



# MIG250LCD



**Operator's Manual**

**LINLONG LIMITED**  
[www.weldpro.com](http://www.weldpro.com)



**THANK  
YOU**

**for your  
purchase!**



Dear Valued customer,

We at Weldpro would like to thank you very much for being our valued customer. We take great pride in providing quality welding equipment at an affordable price.

As an experienced welder, your feedback (no matter positive or negative) will be an important factor for us to improve the quality of our product and our customer service. We would greatly appreciate if you would take a moment to provide feedback for the product that you purchased.

Weldpro is always there to assist you should you have any questions.

Sincerely, your friends at Weldpro!

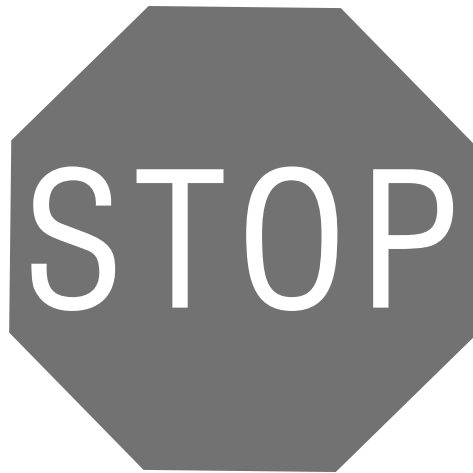


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## IMPORTANT

**For any questions, concerns, or  
problems contact Weldpro**

**Support directly at  
651-329-2686**






## Introduction

This manual contains the description of the hardware and the operating instructions of the equipment. For your safety and that of others, please read this manual carefully.

## Attention

Pay attention to the words following the signs below.

Sign	Description
 <b>DANGER</b>	The word following this sign means that there is great potential danger, which may cause a major accident, damage or even death, if the instructions are not followed.
 <b>WARNING</b>	The word following this sign means that there is some potential danger, which may cause bodily injury or property damage, if the instructions are not followed.
 <b>ATTENTION</b>	The word following this sign means that there is potential risk, which may cause malfunctions and/or breakdowns, if the instructions are not followed.

## Edition

The contents of this manual are updated regularly in order to include all product updates. The manual is to be used solely as a user's guide, except where indicated otherwise. No warranties of any kind, whether expressed or implied are made in relation to the information, descriptions, suggestions or any other content of the manual.

The images of this manual are for reference only. If there is any inconsistency between the image and the actual product, the actual product will govern.

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For Arc  
Welding  
and Cutting  
like a  
Weldpro



Thank you for using Weldpro arc welding and cutting equipment.

We ask you to work like a weld-pro and weld-pros weld and cut safely. Please read and comply with the sample safety procedures outlined in this guide and the equipment Owner's Manual.



Always read and follow the Owner's Manual, the safety labels on the product, and all applicable safety standards, especially ANSI Z49.1, Safety in Welding, Cutting, (we recommend you get a copy and keep it handy).



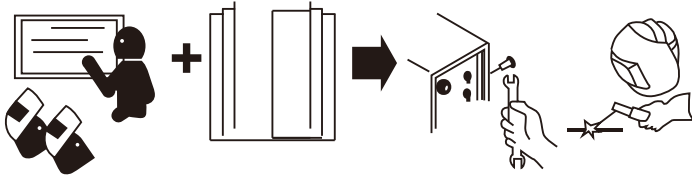
Only qualified persons should install, operate, maintain, and repair this equipment. A qualified person is defined as one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project and has received safety training to recognize and avoid the hazards involved.

Thank you for working safely.

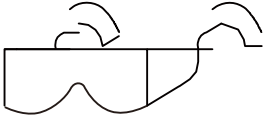
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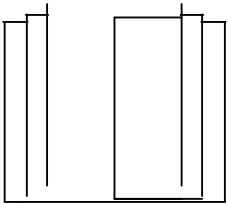
# 1. General Safe Practices



Become trained and read the instructions before working on the machine or welding or cutting. Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.



Wear approved safety glasses with side shields under your welding helmet or face shield and at all times in the work area.



Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.

Wear a safety harness if working above floor level. Keep children away from all equipment and processes.

Do not install or place machine on or over combustible surfaces.

Use GFCI protection when operating auxiliary equipment in damp or wet locations.

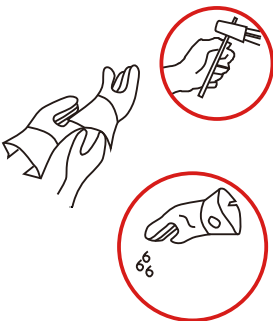
Use only genuine replacement parts from the manufacturer.

Perform installation, maintenance, and service according to the Owner's Manuals, industry standards, and national, state, and local codes.

# 2. Arc Welding Hazards



**Electric shock from welding electrode or wiring can kill.**



Wear dry, hole-free insulating gloves and body protection. Do not touch electrode with bare hand. Do not wear wet or damaged gloves.

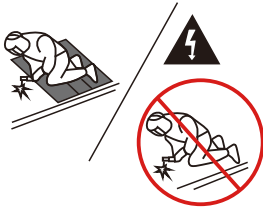
Do not touch live electrical parts.

Do not use AC weld output in damp, wet, or confined spaces, or if there is a danger of falling.

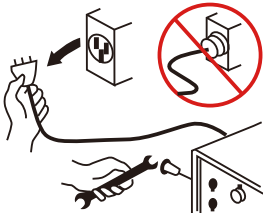
Use AC output ONLY if required for the welding process.

If AC output is required, use remote output control if present on unit. Do not use worn, damaged, undersized, or repaired cables.

Additional safety precautions are required when any of the following electrically hazardous conditions are present: in damp locations or while wearing wet clothing; on metal structures such as floors, gratings, or scaffolds; when in cramped positions such as sitting, kneeling, or lying; or when there is a high risk of unavoidable or accidental contact with the workpiece or ground. For these conditions, use the following equipment in order presented: 1) a semiautomatic DC constant voltage (wire) welder, 2) a DC manual (stick) welder, or 3) an AC welder with reduced open-circuit voltage.



**Protect** yourself from electric shock by insulating yourself from work and ground. Use non-flammable, dry insulating material if possible, or use dry rubber mats, dry wood or plywood, or other dry insulating material big enough to cover your full area of contact with the work or ground and watch for fire.



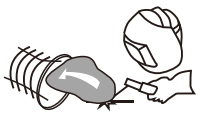
Disconnect input plug or power before working on machine. Do not make input connections if color blind. Frequently inspect input power cord and ground conductor for damage or bare wiring – replace immediately if damaged – bare wiring can kill. Keep cords dry, free of oil and grease, and protected from hot metal and sparks. Be sure input ground wire is properly connected to a ground terminal in disconnect box or receptacle. Properly install, ground, and operate all equipment according to its Owner's Manual and national, state, and local codes.



**Breathing welding fumes can be hazardous to your health.**



Keep your head out of the fumes. Do not breathe the fumes. Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area. The recommended way to determine adequate ventilation is to sample for the composition and quantity of fumes and gases to which personnel are exposed. Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.



Use enough forced ventilation or local exhaust (forced suction) at the arc to remove the fumes from your breathing area.



Use a ventilating fan to remove fumes from the breathing zone and welding area. If adequacy of ventilation or exhaust is uncertain, have your exposure measured and compared to the Threshold Limit Values (TLV) in the Safety Data Sheet (SDS).



**Welding can cause fire or explosion.**



Do not weld near flammable material or where the atmosphere can contain flammable dust, gas, or liquid vapors (such as gasoline). Move flammables at least 35 feet (11 meters) away or protect them with flame-proof covers (see NFPA 51B listed in Section.



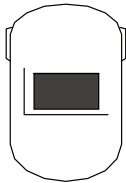
Welding sparks can cause fires. Have a fire extinguisher nearby and have a trained fire watcher ready to use it. After completion of work, inspect area to ensure it is free of sparks, glowing embers, and flames.



Do not weld on containers that have held combustibles, or on closed containers such as tanks, drums, or pipes unless they are properly prepared according to AWS F4.1 and AWS A6.0 (see Safety Standards in Section 9).



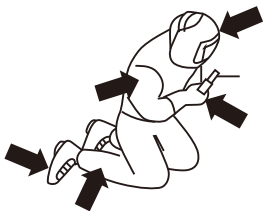
**Welding can cause fire or explosion.**



Use welding helmet with correct shade of filter (see Section to choose the correct shade).



Wear welders cap and safety glasses with side shields. Use ear protection when welding out of position or in confined spaces. Button shirt collar.



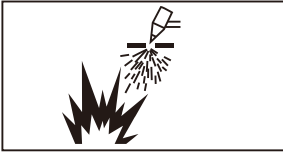
Wear body protection made from durable, flame-resistant material (leather, heavy cotton, wool). Body protection includes oil-free clothing such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.



**Moving parts can injure.**

Keep hands, hair, loose clothing, and tools away from moving parts such as fans, belts, wire drive rolls, and rotors. Keep all doors, panels, and guards closed and secured.

### 3. Plasma Arc Cutting Hazards



**Cutting sparks can cause fire or explosion.**



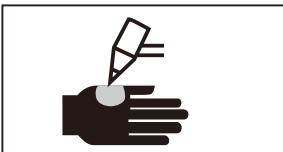
Do not cut near flammable material or where the atmosphere can contain flammable dust, gas, or liquid vapors (such as gasoline). Move flammables at least 35 feet (11 meters) away or protect them with flame-proof covers (see NFPA 51B listed in Section 9).



