

Basic troubleshooting

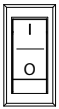
The following sections provide an overview of the most common problems that may arise when using this system and explains how to solve them.

If you are unable to fix the problem by following this basic troubleshooting guide or if you need further assistance:

1. Call your Hypertherm distributor or authorized Hypertherm repair facility.
2. Call the nearest Hypertherm office listed in the front of this manual.



Power LED faults



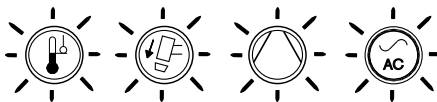
The ON/OFF power switch is set to ON (I), but the power ON LED does not illuminate.

- ❑ Make sure the power cord is plugged into the receptacle.
- ❑ Make sure the power is on at the main power panel or at the disconnect-power switch box.
- ❑ Make sure the line voltage is not too low (more than 15% below the rated voltage).



The power ON LED blinks.

- ❑ Have an electrical technician check the incoming power. The input line voltage is either too high or too low (a variance greater than $\pm 15\%$ of the rated voltage). See *Hypertherm system ratings* on page 17 and *Prepare the electrical power* on page 25.



All four LEDs blink when the system is powered ON.

- ❑ A qualified service technician must service the system. Contact your distributor or use the information in the front of this manual to contact Hypertherm Technical Service.



Temperature LED faults



The temperature LED illuminates while the machine is powered ON.

- ❑ The system overheated. Leave the system on to allow the fan to cool the power supply.
- ❑ If the system's internal temperature approaches -30°C (-22°F), the temperature LED may illuminate. Move the system to a warmer location.



The temperature LED blinks while the machine is powered ON.

- ❑ Leave the system on to allow the fan to cool the power supply. The temperature LED blinks when the system continuously draws too much input current for too long. Try the following to prevent this condition:
 - Turn down the cutting current. See *Step 3 – Adjust the output current* on page 43.
 - Operate the system on a 240 VAC input circuit whenever possible.
 - Avoid stretching the arc. Drag the torch on the workpiece. See *Edge start on a workpiece* on page 50.
 - Operate the system without using an extension cord. If you must use an extension cord, use a heavy conductor cord of the shortest possible length. See *Extension cord recommendations* on page 29.
 - Make sure nothing else is drawing power on the same circuit.



Internal compressor LED faults



The internal compressor LED and the temperature LED illuminate while the machine is powered ON.

- ❑ The internal compressor may have overheated. Allow the power supply to cool for 4 minutes before using it again. (See *Understand duty-cycle limitations* on page 46.)

When the internal compressor overheats, the compressor and temperature LEDs remain illuminated for 4 minutes.



The system does not prevent you from firing the torch before the 4 minutes elapses. However, if you begin cutting before the compressor has time to fully cool down, the same fault is likely to occur again.

- ❑ Place the power supply right-side up on a level surface. Laying the power supply on its side can prevent proper air circulation needed to cool internal components. It can also cause the air filter to divert air away from the torch.
- ❑ Inspect and replace the consumables if they are worn or damaged. Always replace the nozzle and electrode together. See *Inspect the consumables* on page 55.
- ❑ Was the system stored in temperatures below freezing? If so, ice might have formed inside the power supply. Move the power supply to a warmer location to allow the ice to melt.
- ❑ If none of these troubleshooting steps resolves the issue, a qualified service technician must service the system. Contact your distributor or use the information in the front of this manual to contact Hypertherm Technical Service.



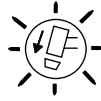
The internal compressor LED and the temperature LED blink alternately when the machine is powered ON.



- ❑ Release the trigger and restart the power supply. The system automatically disables itself when the power supply is turned on while the torch trigger is pulled.



Torch LED faults



The torch cap LED illuminates or blinks while the machine is powered ON.

- ❑ Inspect the torch lead. If it is twisted or kinked, straighten it out and try to fire the torch again.
- ❑ Turn OFF (O) the power supply. Make sure the consumables are properly installed and tightened. See *Step 1 – Install the consumables* on page 41.
- ❑ If the consumables became loose or were removed while the power supply was ON, turn OFF (O) the power supply, correct the problem, and then turn ON (I) the power supply to clear the fault.
- ❑ If the consumables appear to be installed correctly, the torch may be damaged. Contact your Hypertherm distributor or authorized repair facility.



The internal compressor, temperature, and power ON LEDs blink, and the torch cap LED illuminates.

- ❑ Install new consumables in the torch (they may be corroded or approaching end of life).
- ❑ If you continue to see this error, contact your Hypertherm distributor or authorized repair facility.

Common cutting issues

Problem	Solution
The circuit breaker trips while you are cutting.	<ul style="list-style-type: none"> ▪ Turn down the cutting current. See <i>Step 3 – Adjust the output current</i> on page 43. ▪ Operate the system on a 240 VAC input circuit whenever possible. ▪ Avoid stretching the arc. Drag the torch on the workpiece. See <i>Edge start on a workpiece</i> on page 50. ▪ Operate the system without using an extension cord. If you must use an extension cord, use a heavy conductor cord of the shortest possible length. See <i>Extension cord recommendations</i> on page 29. ▪ Make sure nothing else is drawing power on the same circuit.
The cut quality is poor.	<ul style="list-style-type: none"> ▪ Make sure the torch is being used correctly. See <i>Hand torch operation</i> on page 48. ▪ Make sure the correct consumables are installed. See <i>Consumable use</i> on page 33. ▪ Inspect the consumables and replace as necessary. See <i>Inspect the consumables</i> on page 55. ▪ Loosen the consumables about 1/8th of a turn and try again. ▪ Make sure the work lead connection is secure and there is no damage to the work lead. ▪ Operate the system without using an extension cord. If you must use an extension cord, use a heavy conductor cord of the shortest possible length. See <i>Extension cord recommendations</i> on page 29.
The torch does not cut completely through the workpiece.	<ul style="list-style-type: none"> ▪ Make sure the torch is being used correctly. See <i>Hand torch operation</i> on page 48. ▪ Inspect the consumables and replace as necessary. See <i>Inspect the consumables</i> on page 55.
The arc does not transfer to the workpiece.	<ul style="list-style-type: none"> ▪ Clean the area where the ground clamp contacts the workpiece to ensure a good metal-to-metal contact. ▪ Inspect the ground clamp for damage and repair it if necessary. ▪ Move the torch closer to the workpiece and fire the torch again. See <i>Hand torch operation</i> on page 48.
The arc blows out but re-ignites when the torch trigger is pulled again, or the arc sputters and hisses.	<ul style="list-style-type: none"> ▪ First, inspect the consumables for signs of moisture. If moisture is present, fire the torch approximately 5 times in succession. ▪ If the problem persists, inspect and replace the consumable parts if they are worn or damaged. See <i>Inspect the consumables</i> on page 55.