

Please read and save these instructions. Read through this owner's manual carefully before using product. Protect yourself and others by observing all safety information, warnings, and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.



FLUX CORE WELDER 110V 70A

FOR CUSTOMER SERVICE

Technical Question?

CALL 1-866-458-2472

customerservice@oem-tools.com

UNPACKING

After unpacking the unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. If any damage is observed, a shipping damage claim must be filed with the carrier. DO NOT use the OEMTOOLS™ 24817 Flux Core Welder if broken, bent, cracked or damaged parts (including labels) are noted. Any Welder that appears damaged in any way, operates abnormally or is missing parts should be removed from service immediately. If you suspect that the Welder was subjected to shock load (a load that was dropped suddenly, unexpectedly, etc.), immediately discontinue use until it has been checked by a factory authorized service center.



⚠ WARNING

The following safety information is provided as a guideline to help you operate your Welder under the safest possible conditions. Any tool or piece of equipment can be potentially dangerous to use when safety or safe handling instructions are not known or not followed. The following safety instructions are to provide the user with the information necessary for safe use and operation. Please read and retain these instructions for the continued safe use of your Welder. Failure to follow instructions listed below may result in serious injury. In addition, make sure that anyone who uses the equipment understands and follows these safety instructions as well.

Explanation of Safety Signal Words

⚠ 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.

CAUTION: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTES: Provide clarity and helpful information.

Thank you very much for choosing an OEMTOOLS™ Product!

For future reference, please register your new product at www.oem-tools.com and complete the owner's record below:

Model: _____ **Purchase Date:** _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it. This product is designed for certain applications only. OEMTOOLS™ cannot be responsible for issues arising from modification. We strongly recommend this product is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted customer service to determine if it can or should be performed on the product.



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IMPORTANT INSTRUCTIONS AND SAFETY RULES

1. Know your product. Read this manual carefully. Learn the product's applications and limitations, as well as potential hazards specific to it.
2. Keep work area clean and well lit. Cluttered or dark work areas invite accidents.
3. Keep children away. All children should be kept away from the work area. Never let a child handle tools or equipment without strict adult supervision.
4. DO NOT operate this product if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, DO NOT attempt to operate.
5. Use safety equipment. Eye protection should be worn at all times when operating this tool. Use ANSI approved safety glasses. Everyday eyeglasses are NOT safety glasses. Dust mask, non-skid safety shoes, hard hat or hearing protection should be used in appropriate conditions.
6. Wear proper apparel. Loose clothing, gloves, neck-ties, rings, bracelets or other jewelry may present a potential hazard when operating this product. Keep all apparel clear of the product.
7. DO NOT overreach. Keep proper footing and balance at all times when operating this product.
8. Check for damage. Check equipment regularly. If part of the product is damaged, it should be carefully inspected to make sure that it can perform its intended function correctly. If in doubt, discontinue use of product.
9. Keep away from flammables. DO NOT attempt to operate this product near flammable materials or combustibles. Failure to comply may cause serious injury or death.
10. Store this product out of the reach of children and untrained persons. This product may be dangerous in the hands of untrained users.
11. Keep this product dry and clean.
12. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one product may become hazardous when used on another product.
13. Service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
14. When servicing a product, use only identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.
15. Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use this product in a damp or wet location.

16. Maintain labels and nameplates on this product. These carry important information. If unreadable or missing, contact OEMTOOLS™ for a replacement.
17. Keep this product dry, clean, and free from brake fluid, oil, and grease.
18. Avoid accidental fire. DO NOT smoke near this product.
19. The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
20. We believe the information contained herein to be reliable. However, general technical information is given by us without charge and the user shall employ such information at their own discretion and risk. We assume no responsibility for results or damages incurred from the use of such information in whole or in part.
21. The manufacturer declines any and all responsibility for property damage or injury if said damage is the result of unskillful handling by the operator or of failure to observe the basic safety rules set forth in the instruction manual.
22. The procedures documented in this manual are to serve as guidelines for the use of this equipment.
23. The use of this equipment is simple and straightforward if you follow the instructions. When operating this equipment, use common sense, and only use this equipment for its intended purpose.

PRODUCT DESCRIPTION

The OEMTOOLS™ Flux Core Welder 110V 70A welds mild steel up to 1/8" in thickness. This compact Welder is designed for basic welding jobs and does not require gas.