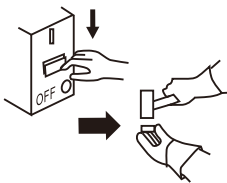
Cutting sparks can cause fires. Have a fire extinguisher nearby, and have a trained fire watch ready to use it. After completion of work, inspect area to ensure it is free of sparks, glowing embers, and flames.



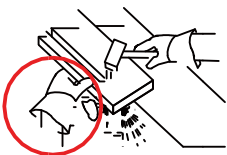
Do not cut on containers that have held combustibles, or on closed containers such as tanks, drums, or pipes unless they are properly prepared according to AWS F4.1 and AWS A6.0 (see Safety Standards in Section 9).



**Plasma arc can injure.**



Turn off power before disassembling torch.



Do not grip material near cutting path.  
Do not touch hot parts bare-handed.

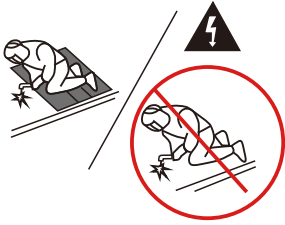




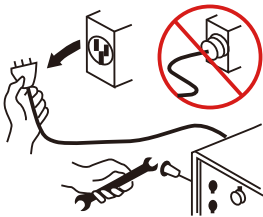
## Electric shock from torch or wiring can kill.



Wear dry insulating gloves. Do not wear wet or damaged gloves. Do not touch live electrical parts.  
Do not use worn, damaged, undersized, or repaired cables.



Protect yourself from electric shock by insulating yourself from work and ground. Use non-flammable, dry insulating material if possible, or use dry rubber mats, dry wood or plywood, or other dry insulating material big enough to cover your full area of contact with the work or ground. Watch for fire, smoke, and sparks.



Disconnect input plug or power before working on machine. Do not make input connections if color blind.

Frequently inspect input power cord and ground conductor for damage or bare wiring – replace immediately if damaged – bare wiring can kill. Keep cords dry, free of oil and grease, and protected from hot metal and sparks. Be sure input ground wire is properly connected to a ground terminal in disconnect box or receptacle.

Properly install, ground, and operate this equipment according to its Owner's Manual and national, state, and local codes.

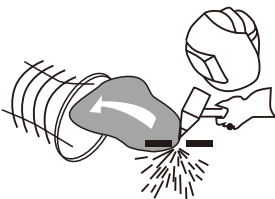


## Breathing cutting fumes can be hazardous to your health.

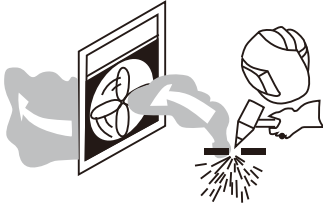


Keep your head out of the fumes. Do not breathe the fumes. Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area. The recommended way to determine adequate ventilation is to sample for the composition and quantity of fumes and gases to which personnel are exposed.

Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.



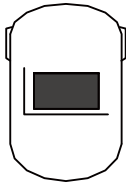
Use enough forced ventilation or local exhaust (forced suction) at the arc to remove the fumes from your breathing area.



Use a ventilating fan to remove fumes from the breathing zone and cutting area. If adequacy of ventilation or exhaust is uncertain, have your exposure measured and compared to the Threshold Limit Values (TLV) in the Safety Data Sheet (SDS).



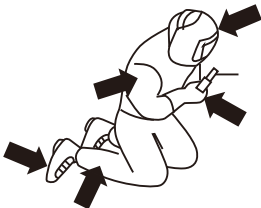
**Arc rays can burn eyes and skin.**



Use welding helmet or face shield with correct shade of filter (see Section to choose the correct shade).



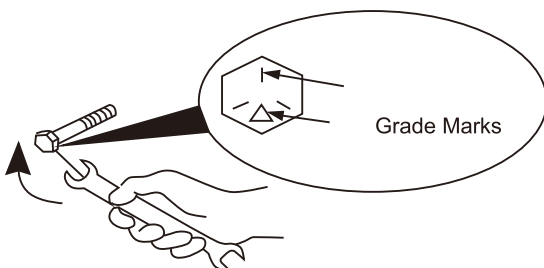
Wear welders cap and safety glasses with side shields. Use ear protection when cutting out of position or in confined spaces. Button shirt collar.



Wear body protection made from durable, flame-resistant material (leather, heavy cotton, wool). Body protection includes oil-free clothing such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.

Periodically double-check all nuts and bolts for tightness and condition

**Loose or incorrect hardware and fasteners can injure, and damage equipment.**



If necessary, always replace any fastener with one of equal size, grade, and type. Be sure the grade marks on replacement fastener match the original bolt. The manufacturer's identification mark .

## 4. Special Situations & Equipment



### Confined spaces can be hazardous.

Confined spaces are areas which lack room for full movement and often lack ventilation, such as storage tanks, vats, tunnels, boilers, pipes, hold of a ship, corners of a room, near a ceiling or floor corner, or in a pit. Gases can collect and form dangerous concentrations.

Always open all covers, remove any hazardous or toxic materials, provide forced ventilation, and provide a means to turn off power and gas from the inside.

Never work alone — have constant communication with someone outside who can quickly turn off power and gas, is trained in rescue procedures, and is able to pull you out in case of emergency.

Do not use AC weld output in confined spaces.

Insulate yourself from work and ground using non-flammable, dry insulating material if possible, or use dry rubber mats, dry wood or plywood, or other dry insulating material big enough to cover your full area of contact with the work or ground, and watch for fire.

Always check and monitor the air quality in the space. Welding or cutting fumes and gases can displace air and lower the oxygen level — use ventilation and, if needed, an air-supplied respirator. Be sure the breathing air is safe. The recommended way to determine adequate ventilation is to sample for the composition and quantity of fumes and gases.

Always remember: All normal arc welding and cutting hazards are amplified in confined spaces. See ANSI Z49.1 listed in Principal Safety Standards (Section 9).



### Cylinders can explode if damaged.

Shielding gas cylinders contain gas under high pressure. If damaged, a cylinder can explode. As gas cylinders are a normal component of the welding process, use extra care to handle them carefully.

Protect compressed gas cylinders from excessive heat, mechanical shocks, physical damage, slag, open flames, sparks, and arcs. Keep away from any welding or other electrical circuits.

Install cylinders in a n upright position by securing to a specifically designed rack, cart, or stationary support to prevent falling or tipping over.

Never weld on a pressurized cylinder or explosion will occur.

Use only correct shielding gas cylinders, regulators, hoses, and fittings designed for the specific application; maintain them and all related components in good condition.

Keep protective cap in place over valve except when cylinder is in use.

Use proper equipment, procedures and have adequate help when moving or lifting cylinders.



### **Electric and magnetic fields (EMF) can affect Implanted Medical**

Wearers of Pacemakers and other Implanted Medical Devices should keep away. Implanted Medical Device wearers should consult their doctor and the device manufacturer before going near arc welding, spot welding, gouging, plasma arc cutting, or induction heating operations.



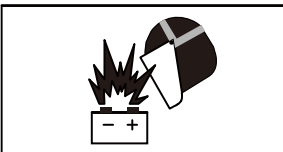
### **Hot parts can burn.**

Do not touch hot welded or cut parts with bare hand. If handling is needed, use proper tools and/or wear heavy, insulated welding gloves to prevent burns. Allow cooling period before handling parts or working on equipment.



### **Falling equipment can injure, and damage equipment.**

Use lifting eye to lift unit only, NOT running gear, gas cylinders, trailer, or any other accessories. Use correct procedures and equipment of adequate capacity to lift and support unit. If using lift forks to move unit, be sure forks are long enough to extend beyond opposite side of unit. Do not place unit where it can easily tip over or fall.



### **Battery charging output and battery explosion can injure.**

Sparks can cause battery gases to explode. Do not smoke and keep matches and flames away from battery. Wear a face shield or safety glasses when working near or on a battery. Do not use welder or plasma cutter to charge batteries or jump start vehicles unless the unit has a battery charging feature designed for this purpose.

## **5. EMF Information**

Electric current flowing through any conductor causes localized electric and magnetic fields (EMF). The current from arc welding (and allied processes including spot welding, gouging, plasma arc cutting, and induction heating operations) creates an EMF field around the welding circuit. EMF fields can interfere with some medical implants, e.g. pacemakers. Protective

measures for persons wearing medical implants have to be taken. For example, restrict access for passers-by or conduct individual risk assessment for welders. All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

1. Keep cables close together by twisting or taping them or using a cable cover.
2. Do not place your body between welding cables. Arrange cables to one side and away from the operator.
3. Do not coil or drape cables around your body.
4. Keep head and trunk as far away from the equipment in the welding circuit as possible.
5. Connect work clamp to workpiece as close to the weld as possible.
6. Do not work next to, sit or lean on the welding power source.
7. Do not weld whilst carrying the welding power source or wire feeder.

About Implanted Medical Devices:

Implanted Medical Device wearers should consult their doctor and the device manufacturer before performing or going near arc welding, spot welding, gouging, plasma arc cutting, or induction heating operations. If cleared by your doctor, then following the above procedures is recommended.

## 6. California Proposition 65 Warnings



**WARNING:** The machine is mainly used for industrial purpose. It will cause radio interference indoor, operators shall take fully preventative measures.

