

Eastwood

DO THE JOB RIGHT.

Part #14099

VERSA-CUT 60 PLASMA CUTTER

ASSEMBLY & OPERATING INSTRUCTIONS

(PDF version available at eastwood.com/14099manual)



The **Eastwood-designed Versa-Cut 60 Plasma Cutter** is your smartest choice for making clean, fast cuts through steel, stainless or aluminum as thin as 24-gauge, or as thick as 7/8". Compared to mechanical cutting, our Versa-Cut 60 Plasma Cutter works significantly faster, and makes curved and intricate cuts more easily and precisely. A built in pilot arc system allows for instant arc striking and ease of use when cutting rusty material and expanded metal. The internal moisture separator helps to ensure clean dry air gets to the torch to give you consistent results.

STATEMENT OF LIMITED WARRANTY

The Eastwood Company (hereinafter "Eastwood") warrants to the end user (purchaser) of all new welding and cutting equipment (collectively called the "products") that it will be free of defects in workmanship and material. This warranty is void if the equipment has been subjected to improper installation, improper care or abnormal operations.

WARRANTY PERIOD:

All warranty periods begin on the date of purchase from Eastwood. Warranty Periods are listed below, along with the products covered during those warranty periods:

3 Year Warranty on Material, Workmanship, and Defects:

- Eastwood Versa-Cut 60 Plasma Cutter

Items not covered under this warranty: Electrodes, nozzles, diffuser, and external nozzle.

All other components are covered by the warranty and will be repaired or replaced at the discretion of Eastwood.

2 Years:

- All Welding Helmets.

CONDITIONS OF WARRANTY TO OBTAIN WARRANTY COVERAGE:

Purchaser must first contact Eastwood at 1-800-345-1178 for an RMA# before Eastwood will accept any welder returns.

Final determination of warranty on welding and cutting equipment will be made by Eastwood.

WARRANTY REPAIR:

If Eastwood confirms the existence of a defect covered under this warranty plan, Eastwood will determine whether repair or replacement is the most suitable option to rectify the defect. At Eastwood's request, the purchaser must return, to Eastwood, any products claimed defective under Eastwood's warranty.

FREIGHT COSTS:

The purchaser is responsible for shipment to and from Eastwood.

WARRANTY LIMITATIONS:

EASTWOOD WILL NOT ACCEPT RESPONSIBILITY OR LIABILITY FOR REPAIRS UNLESS MADE BY EASTWOOD. EASTWOOD'S LIABILITY UNDER THIS WARRANTY SHALL NOT EXCEED THE COST OF CORRECTING THE DEFECT OF THE EASTWOOD PRODUCT. EASTWOOD WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (SUCH AS LOSS OF BUSINESS, ETC.) CAUSED BY THE DEFECT OR THE TIME INVOLVED TO CORRECT THE DEFECT. THIS WRITTEN WARRANTY IS THE ONLY EXPRESS WARRANTY PROVIDED BY EASTWOOD WITH RESPECT TO ITS PRODUCTS. WARRANTIES IMPLIED BY LAW SUCH AS THE WARRANTY OF MERCHANTABILITY

ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY FOR THE EQUIPMENT INVOLVED. THIS WARRANTY GIVES THE PURCHASER SPECIFIC LEGAL RIGHTS. THE PURCHASER MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

SPECIFICATIONS

Amperage Output Range	Output Voltage	Weight	Duty Cycle	Overall Dimensions	Electrical Input	Air Requirements
20-60 Amps	104 V	42 Lbs.	60% @ 60 A	17.7" (450mm) x 7.5" (190mm) x 13.6" (345mm)	50-60Hz 220 VAC	5-7 CFM @ 60 psi

DUTY CYCLE

The rated Duty Cycle refers to the amount of cutting that can be done within an amount of time. The Eastwood Versa-Cut 60 Plasma Cutter has a duty cycle of 60% at 60 Amps. It is easiest to look at your cutting time in blocks of 10 Minutes and the Duty Cycle being a percentage of that 10 Minutes. If cutting at 60 Amps with a 60% Duty Cycle, within a 10 Minute block of time you can cut for 6 Minutes with 4 Minutes of cooling for the cutter. To increase the duty cycle you can turn down the Amperage Output control.

SAFETY INFORMATION



READ INSTRUCTIONS!

- Thoroughly read and understand this instruction manual before using the Plasma Cutter.
- Keep this instruction booklet



ELECTRIC SHOCK CAN KILL!