PRODUCT SPECIFICATIONS

Process	Flux Core Wire
Input Voltage	110V AC
Input Current	20A
Input Frequency	60Hz
Output Current Range	50-90A
Rated Duty Cycle	20% @ 70A
Open Circuit Voltage	27V AC
Current Settings	2/4
Flux Core Welding Wire Spool Diameter	4"
Flux Core Welding Wire Diameter	0.03"-0.035" (0.8-0.9mm)
Wire Feed Speed	Adjustable
Insulation Class	F
Ingress Protection	IP21S





FLUX CORE WELDER 110V 70A

CONTENTS

- (1) Welder, (1) Welding Gun and Cable Assembly,
- (1) Ground Cable with Clamp,
- (1) Chipping Hammer/Brush,
- (1) 0.035" Wire Spool, and
- (1) Protective Face Shield and Lens

GENERAL WELDING SAFETY AND INSTRUCTIONS

Thoroughly read and understand the provided product manual before attempting to use this product.

▲ WARNING: ARC WELDING CAN BE DANGEROUS.

1. DO NOT allow untrained persons or children to operate. Ensure people in the surrounding area understand the dangers and precautions associated with welding prior to use.
2. CONSULT WITH A PHYSICIAN PRIOR TO OPERATION IF YOU HAVE A PACEMAKER. Arc welders create an Electromagnetic Field (EMF) which can interfere with pacemakers.
3. DO NOT attempt to perform repairs on this product.

▲ WARNING: ARC RAYS CAN BURN SKIN AND CAUSE EYE DAMAGE.

1. Signs should be posted within the welding workspace stating hazards and precautions associated with arc welding rays and related protection.
2. The operator and nearby personnel located in the welding workspace should wear protective shields conforming to ANSI standards, with the proper filter and cover plates to protect eyes from sparks and arc welding rays.
3. The operator and nearby personnel located in the welding workspace should wear protective clothing made with flame-resistant material to protect skin from sparks, metal and arc rays.

▲ WARNING: ARC WELDING CAUSES ELECTROMAGNETIC FIELDS. THESE FIELDS ARE DANGEROUS AND CAN CAUSE SERIOUS INJURY OR DEATH IF PRECAUTIONS ARE NOT FOLLOWED.

1. Welding current creates an Electromagnetic Field (EMF) around the welding machine, leads and cords. EM fields interfere with some pacemakers (as previously stated), and prolonged exposure to EM fields may have other health effects that are undetermined. Before operating this product, the operator and personnel located within the welding workspace should understand that there are health risks (determined and undetermined) associated with arc welding and EM fields.
2. MINIMIZE EXPOSURE TO EM FIELDS BY EMPLOYING THE FOLLOWING PRECAUTIONS:
 - a. DO NOT place your body between the electrode and the work cables.
 - b. DO NOT coil or wrap the electrode leads around any part of the body.

- c. DO NOT separate work cables and electrode. Route and secure the cables together.
- d. DO NOT work/weld directly beside the power source.
- e. Ensure the Ground Cable is connected to the workpiece as close to the weld as possible.

▲ WARNING: WELDING SPARKS CAN CAUSE FIRE AND EXPLOSION, WHICH CAN LEAD TO INJURY, DEATH AND PROPERTY DAMAGE. ALWAYS HAVE A FIRE EXTINGUISHER WITHIN THE WELDING AREA AND IMPLEMENT A FIRE ESCAPE PLAN.

1. Remove all flammable items and potential fire hazards from the welding workspace. If there are fire hazards that cannot be removed, they should be covered with a fire-resistant cover.
2. DO NOT operate near hydraulic, fuel or natural gas lines.
3. DO NOT weld near flammable gases, residue or greases. Take proper steps to ventilate and clean workspace prior to use.
4. DO NOT weld near compressed gases. DO NOT heat, cut or weld tanks, drums or other containers that may have stored flammable gases or liquids. While these tanks may be "empty", residue will remain that could lead to fire or explosion.
5. Welding sparks, spatter and hot debris are produced by the welding arc. It is imperative that the operator and personnel located within the welding workspace wear oil-free, flame-resistant clothing. Clothing should provide full coverage: heavy leather gloves, long-sleeve shirt, full length pants (no cuff), high protective leather boots and a welding cap that covers all hair. Clothing should be well fitted; loose fitting clothing may create a fire hazard. When welding in confined spaces, flame-resistant earplugs or earmuffs should be worn.
6. DO NOT connect the work cable to building framework. Connect the Ground Clamp to work as close to the weld as possible.
7. ALWAYS check the workpiece and surrounding work area for smoke, flame, sparks or evidence of fire.

