# MODEL H8155
# MIG WELDER
## OWNER'S MANUAL



#LO9344 PRINTED IN CHINA

# ⚠ WARNING!

**This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.**

**Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.**

**The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.**

**The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.**

# ⚠ WARNING!

**Fumes created by welding, cutting, grinding, drilling, and other metal working activities may contain hazardous chemicals that can cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:**

- **Galvanized metal welding and cutting.**
- **Lead from lead-based paints.**

**Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those respirators that are specially designed to filter out microscopic particles and gases.**

# Table of Contents

# INTRODUCTION

## Foreword

We are proud to offer the Model H8155 MIG Welder. This machine is part of a growing Grizzly family of fine metalworking equipment. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

The specifications, drawings, and photographs illustrated in this manual represent the Model H8155 when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly.

For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

## Contact Info

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
C/O Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: http://www.grizzly.com

## Specifications

| | |
|---|---|
| Welding Current | 25–75A |
| Duty Cycle | 20% @ 75A |
| Duty Cycle | 45% @ 50A |
| Duty Cycle | 92% @ 35A |
| Duty Cycle | 100% @ 25A |
| Power Consumption | 20A @ 110VAC |
| Wire Size | 0.023"-0.035", 0.03" Flux Core |
| Spool Size | 4" diameter |
| Welding Capacity | 22 GA.–5/32" |
| Net Weight | 55 lbs. |

# SECTION 1: SAFETY

## ⚠WARNING

## For Your Own Safety, Read Instruction Manual Before Operating this Machine

**The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.**

**⚠DANGER** **Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.**

**⚠WARNING** **Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.**

**⚠CAUTION** **Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.**

***NOTICE*** **This symbol is used to alert the user to useful information about proper operation of the machine.**

## ⚠WARNING

## Safety Instructions for MIG Welders

1. **READ THIS MANUAL.** This manual contains proper operating and safety procedures for this equipment.

2. **WELDING FUMES.** Breathing welding fumes can cause suffocation or poisoning without warning. Keep your head out of welding fumes. Use adequate ventilation at the arc to safely remove the fumes from your breathing zone and the general area. Use ANSI approved respirators for the type of welding operation. Protect others from these fumes.

3. **WELDING IN A CONFINED SPACE CAN BE HAZARDOUS.** Always open all covers, sustain forced ventilation, remove toxic and hazardous materials, and provide a power disconnect to the welder inside the work space. Always work with someone who can give you help from outside the space. Welding can displace oxygen. Always check for safe breathing atmosphere and provide air-supplied respirators if necessary. Keep in mind that all normal welding hazards are intensified in a confined space.

# ⚠WARNING

4. **ELECTRIC SHOCK.** DO NOT touch live electrical parts. Connect welder to power source with approved earth ground. Make sure all electrical connections are tight, clean, and dry. Connect workpiece to approved earth ground. The work lead is NOT a ground connection and is to be used only to complete the working welding circuit.

5. **PREVENT FIRES.** Welding work zones must be kept clear of flammable liquids, such as gasoline and solvents; combustible solids, such as paper and wood; and flammable gases, such as acetylene and hydrogen. Provide approved fire barriers and fire extinguishing equipment for the welding zone. Stay alert for sparks and spatter thrown into cracks and crevices that can start a smoldering fire. Inspect the work area again one hour after welding for any potential fire hazards.

6. **PROTECT BODY FROM ARC BURNS, SPARKS, AND SPATTER.** Wear correct and approved eye, ear, and body protection. Wear complete body protection, such as clean and oil-free protective clothing, leather gloves, protective cap, heavy long-sleeve shirt, cuffless pants, and high leather boots. DO NOT wear jewelry or frayed clothing. Use a welding helmet with the correct shade of filter for the operation. Protect other people and property in your working zone from exposure to arc radiation, sparks, and spatter.

7. **WORKING AREA.** Keep working area clear of any material not involved in the welding operation. Keep all equipment, workpieces, and work surfaces clean, dry, and free of entanglements. Keep lead cables organized and away from your body.

8. **AVOID EXPLOSION HAZARD.** Never weld on closed containers or containers with fumes inside. Containers should be prepared per American Welding Society Publication F4.1, Section 7.

9. **HANDLING GAS CYLINDERS.** Regardless of content, pressurized gas cylinders can explode. Always secure a protector cap in place over the outlet valve assembly when moving the cylinder. A broken off valve could release the pressurized contents and cause the cylinder to be hurled about at dangerously high speeds, causing serious property damage, personal injury, or death. Always use safe methods when moving gas cylinders. Always secure a gas cylinder to a wall or approved cylinder cart with a chain before using or storing.

