

PS07570

201205

MIG135 115 Volt MIG Welder Assembly & Operating Instructions



READ ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT.

This manual provides important information on proper operation & maintenance. Every effort has been made to ensure the accuracy of this manual. These instructions are not meant to cover every possible condition and situation that may occur. **We reserve the right to change this product at any time without prior notice.**

IF THERE IS ANY QUESTION ABOUT A CONDITION BEING SAFE OR UNSAFE, DO NOT OPERATE THIS PRODUCT!

HAVE QUESTIONS OR PROBLEMS? DO NOT RETURN THIS PRODUCT TO THE RETAILER - CONTACT CUSTOMER SERVICE.

If you experience a problem or need parts for this product, visit our website <http://www.buffalotools.com> or call our customer help line at **1-888-287-6981**, Monday-Friday, 8 AM - 4 PM Central Time. A copy of the sales receipt is required.

FOR CONSUMER USE ONLY – NOT FOR PROFESSIONAL USE.

KEEP THIS MANUAL, SALES RECEIPT & APPLICABLE WARRANTY FOR FUTURE REFERENCE.

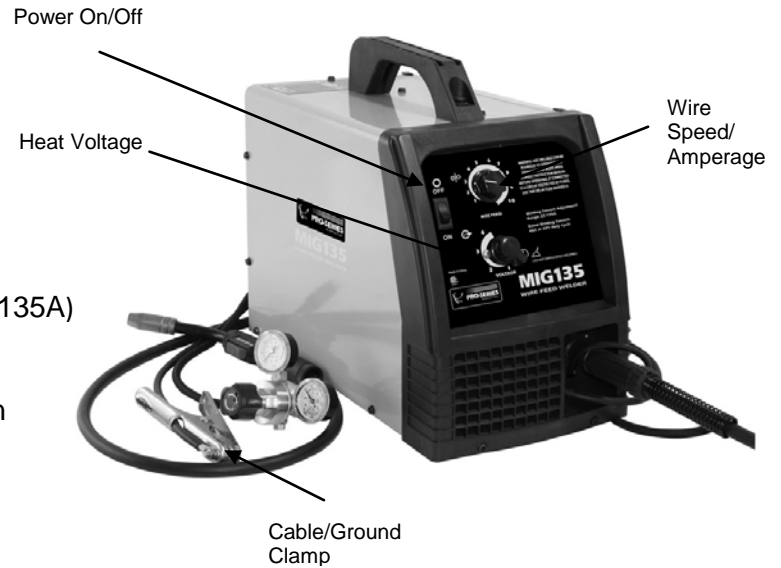
GENERAL PRODUCT SPECIFICATIONS

SPECIFICATIONS

4 Voltage Settings For Fine Adjustment
Input 115V, 60HZ, 20A
Max output 18V Dc
OCV: 29V Dc
Rated Welding Current: 88A at 20% Duty Cycle
Welding Current Adjustment Range 20-88A (PEAK 135A)
Welds Mild Steel Between 24 gauge To 3/16"
In A Single Pass
Self-Resetting Thermal Overload & Motor Protection
Working Air Pressure Range is 40-90psi

FEATURES:

Includes 10 ft MIG Gun (TWECO)
8 Ft Power Cord
9.8 Ft Ground Cable With Clamp
Dual Gauge Regulator With Gas Hose
3 Pieces .030 Contact Tips
0.5 kgs Flux Core Wire
0.5 kgs MIG Wire
5 kgs Spool Adapter



WARNING

This product contains chemicals known to the State of California to cause cancer and birth effects or other reproductive harm.

KEEP THIS MANUAL, SALES RECEIPT & APPLICABLE WARRANTY FOR FUTURE REFERENCE.

READ ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT.

When unpacking, check to make sure all parts listed are included. If any parts are missing or broken, please call Customer Service at 1-888-287-6981.

FOR CONSUMER USE ONLY – NOT FOR PROFESSIONAL USE

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

This manual contains important information regarding safety, operation, maintenance and storage of this product. Before use, read carefully and understand all warnings, cautions, instructions and labels. Failure to do so could result in serious personal injury, property damage or even death.

IMPORTANT SAFETY RULES

COMMON SENSE AND CAUTION ARE FACTORS WHICH CANNOT BE BUILT INTO ANY PRODUCT. THESE FACTORS MUST BE SUPPLIED BY THE OPERATOR.