▲ WARNING: ELECTRIC SHOCK CAN KILL. DO NOT TOUCH ELECTRODE, WORK OR GROUND WHILE THE WELDER IS ON. DO NOT TOUCH THE ELECTRODE WHEEL, WELDING HEAD OR NOZZLE OF THE WELDING GUN WHILE THE WELDER IS ON.

1. DO NOT wear wet clothing or wet gloves.
2. DO NOT touch electrode, work or ground with bare skin while the Welder is ON.
3. DO NOT place the electrode in water.
4. DO NOT allow components of (2) welding machines to come into contact while either Welder is ON.
5. ALWAYS connect to a grounded, GFCI-protected power supply.
6. ALWAYS insulate yourself from the workpiece



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and ground. Non-flammable, dry insulating material is recommended.

7. Ensure the Ground Clamp is properly connected to the metal being welded.
8. Ensure that all welding equipment and leads are well maintained and in safe operating condition prior to each use.
9. Ensure no part of the electrode circuit is in contact with the work or ground.

▲ WARNING: ARC WELDING MAY PRODUCE FUMES AND GASES THAT ARE HAZARDOUS TO THE HEALTH OF THE OPERATOR AND PERSONNEL LOCATED WITHIN THE WELDING WORKSPACE. EXPOSURE TO THESE FUMES CAN INCREASE THE RISK OF DEVELOPING CANCER, HEART DISEASE, EARLY ONSET PARKINSON'S DISEASE AND VARIOUS REPRODUCTIVE, RESPIRATORY AND DIGESTIVE DISEASES.

1. DO NOT place your head near the welding arc; avoid breathing fumes while welding. Ensure proper ventilation.
2. Welding hard-facing, galvanized, stainless and other plated steels or metals produces highly toxic fumes. Always read the MSDS for the product, metal or work prior to welding. Exhaust, mechanical ventilation and a respirator may be required for minimal exposure to these fumes.
3. Cylinders and containers that may have held harmful gases should be properly vented prior to welding. Failure to ventilate these containers will produce toxic gases that are harmful to the operator and all personnel located within the workspace.
4. DO NOT weld near chlorinate hydrocarbons from degreasing, cleaning or spraying operations.
5. Read and understand the product instructions and MSDS sheet for any consumables or products used in conjunction with this product. There are risks outside of the operation of this Welder that can cause unsafe working conditions.

SPECIFIC SAFETY INSTRUCTIONS

1. THIS IS NOT A GAS WELDER.
2. DO NOT connect to power while assembling or performing maintenance on this unit.
3. DO NOT attempt to use this Welder if the unit fails to switch ON or OFF.
4. ALWAYS ensure the Power is in the OFF position prior to plugging the unit into a power source.
5. ALWAYS turn the machine OFF and unplug from power prior to installing a new wire spool, adjusting the wire tension roller or replacing the contact tip.
6. ALL INSTALLATION AND REPAIR OF THIS EQUIPMENT SHOULD BE PERFORMED BY A QUALIFIED TECHNICIAN IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL CODES.

WELDING MACHINE SETUP INSTRUCTIONS

▲ WARNING: Read all warnings and safety instructions prior to using this product.

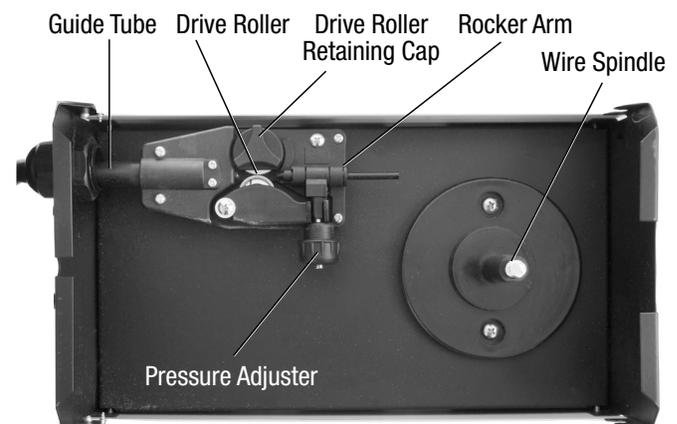
1. Unpack all items from the box and reference the parts list to ensure all parts are present before continuing setup.
2. Place the Welder onto a clean, protected surface that can support the weight of the Welder. Ensure the Welder is placed at a distance that will not over-extend the cord or place tension on the plug.
3. The Welder must be plugged into a properly grounded 110V AC outlet. A 12 AWG (minimum) extension cord can be used if under 25' in length.

