

Powermax® handheld reference guide



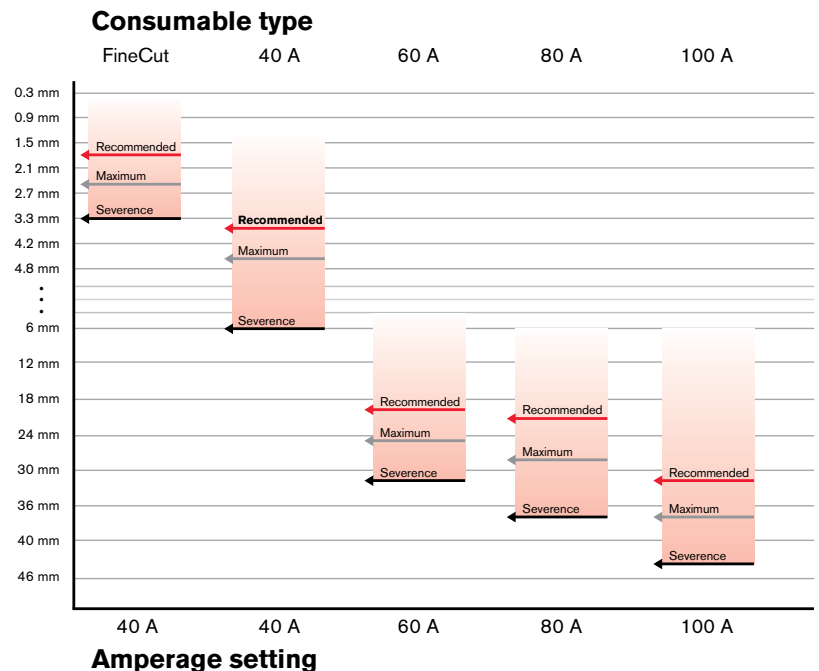
For handheld applications with Powermax1000, Powermax1250 and Powermax1650

This Powermax reference guide is a supplement to your Operator Manual and includes examples of edge cut quality and consumable wear. Always refer to your Operator Manual for detailed safety and operating instructions.

Step 1

Select appropriate consumables and amperage

- Once you have determined the thickness of the metal to be cut, use the chart to the right as a guide to determine the appropriate consumable type and amperage setting for optimum cutting. The chart provides general thickness ranges for cutting of mild steel. Refer to your Operator Manual for more details.



Step 2

Install appropriate consumables

- Once you have chosen an appropriate amperage setting from the chart in **Step 1**, use the pictures to the right to select the correct Powermax consumable parts and properly assemble your torch.

Shielded consumables – for drag-cutting

Unshielded consumables – for hard-to-reach areas, bevel cutting and better arc visibility

Gouging consumables – for metal-removal jobs

FineCut consumables – for high-quality cuts on thin metal – a clean edge and a narrow kerf

T60, T80, T100, RT60, RT80 consumables



		Shield/deflector	Retaining cap	Nozzle	Electrode	Swirl ring
Shielded	100 A	220065	220048	220011	220037	220051
	80 A	120929	120928	120927	120926	120925
	60 A			120931		
40 A			120932			
Unshielded*	100 A	120979	220048	220064	220037	220051
	80 A		120928	120980	120926	120925
	60 A			220007		
	40 A			220006		
Gouging	100 A	120977	220048	220063	220037	220051
	80 A		120928	220059	120926	120925
	60 A					
FineCut	40 A	120979 220325 CE†	120928	220329	120926	220327

* Unshielded consumables are not for handheld use in CE countries.

† For use in countries that require CE, CCC or GOST marks.

Powermax1650 – Use consumables up to 100 A
Powermax1250 – Use consumables up to 80 A
Powermax1000 – Use consumables up to 60 A

Step 3

Set the mode switch

- Ensure the **Mode switch** is set to the center position for plate/sheet metal cutting, or to the correct setting if you are cutting expanded metal or gouging.

Note: Refer to your operator manual for cutting, piercing, gouging, and unshielded application instructions.

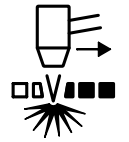


Expanded/punched metal



Mode switch up

Mode switch

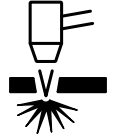


Plate/sheet metal*



Keep mode switch level

Mode switch



Gouging



Mode switch down

Mode switch



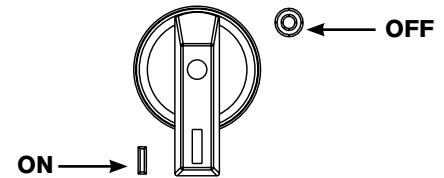
Step 4

Turn on the power

- Position the power switch to ON as shown.

