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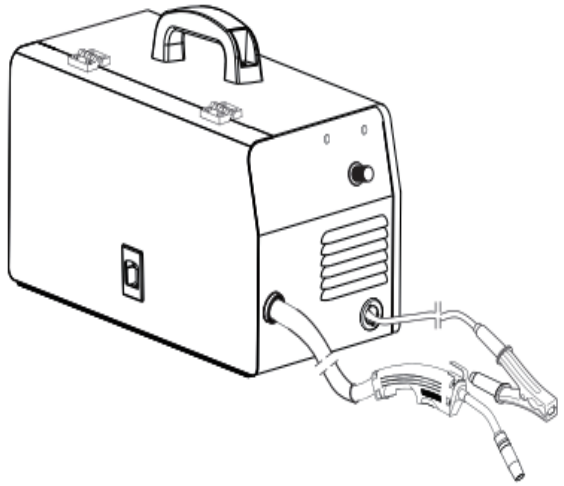

USER'S MANUAL

Portable Flux Core MIG Welder
ET1406US

THIS INSTRUCTION BOOKLET CONTAINS **IMPORTANT** SAFETY INFORMATION. PLEASE READ AND KEEP FOR FUTURE REFERENCE.

Please give us a chance to make it right and do better!

Contact our friendly customer service department for help first.

Replacements for missing or damaged parts will be shipped ASAP!

Follow Costway

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Do NOT return this item.

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Before You Start

⚠ Please read all instructions carefully.

⚠ Retain instructions for future reference.

⚠ Separate and count all parts and hardware.

⚠ Read through each step carefully and follow the proper order.

⚠ We recommend that, where possible, all items are assembled near to the area in which they will be placed in use, to avoid moving the product unnecessarily once assembled.

⚠ Always place the product on a flat, steady and stable surface.

⚠ Keep all small parts and packaging materials for this product away from babies and children as they potentially pose a serious choking hazard.

SAFETY INFORMATION

Before using welding, please ensure that
1.ARC WELDING CAN BE DANGEROUS.
2.THIS WELDING MACHINE MUST BE CONNECTED TO A POWER SOURCE IN ACCORDANCE WITH APPLIANCE ELECTRICAL CODES.
3.FOR SAFETY TURN OFF AND UNPLUG MACHINE WHEN INSTALLING NEW WIRE SPOOL, ADJUSTING WIRE TENSION ROLLER OR REPLACING CONTACT TIP.
4.THE GAS NOZZLE MUST ALWAYS BE INSTALLED WHEN WELDING-DO NOT WELD WITHOUT THE GAS NOZZLE IN PLACE. THE CONTACT TIP IS ELECTRICALLY “HOT” AND IF IT CONTACTS THE GROUNDED WORK PIECE IT WILL CAUSE DAMAGE.
5.ALL INSTALLATION, MAINTENANCE, REPAIR OPERATION OF THIS EQUIPMENT SHOULD BE PREFORMED BY QUALIFIED TECHNICIANS IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL CODES.
6.ELECTRIC SHOCK COULD KILL.
7.DISCONNECT FROM POWER SOURCE BEFORE ASSEMBLING, DISASSEMBLY OR MAINTENANCE OF THE TORCH OR CONTACT TIP OR CHANGING WIRE SPOOLS.
8.FUMES AND WELDING GASES CAN BE DANGEROUS.
9.WELDING SPARKS CAN CAUSE FIRE OR EXPLOSION.
10. ARC RAYS CAN BURN.
11.HOT METAL WILL BURN.
12.ELECTROMAGNETIC FIELDS MAY BE DANGEROUS.
13.Welding should be done in the dry place, the humidity should be less than 90%.
14. Working temperature should be between -10 and 40 degree.
15.Don’t work under sunshine or raining places, water or rain is strictly forbid to leak inside of welder.
16.Don’t work in place full of dust or of corrosive gas.
17.Our welder has protection circuit, and when it’s over load, it will stop working automatically. Each welder of earth screw in the back and with earth marking. Make sure it’s earth connecting before usage.
Use one cable of dia over 6mm2 and the connect cover to earth to release electricity.
18.When welder is working over it’s related duty cycle, welder will go into protection and stop working. In this case, you could wait fan to work by cooling down the temperature and then work again.