- Improper use of a Plasma Cutter can cause electric shock, injury and death! Read all precautions described in this manual to reduce the possibility of electric shock.
- Do not touch any electrical components that may be live.
- Separate yourself from the Plasma Cutter circuit by using insulating mats to prevent contact from the work surface.
- The Plasma Cutter power switch is to be in the OFF position and the power supply is to be disconnected when performing any maintenance or consumable changes.
- Always wear dry, protective clothing and leather cutting gloves and insulated footwear.
- Always operate the Plasma Cutter in a clean, dry, well ventilated area. Do not operate the Plasma Cutter in humid, wet, rainy or poorly ventilated areas.
- Be sure that the work piece is properly supported and grounded prior to beginning an electric Plasma Cutter operation.
- The electrode and work (or ground) circuits are electrically “hot” when the welder is on. Do not touch these “hot” parts with your bare skin or wet clothing.
- Disconnect from power supply before assembly, disassembly or maintenance of the torch or contact tip.
- Always attach the ground clamp to the piece to be welded and as close to the weld area as possible. This will give the least resistance and best cut.

FUMES AND CUTTING GASES CAN BE DANGEROUS!



- Do not breathe fumes that are produced by the cutting operation. These fumes are dangerous. Keep your head and face out of cutting fumes. Do not breathe the fumes.
- Always work in a properly ventilated area. Wearing an OSHA-approved respirator when cutting is recommended!
- Never cut coated materials including but not limited to: cadmium plated, galvanized, lead based paints.
- Refer to the MSDS (Material Safety Data Sheet) for any consumables or materials used during cutting for additional safety instructions.

CUTTING SPARKS CAN CAUSE FIRE OR EXPLOSION!



- Do not operate Plasma Cutter in areas where flammable or explosive vapors are present.
- Always keep a fire extinguisher nearby while cutting.
- Use cutting blankets to protect painted surfaces, dash boards, engines, etc.
- Ensure power supply has properly rated wiring to handle power usage.
- Do not use on or near combustible surfaces.
- Remove all flammable items within 35 feet of the cutting area.

SAFETY INFORMATION



ARC RAYS CAN BURN!

- Use a shield with the proper filter (a minimum of #11) to protect your eyes from sparks and the rays of the arc when cutting or when observing open arc cutting (see ANSI Z49.1 and Z87.1 for safety standards).
- Use suitable clothing made from durable flame-resistant material to protect your skin. Protect nearby individuals with a non-flammable barrier.
- Wear safety glasses under your welding helmet with side shields.
- If other persons are in the area of cutting use welding screens to protect bystanders from sparks and arc rays.



HOT METAL WILL BURN!

- Electric cutting operations cause sparks and heat metal to temperatures that will cause severe burns!
- Use protective gloves and clothing when performing any Plasma Cutter operations. Always wear long pants, long-sleeved shirts and leather welding gloves.
- Make sure that all persons in the cutting area are protected from heat, sparks and ultraviolet rays. Use additional face shields and flame resistant barriers as needed.
- Never touch work piece until it has completely cooled.



ELECTROMAGNETIC FIELDS MAY BE DANGEROUS!

- The electromagnetic field that is generated during plasma cutting may interfere with various electrical and electronic devices such as cardiac pacemakers. Anyone using such devices should consult with their physician prior to performing any electric cutting operations.
- Exposure to electromagnetic fields while plasma cutting may have other health effects which are not known.



FLYING METAL CHIPS CAN CAUSE INJURY!

- Cutting, brushing, hammering, chipping, and grinding can cause flying metal chips and sparks.
- To prevent injury wear approved safety glasses.



MAGNETIC FIELDS CAN AFFECT PACEMAKERS!

- Any user with a pacemaker should consult their doctor before use.
- Anyone with a pacemaker should stay away from any plasma cutting before consulting a doctor.

NOTICE!

- Do not touch the contact tip with the unit turned "on". Turn the unit "off" before changing tips or cleaning the nozzle.