For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



**WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

For Diesel Engines:



**WARNING:** Breathing diesel engine exhaust exposes you to chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## 7. Principal Safety Standards

Safety in Welding, Cutting, and Allied Processes, American Welding Society standard ANSI Standard Z49.1. Website: [www.aws.org](http://www.aws.org).

Safe Practices for the Preparation of Containers and Piping for Welding and Cutting, American Welding Society Standard AWS F4.1 from Global Engineering Documents.

Website: [www.global.ihs.com](http://www.global.ihs.com).

Safe Practices for Welding and Cutting Containers that have Held Combustibles, American Welding Society Standard AWS A6.0 from Global Engineering Documents.

Website: [www.global.ihs.com](http://www.global.ihs.com).

National Electrical Code, NFPA Standard 70 from National Fire Protection Association. Website: [www.nfpa.org](http://www.nfpa.org) and [www.sparky.org](http://www.sparky.org).

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1, from Compressed Gas Association. Website: [www.cganet.com](http://www.cganet.com)

## 8. Lens Shade Selector Guide

Operation/Process	Electrode Size in. (mm)	Arc Current (Amperes)	Minimum Protective Shade	Suggested* Shade No. (Comfort)
Shielded metal arc welding (SMAW)	Less than 3/32 (2.5)	Less than 60	7	—
	3/32–5/32 (2.5–4)	60–160	8	10
	5/32–1/4 (4–6.4)	160–250	10	12
	More than 1/4 (6.4)	250–550	11	14
Gas metal arc welding (GMAW) and flux cored arc welding (FCAW)		Less than 60	7	—
		60–160	10	11
		160–250	10	12
		250–550	10	14
Gas tungsten arc welding (GTAW)		Less than 50	8	10
		50–150	8	12
		150–500	10	14
Air carbon arc cutting (CAC–A)	(Light)	Less than 500	10	12
	(Heavy)	500–1000	11	14
Plasma arc welding (PAW)		Less than 20	6	6 to 8
		20–100	8	10
		100–400	10	12
		400–800	11	14
Plasma arc cutting (PAC)		Less than 20	4	4
		20–40	5	5
		40–60	6	6
		60–80	8	8
		80–300	8	9
		300–400	9	12
		400–800	10	14
Torch brazing (TB)		—	—	3 or 4
Torch soldering (TS)		—	—	2
Carbon arc welding (CAW)		—	—	14
	Plate thickness			
	in.	Mm		
Oxyfuel gas welding (OFW)	Light	Under 3.2		4 or 5
	Medium	3.2 to 12.7		5 or 6
	Heavy	Over 12.7		6 or 8
Oxygen Cutting (OC)	Light	Under 25		3 or 4
	Medium	25 to 150		4 or 5
	Heavy	Over 150		5 or 6


As a rule of thumb, start with a shade that is too dark to see the weld or cut zone. Then go to a lighter shade which gives sufficient view of the weld or cut zone without going below the minimum. In oxyfuel gas welding, cutting, or brazing where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.

Guide adapted from ANSI Z49.1, 2012.

## 9. Weld Cable Selector Guide



 Turn Off power before connecting to weld output terminals.

 Do not use worn, damaged, under- sized, or repaired cables.

**NOTICE :** The Total Cable Length in Weld Circuit (see table below) is the combined length of both weld cables. For example, if the power source is 100 ft (30 m) from the workpiece, the total cable length in the weld circuit is 200 ft (2 cables x 100 ft). Use the 200 ft (60 m) column to determine cable size.

Welding Amperes	Weld Cable Size** And Total Cable (Copper) Length In Weld Circuit Not Exceeding			
	100 ft (30 m) Or Less		150 ft / (45 m)	200 ft / (60 m)
	10 – 60% Duty Cycle AWG (mm2)	60 – 100% Duty Cycle AWG (mm2)	10 – 100% Duty Cycle AWG (mm2)	
100	4 (20)	4 (20)	4 (20)	3 (30)
150	3 (30)	3 (30)	2 (35)	1 (50)
200	3 (30)	2 (35)	1 (50)	1/0 (60)
250	2 (35)	1 (50)	1/0 (60)	2/0 (70)
300	1 (50)	1/0 (60)	2/0 (70)	3/0 (95)
350	1/0 (60)	2/0 (70)	3/0 (95)	4/0 (120)
400	1/0 (60)	2/0 (70)	3/0 (95)	4/0 (120)
500	2/0 (70)	3/0 (95)	4/0(120)	2x2/0 (2x70)
600	3/0 (95)	4/0 (120)	2x2/0 (2x70)	2x3/0 (2x95)
700	4/0 (120)	2x2/0 (2x70)	2x3/0 (2x95)	2x4/0 (2x120)
800	4/0 (120)	2x2/0 (2x70)	2x3/0 (2x95)	2x4/0 (2x120)
900	2x2/0 (2x70)	2x3/0 (2x95)	2x4/0 (2x120)	3x3/0 (3x95)
1000	2x2/0 (2x70)	2x3/0 (2x95)	2x4/0 (2x120)	3x3/0 (3x95)
1250	2x3/0 (2x95)	2x4/0 (2x120)	3x3/0 (3x95)	4x3/0 (4x95)

\* This chart is a general guideline and may not suit all applications. If cable overheating occurs (normally you can smell it), use next size larger cable.

\*\* Weld cable size (AWG) is based on either a 4 volt or less drop or a current density of at least 300 circular mils per ampere.

\*\*\* For distances longer than those shown in this guide, see AWS Fact Sheet No. 39, Welding Cables, available from the American Welding Society at <http://www.aws.org>.

# PRODUCT DESCRIPTION

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This welding machine applies the most advanced inversion technology in the world. The principle of inversion is to transform the incoming AC power frequency of 50Hz/60Hz into direct current and invert it into high frequency (25KHz) through a highpower IGBT device, then perform voltage-drop and commutation with the output high-power DC power supply via Pulse Width Modulation (PWM). Using this switch power inversion technology, the overall weight and volume decrease greatly while the conversion efficiency increases by more than 30%.

This CO2 Argon shielded welding machine is equipped with a unique electronic reactor circuit, which can precisely control short-circuit and mixed transfer, resulting in better performance than other machines. Compared with silicon controlled welding machines and tapped welding, our products have the following advantages: stable wire feed rate, portability, energy-saving, no electromagnetic noise, less spatter, easier arc starting, deep welding pool, higher duty cycle, and more.

In addition to MIG and FCAW, this machine offers SMAW and DC standard and pulse TIG functions as well. The MIG250LCD features a full digital panel display, which is capable of synergic adjustment of feeding speed and welding voltage, as well as manually regulated and independent parameter adjustment.

Thank you for choosing our product. In the interest of continuous improvement of our products, we welcome any and all suggestions related to this machine and its performance. Questions and concerns can be forwarded to [Support@Weldpro.com](mailto:Support@Weldpro.com) or by calling **1-651-329-2686**.



## **WARNING!**

**This machine is mainly used for industrial purposes. It will cause radio interference indoors, and operators shall take full preventative measures.**



# THREE YEARS WARRANTY

## WELDPRO Warranty and Return Terms Welders and Plasma Cutters

All Weldpro welders and plasma cutters are covered under the following specific terms of warranty. All welders and plasma cutters are warranted to the original purchaser only, when purchased through an authorized seller of Weldpro products for a period of three (3) years from the date of purchase, to be free of manufacturers defect or failure. Proof of purchase and date of purchase paperwork will be required by Weldpro at the time of the claim.

Extended warranty coverage may be available for Weldpro welders and plasma cutters at an additional cost. Always check with Weldpro.

The Weldpro warranty is limited to defects, malfunctions or failure of the equipment to operate properly based specifically and solely from manufacturer defects. Any malfunctions from improper use, lack of maintenance, incorrect or insufficient source supply power to the units, shipping damage, and similar failures not related to specific manufacturers defect will not be honored.

Weldpro will not be responsible in the event of a product failure, for lost time in operation or use of said product. Rather it will honor solely the product itself only.

Further, the warranty will cover the repair or replacement of the unit in question for the term of the warranty with either a new or a refurbished unit, or in some cases replacement parts of the same model, at the discretion of Weldpro. As a term of the Weldpro warranty, if and when applicable, individual parts are needed, they may be supplied to the customer rather than replacing the entire unit. Situations like this may include, but are not limited to items such as foot pedals, torches, mig wire rollers, feed spools, or any other item Weldpro deems more practical to supply individually.

Weldpro will provide free shipping return of the damaged product due to manufacturers defect for the first 30 days of the warranty term if shipping is within the lower 48 United States. Customers outside this area must check with Weldpro for further shipping instructions. Failures after the initial 30-day period, and due to manufacturers defect, may not enjoy free return shipping.

If it is determined when the product is returned to Weldpro that there is no malfunction, or that the assumed malfunction by the customer was user error, Weldpro may request a shipping fee refund prior to the return of the item to the customer.

Prior to returning any item thought to be malfunctioning or damaged due to manufacturers defect, customers are required to contact Weldpro first, to explain the failure and to obtain a Return Merchandise Authorization number, or the item may not be covered under the terms of this warranty.