10. **PROTECT GAS CYLINDERS FROM HEAT OR DAMAGE.** An excess of heat can cause the pressurized gas to expand and explode the cylinder. Never weld on the gas cylinder. Damaging the outside of the cylinder can cause the cylinder to crack and explode. Exploding pressurized gas cylinders can cause serious property damage, personal injury, or death.

11. **ELECTRIC AND MAGNETIC FIELDS (EMF).** Welding operations create EMF around the welding equipment and workpieces. Workers who have pacemakers must consult with their physician before using this equipment or being within 50 feet of welding operations.

12. **EQUIPMENT MAINTENANCE.** Make sure equipment inspections and maintenance are performed by a qualified person as required. Stop the welding operation and disconnect the welder from power if the equipment is damaged or malfunctions.

13. **EXPERIENCING DIFFICULTIES.** If you are experiencing difficulties performing the intended operation, stop using the equipment. Contact our Technical Support Department at (570) 546-9663.

# Additional Sources for Welding Codes and Standards

American Welding Society, 550 N.W. LeJeune Road, Miami, FL 33126, (305) 443-9353, Website: *www.aws.org*.

—Safety in welding, Cutting, and Allied Processes, ANSI Standard Z49.1

—Recommended Safe Practices for the Preparation for Welding and Cutting of Containers and Piping, AWS F4.1

National Fire Protection Association, P. O. Box 9101, 1 Battery March Park, Quincy, MA 02269-9101, (617) 770-3000, Website: *www.nfpa.org* and *www.sparky.org*.

—National Electrical Code, NFPA Standard 70

—Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, NFPA Standard 51B

Compressed Gas Association, 1735 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202-4102, (703) 412-0900, Website: *www.cganet.com*.

—Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1

Canadian Standards Association, Standards Sales, 178 Rexdale Boulevard, Rexdale, Ontario, Canada M9W 1R3, (800) 463-6727, Website: *www.csa-international.org*.

—Code for Safety in Welding and Cutting, CSA Standard W117.2

American National Standards Institute (ANSI), 11 West 42nd Street, New York, NY 10036-8002, (212) 642-4900, Website: *www.ansi.org*.

—Practice for Occupational and Educational Eye and Face Protection, ANSI Standard Z87.1

U. S. Government Printing Office, Superintendent of Documents, P. O. Box 371954, Pittsburgh, PA 15250 (312) 353-2220, Website: *www.osha.gov*.

—OSHA, Occupational Safety and Health Standards for General Industry, Title 29, Code of Federal Regulations (CFR), Part 1910, Subpart Q, and Part 1929, Subpart J

American Conference of Government Industrial Hygienists (ACGIH), 1330 Kemper Meadow Drive, Suite 600, Cincinnati, OH 45240-1634, (513) 742-2020, Website: *www.acgih.org*.

—Threshold Limit Values (Booklet)

## ⚠WARNING

**Like all equipment there is potential danger when operating this welder. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this welder with respect and caution to reduce the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.**

## ⚠CAUTION

**No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other equipment with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.**

# SECTION 2: CIRCUIT REQUIREMENTS

## 110V Operation

**⚠WARNING**

**Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. DO NOT connect the machine to the power source until instructed to do so.**

### Amperage Draw

The Model H8155 welder draws the following amps under maximum load:

Draw at 110V, Single Phase .....20 Amps

### Circuit Requirements

Connect your welder to a dedicated and grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

Minimum 110V Circuit Requirement .....30 Amps

### Grounding

In the event of an electrical short, grounding reduces the risk of electric shock. The grounding wire in the power cord must be properly connected to the grounding prong on the plug; likewise, the outlet must be properly installed and grounded. All electrical connections must be made in accordance with local codes and ordinances.

**⚠WARNING**

**Electrocution or fire could result if this machine is not grounded correctly or if your electrical configuration does not comply with local and state codes. Ensure compliance by checking with a qualified electrician!**

### Extension Cords

We do not recommend the use of extension cords. Instead, arrange the placement of your equipment and the installed wiring to eliminate the need for extension cords.

If you find it absolutely necessary to use an extension cord with your machine:

- Use at least a 10 gauge cord that does not exceed 50 feet in length.
- The extension cord must also contain a ground wire and plug pin.
- A qualified electrician MUST size cords over 50 feet long to prevent damage to the welder.

# Grounding for Welding Safety

There are two or more electrical circuits involved in any welding operation. The practice of safely grounding these circuits is documented in various codes and standards (refer to **Additional Sources for Welding Codes and Standards** on **Page 5**).

## Welding Machine Ground

When properly connected to a power source, the Model H8155 welder is grounded through the power cord and power grid. The internal welding circuit of the welder is insulated from the external enclosure. However, to avoid shocking hazards if this internal insulation fails, you must establish a separate earth ground for the welder's external enclosure. This ground will ensure that if a short does occur and the metal enclosure becomes integrated with the welding current, the current will safely dissipate directly through the ground instead of through you.