REQUIRED ITEMS

Before you begin using the Eastwood Versa-Cut 60 Plasma Cutter make sure you have the following:

- A clean, dry air supply source for the torch. An air compressor capable of delivering 5-7 CFM @ 60 PSI is required. You can even use a portable air tank with regulator. The air supply must be dry and the use of a moisture trap is strongly recommended.
- Eastwood recommends at a minimum a properly grounded 220-240 VAC 50/60Hz., 50 Amp circuit.
NOTE: Unit must be grounded to work properly and safely!
- A clean, safe, well-lit, dry, and well-ventilated work area.
- A non-flammable, long sleeve shirt or jacket.
- Heavy-Duty Welding Gloves (#12590 or equivalent)
- Plasma Cutting Glasses (#13948) or Welding Helmet (#13203 or 13212) to provide eye protection during cutting operations.

POWER REQUIREMENTS

The Eastwood Versa-Cut Plasma Cutter is supplied with the popular NEMA 6-50P plug, requiring a NEMA 6-50R receptacle.

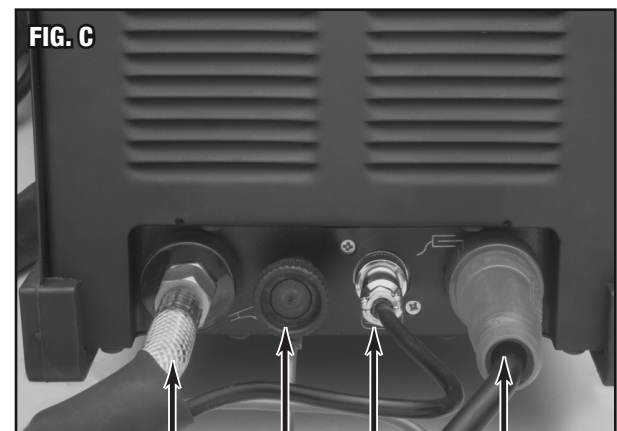
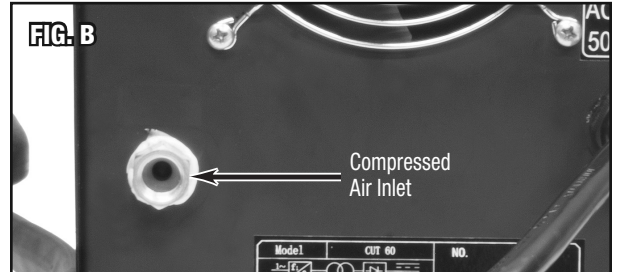
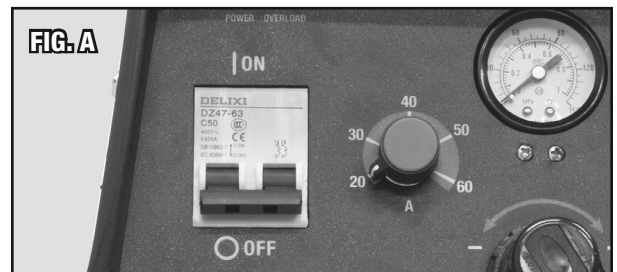
BEFORE YOU BEGIN

Remove all items from the box. Compare with list below to make sure unit is complete.

- Versa-Cut 60 Plasma Cutter
- Torch and 20' Supply Line
- 10' Ground Lead and clamp
- Instruction Booklet
- Face Shield
- Extra Electrode and Nozzle

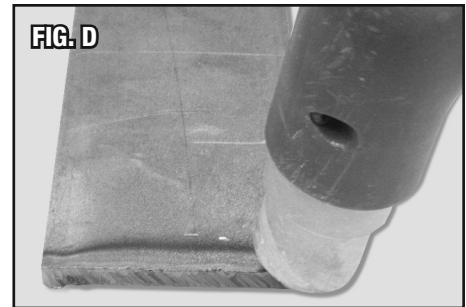
SET-UP

- After the desired current source is determined, be sure the proper plug is used and the appropriate circuitry and breakers are in place.
- Do not plug unit in at this time and make sure the Power Switch on the left side of The Front Panel is in the OFF position (**Fig. A**).
- Install an air fitting compatible with your air line into the 1/4" NPT fitting on the rear of the plasma cutter (**Fig. B**).
- Attach the Torch Air Supply Line to the lower left of the front panel and tighten (**Fig. C**).
- Attach the Torch Switch Connector Cable to the Multi-Pin Connector located on the third from left of the lower front panel (**Fig. C**).
- Remove the black threaded knob (2nd from left) and place the terminal of the red lead over the post, then replace the knob and tighten (**Fig. C**).
- Attach the Ground Lead Connector to the terminal located at the lower right of the front panel (**Fig. C**).