Weldpro ships in the USA from third party shippers such as, but not limited to UPS, FedEx, and the USPS. Weldpro is not responsible for damage that occurs during shipping. It is the customer's responsibility to check the item at the time of delivery. If a customer receives an item damaged, they must immediately contact both Weldpro and the shipper to document and report the damage as soon as possible, and in no circumstances later than 48 hours after delivery. All shipping and delivery dates are tracked for arrival. Weldpro may require photo image of the damage at their discretion.

Returned items within the first 30 days. Undamaged items in good working condition may be returned within the first 30 days of purchase. In such a case, these items are not eligible for the free return shipping policy associated with items that have manufacturers defects. A restocking fee will be charged for said return of up to 25% on any item returned with a valid RMA number that are undamaged and not covered or subject under the terms of this warranty. The amount of the restocking fee is solely at the discretion of Weldpro and based on the condition of the returned item and its accessory parts and packaging. Further, should Weldpro receive an item in good working condition that has sustained physical damage, Weldpro has the right to refuse acceptance of said returned item completely, and the customer will be responsible for return shipping of the product to them.

Weldpro does not imply or suggest any interpretation of the above warranty beyond what is stated in this print of its terms.

Weldpro is not responsible for injury due to improper use of the equipment or failure to heed all of the safety precautions associated with the dangers of welding or cutting metals.

The terms and conditions of the Weldpro warranty are subject to change without notice. Be sure to check the terms of the Weldpro warranty prior to your purchase.

# TECHNICAL PARAMETERS

Model Parameters	MIG250LCD	
Supply voltage (V)	1 phase 115V±15%	1 phase 230V±15%
Frequency (Hz)	50/60	
Rated input current (A)	35.7(MIG) 44.3(MMA) 26.4(TIG)	49.4(MIG) 55.8(MMA) 37.3(TIG)
No-load voltage (V)	58	
Output current (A)	40-120(MIG) 20-120(MMA) 5-120(TIG)	40-250(MIG) 20-250(MMA) 5-250(TIG)
Output voltage (V)	16-20(MIG) 20.8-24.8(MMA) 10.2-14.8(TIG)	16-26.5(MIG) 20.8-30(MMA) 10.2-20(TIG)
Duty cycle (%)	60%120A	60%250A
Power factor	≥0.73	
Efficiency (%)	≥80	
Wire speed (in/min)	80-315	80-708
Post flow (s)	0.5±1.0	
Wire diameter (in)	0.023" to 0.045"	
Appropriate thickness	≥22ga	
Insulation class	F	
Housing protection class	Ip21	
Cooling method	Fan-cooled	
Weight (lb)	109.1	
Dimensions (in)	34.5x25x34.1	

# INSTRUCTIONS FOR INSTALLATION

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This machine is equipped with a power voltage compensation device. It keeps the machine working normally when power voltage fluctuates within  $\pm 15\%$  of rated voltage.

When using longer cables, in order to reduce voltage drop, using larger wire size cable is recommended. If the cable is too long, it will affect the performance of welding and other system functions.

In order to avoid malfunctions of the cooling system, make sure the vents on the machine are not covered or blocked in any way.

Use an earth ground cable that's cross sectional diameter is no less than 10 ga or 6mm<sup>2</sup> to connect the machine housing to earth ground. The method is to connect the grounded interface in the back to the earth ground, or make sure the earth ground end of the power interface has been reliably and independently grounded. Both ways can be used together for better security.

## Installation Procedure:

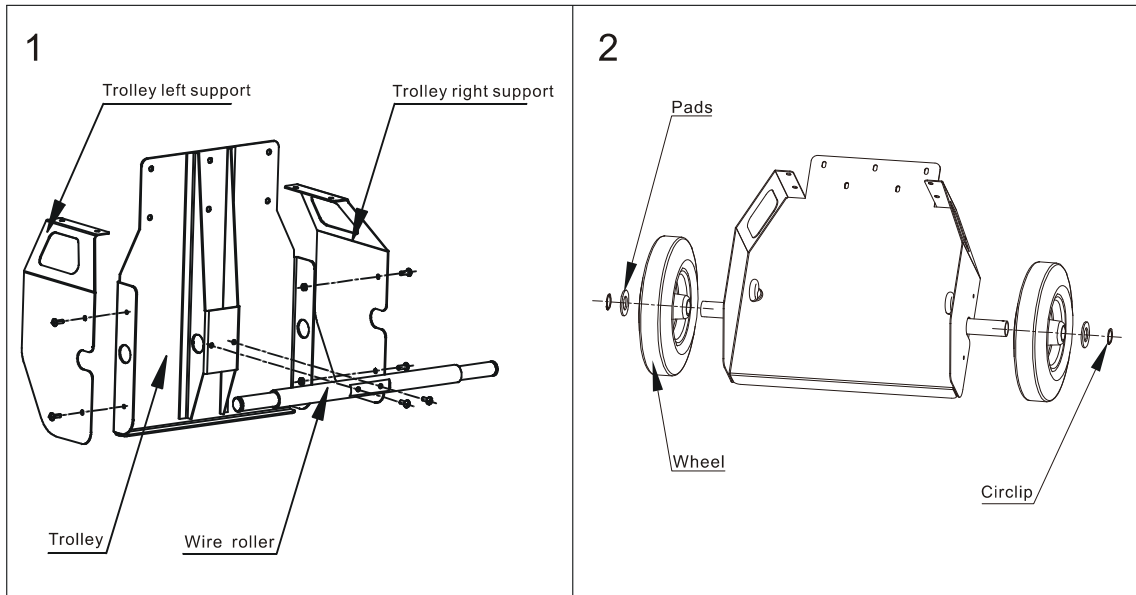
1. Connect the shielding gas regulator flowmeter or flow gauge tightly to the cylinder in addition to all gas hose connections.
2. Insert the cable plug of the ground cable into the correct socket at the front panel.
3. Place the wire spool onto the spool spindle. Match the boss on the spindle to the alignment hole on the wire spool.
4. Match the correct drive roll type, size and contact tip size to wire selection.
5. Loosen both tension screws on the wire drive assembly. Insert the wire into the wire inlet tube, align wire with drive roll grooves and into outlet tube. Adjust the wire tension to feed the wire properly. Too little tension will cause slippage, and too much tension will alter the wire diameter and shape, causing poor feeding.
6. The wire drive rollers turn in a clockwise rotation to feed wire. Feed wire into the gun liner and out the torch end. Remove the contact tip while feeding the wire into the gun. After the wire comes out of the tip end, replace and tighten the contact tip.
7. Double check all connections before welding.

## The following procedure must be completed by an electrician!

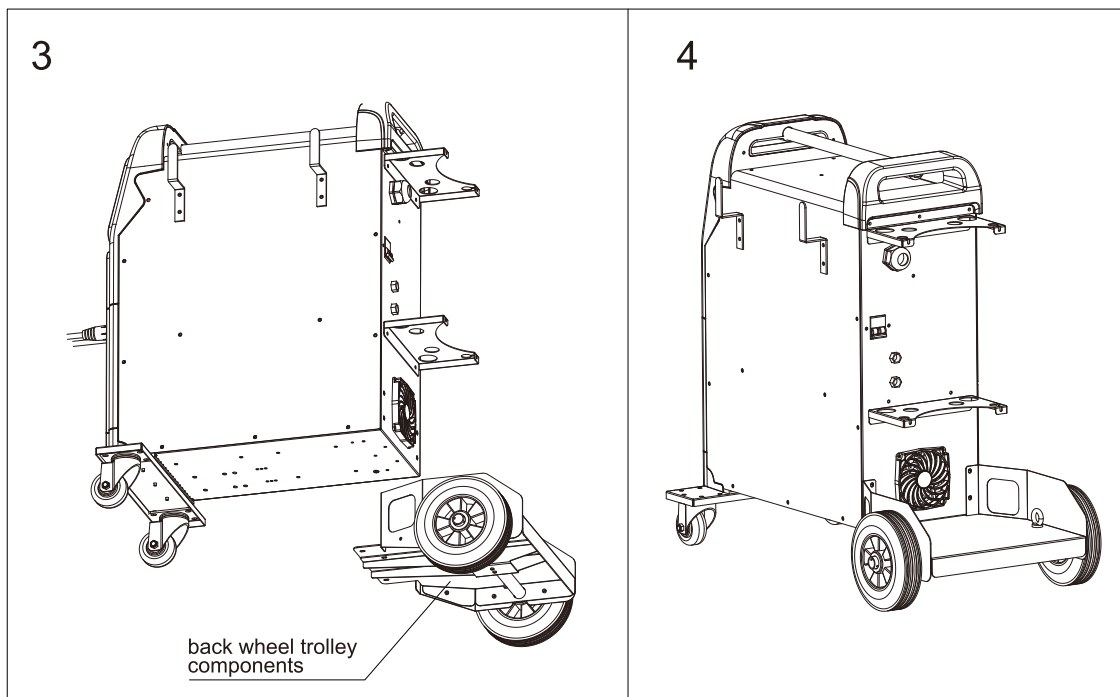
Connect proper power cable to the distribution box with corresponding capacity according to the input voltage and current (See technical parameter table). Do not connect to the incorrect voltage or phase, and make sure that the power supply voltage is within permitted range.