⚠ WARNING

Keep your work area clean and well lit. Cluttered work benches and dark work areas may cause accidents or injury.

Keep bystanders, children and visitors away while operating the compressor. Distractions can cause you to lose control.

⚠ CAUTION

Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.

Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

⚠ WARNING

Use common sense while operating this welder.

Do not use this tool if you are:

- Feeling tired or are under the influence of alcohol or drugs.
- Wearing loose clothing or jewelry. Keep long hair pulled back and away from moving parts.
- Overreaching or have improper footing. Handling the tool in this way could cause serious injury.
- Wear the proper safety equipment, such as safety goggles, dust masks, non-skid shoes, etc.
- Check to be sure all adjusting keys or wrenches have been removed before use.

⚠ WARNING

Safety glasses and ear protection must be worn during operation. Wear eye protection (see ANSI Z49.1 safety standard) while cutting to protect your eyes from harmful UV and IR ray's.

Read the manual carefully. Learn the tool's applications and limitations, as well as specific potential hazards peculiar to it.

Ground all tools. If the tool is equipped with three-pin plug, it should be plugged into a three-pin electrical socket. Never remove the ground pin.

Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.

Do not expose tool to moisture. Don't use this tool in damp or wet locations: Keep out of rain.

Do not abuse cord. Never use the cord to carry tools or pull the plug from an outlet. Keep cord away from heat, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

Don't overreach. Keep proper footing and balance at all times when operating this tool.

Disconnect the tool from power source before making any adjustments, storing, servicing, or changing accessories. This will reduce the risk of starting the tool accidentally.

Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it was designed.

⚠ WARNING

Do not use the tool if the switch does not turn it on and off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.

Check for damage. Check your tool regularly. If part of the tool is damaged it should be carefully inspected to make sure that it can perform its' intended function correctly. If in doubt, the part should be repaired. Refer all servicing to a qualified technician. Consult your dealer for advice.

Keep away from flammables. Do not attempt to operate this tool near flammable materials or combustibles. Failure to comply may cause serious injury or death.

Store idle tools out of the reach of children and untrained persons. Tools may be dangerous in the hands of untrained users.

Maintain tools with care. Keep tools sharp and clean. Properly maintained tools, with sharp cutting edges, are less likely to bind and are easier to control.

Never exceed the pressure rating of any component in system.

Protect material and air lines from damage or puncture. Keep hose and power cable away from sharp objects, moisture, chemicals, oil, etc.

Check condition of hoses before each use. Do not use a damaged hose. If hose is damaged, replace immediately.

Read, understand and comply with all warning labels on unit.

Keep harmful arc rays shielded from the view of others.

Position the welder on a secure bench or cart that will keep the welder secure and prevent it from tipping over or falling.

Check all cables, power cord and torch to be sure the insulation is not damaged. Always replace or repair damaged components before using the welder.

Check all components to ensure they are clean and in good operating condition before use.

Do not operate the welder if the torch is wet. Do not stand in water while using this welder. These components and the welder must be completely dry before attempting to use it.

Keep the welder in the off position when not in use.

Connect ground lead as close to the area being cut as possible to ensure a good ground.

Do not allow any body part to come in contact with the material being cut, or to the ground or electrode from another welder.

Do not cut if you are in an awkward position. Always have a secure stance while cutting to prevent accidents. Wear a safety harness if working above ground.

Do not drape cables over or around your body.

Wear eye protection (see ANSI Z49.1 safety standard) while cutting to protect your eyes from harmful UV and IR ray's.

⚠ WARNING

Wear proper gloves and protective clothing to prevent your skin from being exposed to hot metals, UV and IR rays.

Do not overuse or overheat your welder. Allow proper cooling time between duty cycles.

Keep hands and fingers away from moving parts.

Do not point the welder torch at any body part or at anyone else.

Always use this welder in the rated duty cycle to prevent excessive heat and failure.

DESCRIPTION

⚠ WARNING

Welding equipment produces fumes or gases which contain chemicals known to the state of California to cause birth defects and, in some cases, cancer. (California Health & Safety code section 25249.5 et seq.)