OPERATION

1. Before attempting to use this unit on an actual project or object of value, practice on a similar material as there is a moderate learning curve necessary before achieving proficiency in cutting.
2. Place the Ground Cable Clamp on a clean, bare area of your workpiece. Scrape, wire brush, file or grind a bare area if necessary to achieve a good ground.
3. Set the Air Pressure to the appropriate pressure with the Knob located at the upper right side of the front panel (**FIG. A**). The Pressure Indicating Gauge is located directly above the Air Pressure Knob and is set at 60 PSI.
4. Set the Output Amperage Knob (**FIG. A**) located at the center of the upper panel to an appropriate setting again based on the thickness of the metal being cut; lower amperage for thinner metals, higher amperage for thicker metals. Keep in mind that "more is not always better" as too high of an amperage setting will result in overheating of the unit and excessive molten discharge from the cut.
5. Make sure all your safety gear is in place (Eye Protection, Welding Gloves, non-flammable long sleeve apparel) and the area is completely free of flammable material.
6. The best results are achieved by holding the tip at a 90° angle to the cut line (**FIG. A**).
7. To begin cutting, depress the Torch Trigger to ignite the pilot arc. The tip of the torch must be touching or within a short distance to the work piece to begin the cut. **DANGER:** Plasma Arc consists of superheated, electrified air which will quickly and violently vaporize almost anything in its path.
8. With practice, you will be able to exercise precise control over this extremely powerful device, harnessing its energy to create clean, precise and intricate cuts in many forms of metal up to 7/8" thick.
9. While you practice, experiment with different speeds. You will find that thinner materials will allow a faster motion while thicker materials will require a slower motion to achieve a through cut.
10. A good form of practice is to attempt a series of straight lines while creating the cleanest edge possible with a minimum of molten material remaining on the cut edge. This minimizes the cleanup of the edge with a grinder or file. Another excellent technique is to practice cutting your initials out of a piece of steel.



Versa-Cut 60 Plasma Cutter - Air Pressure and Amperage Settings*

Metal Thickness	1/32"	1/16"	3/32"	1/8"	5/32"	3/16"	7/32"
Amps	20	20	20	20	20	20	30
PSI	60	60	60	60	60	60	60

Metal Thickness	1/4"	9/32"	5/16"	11/32"	3/8"	13/32"	7/16"
Amps	30	30	40	40	40	50	50
PSI	60	60	60	60	60	60	60

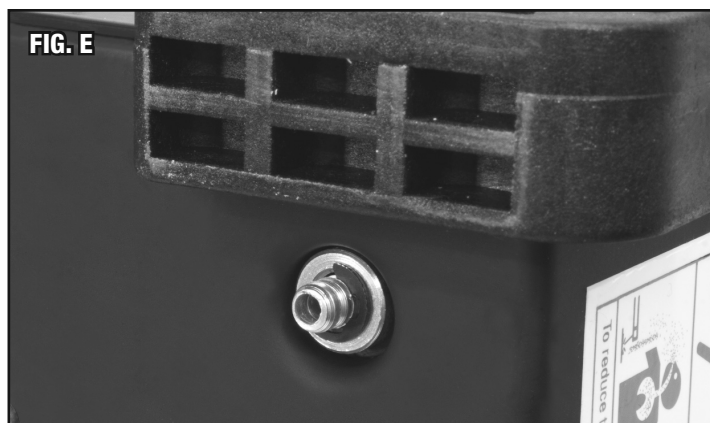
Metal Thickness	15/32"	1/2"	17/32"	9/16"	19/32"	5/8"	21/32"
Amps	50	50	50	50	50	50	50
PSI	60	60	60	60	60	60	60

Metal Thickness	11/16"	23/32"	3/4"	25/32"	13/16"	27/32"	7/8"
Amps	50	50	50	60	60	60	60
PSI	60	60	60	60	60	60	60

*These settings are guidelines and may need to be adjusted based on your techniques.

