

Welder - MIG

Description	Welder- Lincoln 256 PowerMIG
Size / Horse Power	30-300A DC output, 50A input
Power source	208v Single Phase
Uses	Welding of Steels, Aluminums, and Stainless Steels Together

Safety Precautions

Hazards
Electrical Shock
Burns- Hot materials/surfaces
Arc Flash Burns to Eyes and Exposed Skin
High Pressure Gases
Exposure to Gaseous Fumes from Welding Operation
Training
Shop Safety Fundamentals
Site Specific Training
Protective Equipment
Safety Glasses
Welding Helmet- Minimum shade of 9
Welding Gloves- free of damage, heat and flame resistant
Safety Toe Footwear- steel/composite toe or metatarsal
Welding Jacket or Sleeves
Pants and Shirts- Free of holes, shorts not allowed
Respirator/Forced Air Helmet or Weld Fume Extractor



Operation

Startup

1. Put on Safety Glasses
2. Uncoil the ground and weld gun cables and inspect for cuts or damage
3. Inspect the gauges and hose connected to the gas cylinder for damage or cuts
4. Ensure the safety chain is secured and taught around the gas cylinder
5. Turn on the gas cylinder and listen for leaks
6. Power on the welder by moving the power switch to the "ON" position
7. Adjust the Voltage, Wire Speed, and Gas Pressure to the recommended settings
 - a. A reference table is located on the inner face of the wire drive compartment door
8. Connect the ground cable to the work piece or designated grounding location on weld table
9. Put on PPE listed above
10. Position work pieces in a suitable location and height to perform welding
11. Lower weld helmet and weld away

Shutdown

1. Power off the welder by moving the power switch to the "OFF" position
2. Turn the gas cylinder off
3. Coil the ground and weld gun cables to the storage location on the welder

Changing Wire Roll or Gas Bottle

Changing Wire Roll

1. With the welder and gas cylinder off, open the wire drive compartment door to access the wire roll and feed rollers
2. Release the adjustable pressure arm and idler at the feed rollers
3. Remove the electrode tip from the weld gun and lay the weld gun cable out straight
4. Pull weld wire through weld gun cable from either direction to remove the wire from the cable and discard
 - a. If switching wire roll to another wire type, cut the end of the wire at the weld gun and remove the electrode
 - b. Slowly roll the wire back onto the wire spool while keeping the wire taught
 - c. Once the end of the wire is visible, attach it to the storage hole on the wire spool
5. Remove the retaining ring from the wire spool and pull empty spool off of the spindle
6. Remove packaging from new wire spool and install onto spindle ensuring the brake pin is aligned with the hole on the spool, reinstall the retaining ring
7. Locate the end of the wire on the new spool. While holding onto the wire, remove from the storage hole and cut the end of the wire to remove any bent wire
8. Feed the clean wire end into the guide bushing and over the feed rollers
9. Reengage the adjustable pressure arm and idler at the feed rollers
10. Power on the welder with the gas cylinder off and turn the feed rate to the highest setting
11. With the weld gun cable still straight, pull the trigger to feed the wire through the cable
12. Once the wire has fed through the weld gun cable, reinstall the electrode tip and trim any excess wire
13. Adjust the wire feed setting to the material needs and turn on the gas cylinder

Changing Gas Cylinder

1. Steel/composite toe footwear is required when handling gas cylinders
2. Ensure welder power is "OFF" and the gas cylinder valve is closed
3. Using the correct sized wrench, loosen the nut attaching the regulator valves to the gas cylinder
 - a. A small amount of gas may come out if the lines were not empty
4. Install the cylinder cap and thread on fully
5. If necessary, move the welder to a location that allows clear and easy access to the gas cylinder and platform
6. Remove the safety chain securing the gas cylinder to the welder
7. Remove the gas cylinder from the welder and complete the exchange process
8. To install a new gas cylinder, move the gas cylinder to the welder platform
9. Attach the safety chain around the cylinder and back to the welder
10. Remove the cylinder cap and set in a storage location
11. Inspect the valve and regulator for damage, oil, dirt/dust, or other debris before attaching regulator
 - a. If needed, while standing to the side of the port the cylinder can be briefly cracked open to remove dust or minor debris from the valve outlet port
12. Install the regulator with the correct sized wrench until secure
13. Turn the regulator valve counterclockwise until the spring pressure is released
14. While standing to the side of the outlet port, slowly open the gas cylinder valve and listen for any leaks. If none are present, open the valve until the pressure needle stops moving
15. Adjust the regulator valve to set the working pressure to the required setting

Maintenance

Storage	<ul style="list-style-type: none"> • Store cables on welder coiled in large diameter coils • The gas cylinder valve should be fully closed when not in use
Care	<ul style="list-style-type: none"> • Inspect weld gun and ground cables for damage • Clean and replace weld nozzles and electrodes as required
Accessories	<ul style="list-style-type: none"> • Two 110v outlets are available on the back of the welder with a 15A resettable fuse. The welder must be power on for outlets to be powered