**Note:** *Refer to the publication NFPA 70, National Electric Code, Article 250, Grounding, and your local electrical codes for the correct method of establishing this ground.*

The grounding terminal for the H8155 external enclosure is located on the right rear of the welder (see **Figure 2**).

**Figure 2.** Location of external enclosure grounding terminal on the rear of the Model H8155.

## Workpiece Ground

The incoming power circuit to the welder and the working welding circuit are two separate circuits that must have separate grounds. The welding circuit consists of the internal components of the welder, the welding cables, the electrode holder/torch assembly, the work clamp, and the workpiece.

ANSI Welding Standards (Z49.1, 11.3.2.1) specify that "Grounding [of the workpiece] shall be done by locating the work on a grounded metal floor or platen, or by connection to a grounded building frame or other satisfactory ground."

**⚠WARNING**

**Always ensure that the ground for the incoming power circuit to the welder and the ground for the working welding circuit are never connected. Failure to comply with this warning could result in death, serious personal injury, or property damage.**

However, you must also avoid "double grounding" the workpiece. ANSI Z49.1 states that "Care shall be taken to avoid the flow of welding current through a connection intended only for safety grounding since the welding current may be of a higher magnitude than the grounding conductor can safely carry."

**Note:** *The work lead from the welder is sometimes incorrectly referred to as the "ground lead." The work lead from the welder is NOT a ground. The work lead and the ground connection to the workpiece are separate and must NOT be connected in any way.*

**⚠WARNING**

**MIG welders use a high frequency current that creates a high electro-magnetic field (EMF) around the welder. EMF disrupts electronic devices. To avoid damage, keep electronic devices at least 50 feet from the welder when it is powered on. Workers who have pacemakers must consult with their physician before using this equipment or being within 50 feet of welding operations.**

# SECTION 3: INVENTORY

The Model H8155 was carefully packed when it left our warehouse. If you discover the machine is damaged or a part is missing after you have signed for delivery, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, inventory the contents.