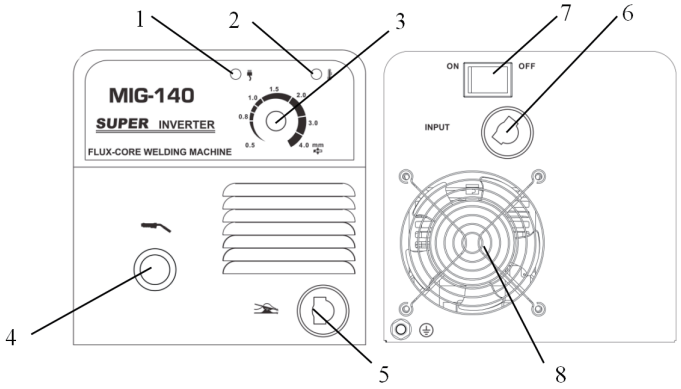
PRODUCT INTRODUCTION

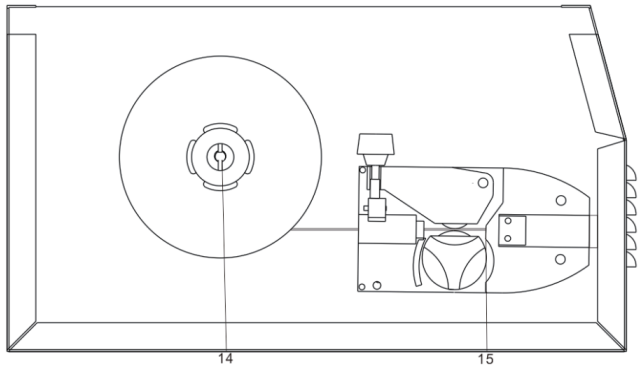
The working principle of Synergic Co2 gas shield Mig welder is to rectify AC input current to direct current,
and then use high power IGBT to invert direct current to high frequency Ac current and then reduce voltage and rectify.
Our mig welder has synergic adjustment function. Users no need to match working voltage and feeder speed separately, so it's easy to use and can reach good welding effect.
The advantage of the welder is as below:
IGBT inverting technology, reliable and stable.
Good tolerance when working in not stable working voltage.
Electric choke control, less spattering, deep penetration and good formation.
Easy to start arc.
Synergic adjustment, easy to operate.
Comparing to traditional welders, it greatly reduces the qty of electrical components used, and improve the reliability of circuit.
The efficiency of this welder could reach more than 85%.

PARAMETERS

Model	MIG-140
Power voltage（V)	110V
Frequency（Hz）	60
Max Working current (A)	90
No load voltage (V)	25-32
Duty cycle（%）	30
Feeder type	Built-in
Machine weight（kg）	6.7
Max Working wire	1kg flux core 0.6-0.9MM
Insulation class	F
Protection class	IP21s

PANELS ILLUSTATION





1、Power indicator
2、Oc lamp
3、Current adjustment
4、welding torch
5、earth clamp connector
6、Input power cable
7：Power switch
8、Fan
14、spool
15、wire feeder

MIG140 welder is of no gas (flux) function. It could weld max 1kgs welding wire . Please be reminded to assemble the correct size of wire in usage.
It is also reminded the nozzle size and wire roller size should be same. For example, 1.0mm wire should use 1.0mm electrode in torch and select 1.0mm side of feeding roller.

HOW TO ASSEMBLE

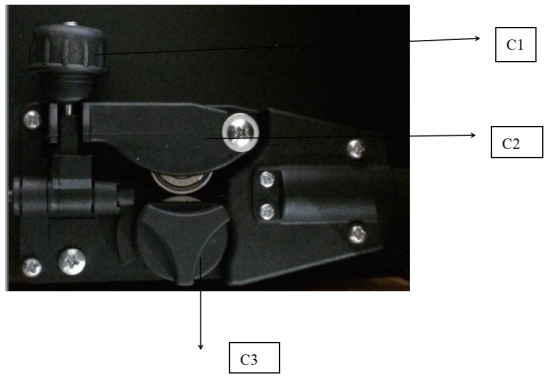
CONNECTING THE WELDER TO A POWER SOURCE

The MIG140 welder requires a dedicated 110V AC, 60 Hz power input. Use correct power voltage for working. (Make sure the cover is earth connecting)

CHANGING THE DRIVE ROLLER

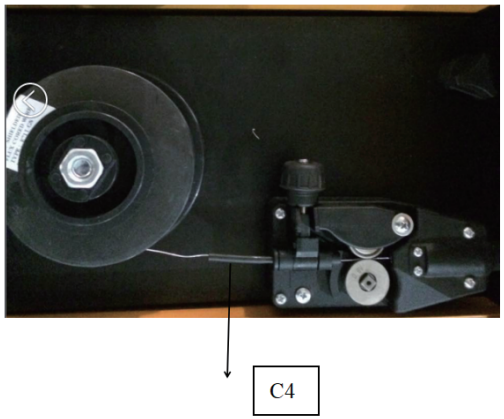
The MIG140 comes set up and ready to use (1.0mm) Flux-Core Wire. If (0.8mm) wire is to be used, the drive roller needs to be adjusted. Adjust the drive roller according to the following procedure:

1.Open the side door of the welder
2.. Lift the Pressure Adjuster (PIC C-C1) out of the way and move the Rocker Arm (PIC . C-C2) away from the drive roller.
3. Remove the Drive Roller Thumb Screw (PIC. C-C3) by turning it counter clockwise and pulling it away from the roller.
4. Remove the Drive Roller and view the wire sizes stamped on each side of the roller.
5. Install the Drive Roller in the orientation so that the size of the wire you are using is facing you on the side of the drive roller.
6. Reinstall the Drive Roller Thumb Screw (PIC. C-C3).
7. Put the Rocker Arm (PIC. C-C2) back in place and reset the Pressure Adjuster (PIC. C-C1).



INSTALLING THE WIRE

The MIG140 could be used with a 10cm diameter wire spool only. To install the wire spool follow the procedure listed below:
1. Open the door of the welder and remove the wing nut (PIC. C-C5) and spacer from the Wire Spool Spindle.
2. Slide the 10cm diameter Wire Spool onto the Wire Spindle and reinstall the spacer and wing nut.



THREADING WELDING WIRE THROUGH THE DRIVE MOTOR TO THE WELDING GUN

This welder uses only self shielding flux-core wire in either size 0.8 or 1.0mm. To install the welding wire follow the procedure outlined below:

1. Turn the power switch to the off position and unplug the welder from the power supply.
2. Remove the contact tip and nozzle from the end of the torch.
3. Ensure that the drive roller is installed in the proper position for the wire size being used.
4. Unlock the Pressure Adjuster (PIC. C-C1) and lift up on the Rocker Arm (PIC. C-C2). Ensure that the wire drive roller is appropriate to the welding wire size see the previous section describing the installation of the drive roller. The drive roller comes installed for (1.0mm) wire.
5. Pull out the welding wire from the wire spool carefully. NOTE: Do not let go of the wire or the entire spool could unravel.
6. Cut off the small piece of the curved segment at the front of welding wire and straighten the

welding wire approximately 3.0" long.
7. Thread the welding wire through the Guide Pipe (PIC. C-C4) and over the wire Drive Roller and into the torch hole.
8. Reattach the Rocker arm and reset the Pressure Adjuster.
9. Turn on the machine and set the wire speed '.
10. With the gun pointed away from you and others, depress the trigger to begin feeding wire. NOTE: Watch the drive roller to see if any slipping is occurring between the roller and wire, if so, turn the machine off and tighten the Pressure Adjuster turn and test again.
11. Once the wire exits the end of the torch, install the contact tip and nozzle. Cut the wire about 0.5-1cm from the end of the contact tip.

USAGE

Your MIG140 can be used to perform a large number of different types of welds, all of which will require practice and testing before using on an actual project piece. This following welding process is just a baseline to get you started.

1. Connect your ground clamp to the work pieces that are to be welded. Make sure the ground clamp contacts are placed on a clean piece of metal free of paint, grease, rust, oils, etc. It is recommended to place your ground clamp as close to the weld area as possible.
2. Assess your weld area and make sure the welding area is also cleaned of any paint, grease, rust, oils, etc.
3. Plug in the welder and switch to the ON position.
4. Depress the Welding Gun trigger pointing the welding gun away from your body and then let go of the trigger and cut the wire back to ~1/4" stick out length.
5. Wearing your welding helmet, gloves, and long sleeve shirt and pants, put the end of the wire sticking out of the gun into the joint to be welded.
6. Position the Welding Gun so that it is perpendicular to the base metal with 15~20° tilt back.

7. Once you depress the trigger and the arc has started, you will notice a molten puddle will form; this puddle is the weld bead and will follow the motion of the Welding Gun. Watching the size of the puddle dictates how fast you should be moving with the torch.
8. Release the trigger on the Welding Gun to stop the welder.
9. After finished welding, turn off the welder.

CHECK FAULT

Problems	Solution
Fan not working and no output current	1、Power switch is broken 2、Make sure input power is correct. 3、Check if there's broken parts of input power cable.
Fan is working normally, and welder is of no output current	1、Check if all inside cables are well connected 2、Check if there's any poor connection in the connectors 3、Check if there's broken of control cable or Torch control switch 4、Check if control board is broken
Fan works normal, but OC lamp is on.	1、May be it's over protection, wait 2-3 minutes when welder is cooling down and then it could work again. 2、 Maybe some problem in pc board.

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We would like to extend our heartfelt thanks to all of our customers for taking time to assemble this product and giving us valuable feedbacks.