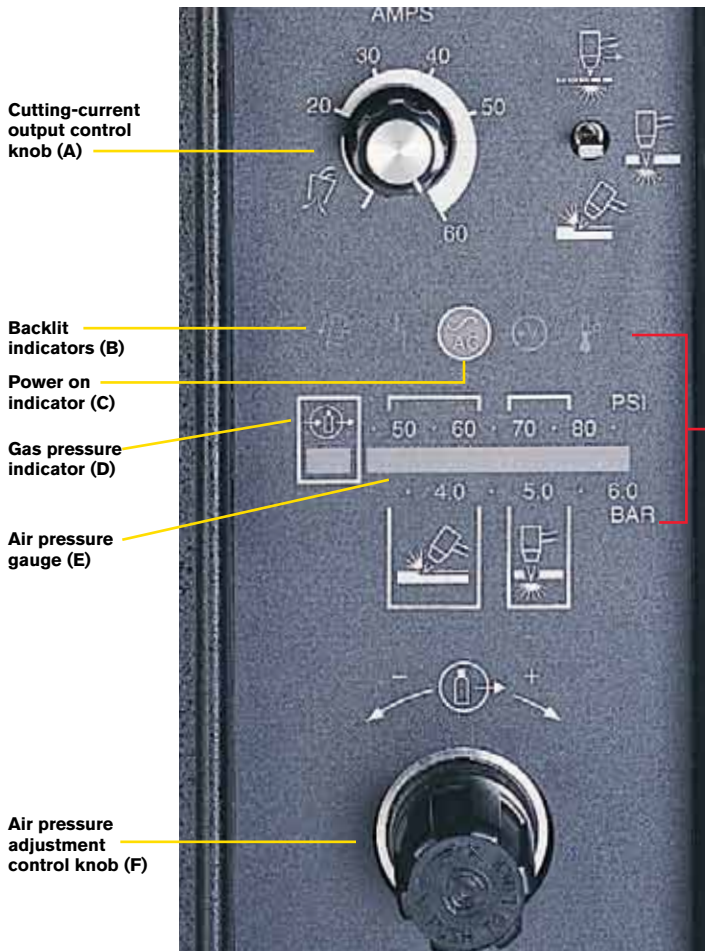
Note: The cooling fan is automatic and will only operate when needed.

- The power switch is found on the back of the system.






Step 5





Check indicator lights



Indicator light description

-  **Power ON indicator: Green**
When illuminated, indicates that power is applied to the system and the power switch is ON (I).
-  **Gas pressure indicator: Illuminated**
When illuminated, indicates that there is acceptable gas pressure for torch operation.
-  **Red fault indicator: Not illuminated**
If illuminated, indicates that a fault condition exists, which prevents system operation. A troubleshooting indicator should also be illuminated to identify the type of fault.

Troubleshooting indicators

-  **Gas pressure indicator: Flashing**
When flashing, indicates that the gas pressure is below 65 psig (4.5 bar) for cutting, or 40 psig (2.8 bar) for gouging.
-  **Temperature indicator**
When illuminated, indicates that the power supply temperature has exceeded its operating limit.
-  **Line voltage indicator**
When illuminated, indicates that line voltage is below 170 VAC, above 680 VAC, or missing a phase.
-  **Torch cap indicator**
When illuminated, indicates that the retaining cap is loose or not installed.

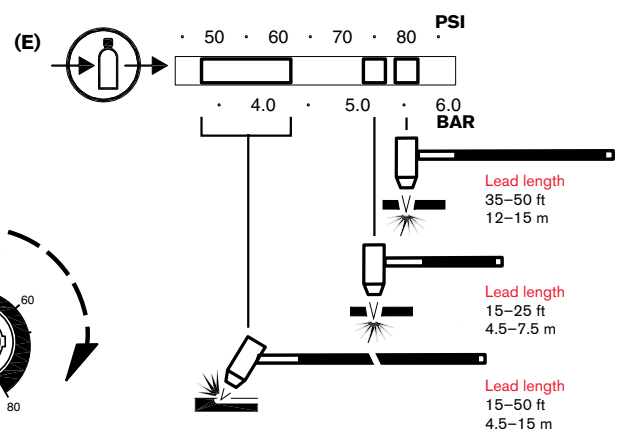
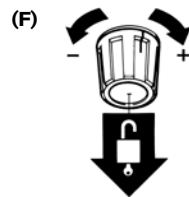
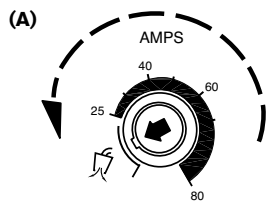
Note: These conditions must be corrected and the power turned OFF and then ON again to clear the troubleshooting indicator.