## Steps to install trolley / running gear assembly.

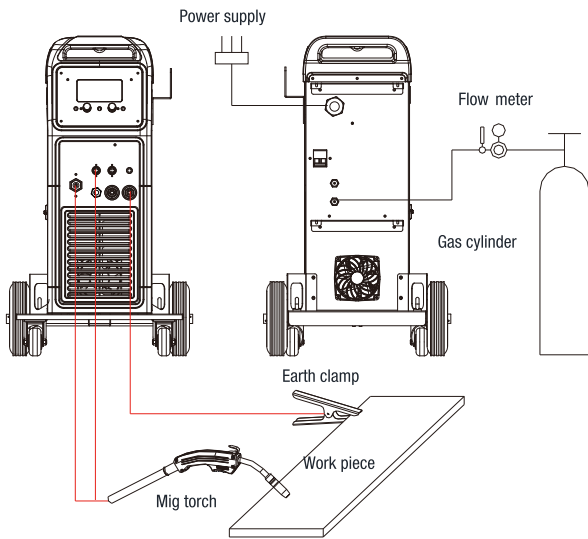
1. Fix the trolley left and right supports and axle (wire roller) to the trolley with 6 included screws (Figure 1). Fix the wheels to the wire roller with washer and circlip or cotter pin (Figure 2).



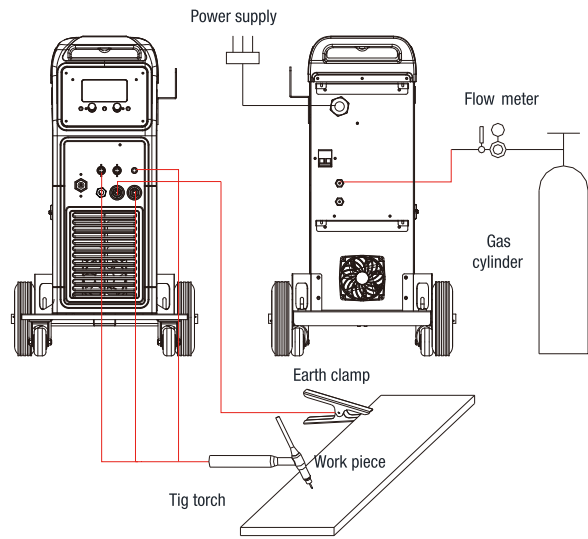
2. Install the bottom of the back wheel trolley assembly to the machine with the 5 screws (Figure 3). Fix cylinder supports to the back of the machine with 6 screws and back wheel trolley assembly with 4 screws (Figure 4).



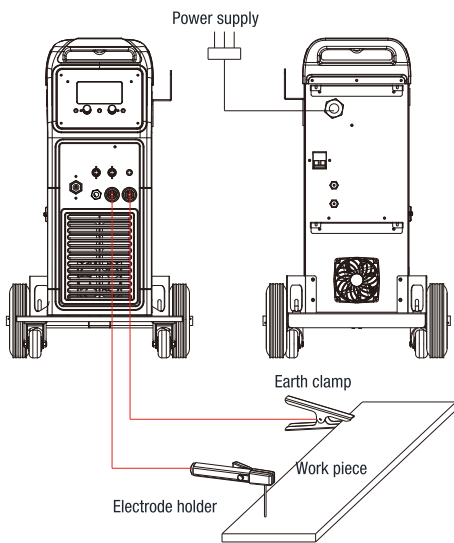
**Explanatory drawing for Installation of MIG250LCD(MIG):**



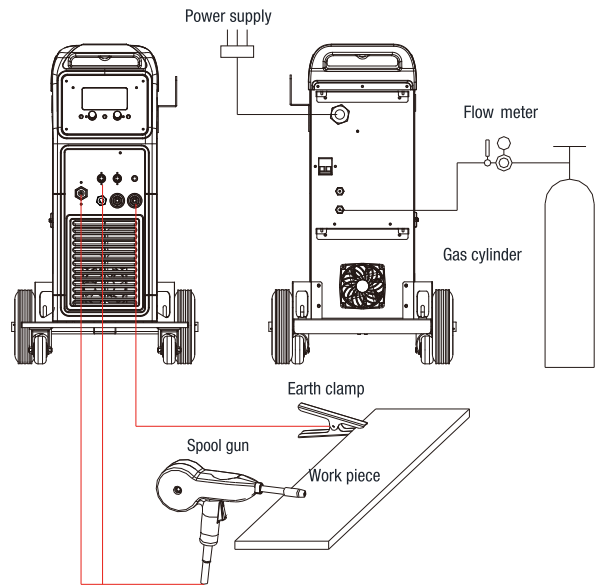
**Explanatory drawing for Installation of MIG250LCD(TIG):**



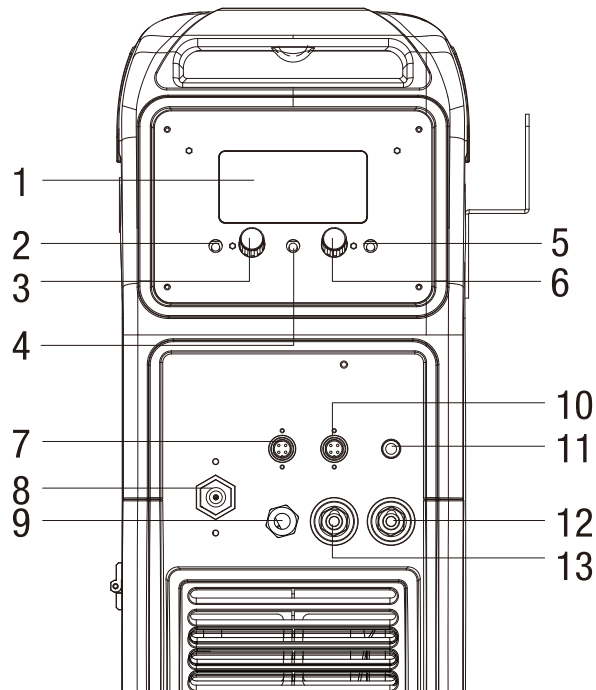
**Explanatory drawing for Installation of MIG250LCD(MMA):**



**Explanatory drawing for Installation of MIG250LCD(SPOOL GUN):**



# PANEL FUNCTION ILLUSTRATION



PANEL FUNCTION ILLUSTRATION

## Front panel instruction:

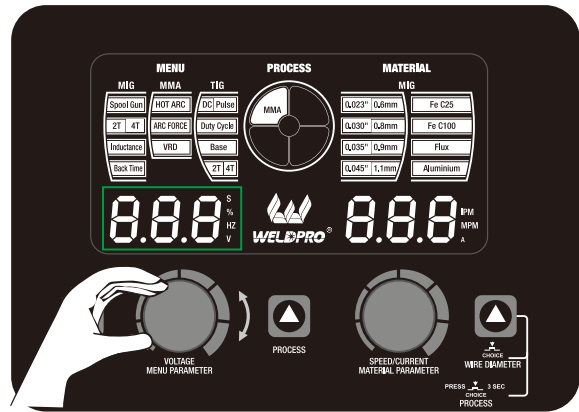
<b>1</b>	LCD Display	<b>2</b>	MENU button
<b>3</b>	VOLTAGE/MENU PARAMETER adjustment knob	<b>4</b>	PROCESS button
<b>5</b>	MIG WIRE DIAMETER	<b>6</b>	SPEED/CURRENT adjustment knob
<b>7</b>	Four pin socket-MIG	<b>8</b>	MIG Gun Power/Gas/Wire Feed Socket
<b>9</b>	MIG Polarity Lead	<b>10</b>	Five pin socket-TIG
<b>11</b>	Gas Connection-TIG	<b>12</b>	Negative Connection
<b>13</b>	Positive Connection		

The following images help indicate the machine setup process

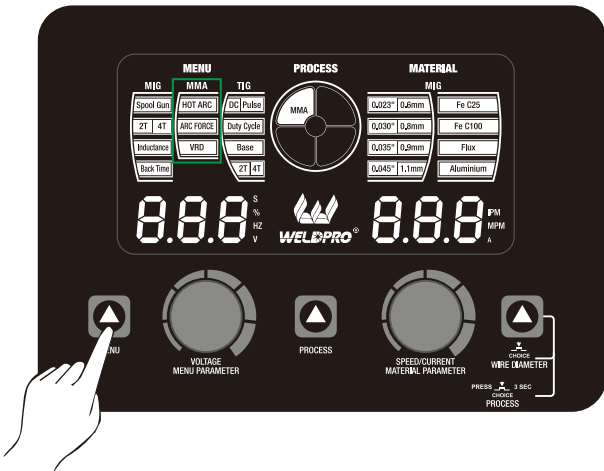
## MMA MODE



**Step 1.** Press the PROCESS button to select MMA mode.

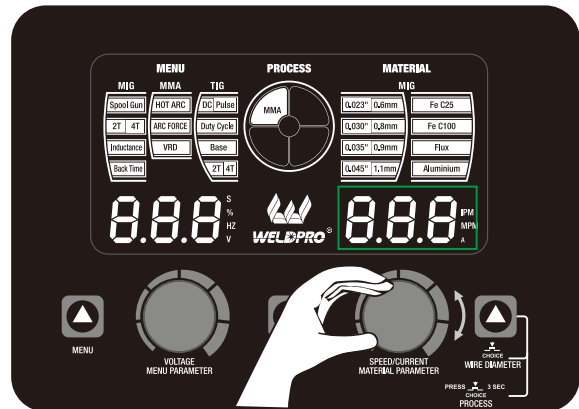


**Step 3.** Rotate the MENU PARAMETER knob to adjust the value of the selected parameter.



**Step 2.** Press the MENU button to select the desired MMA parameter. Parameter adjustments include:

- Hot Start: 0 - 100%
- Arc Force: 0 - 100%
- VRD (Voltage Reduction Device): ON / OFF