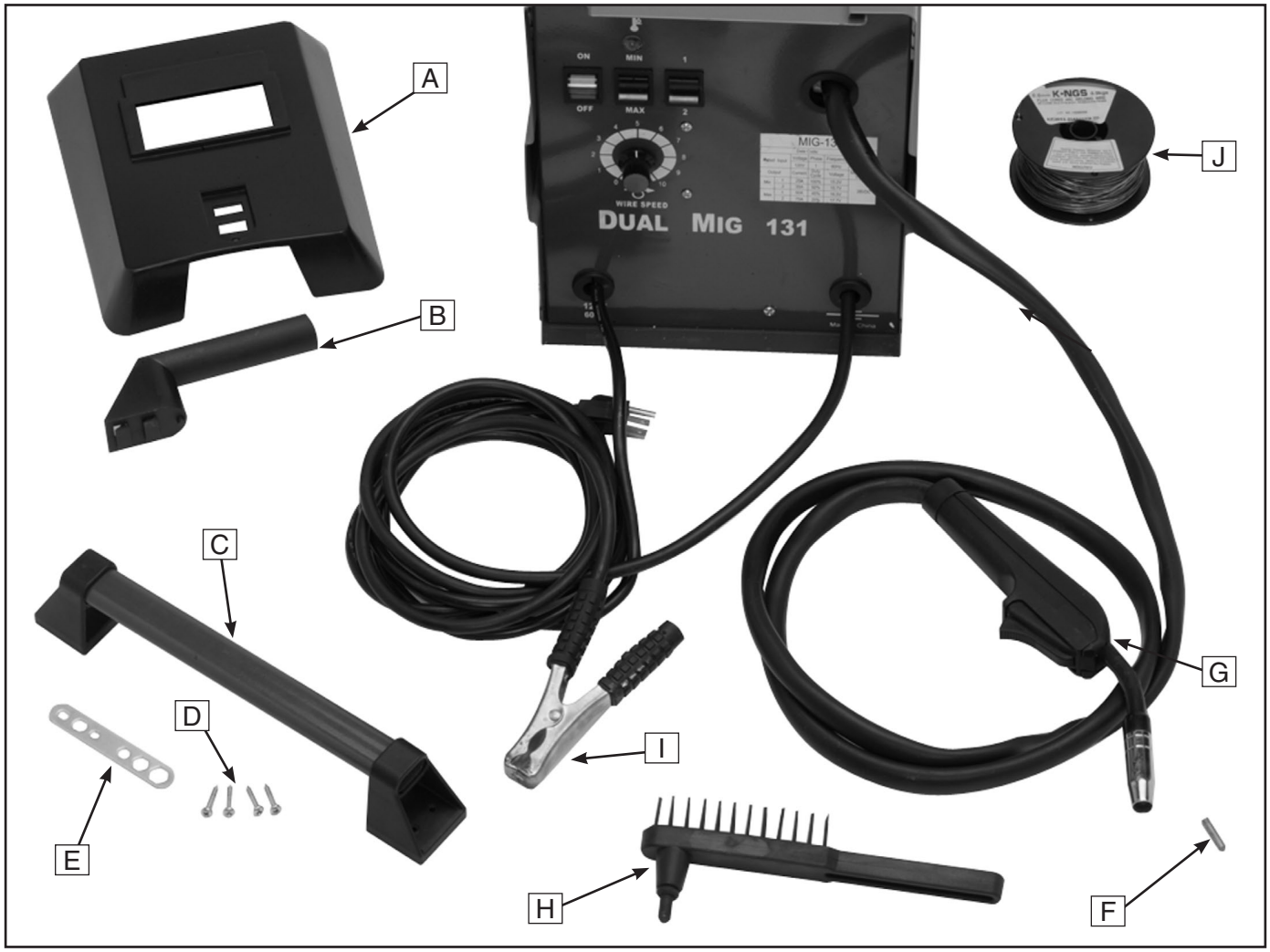



**Figure 3.** Model H8155 inventory.

**A.** Welder's Mask Assembly
**B.** Welder's Mask Handle
**C.** Handle Assembly
**D.** Tap Screw #8 X ¾ (4)
**E.** Contact Tip Wrenchww
**F.** Contact Tip
**G.** Welding Torch Assembly
**H.** Utility Brush and Slag Hammer
**I.** Work Clamp Assembly
**J.** 2 lb. Spool of Flux Wire

# SECTION 4: OPERATIONS

## Operation Safety

**⚠WARNING**

**Damage to your eyes and lungs could result from using this machine without proper protective gear. Always wear safety glasses, welder's helmet, and a respirator when operating this welder.**



***NOTICE***

**If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.**

## Welder Duty Cycle

As the welder produces the desired power output for the welding operation, power is converted to heat. In order to protect the welder components from over-heating, each welder has an established duty cycle, which varies depending on the amperage output being used.

A duty cycle is the number of minutes out of 10 minutes that the welder can safely operate at the current amperage output without over-heating. For instance, the Model H8155 has a duty cycle of 45% at 50A output. This means that the welder can operate continuously for 4.5 minutes at 50A output, then the arc must be stopped to allow the welder, using the cooling fan, to cool off for at least 5.5 minutes before starting the arc again.

The Model H8155 has a cooling fan and an internal thermostat that will shut the welder down if the duty cycle is exceeded. This will be evident by the loss of welding circuit and the orange warning light on the face of the welder will illuminate. When the welder has cooled sufficiently, the internal thermostat will re-establish the welding circuit and the orange warning light will go out.

**⚠WARNING**

**Always treat the welding components as if they carry live welding current, even when the welder reaches the duty cycle limit and shuts down. When the welder re-establishes the welding current, the electrode and work lead will immediately carry live welding current. Ignoring this warning could result in serious personal injury or death.**

# Operation Guidelines

## *NOTICE*

**The following instructions are not intended to be a complete list of welding steps. To become a good welder, read books on welding, get help from experienced welders, and practice.**

Although it is beyond the scope of this manual to instruct how to weld, here are some general steps for successful welding:

**1.** Read and understand this manual and ensure that all safety instructions are followed.

**2.** Establish a safe and efficient welding environment and ensure that you are properly protected for the welding operation. Ensure that there is a working fire extinguisher readily available.

**3.** Have an experienced welder stand by to assist if needed.

**4.** Decide which type of weld is correct for your project and properly prepare the metal.

**5.** Choose the correct amperage output and be aware of the duty cycle for this amperage.

**6.** Select the correct electrode type and size for your welding project.

**7.** Make sure the welding cables and grounds are secure.

**8.** Stay aware of the work environment around you as you weld and ensure that flying sparks do not start a fire.

**9.** Look slightly ahead of the arc. Even with the protection of the welder's hood, looking directly at the arc can damage your eyes.