DRIVE ROLLER ASSEMBLY INSTRUCTIONS

▲ WARNING: Turn the Welder OFF and unplug prior to adjusting the Drive Roller.

1. This unit comes assembled for 0.035" flux core wire. If 0.03" flux core wire is used, the Drive Roller must be adjusted accordingly.
2. Open the Top Compartment of the Welding Machine. Loosen the Pressure Adjuster and lift, so that the Rocker Arm is separated from the Drive Roller.
3. Remove the Drive Roller Retaining Cap by rotating counterclockwise.
4. Remove the Drive Roller. The flux core wire sizes are stamped on each side of the Drive Roller. Re-install with the desired size wire stamp upward.
5. Re-install the Drive Roller Retaining Cap, reposition the Rocker Arm and re-fasten the Pressure Adjuster.

TOP COMPARTMENT LAYOUT





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FLUX CORE WIRE INSTALLATION INSTRUCTIONS

▲ WARNING: Turn the Welder OFF and unplug prior to installing flux core wire.

NOTE: Designed for use with 4-inch wire spools of 0.03" or 0.035" diameter flux core wire. Other wire spools and wire diameters are not supported, and may cause product malfunction or failure.

1. Open the Top Compartment of the Welding Machine.
2. Remove the Wing Nut and Spacer.
3. Slide the 4-inch Wire Spool onto the Wire Spindle and re-install the Spacer and Wing Nut.
4. Remove the Contact Tip and Nozzle from the end of the Welding Gun.
5. Loosen Pressure Adjuster and lift to separate the Rocker Arm from the Drive Roller. Make certain the Drive Roller is set to the correct flux core wire diameter (see Drive Roller Instructions to adjust).
6. Carefully pull out and straighten about 3" of flux core wire. **NOTE:** Apply constant tension to the wire; without tension, the wire will unravel from the spool.
7. Cut the small curved end from the wire. Thread the wire through the Guide Tube, across the Drive Roller and into the Gun Line.
8. Reposition the Rocker Arm and fasten the Pressure Adjuster.

NOTE: DO NOT overtighten the Pressure Adjuster; this will impede wire feeding through to the Gun Line.

9. Plug the Welder into a grounded 110V outlet, and turn the Welder ON. Set the wire speed to LOW.
10. Press the trigger and begin feeding wire.

▲ WARNING: DO NOT point the gun at yourself or others.

NOTE: Watch the Drive Roller. If the wire slips, turn the machine OFF, unplug the machine and tighten the Pressure Adjuster.

11. Wire will exit the end of the Gun. **RELEASE THE TRIGGER, AND TURN THE MACHINE OFF.** Re-install the Contact Tip and Nozzle. Cut the wire about 1/4" from the end of the Contact Tip.

▲ WARNING: DO NOT attempt to weld with the Top Compartment open. After the wire has been installed, close the Top Compartment.

WELDER OPERATING INSTRUCTIONS

NOTE: These instructions describe very basic welding processes as they apply to the operation of this Welder. There are many different types of welding machines, welds and welding procedures that cannot be described in detail in this instruction manual. Welding proficiently requires practice, education and testing. DO NOT attempt to weld a final project with welding knowledge/information provided by this manual alone. By using this product, the operator understands that OEMTOOLS™ cannot be held responsible

for property damage caused by operator negligence, ignorance or general welding mistakes.

NOTE: After reading through this manual, it is recommended that the operator, despite welding experience level, practice welding scrap metal with this Welder. Welding operation and performance will vary by model.

▲ WARNING: DO NOT attempt to change the welding current setting while operating the Welder.

1. Thoroughly read and complete Welding Machine setup, Drive Roller Installation and Flux Core Wire Installation.
2. Connect the Ground Clamp to a clean, bare metal surface on the workpiece.

NOTE: Thoroughly read warnings regarding electric shock and fire hazards prior to this step.

3. Set wire speed to the desired setting for the material thickness. SEE TROUBLESHOOTING AND HELPFUL TIPS SECTION.
4. Plug the Welder into a grounded 110V outlet, and turn ON.
5. Briefly press the Trigger and begin feeding wire. Wire will exit the end of the Gun. **RELEASE THE TRIGGER, AND TURN THE MACHINE OFF.**

▲ WARNING: DO NOT point the gun at yourself or others.