Heat Settings (4)

To adjust output voltage/heat settings. Refer to the “set up” chart inside the wire feed compartment

Welding Cable and MIG gun

The welding wire is driven through the welding cable and MIG gun to the work piece. It is attached to the drive system, the gun trigger activates the drive motor.

Ground Cable and Clamp

The ground cable/clamp are attached to the work piece to complete the circuit, allowing the flow of current needed to weld.

Thermal Indicator

If the duty cycle of the welder is exceeded the internal temperature will exceed safe temperatures and the machine will shut down. The Thermal overload light will come on, and allow about 15 minutes for cool down before the light will go off and the temperature to fall into an allowable operating range.

Power Cord

The power cord connects the welder to the 115 volt power supply. Plug the 15 amp plug into a 115 volt/20 amp receptacle to supply power to the welder.

INSTALLATION

⚠ WARNING

AC single phase 115v (110-120V), 60HZ with a 20 amp time delayed fuse or circuit breaker is required. DO NOT OPERATE THIS UNIT if the ACTUAL power source voltage is less than 105 volts ac or greater than 132 volts ac.

High voltage danger from power source! Consult a qualified electrician for proper installation of receptacle. This cutter must be grounded while in use to protect the operator from electrical shock.

Power Requirement

AC single phase 115v (110-120V), 60HZ with a 20 amp time delayed fuse or circuit breaker is required. DO NOT OPERATE THIS UNIT if the ACTUAL power source voltage is less than 105 volts ac or greater than 132 volts ac.

Extension cord

It is strongly recommended that an extension cord should NOT be used because of the voltage drop it produces. This drop in voltage can affect the performance of the welder. If you need to use an extension cord it must be a #12 gauge cord or larger. Do not use an extension cord over 25 ft. in length.

Install the wire roller

Before installing any welding wire into the unit, the proper sized groove must be placed into position on the wire drive mechanism. Adjust the drive roller. Open the door to the welder drive compartment. Loosen the tension adjusting wing nut and lifting the Drive Tension Adjustor away from the Drive Tension Arm (see 2). Pull the drive tension arm away from the wire roller

If there is wire already installed in the welder, roll it back onto the wire spool by hand-turning the spool counterclockwise. Be careful not to allow the wire to come out of the rear end of the inlet guide tube without holding onto it or it will unspool itself. Put the end of the wire into the hole on the outside edge of the wire spool and bend it over to hold the wire in place. Remove the spool of wire from the spool hub by removing the drive tensioning wing nut and hardware.

Removal of drive roller

Use the "L" shaped hex wrench in the accessory package, insert the wrench into the set screw in the drive roller and loosen by turning it counterclockwise. Pull the Drive Roller off of the Drive Roller Shaft. Select the correct groove using the following information: Wire Diameter Roller Groove (.024 inch 0.6) (.030/.035 inch 0.8)

The drive roller has two wire size grooves. When installing the drive roller, the number stamped on the drive roller for the wire size you are using should face in. This identifies the inside groove the wire will line up with. Assemble the drive roller onto the drive roller shaft and use the "L" shaped hex wrench to tighten (turn clockwise) it in place. The wire will feed faster without an arc. When an arc is being drawn, the wire speed will slow down.

Hold the MIG gun

The best way to hold the MIG gun is the way that feels most comfortable to you. While practicing to use your new welder, experiment holding the torch in different positions until you find the one that seems to work best for you.

Position the MIG gun to the work piece

There are two angles of the MIG gun nozzle in relation to the work piece that must be considered when welding. Angle A can be varied, but in most cases the optimum angle will be 60 degrees, the point at which the MIG gun handle is parallel to the work piece. If angle A is increased, penetration will increase. If angle A is decreased, penetration will decrease also.

Distance from the work piece

If the nozzle is held off the work piece, the distance between the nozzle and the work piece should be kept constant and should not exceed 1/4 inch or the arc may begin sputtering, signaling a loss in welding performance.

Tuning in the wire speed

One of the most important parts of MIG welder operation, it must be done before starting each welding job or whenever any of the following variables are changed: heat setting, wire diameter, or wire type.

Connect the Ground Clamp to a scrap piece of the same type of material which you will be welding. It should be equal to or greater than the thickness of the actual work piece, and free of oil, paint, rust, etc.

Select a heat setting.