**10.** Listen to the sound of the weld. Each type of weld has its own distinct sound when it is progressing correctly.

# Basic Operation

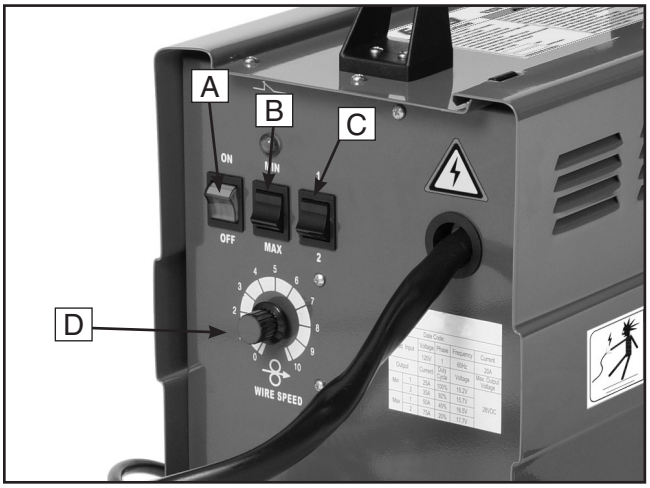



**Figure 4.** Model H8155 controls.

**A.** On/Off Switch
**B.** Min/Max Switch
**C.** 1/2 power level switch
**D.** Wire Feed Speed Control

# NOTICE

**Remember to switch to positive electrode polarity when using gas instead of flux core wire. Follow the instructions on the diagram below the wire feed mechanism to preform this simple modification. Failure to follow this procedure can result in poor quality welds.**

1. Start with ON/OFF switch in the ***OFF*** position and with the welder unplugged.

2. If using non-flux core wire, connect and secure the Argon/$CO_2$ gas hose to the rear of the welder. If using flux core wire, protective gas is not required.

3. Attach the work clamp as close as possible to the workpeice, or to the metal work bench where the workpiece is mounted and electrically connected.

4. Set the desired welding current for the type of metal being welded, using the Min/Max switch and the 1/2 power level switch. **Figure 5** shows the resulting current for each combination of Min/Max and 1/2 switch positions.

| Output | Current | Duty Cycle | Voltage | Max Output Voltage |
|---|---|---|---|---|
| Min | 1 | 100% | 15.2V | 28VDC |
| | 2 | 92% | 15.7V | 28VDC |
| Max | 1 | 45% | 16.5V | 28VDC |
| | 2 | 20% | 17.7V | 28VDC |

**Figure 5.** Operation power chart.

5. Verify that the ON/OFF switch is in the ***Off*** position, then plug the welder into a dedicated, 110VAC, grounded circuit.

6. While holding the torch, with the electrode clearly out of the way of any grounded objects, set the ON/OFF switch to the ***ON*** position.

7. Momentarily press the welding torch trigger switch to test the wire output speed. Adjust the speed with the wire speed control.

8. Orient yourself with the area to be welded, then hold the welder's mask up to your face.

9. Press and hold the torch trigger switch and stroke the area to be welded with the electrode wire to ignite the arc.

10. Once the arc is ignited, move the torch to complete the weld.

11. When the weld is complete, lift the welding torch handle electrode wire clearly away from any grounded object, remove your face shield, and inspect the weld

12. When the welder has cooled, set the ON/OFF switch to the ***OFF*** position and Disconnect the welder from power.

# NOTICE

**Always keep the power *ON* to the welder after completing the welding operation to let the welder fan cool the welder down. To avoid damage to your welder, never shut the power *OFF* before the welder enclosure is completely cool to the touch.**

# Maintenance

1. DISCONNECT THE WELDER FROM POWER.

2. Periodically open the top and side panels. Using compressed air, blow out all dust from the interior.

3. Store the unit in a clean and dry location.

4. Periodically clean out the torch head.

## Installing the wire spool

1. DISCONNECT THE WELDER FROM POWER.

2. Lift the side panel to expose the wire spool axle and the wire feed mechanism.

3. Remove the wing nut and spool nut from the wire spool axle and remove the wire spool.

4. Place the new wire spool over the axle with the wire exiting the spool over the top. Replace the retaining nut and wing nut and adjust until snug (**Figure 6**).

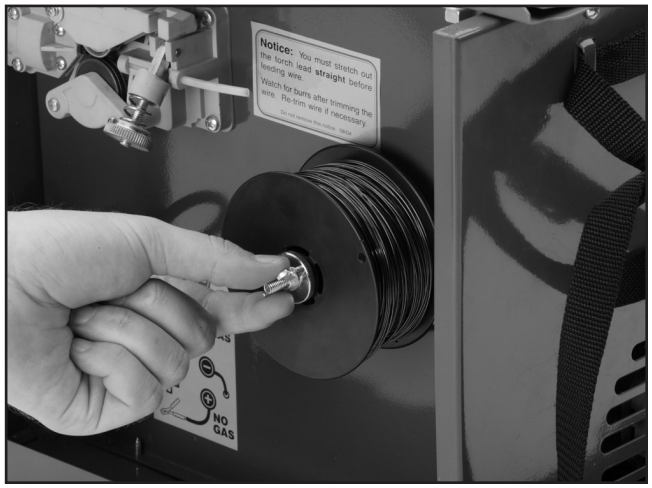



**Figure 6.** Replacing the wire spool.

5. Open the wire feed mechanism as shown in **Figure 7**.


**Figure 7.** The open wire feed mechanism.

6. Feed and guide the spool wire into the wire feed mechanism, and into the small tube just past the feed wheels (**Figure 8**). Continue to guide the wire until comes out of the control tip on the torch assembly.