6. Cut the wire about 1/4" from the end of the Contact Tip.
7. Turn Welder ON.
8. Lower your ANSI Approved Welding Helmet, and position the Welding Gun Perpendicular to the base metal and tilt the gun to a 15-20° angle (based on application and operator preference).
9. Move the Contact Tip toward the workpiece to initiate the arc, approximately 1/4"-3/8". Press the Trigger to start feeding wire through the gun.
10. A molten "puddle" will begin to form, referred to as the weld bead. This bead will follow the motion of the Welding Gun. SEE TROUBLESHOOTING AND HELPFUL TIPS SECTION.
11. Release the Trigger to stop the weld.
12. When finished, turn the Welder OFF and unplug.

DUTY CYCLE

To avoid damage and personal injury, DO NOT weld for longer than the prescribed Duty Cycle Time. This Welder has a 20% Duty Cycle Time at 70A based on a 10 second time period. This indicates that this Welder can weld for 2 seconds out of every 10 second time period. Failure to comply may lead to product failure.

HELPFUL TIPS

1. Thoroughly clean surfaces prior to welding. Brush or sand off all paint, adhesive and oxidation.
2. Weld at a constant pace. Abrupt motions or speed changes will change the weld quality and depth.



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3. Remove slag with chipping hammer to expose the weld.
4. Adjust wire feed speed and heat range to accommodate metal thickness. In general:
 - a. Thicker metal requires higher heat and faster wire feed speeds to establish a proper/strong weld.
 - b. Thinner metal requires lower heat and slower wire feed speeds to establish a proper/strong weld.
5. Maintain about 1/4" of wire extended from the Welding Gun while welding.
6. This machine is recommended for welding steel/metal up to 1/8" thick.

STORAGE

⚠ WARNING: Always turn OFF and unplug before placing into storage.

Store the Welder in an upright position and in a clean, dry area. DO NOT store near flammable items or open flames.

PRODUCT MAINTENANCE

⚠ WARNING: DO NOT attempt to repair this product. Contact qualified service personnel.

⚠ WARNING: Always turn OFF and unplug this Welder before attempting product maintenance.

Before each use, evaluate the machine for any issues that may hinder the machine or accessories from performing in accordance with proper operation. If any issues are noted, DO NOT attempt to use. Contact qualified service personnel immediately.

Wipe dust, grease and debris from the Welder casing and accessories before and after each use.

⚠ WARNING: DO NOT use water.

Clean Welder tip after use to remove spatter debris.

DISPOSAL

At the end of the useful life of the OEMTOOLS™ Flux Core Welder, dispose of the components in accordance with all federal, state and local regulations.