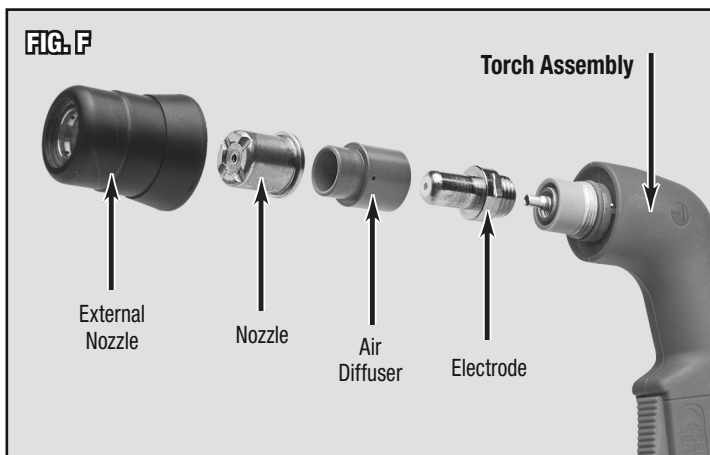
CARE & MAINTENANCE

- It is extremely important that the air supply be clean and dry. A separate moisture trap, water/oil separator or desiccant system should be used. The Versa-Cut 60 Plasma Cutter has a built-in “last-chance” moisture separator which requires draining each time you have completed work with the unit. This feature is located on the underside rear corner and is drained by keeping the unit level and gently pulling down on the drain fitting (**FIG. E**).
- Constantly inspect the torch nozzle for excessive erosion, molten metal accumulation or burning. If damaged, it must be replaced.
- Before each use, inspect ALL electrical connections, cables, supply line, torch, air supply, housing and controls for damage. If any damage or wear is noted, DO NOT USE THE UNIT.
- Always store the unit in a safe, clean and dry environment.



TORCH MAINTENANCE

The Eastwood Versa-Cut 60 Plasma Cutter has a number of consumable parts that will need to be replaced over time. If wear or slag build up is noticed on any of the torch components, replace them immediately to avoid damage to the torch. Worn components will also contribute to poor cutting and difficult arc starting. See the torch components (**FIG. F**) exploded view for a reference of all of the components and the assembly order.



TROUBLESHOOTING

- **The entire unit shuts off during use, switch is in the “on” position**
 - The unit has overheated from exceeding the duty cycle and the internal thermal protection circuitry has been activated. Turn the main power switch off, wait several minutes to allow cooling then turn power switch back on. The unit is ready for service.
- **The power switch is on, the indicator light is illuminated, the fan is running however when the Torch activation button is depressed, there is no sound from the Pilot Arc Igniter and there is no air flow**
 - Check all connections. A loose connection will prevent Torch activation.
 - Check for damaged lines, Torch or Torch Tip.
 - Make sure there is sufficient air flow & pressure. (60 PSI)
- **The power switch is on, the indicator light is illuminated, the fan is running however when the Torch activation button is depressed, there is airflow through the torch but no sound from the Pilot Arc Igniter:**
 - Check all connections. A loose connection will prevent Torch activation.
 - Check for damaged lines, Torch or Torch Tip.
 - Inspect the Torch Tip for damage, excessive molten material build-up or excessive burning. Replace if necessary.
 - Lower Air Pressure to 60 PSI or below
- **The power switch is on, the indicator light is illuminated, the fan is running and when the Torch activation button is depressed, there is airflow through the torch, the Pilot Arc Igniter is activating however a plasma arc cannot be started**
 - Check all connections. A loose connection will prevent Torch activation.
 - Check for damaged lines, Torch or Torch Tip.
 - Inspect the Torch Tip for damage, excessive molten material build-up or excessive burning. Replace if necessary.
 - Input voltage is too low or too high (below 110V or above 240V).
 - Air pressure is too low or too high. Adjust to 60 PSI.
- **The Pilot Arc is sputtering**
 - Lower air pressure to 60 PSI or below.
 - Replace the nozzle and electrode in the torch.

REPLACEMENT ITEMS:

- #14343 Plasma Cutter Torch Assembly, CB70
- #14344 Electrode (10pk), Versa Cut 60
- #12814 Nozzle (10pk), Versa Cut 40/60
- #14557 External Nozzle (2pk), Versa Cut 60
- #13788 Air Diffuser (2pk), Versa Cut 40/60
- #14555 Nozzle Guide (10pk), Versa Cut 60

ACCESSORIES:

- #13689 Plasma Cutting Guide
- #13948 Plasma Cutting Glasses
- #12590 Welding Gloves - Large

If you have any questions about the use of this product, please contact

The Eastwood Technical Assistance Service Department: 800.544.5118 >> email: techhelp@eastwood.com

PDF version of this manual is available online >> eastwood.com/14099manual

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