   ***Note:*** *It will help if the welding torch cable is straightened out as much as possible. Push in until the wire comes out the welding torch head. If it cannot be fed manually all the way out, it can be fed automatically when the welding unit is powered up.*

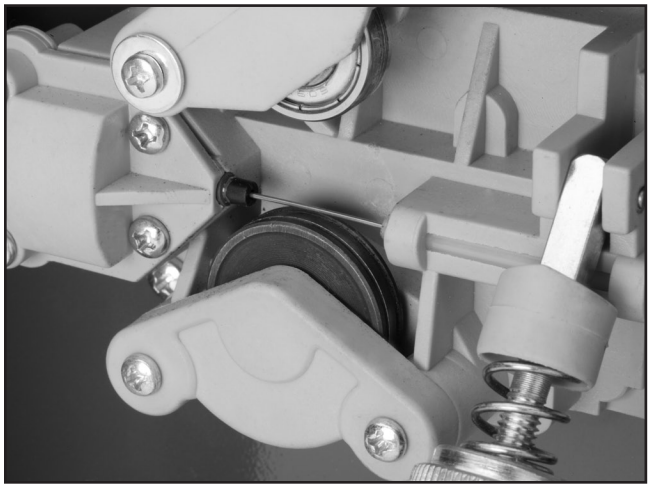


**Figure 8.** Feeding the wire.

7. Close the feed mechanism over the wire and adjust the feed tension if necessary (**Figure 9**).

8. Close the side panel.


**Figure 9.** Adjusting the feed tension.

## Installing the contact tip

**⚠WARNING**

**Allow the welding torch nozzle and tip to cool before touching either of these components. Welding generates a significant amount of heat. Failure to allow welding components to adequately cool can result in severe injury.**

1. DISCONNECT THE WELDER FROM POWER.

2. To remove the contact tip, first disconnect the welder from power and verify that the ON/OFF switch is in the ***OFF*** position.

3. Remove the welding torch nozzle by twisting as you pull the nozzle off (**Figure 10**).

**Figure 10.** Removing the welding torch nozzle.

4. Remove the contact tip with the contact tip wrench provided and install a new tip as shown in by threading it into the welding torch and tightening until snug (**Figure 11**).

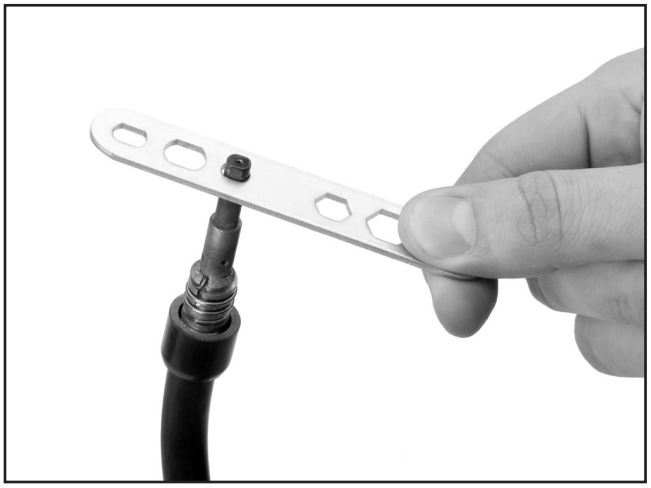


**Figure 11.** Attaching a new contact tip.

# SECTION 5: ACCESSORIES

**H7786—Auto Darkening Welding Helmet**
Automatic UV and IR filters protect eyes from harmful visible and invisible light during welding. Switching time is less than or equal to 2 milliseconds, so there's no need to flip the helmet up to see your work under normal light conditions. Full face protection features adjustable head suspension and adjustable delay time, sensitivity and dark shade protection. Viewing area is 3½" x 1½". Includes 2 AAA batteries.

**Figure 12.** Model H7786 welding helmet.

**G7868—Welding Respirators**
Flame retardant outer shell is recommended for welding applications. Special depth filter provides high loading capacity for metal fumes without increasing breathing resistance. Heavy-duty adjustable headstrap and soft, closed cell foam face seal offers maximum comfort, protection and fit. 5 pack.

**Figure 13.** Model G7868 welding respirators.

**H9748—Leather Jacket Medium (40–42)**
**H9887—Leather Jacket Large (44–46)**
**H9888—Leather Jacket X-Large (48–52)**
**H9746—Leather Knee Pads**
**H9745—Leather Shoe Covers**
These leather jackets, knee pads, and shoe covers provide full protection from welding sparks and spatter. Gloves not included.

