

## **MAG9003 Operating Instructions**

Tighten valves on three cylinders prior to filling. Cylinders are 3000 psi.

Ensure preset oxygen regulators are tight on cylinder valves after filling.

Connect Oxygen umbilical hose to oxygen outlet on center cylinder regulator.

Connect other end of oxygen hose to cutting torch.

Connect 24 volt ignition according to the color codes.

Large red cable with solenoid is 24 volt positive.

Large black cable is 24 volt negative.

Smaller black cable is 12 volt negative and for the switch on the ground clamp.

The other end of the umbilical connects as follows:

The positive cable connects to the ground clamp (straight polarity).

The negative cable connects to the torch.

The switch is wired as follows:

The positive small wire from the solenoid connects to one side of the switch.

The negative small wire from the case connects to the other side of the switch.

Battery wiring:

The battery is wired for both 12 and 24 volt so the solenoid operates with from one battery thus separating it from the 24 volt load while ignition takes place.

The battery is wired so that the charger will maintain both batteries.

Ignition:

Lighting the consumable is accomplished by pressing the button on the ground clamp. It takes 12 volts to close the solenoid. Closing the solenoid allows 24 volts to travel through it to the ground clamp. With the button depressed the positive ground clamp becomes live and is able to ignite the consumable placed in the torch. This is possible since the ground clamp is positive and the torch is wired negative. Bringing the torch consumable in contact with the ground clamp with the solenoid closed (switch depressed) allows the tip of the consumable to arc the full 24 volts. Thus, ignition takes place. The ground clamp has a striker plate attached in instances when the material to be cut is unable to supply a good ground. Otherwise, operators depress the

switch while touching the target material for ignition to take place. Bear in mind oxygen must be flowing through the consumable for ignition commence.

#### Charging:

Never discharge the batteries to the point of complete depletion.

Never store the ignition in a depleted state.

Always keep the float charger connected to the ignition when not in use.