TROUBLESHOOTING

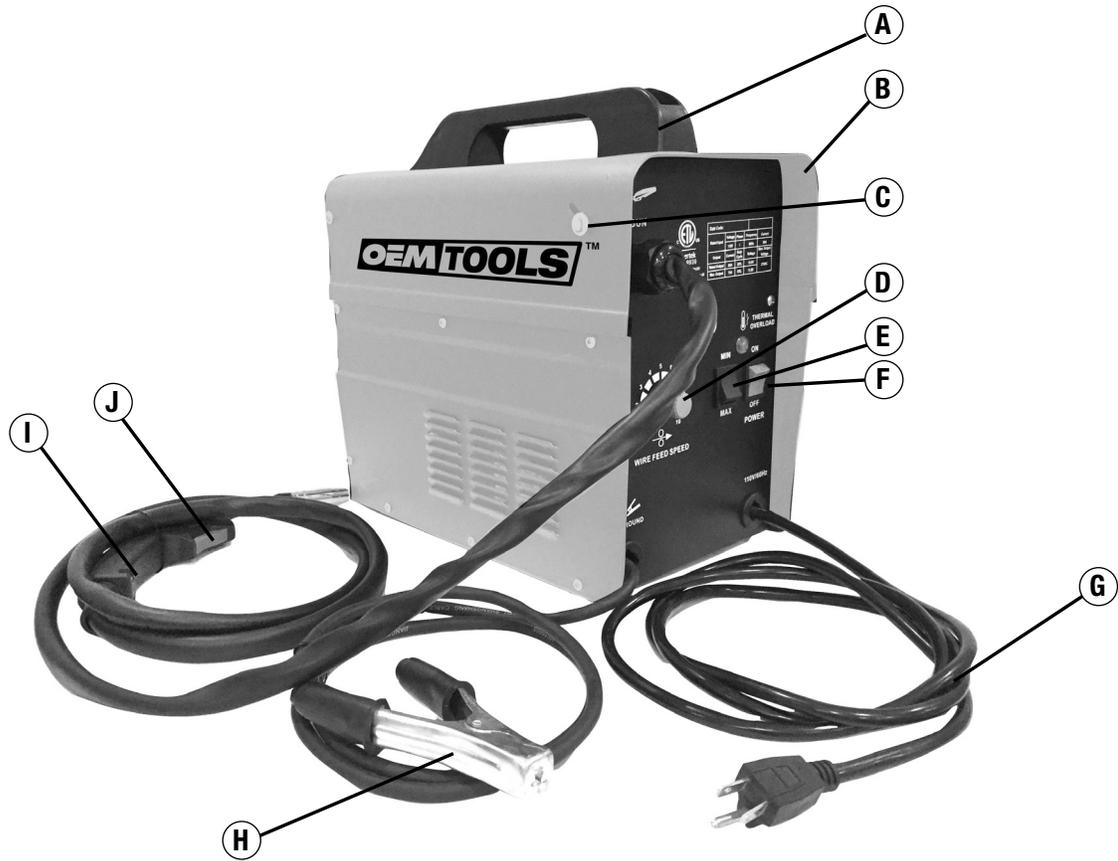
Problem	Possible Cause	Possible Solution
Arc Causing Excessive Spatter	Welder Output is too high	Turn Welder Output down
	Operator moving Welding Gun too slowly	
Lack of Weld Penetration/ Superficial Bead	Welding Output is too low	Turn Welder Output up
	Operator moving Welding Gun too quickly	Allow more time for the Welding Gun to contact/heat Base Metal
	Input Voltage too low	Connect to a 110V AC outlet
Burning Holes in Workpiece	Welding Output is too high	Turn Welder Output down
	Operator moving Welding Gun too slowly	
No Arc Produced/ Indicator Remains Unlit	Check input connection	Connect to a 110V AC outlet
	Check supply fuse	Turn ON/replace fuse
Welder Does Not Operate when Trigger is Pressed	Check input connection	Connect to a 110V AC outlet
	Check supply fuse	Turn ON/replace fuse
	Check Welding Gun connections	Properly connect Welding Gun
	Thermal Overload	Turn OFF, unplug and allow to cool





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PRODUCT LAYOUT



PARTS DESCRIPTION

Figure	Description	Quantity
A	Handle	1
B	Top Compartment	1
C	Top Compartment Release	1
D	Wire Feed Speed Control	1
E	Output Adjustment	1
F	Power Switch	1
G	Power Cord	1
H	Ground Clamp	1
I	Welding Gun	1
J	Welding Gun Trigger	1



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OEMTOOLS™ ONE YEAR WARRANTY

For up to one year from the date of purchase of this OEMTOOLS™ product, if you find any defect in material or workmanship (through normal usage), return it to the place of purchase or to OEMTOOLS™ for repair or replacement at our discretion. In order to obtain this service, send the product and proof of purchase (transportation pre-paid) to:

OEMTOOLS™ Q.A. Dept, 3580 E. Raines Road #3, Memphis, TN 38118.

We will not be responsible for lost or damaged goods during transportation; please insure your package. If our inspection verifies the defect, we will either repair or replace the product, or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

OEMTOOLS™ does not provide warranty for products labeled other than OEM® or OEMTOOLS™. OEMTOOLS™ will not provide any warranty for products subjected to abnormal use. Abnormal use includes (but is not limited to) abuse, accident, alteration, neglect, and unauthorized or unreasonable use or repairs. This warranty does not cover bits, blades, files, batteries, or calibration. We recommend that you maintain your tools and sharpen or replace blades, bits, files, and batteries as necessary. OEMTOOLS™ reserves the right to make any changes in construction or design at any time without any obligation in incorporating such changes to tools or equipment previously sold. OEMTOOLS™ makes every effort to ensure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of one year from the date of purchase. This warranty does not apply to damage due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear or to lack of maintenance.

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 product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Don't forget to register your new OEMTOOLS™ product at www.oem-tools.com.

CONTACT US

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email: customerservice@oem-tools.com