**Figure 14.** Models H9748/H9746/H9745 leather welding protection.

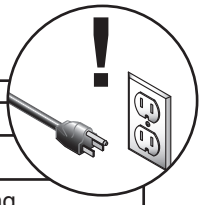
**H3157—Deluxe Welding Gloves**
Top grain, leather gloves protect against welding hazards. Extra long to protect wrists and forearms. One size fits all.

**Figure 15.** Model H3157 deluxe welding gloves.

# SECTION 6: SERVICE

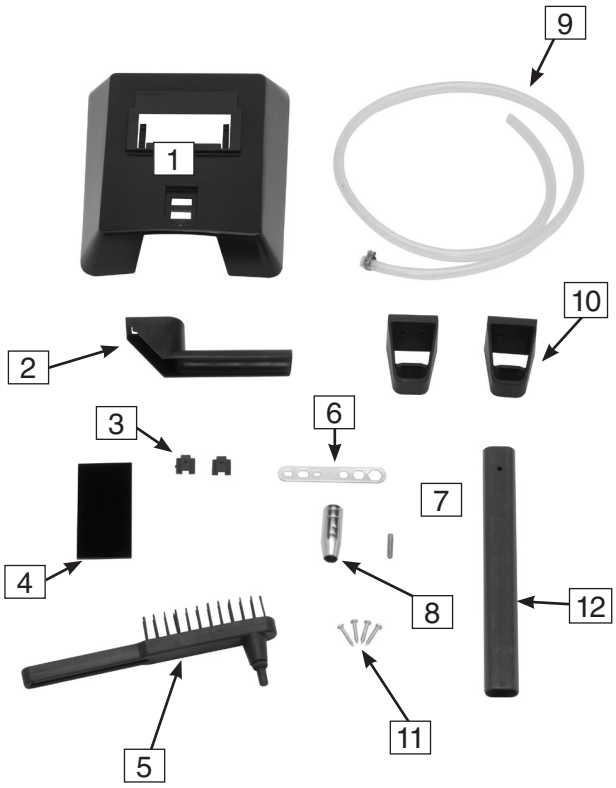
Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

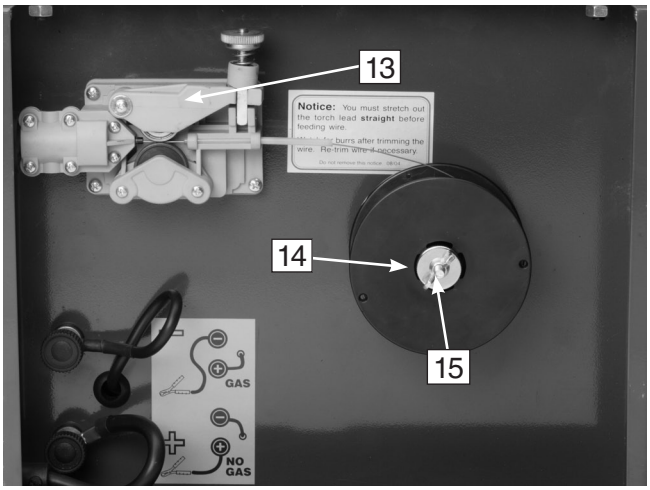
## Troubleshooting



| Symptom | Possible Cause | Possible Solution |
|---|---|---|
| Welder does not power up or the breaker trips. | 1. Plug/receptacle is at fault or wired incorrectly.<br>2. Wiring is open/has high resistance.<br>3. ON/OFF switch is at fault.<br>4. Duty cycle exceeded. | 1. Test for good contacts; correct the wiring.<br>2. Check for broken wires or disconnected/corroded connections, and repair/replace as necessary.<br>3. Replace faulty ON/OFF switch.<br>4. Allow several minutes to cool with the On/Off switch in the Off position, then attempt to power up the machine again. |
| Wire does not feed properly. | 1. Insufficient wire feed spring tension<br>2. Wire guide sheath in the welding torch assembly is blocked.<br>3. Wire spool axle nut is too tight.<br>4. Wire reel has oxidized or poorly wound wire. | 1. Tighten the spring tension knob.<br>2. Clean wire sheath or replace welding torch assembly.<br>3. Loosen nut so the reels moves freely.<br>4. Replace wire wheel. |
| Reduced welding power. | 1. Ground cable is not connected or is poorly connected.<br>2. Internal connection loose on switches.<br>3. One or more rectifiers failed. | 1. Check the ground cable for proper connection.<br>2. A qualified welding technician should open the unit and check for loose connections.<br>3. A qualified welding technician should open the unit and check for burnt rectifiers. |
| Porous or spongy welds. | 1. Little or no gas.<br>2. Clogged holes in welding torch.<br>3. Solenoid valve blocked<br>4. Poor quality gas or wire. | 1. Check presence of gas, condition of supply line, and gas pressure.<br>2. Clear clogged holes using compressed air.<br>3. A qualified welding technician should open the unit and check solenoid operation and electrical connection.<br>4. Gas must be very dry. Use a moisture filter. Use a different type of wire. |
| Gas supply does not switch off. | 1. Worn or dirty solenoid valve. | 1. A qualified technician should open the unit and dismantle the valve to clean the orifice and seating element. |
| Pressing welding torch trigger produces no result. | 1. Faulty welding torch trigger; disconnected or broken control cables.<br>2. Overload controller defective. | 1. A qualified welding technician should open the unit and remove the torch connection plug and short circuit poles. Check and repair control cables.<br>2. A qualified welding technician should open the unit and replace the overload controller. |