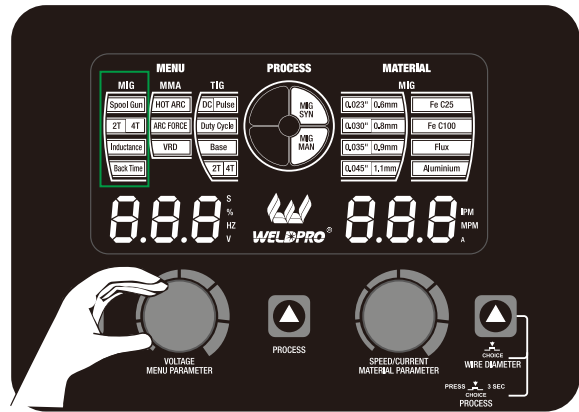


**Step 4.** Rotate the SPEED/CURRENT knob to adjust welding output current.

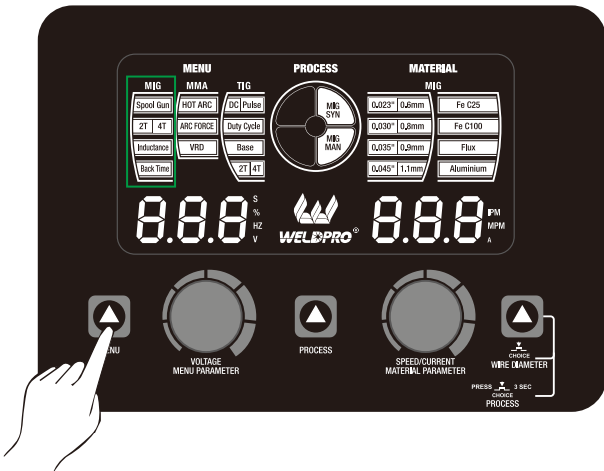
# MIG MODE



**Step 1.** Press the PROCESS button to select MIG SYN (Synergic MIG) or MIG MAN (Manual MIG) mode.



**Step 3.** Rotate the MENU PARAMETER knob to adjust the value of the selected parameter.



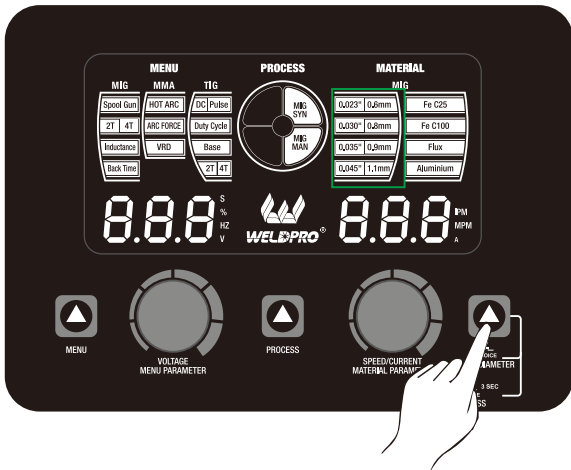
**Step 2.** Press the MENU button to select the desired MIG parameter. Parameter adjustments include:

- 2T / 4T Selection
- Inductance: -10 - +10%
- Burn back time: 0.1 - 1.0 sec

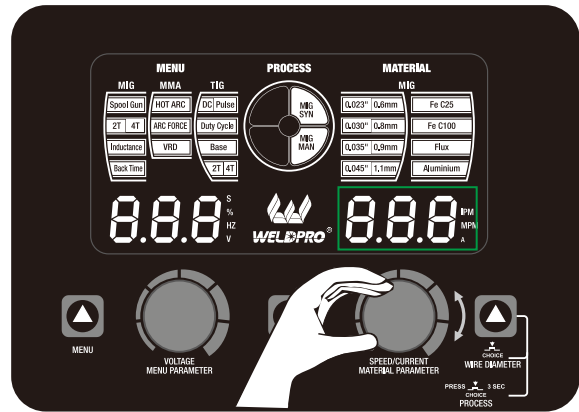


**Step 4.** Press and hold the WIRE DIAMETER button for 3 seconds to choose MIG shielding gas, FCAW, or Aluminum (spool gun). Gas or FCAW selection will affect voltage and wire speed settings in MIG SYN mode. Aluminum must be selected in MIG SYN or MIG MAN mode to use the spool gun.

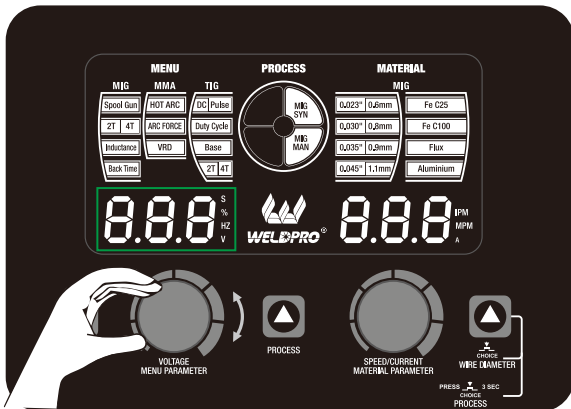




**Step 5.** Press the WIRE DIAMETER button to select the welding wire diameter (MIG SYN mode).



**Step 7.** Rotate the SPEED/CURRENT knob to adjust wire speed (MIG MAN) or wire speed and voltage (MIG SYN).

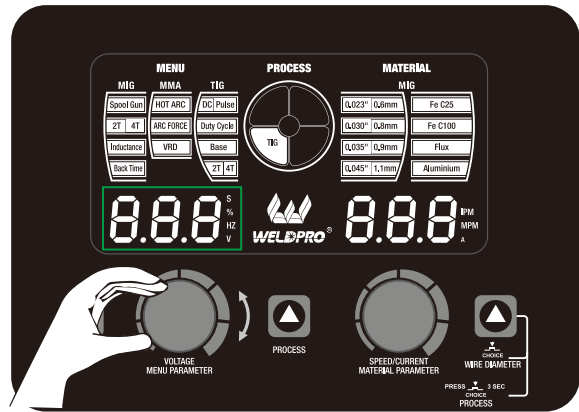


**Step 6.** Rotate the VOLTAGE knob to adjust welding voltage (MIG MAN) or voltage balance (MIG SYN). In MIG SYN mode, voltage balance is adjustable up to +/- 15% of factory preset.

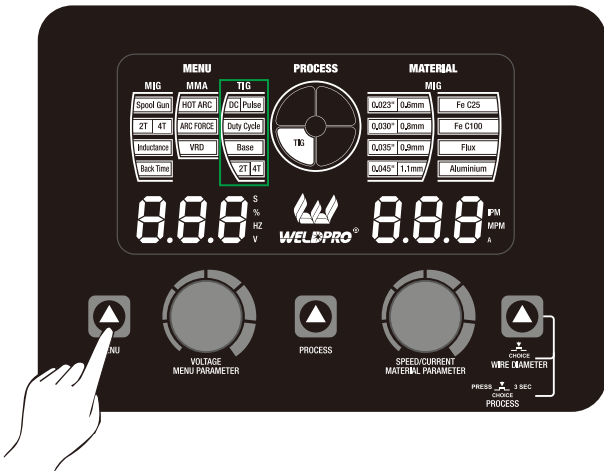
## TIG MODE



**Step 1.** Press the PROCESS button to select TIG mode.

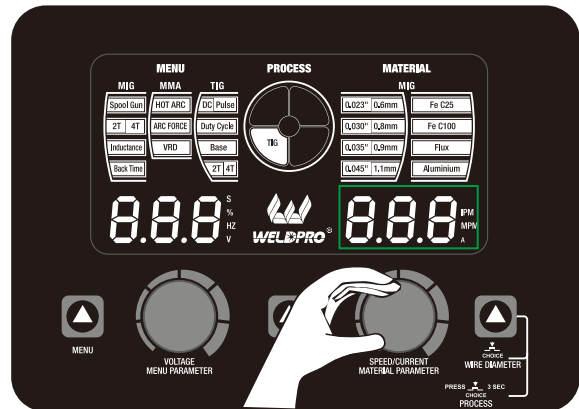


**Step 3.** Rotate the MENU PARAMETER knob to adjust the value of the selected parameter.

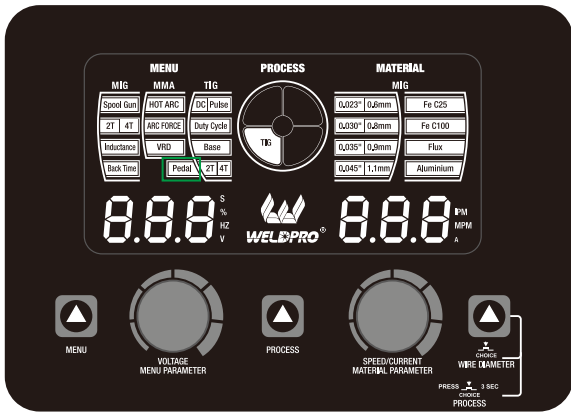


**Step 2.** Press the MENU button to select the desired TIG parameter. Parameter adjustments include:

- Pulse: Off, .5 - 200Hz
- Peak Time: 5 - 95%
- Pulse Base Current: 5-95%
- 2T / 4T Selection

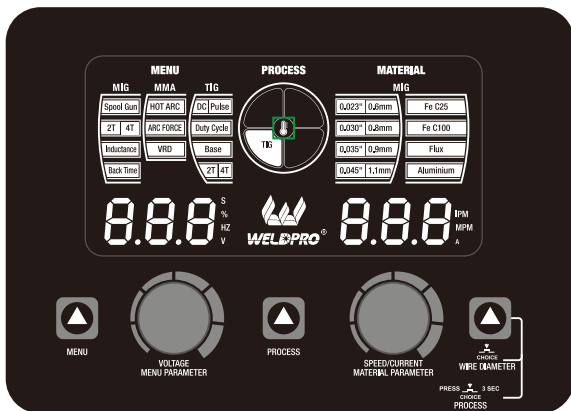


**Step 4.** Rotate the SPEED/CURRENT knob to adjust welding output current.



**Step 5.** Connect the foot pedal and verify that the Pedal icon appears on the LCD display.

## THERMAL OVERLOAD PROTECTION



When the machine is overheated, the temperature indicator will display in the center of the process indicator.