Step 6

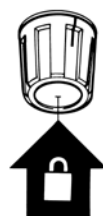
Adjust gas pressure and current setting

Refer to the picture in **Step 6**.

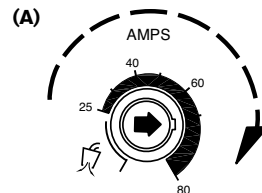
1. Set the **Cutting-current output control knob** to gas test.
2. Pull the **Air pressure adjustment control knob** to unlock it.
3. Set the **Air pressure gauge** for the torch lead length by adjusting the **Air pressure adjustment control knob (F)**. Gas pressure is dictated by lead length.



4. Push the **Air pressure adjustment control knob** to lock it.





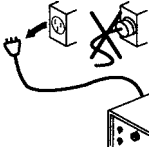
5. Set the **Cutting-current output control knob** to match the current you chose in **Step 1**.

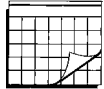


Step 7

Begin cutting

Maintenance schedule

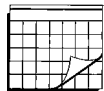
		WARNING ELECTRIC SHOCK CAN KILL
 <p>Disconnect electrical power before performing any maintenance. All work requiring removal of the power supply cover must be performed by a qualified technician.</p>		



Each week



Check the torch cap-on safety switch: be sure that red fault indicator and yellow torch cap indicator illuminate when the cap is loosened.



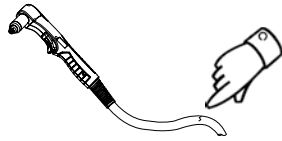
3 months



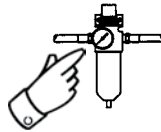
Replace damaged labels.



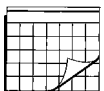
Replace power cord or plug if damaged.



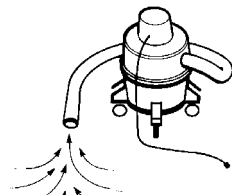
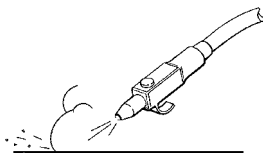
Replace torch lead if damaged.



Check the pressure hose, filter element, and connections for leaks.



6 months

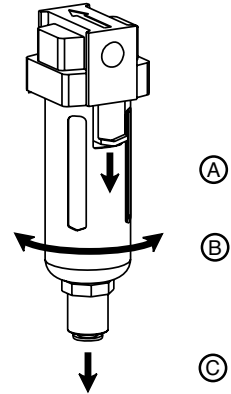


Clean the inside of the power supply with air pressure or vacuum.

Filter element replacement

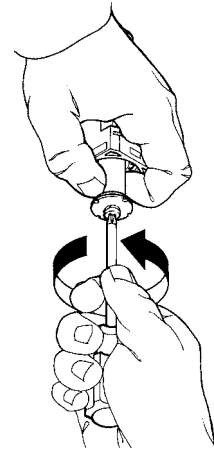
1. Disconnect the electrical power and gas supply. Remove the filter bowl.
 - A. Pull down on the black release tab and hold.
 - B. Rotate the filter bowl until it is released.
 - C. Pull the filter bowl down to remove it.

Note: Do not discard the o-ring.

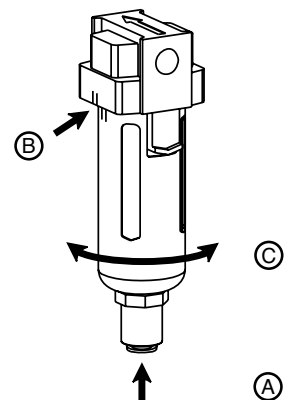


2. Remove the filter element from the filter housing.

Note: Do not allow the filter element to turn when loosening the screw.



3. Install the filter bowl.
 - A. Slide the filter bowl over the filter element.
 - B. Align the marks on filter bowl and filter body.
 - C. Rotate the filter bowl until it locks in place.



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