# Replacement Parts And Labels





| REF | PART # | DESCRIPTION |
|---|---|---|
| 1 | PH8155001 | WELDERS MASK |
| 2 | PH8155002 | MASK HANDLE |
| 3 | PH8155003 | LENSE RETAINING CLIP |
| 4 | PH8155004 | MASK LENSE |
| 5 | PH8155005 | UTILITY BRUSH AND SLAG HAMMER |
| 6 | PH8155006 | CONTROL TIP WRENCH |
| 7 | PH8155007 | CONTROL TIP |
| 8 | PH8155008 | WELDING TORCH NOZZLE |
| 9 | PH8155009 | GAS INLET TUBE |
| 10 | PH8155010 | HANDLE BRACKET |
| 11 | PHTEK11 | TAP SCREW #8 X 3/4 |

| REF | PART # | DESCRIPTION |
|---|---|---|
| 12 | PH8155012 | HANDLE |
| 13 | PH8155013 | WIRE FEED ASSEMBLY |
| 14 | PH8155014 | WIRE SPOOL RETAINING NUT |
| 15 | PWN02 | WING NUT 1/4-20 |
| 16 | PH8155016 | WELDING TORCH ASSEMBLY |
| 17 | PH8155017 | WORK CLAMP ASSEMBLY |
| 18 | PH8155018 | MACHINE ID LABEL |
| 19 | PLABEL-14 | ELECTRICITY LABEL |
| 20 | PH8155020 | SHOCK WARNING LABEL |
| 21 | PLABEL-12 | READ MANUAL 2" X 3 5/16" |

## ⚠WARNING

**Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine MUST maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, REPLACE that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.**

# NOTES

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# Grizzly Industrial, Inc. WARRANTY CARD

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____ Invoice # _____

Model # _____ Order # _____ Serial # _____

*The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services.* ***Of course, all information is strictly confidential.***

**1.** How did you learn about us?

____ Advertisement ____ Friend ____ Catalog
____ Card Deck ____ Website ____ Other:

**2.** Which of the following magazines do you subscribe to?

____ Cabinet Maker
____ Family Handyman
____ Hand Loader
____ Handy
____ Home Shop Machinist
____ Journal of Light Cont.
____ Live Steam
____ Model Airplane News
____ Modeltec
____ Old House Journal
____ Popular Mechanics
____ Popular Science
____ Popular Woodworking
____ Practical Homeowner
____ Precision Shooter
____ Projects in Metal
____ RC Modeler
____ Rifle
____ Shop Notes
____ Shotgun News
____ Today's Homeowner
____ Wood
____ Wooden Boat
____ Woodshop News
____ Woodsmith
____ Woodwork
____ Woodworker West
____ Woodworker's Journal
____ Other:

**3.** What is your annual household income?

____ $20,000-$29,000 ____ $30,000-$39,000 ____ $40,000-$49,000
____ $50,000-$59,000 ____ $60,000-$69,000 ____ $70,000+

**4.** What is your age group?

____ 20-29 ____ 30-39 ____ 40-49
____ 50-59 ____ 60-69 ____ 70+

**5.** How long have you been a woodworker/metalworker?

____ 0-2 Years ____ 2-8 Years ____ 8-20 Years ____ 20+ Years

**6.** How many of your machines or tools are Grizzly?

____ 0-2 ____ 3-5 ____ 6-9 ____ 10+

**7.** Do you think your machine represents a good value? _____ Yes _____ No

**8.** Would you recommend Grizzly Industrial to a friend? _____ Yes _____ No

**9.** Would you allow us to use your name as a reference for Grizzly customers in your area?
**Note:** *We never use names more than 3 times.* _____ Yes _____ No

**10.** Comments: _____

_____

_____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

Place
Stamp
Here

**GRIZZLY INDUSTRIAL, INC.**
**P.O. BOX 2069**
**BELLINGHAM, WA 98227-2069**

FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name_____

Street_____

City_____State_____Zip_____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

# WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.