# OPERATION PARAMETER RECOMMENDATION

1. Generally, welding current is adequate to welding electrode according with as following:

Electrode specifications	3/32	1/8	5/32	3/16
Welding current	70-100A	110-140A	170-220A	230-280A

2. Welding variables when use TIG

TIG welding specifications of stainless steel as follows:

Thickness (ga)	Tungsten diameter (in)	Wire diameter (in)	Type of butt joint	Welding current (A)	Gas flow (cfh)
25	0.040	0.040	plain butt joint	35-40	8.4-12.6
21	0.040	0.040	wire filling	35-45	8.4-12.6
19	1/16	1/16		40-70	10.8-16.8
16	1/16	1/16		50-85	10.8-16.8
14	3/32	3/32		80-130	16.8-21
11	1/8	1/8		120-150	21-25.2

OPERATION PARAMETER RECOMMENDATION

### 3. Welding variables when use MIG welding

The values listed in the following table are the general specification values under standard condition.

		Plate thickness (ga)	Wire diameter (in)	Interval (in)	Current (A)	Voltage (V)	Welding speed (in/min)	Wire extension (in)	Gas flow rate (cfm)
Square butt welding	Low welding speed	21	.030,.035	0	60~70	16~16.5	19.7~23.6	0.4	0.4
		19	.030,.035	0	75~85	17~17.5	19.7~23.6	0.4	0.4~0.6
		18	.030,.035	0	80~90	16~16.5	19.7~23.6	0.4	0.4~0.6
		15	.030,.035	0	95~105	17~18	17.7~19.7	0.4	0.4~0.6
		14	.040,.047	0~.020	110~120	18~19	17.7~19.7	0.4	0.4~0.6
		13	.040,.047	.020~.040	120~130	19~19.5	17.7~19.7	0.4	0.4~0.6
		10	.040,.047	.040~.047	140~150	20~21	17.7~19.7	0.4~0.6	0.4~0.6
		7	.040,.047	.040~.060	160~180	22~23	17.7~19.7	0.6	0.6
			.047	.047~.063	220~260	24~26	17.7~19.7	0.6	0.6~0.8
			.047	.047~.063	220~260	24~26	17.7~19.7	0.6	0.6~0.8
			.047	.047~.063	300~340	32~34	17.7~19.7	0.6	0.6~0.8
			.047	.047~.063	300~340	32~34	17.7~19.7	0.6	0.6~0.8
	High welding speed	21	.030,.035	0	100	17	51.2	0.4	0.6
		19	.030,.035	0	110	17.5	51.2	0.4	0.6
		18	.030,.035	0	120	18.5	51.2	0.4	0.6
		15	.040,.047	0	180	19.5	51.2	0.4	0.6
		14	.040,.047	0	200	21	39.4	0.6	0.6
		13	.040,.047	0	220	23	47.2	0.6	0.8
		10	.047	0	260	26	47.2	0.6	0.8
			Plate thickness (ga)	Wire diameter (in)	Current (A)	Voltage (V)	Welding speed (in/min)	Wire extension (in)	Gas flow rate (cfm)
Fillet welding/butt welding	15	.030,.035	60~80	16~17	15.7~19.7	0.4	0.4		
	14	.030,.035	80~100	19~20	15.7~21.7	0.4	0.4~0.6		
	13	.040,.047	120~160	20~22	13.8~17.7	0.4~0.6	0.4~0.6		
	10	.040,.047	150~180	21~23	11.8~15.7	0.4~0.6	0.8~1.0		

		Plate thickness	Wire diameter (in)	Vertical angle of the welding gun	Current (A)	Voltage (V)	Welding speed (in/min)	Wire extension (in)	Gas flow rate (cfm)
Horizontal fillet / butt welding / T joint welding Horizontal fillet / joint welding	Low welding speed	19ga	.030,.035	45°	70~80	17~18	19.7~23.6	0.4	0.4~0.6
		18ga	.035,.040	45°	85~90	18~19	19.7~23.6	0.4	0.4~0.6
		15ga	.040,.047	45°	100~110	19~20	19.7~23.6	0.4	0.4~0.6
		14ga	.040,.047	45°	115~125	19~20	19.7~23.6	0.4	0.4~0.6
		13ga	.040,.047	45°	130~140	20~21	19.7~23.6	0.4	0.4~0.6
		10ga	.040,.047	45°	150~170	21~22	17.7~19.7	0.6	0.6~0.8
		7ga	.040,.047	45°	140~200	22~24	17.7~19.7	0.6	0.6~0.8
		3ga	.047	45°	230~260	24~27	17.7~19.7	0.8	0.6~0.8
		0.35in	.047,.063	50°	270~380	29~35	17.7~19.7	1.0	0.8~1.0
		0.47in	.047,.063	50°	400	32~36	13.8~15.7	1.0	0.8~1.0
	High welding speed	19ga	.030,.035	45°	140	19~20	63	0.4	0.6
		18ga	.035,.040	45°	130~150	19~20	47.2	0.4	0.6
		15ga	.040,.047	45°	180	22~23	47.2	0.4	0.6~0.8
		14ga	.047	45°	210	24	47.2	0.6	0.8
		13ga	.047	45°	230	25	43.3	0.8	1.0
		10ga	.047	45°	270	27	43.3	0.8	1.0
		7ga	.047	50°	290	30	31.5	0.8	1.0
		3ga	.047	50°	310	33	27.6	1.0	1.0
	Low welding speed	21ga	.030,.035	10°	60~70	16~17	15.7~17.7	0.4	0.4~0.6
		18ga	.030,.035	30°	80~90	18~19	17.7~19.7	0.4	0.4~0.6
		15ga	.030,.035	30°	90~100	19~20	17.7~19.7	0.4	0.4~0.6
		13ga	.030,.035	47°	100~130	20~21	17.7~19.7	0.4	0.4~0.6
			.040,.047	47°	120~150	20~21	17.7~19.7	0.4	0.4~0.6
		10ga	.040,.047	47°	150~180	20~22	13.8~17.7	0.4~0.6	0.8~1.0
		7ga	.047	47°	200~250	24~26	17.7~19.7	0.4~0.6	0.8~1.0

# ATTENTIONS & PREVENTIVE MEASURES

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## 1.Environment

1. The machine works in environment where air conditions are dry with a dampness level of max 90%.
2. Ambient temperature should be between -10 to 40 degrees centigrade.
3. Avoid welding with equipment in extreme heat or sun or rain. Avoid water entering the machine.
4. Avoid welding in dust area or the environment with corrosive gas.
5. Avoid gas welding in the environment with strong airflow.

## 2.Safety Checkpoint

Our welding machine has a protection circuit of over voltage, over current and over heat. When voltage, output current and temperature of machine are exceeding the rated standard, welding machine will stop working automatically. Excessive operation under over voltage, over current or over heat may damage the machine; operator must pay attention to followings.

### 1) The working area is adequately ventilated!

Each machine has an internal fan to ensure its stable performance. Make sure the intake is not blocked or covered, there should be 0.3 meter distance from welding machine to objects of environment. User should make sure the working area is adequately ventilated. It is important for the performance and the longevity of the machine.

### 2) Do not over load!

The operator should keep an eye on max duty current (Compared to the selected duty cycle) to make sure that the machine working current does not exceed max duty cycle current. Over-load current will damage and even burn the machine.

If machine exceeds standard duty cycle, it may stop working and switch to protection status. The temperature control switch is activated by over heat released under this circumstance. Meanwhile, the over heat indicator lights up. Under this situation, you do not need to pull out the power plug since the internal fan can work to cool down the machine. When the over heat indicator stops, the temperature has been lowed down to standard range, operator is able to starting working again.

### 3) Do Not over voltage!

Power voltage can be found in diagram of parameters. Automatic compensation circuit of voltage will assure that welding current keeps is in allowable range. If power voltage is exceeding allowable range limits, it can damage the components of machine. The operator should understand this situation and take preventive measures.

# POTENTIAL OPERATING PROBLEMS

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The phenomenon listed below may happen due to relevant accessories used, welding material, surroundings and power supply. Please improve surroundings and avoid these problems.