Hold the torch in one hand, allowing the nozzle to rest on the edge of the work piece farthest away from you, and at an angle similar to that which will be used when welding. With your free hand, turn the Wire Speed Dial to maximum and continue to hold onto the knob.

Lower your welding helmet and pull the trigger on the torch to start an arc, then begin to drag the torch toward you while simultaneously turning the Wire Speed Dial counterclockwise.

As you decrease the wire speed, the sound that the arc makes will change from a sputtering to a high-pitched buzzing sound and then will begin sputtering again if you decrease the wire speed too much. The point on the wire speed adjustment where the high-pitched buzzing sound is achieved is the correct setting. Use the wire speed control to slightly increase or decrease the heat and penetration for a given heat setting by selecting higher or lower wire speed settings. Repeat this tune-in procedure if you select a new heat setting, a different diameter wire, or a different type of welding wire.

HOLDING THE TORCH should be maintained at 60 degrees to reduce the chances of molten metal falling into the nozzle. Angle B should be held at zero degrees so that the wire is aiming directly into the weld joint. If you experience excessive dripping of the weld puddle, select a lower heat setting. Also, the weave bead tends to work better than the stringer.

SPOT WELDING INSTRUCTIONS

1. Select the wire diameter and heat setting recommended above for the method of spot welding you intend to use.
2. Tune in the wire speed as if you were going to make a continuous weld.
3. Hold the nozzle piece completely perpendicular to and about 1/4 inch off the work piece.
4. Pull the trigger on the torch and release it when it appears that the desired penetration has been achieved.
5. Make practice spot welds on scrap metal, varying the length of time you hold the trigger, until a desired spot weld is made.
6. Make spot welds on the actual work piece at desired locations.

OPERATION

Check the welder cutter to see if it has been connected correctly and is in good working condition and that it complies with safe operation requirements.

Switch on the power supply switch of the cutter to observe if the operation is normal. If it is normal, the fan should start up and the Power Supply Indicator Light should be on. If there is no compressed air or the air pressure is low the Low Pressure Indicator Light will be on.

Adjust the air supply valve until the air pressure is up to the cutting torch requirement. (Lowest pressure should be no less than 50 PSI), the Low Pressure Indicator Light will not be lit up in those conditions. Adjust the air flow to be sure it is consistent. Pull the torch trigger.

Metal Sheet Cutting

Put the torch's nozzle at the start of the work piece. Turn on the torch. After the work piece is cut thorough, move the torch along the cutting direction uniformly. The cutting speed is determined by watching to see if the cutting goes all the way through. If the speed is too fast, the work piece won't be cut thorough, or if too slow, the cut quality would be affected, excessive warping may occur, or the arc could stop. When you've completed the cutting process, turn off the torch.

Metal Mesh Cutting

Fix the work piece and connect the earth cable with the work piece. Put the cutting nozzle onto the work piece, lift torch up slightly from the work piece and turn on the switch to cut. Unnecessary igniting of the pilot arc in the air will reduce the life-span of the torch's electrode.

Keep a space between the nozzle and the work piece. Pressing the nozzle on the work piece could cause the nozzle to stick, reducing the smoothness of the cutting action creating an undesirable result. Keep the torch's nozzle vertical against the work piece, and watch to be sure the arc is moving along the cutting line.

WARNING

For thin materials reduce the amperage setting to get the best cutting quality, reduce excessive warping and to extend the life of the electrode and nozzle.

Do not rapidly switch the torch trigger on and off; this will damage the pilot arc system and work piece.

Never allow a person with a cardiac pacemaker close to the working area without the permission of a doctor.

Never clean the slag off the torch head by hitting it against a hard object.

SERVICE

Tool service must be performed only by qualified repair personnel. Service or maintenance by unqualified personnel could result in a risk of injury.

When servicing a tool, use only identical replacement parts and follow instructions in the manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of shock or injury.

WARNING

Before using this tool, you need to become familiar with its operation. If you are unsure about the operation of the tool, or have any questions about its proper use, call the Customer Service Department at 1-888-287-6981. Follow these instructions for safe handling of the tool:

- **Be sure your work area is clean and secure.** Be sure the area is free from all foreign material, nails, staples, or any other material.
- **Always use the appropriate safety gear when operating.** Including but not limited to, goggles, dust mask or respirator.