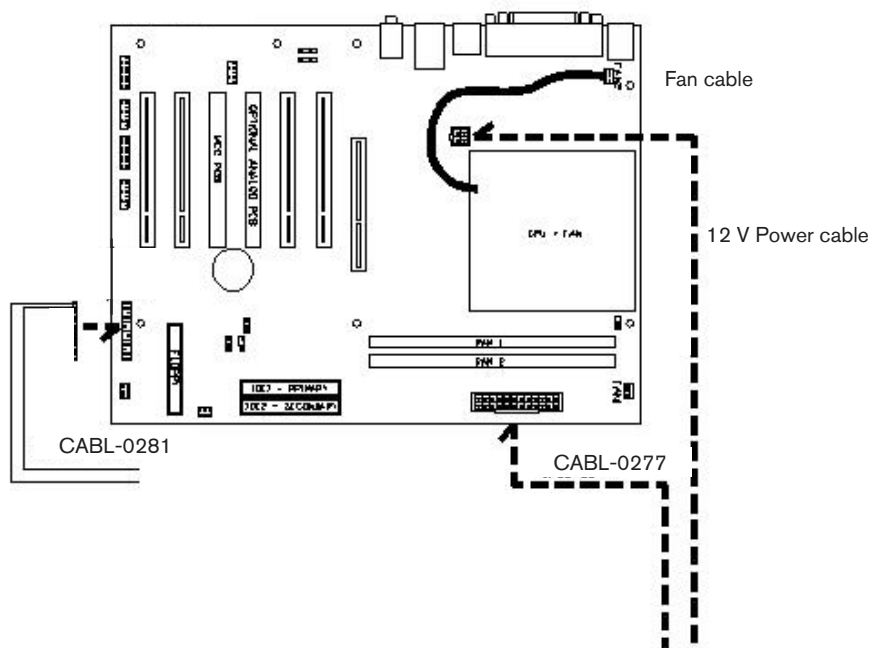
If you are replacing the motherboard in a MicroEdge CNC and the DC power cable connector on the old motherboard has 20 pins, use the following instructions to replace cables and DRAM module on the new motherboard. Refer to the wiring diagram for details about cable routing and connectors.

1. Connect the DC power cable (CABL-0277) from this kit to the DC power connector on the motherboard.
2. Connect the PS\_ON cable (CABL-0281) from this kit to pins 12 and 13, next to the edge of the motherboard on the PS\_ON connector.



**Location and orientation of the PS\_ON cable connector in an MicroEdge installation**

3. Connect the 12 V power cable and the CPU fan cable that you removed from the old motherboard to the appropriate connectors on the new motherboard.
4. Install the 512 MB DRAM module that you removed from the old motherboard.

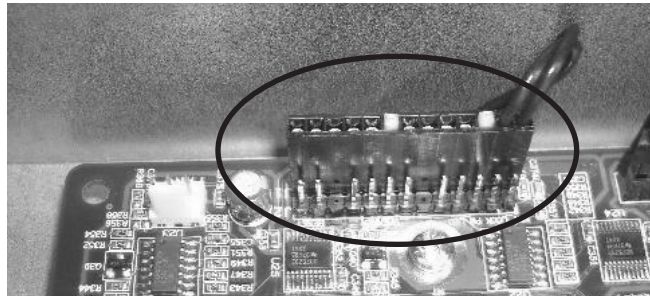


**MicroEdge motherboard wiring**

## Omnicom installation

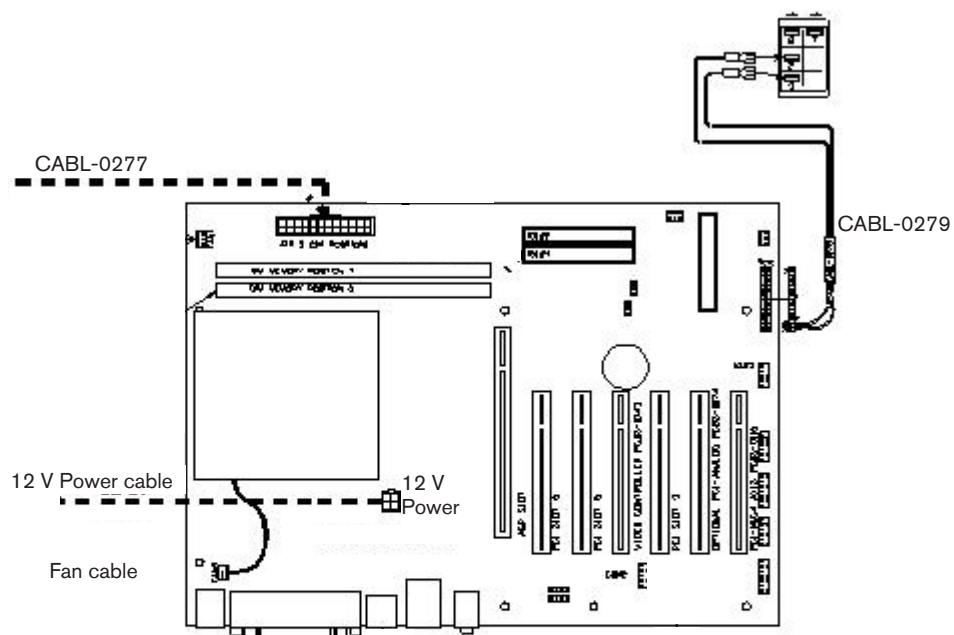
If you are replacing the motherboard in an Omnicom CNC and the DC power cable connector on the old motherboard has 20 pins, use the following instructions to replace cables and DRAM module on the new motherboard. Refer to the wiring diagram for details about cable routing and connectors.

1. Connect the DC power cable (CABL-0277) from this kit to the DC power connector on the motherboard.
2. Connect the PS\_ON cable (CABL-0279) from this kit to pins 12 and 13, next to the edge of the motherboard on the PS\_ON connector.



**Location and orientation of the PS\_ON cable connector in an Omnicom installation**

3. Connect the 12 V power cable and fan cables that you removed from the old motherboard to the appropriate connectors on the new motherboard. Refer to the wiring diagram below.
4. Install the 512 MB DRAM module that you removed from the old motherboard.



**Omnicom motherboard wiring**

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