## **A. Arc starting difficulty. Arc interruption happens easily:**

1. Examine whether grounding wire clamp contacts with the work pieces well.
2. Examine whether each joint has improper contact.
3. Be VERY aware of "Hot Rolled" steels mill scale. You may think you have cleaned your work but mill scale is stubborn and will create a bad ground for your work clamp. Aggressively grind away mill scale to clean shiny metal and not merely clean shiny mill scale!

## **B. The output current fails to reach rated value:**

Deviation of input power voltage from rated value may cause the output current to vary with adjusted value. When the power voltage is lower than rated value, the maximum output current may be lower than rated value.

## **C. The current can not keep stable during operation:**

This situation may relate to the following factors:

- 1 The voltage of electric power network changes.
- 2 Serious interference from electric power network or other electric facilities.
- 3 Be sure to check circuit breakers for proper operation.

## **D. Porosity in welds**

- 1 Examine whether the gas supply circuit has leakage.
- 2 Examine whether there are contaminants such as oil, dirt, rust, paint etc. on the surface to be welded.

**Remember, Support is available at 1-651-329-2686 Please take advantage of our service should you need to.**



# DAILY MAINTENANCE

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## **WARNING!**

**The power shall be cut off completely before all maintenance, repairing works. Make sure to pull out power plug before opening the case.**

1. Remove dust regularly with dry compressed air. If the welding machine is used in surroundings with heavy smoke and polluted air, it is necessary to remove dust at least one time one month.
2. The pressure of compressed air can cause damage to small components in the machine.
3. Be sure all electrical connections are clean and secure.
4. Prevent water from entering into the machine and prevent the machine from getting wet. If any, gently blow and dry..
5. If the welding machine is not used for a long time, pack the machine in original package and store in dry surroundings.
6. Periodically check, clean and lubricate drive mechanisms. Check all consumables for need of replacement.

# INITIAL PROBLEM DIAGNOSIS

Remember most problems are the result of one or more set up steps needing attention.

For example: tight parts loosen, forgetting to switch on, wrong set up, cable broken and gas rubber pipe cracked, bad circuit breaker, etc. Therefore, please test and inspect these factors. For this reason, an initial diagnosis list for general welding troubles is shown below.

## Initial problems diagnose

Area and Item to be Inspected and Maintained		Abnormal Condition								
		No Arc Starting	No gas out	No Wire Feeding	Bad Arc Ignition	Unstable Arc	Dirt on Edge of Weld Seam	Wire Stick to Parent material	Wire Stick to Conductive Tip	Blowhole Formed
Distribution Boxes (Input Protection Devices)	<ol style="list-style-type: none"> <li>1. Turn on power supply or not?</li> <li>2. Fuse burnt out.</li> <li>3. Connection joint loose.</li> </ol>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Input Cable	<ol style="list-style-type: none"> <li>1. Examine whether the cable is cut off.</li> <li>2. Connection joint loose.</li> <li>3. Over heat.</li> </ol>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Welding Power Operation	<ol style="list-style-type: none"> <li>1. Turn on power supply or not?</li> <li>2. Phase Lacking.</li> </ol>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Gas Cylinder and Gas Regulator	<ol style="list-style-type: none"> <li>1. Turn on gas supply.</li> <li>2. Residual Amount of Gas in the Cylinder.</li> <li>3. Set value for flow.</li> <li>4. Connection joint loose.</li> </ol>					<input type="radio"/>				<input type="radio"/>
Gas supply hose (the whole line from the high pressure cylinder to the weld gun)	<ol style="list-style-type: none"> <li>1. Connection joint loose.</li> <li>2. Gas hose damaged.</li> </ol>									<input type="radio"/>

**INITIAL PROBLEM DIAGNOSIS**

## Initial problem diagnosis

Area and Item to be Inspected and Maintained		Abnormal Condition								
		No arc	No Gas out	No Wire Feeding	Bad Arc Ignition	Unstable Arc	Dirt on Edge of Weld Sea	Wire Stick to Parent	Wire Stick to Conductive Tip	Blowhole Formed
Wire Feeding Device	<ol style="list-style-type: none"> <li>Wire feeding wheel does not match with the diameter of wire in texturing tube.</li> <li>Dirt on wire feeding wheel, groove blocked Too tight or loose of the tensioner handle</li> <li>Cable liner scored or bent, kinked.</li> </ol>			○	○	○	○		○	
Weld Gun and Cable	<ol style="list-style-type: none"> <li>Wire not feeding smoothly</li> <li>Dirty contact tip, wire feeding liner and cable diameter Worn, blocked up or deformation, etc.</li> </ol>				○	○	○		○	
Body of weld gun	<ol style="list-style-type: none"> <li>Loose connection of conductive tip, nozzle and nozzle contactor.</li> <li>Contact of weld gun body is not plunged in or tightened well .</li> </ol>						○			○
Power supply cable of weld gun as well as cable of switch control	<ol style="list-style-type: none"> <li>Breaker off No power.</li> <li>Bad Ground.</li> </ol>	○	○	○		○		○		
Surface Condition of Parent material and length that wire stretches out	<ol style="list-style-type: none"> <li>Oil, dirty, rust and paint residues.</li> <li>Too long length of wire stretched out.</li> </ol>				○	○	○	○		○
Output Cable	<ol style="list-style-type: none"> <li>Cross-section of cable that connects to parent material is not enough.</li> <li>Loose connection of (+),(-)output cable.</li> <li>Bad electric conductivity of parent material.</li> </ol>				○	○	○			
Lengthened Cable	<ol style="list-style-type: none"> <li>Cross-section of cable is not enough.</li> <li>Poor connection.</li> </ol>				○	○	○	○		
Work Condition for Welding	Welding current, voltage, angle of weld gun, welding rate and wire length stretched out should be confirmed once again gas supply.				○	○	○	○	○	

Contact support if needed at 1-651-329-2686

# DAILY CHECKING

WELDING POWER SUPPLY		
Position	Check points	Remarks
Control panel	<ol style="list-style-type: none"> <li>1. Switch condition of operation, transfer and installation.</li> <li>2. Test the power indicator.</li> </ol>	
Cooling fan	<ol style="list-style-type: none"> <li>1. Check if there is wind and the sound normal or not.</li> </ol>	Fan design may be on demand.
Power part	<ol style="list-style-type: none"> <li>1. When electrified, abnormal smell or not.</li> <li>2. When electrified, abnormal vibration and buzz or not.</li> <li>3. Color changing and heating or not in appearance.</li> </ol>	
Periphery	<ol style="list-style-type: none"> <li>1. Gas pipe broken, loosen or not.</li> <li>2. Housing and other fixed parts loosen or not.</li> </ol>	

WELDING TORCH		
Position	Check points	Remarks
Nozzle	If installation fixed, the front distorted.	Reason for air hole
	Contaminated with weld spatter.	Reason for burning the torch (can use spatter-proof material )
Contact Tip	If installation fixed.	Reason of torch screw thread damage.
	Damage of its head and hole blocked or not.	Reason of unstable arc and broken arc.
Wire sending tube inner liner	Check the extended size of the pipe.	Change when less than 6mm, when the extended part too small, the arc will be unstable.
	Wire diameter and the tube inner diameter match or not.	Reason of unstable arc, please use the suitable tube.
	Partial bending and extended.	Reason of poor wires sending and unstable arc, please change.
	Block caused by dirt in the tube, and the remains of the wire plating lay.	Reason of poor wire sending and unstable arc, (use kerosene to wipe or change new one).
	Wire sending tube broken.	tube broken, change new tube.
Gas bypass	Forget to insert or the hole blocked, or different factory component.	May lead to vice (splash) because of poor gas shield, torch body get burned (arc in the torch).

## WIRE DRIVE MOTOR

Position	Checking keys	Remarks
Tension arm	Adjust arm to the suitable indicating level do not over tighten.	Lead to unstable arc and wire sending.
Wire lead tube	residue build up in the mouth of the wire tube.	Clean the residue and check the reason and solve it.
	Wire diameter and the tube inner diameter match or not.	If not match, lead to unstable arc and residue.
	Check the tube mouth center is large enough.	If unmatched,it can lead to unstable arc.
Wire wheel	Wire diameter matches the wheel's requirement If the wheel slot blocked.	<ol style="list-style-type: none"> <li>1. Lead to unstable arc and residue, and block wire tube.</li> <li>2. Change new one if necessary.</li> </ol>
Pressure wheel	Check the stability of its move, and wearing-out of pressed wire, the narrowing of its contact surface.	Lead to unstable arc and wire sending.

## CABLE

Position	Checking keys	Remarks
Torch cable	<ol style="list-style-type: none"> <li>1. If torch cable over bended.</li> <li>2. If the electrical connection point of plug is loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Cause poor wire sending.</li> <li>2. Unstable arc if cable over bended.</li> </ol>
Output cable	<ol style="list-style-type: none"> <li>1. Wearing-out of the cable insulated material.</li> <li>2. Cable connecting bare (insulation damage), or loosen (the end of power supply, and cable of main material connecting point).</li> </ol>	<p>For life security and stable welding, adopt suitable method to check according to working place.</p> <ul style="list-style-type: none"> <li>• Simple check daily.</li> <li>• Careful and in-depth check on fixed period.</li> </ul>
Input cable	<ol style="list-style-type: none"> <li>1. If the connection between the plug and the power socket is firm.</li> <li>2. If the power input end cable fixed.</li> <li>3. If the input cable is worn out and bares the conductor.</li> </ol>	
Earth cable	If the earth cable that connects the main part is broken and connects tightly.	







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