沃维电气 WOWELD ELECTRIC

深圳市沃维电气制造有限公司

Shenzhen Woweld Electric Co., Ltd.

Inverter TIG-200C welding mahine

MMA & TIG, Single phase,50~60 Hz

Rugged, lightweight, portable, full functionality, and easy operation to meet the requirements from all types of different users.

1.Features

* Advanced inverter technology for superior TIG arc performance
* Superior stick welding performance with arc force and hot start settings
* Completely portable welding performance
* Rugged and durable case design
* IP21 S rating for use in harsh environments

Accessories

☑ Torch	☑Earth Cable	☑Clamp
WP-17 Compact torch/4m	3m/25mm^2	300A

2. Application: manufacturing, Aerospace, Pressure Vessel, Stainless Steel

3. Process: TIG, MMA(stick)

4. Technical Data

Item No.	Function	Rated Input Voltage V	Rated Input Power KVA	Rated Output Current A	Duty Cycle	Dimension L*W*H CM
TIG-200C	MMA	220/240	6.5	160	45%	35*15*23
	TIG		5.6	200		

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SAFETY

⚠ WARNING

ARC WELDING CAN BE HAZARDOUS. PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH. KEEP CHILDREN AWAY. PACEMAKER WEARERS SHOULD CONSULT WITH THEIR DOCTOR BEFORE OPERATING.

BE SURE THAT ALL INSTALLATION, OPERATION, MAINTENANCE AND REPAIR PROCEDURES ARE PERFORMED ONLY BY QUALIFIED INDIVIDUALS.

ELECTRIC AND MAGNETIC FIELDS may be dangerous.

1.a Electric current flowing through any conductor causes localized Electric and Magnetic Field (EMF). Welding current creates EMF fields around welding cables and welding machines.

1.b EMF fields may interfere with some pacemakers, and welders having a pacemaker should consult their physican before welding.

1.c All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

1.d.1 Route the electrode and work cables together – Secure them with tape when Possible

1.d.2 Never coil the electrode lead around your body.

1.d.3 Do not place your body between the electrode and work cables. If the electrode cable is on your right side, the work cable should also be on your right side.

1.d.4 Connect the work cable to the workpiece as close as possible to the area being welded.

ARC RAYS can burn.

2.a Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc. Headshield and filter lens should conform to ANSI Z87. I standards.

2.b Use suitable clothing made from durable flame-Resistant material to protect your skin and that of your helpers from the arc rays.

2.c Protect other nearby personnel with suitable, non-flammable screening and/or warn them not to watch the arc nor expose themselves to the arc rays or to hot spatter or metal.

ELECTRIC SHOCK can kill.

3.a The electrode and work (or ground) circuits are electrically “hot” when the welder is on. Do not touch these “hot” parts with your bare skin or wet clothing. Wear dry, hole-free gloves to insulate hand.

3.b Insulate yourself from work and ground using dry insulation. Make certain the insulation is large enough to cover your full area of physical contact with work and ground.

In addition to the normal safety precautions, if welding must be performed under electrically hazardous conditions (in damp locations or while wearing wet clothing; on metal structures such as floors, grating or scaffolds; when in cramped positions such as sitting, kneeling or lying, if there is a high risk of unavoidable or accidental contact with the workpiece or ground) use the following equipment:

- **Semiautomatic DC Constant Voltage (Wire) Welder.**
- **DC Manual (Stick) Welder.**
- **AC Welder with Reduced Voltage Control.**

3.c In semiautomatic or automatic wire welding, the electrode, electrode reel, welding head, nozzle or semiautomatic welding gun are also electrically “hot”.

3.d Always be sure the work cable makes a good electrical connection with the metal being welded. The connection should be as close as possible to the area being welded.

3.e Ground the work or metal to be welded to a good electrical (earth) ground.

3.f Maintain the electrode holder, work clamp, welding cable and welding machine in good, safe operating condition. Replace damaged insulation.

3.g Never dip the electrode in water for cooling.

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FUMES AND GASES can be dangerous.

4.a Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases.When welding, keep your head out of fume. Use enough ventilation and/or exhaust at the arc to keep fumes and gases away from the breathing zone. **When welding with electrodes which require special ventilation such as stainless or hard facing (see instructions on container or MSDS) or on lead or cadmium plated steel and other metals or coatings which produce highly toxic fumes, keep exposure as low as possible and below Threshold Limit Values (TLV) using local exhaust or mechanical ventilation. In confined spaces or in some circumstances, outdoors, a respirator may be required. Additional precautions are also required when welding on galvanized steel.**

4.b Do not weld in locations near chlorinated hyfrocarbon vapors coming from degreasing, cleaning or spraying operations. The heat and rays or the arc can react with solvent vapors to form phosgene, a highly toxic gas, and other irritating products.

4.c Shielding gases used for arc welding can displace air and cause injury or death. Always use enough ventilation, especially in confined areas, to insure breathing air is safe.

4.d Read and understand the manufacturer's instructions for this equipment and the consumables to be used,including the material safety data sheet (MSDS) and follow your employer's safety practices. MSDS forms are available from your welding distributor or from the manufacturer.

FOR ELECTRICALLY powered equipment.

5.a Turn off input power using the disconnect switch at the fuse box before working on the equipment.

5.b Install equipment in accordance with the national standard all local standards and the manufacturer' recommendations

5.c Ground the equipment in accordance with the national standards and the manufacturer's recommendations.

WELDING SPARKS can cause fire or explosion.

6.a Remove fire hazards from the welding area. If this is not possible, cover them to prevent the welding sparks from starting a fire. Remember that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas. Avoid welding near hydraulic lines. Have a fire extinguisher readily available.

6.b When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact cab cause overheating and create A fire hazard.

6.c Do not heat, cut or weld tanks, drums or containers until the proper steps have been taken to insure that such procedures will not cause flammable or toxic vapors from substances inside. They can cause an explosion even though they have been "cleaned".

6.d Sparks and spatter are thrown from the welding arc. Wear oil free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes and over your hair.

CYLINDER may explode if damaged.

7.a Use only compressed gas cylinders containing the correct shielding gas for the process used and properly operating regulators designed for the gas and pressure used. All hoses, fittings, etc. should be suitable for the application and maintained in good condition.

7.b Always keep cylinders in an upright position securely chain undercarriage or fixed support.

7.c Cylinder should be located:

- Away from areas where they may be struck or subjected to physical damage
- A safe distance from arc welding or cutting operations any other source of heat, sparks, or flame.

7.d Never allow the electrode, electrode holder or any Other electrically "hot" parts to touch a cylinder.

7.e Keep your head and face away from the cylinder valve Outlet when opening cylinder value.

Operation

5.1 Front & rear panel layout

Welding Current

MMA/TIG

"-" Terminal

Gas Out

Power Lamp

O.C Lamp

Post Flow

Torch Connector

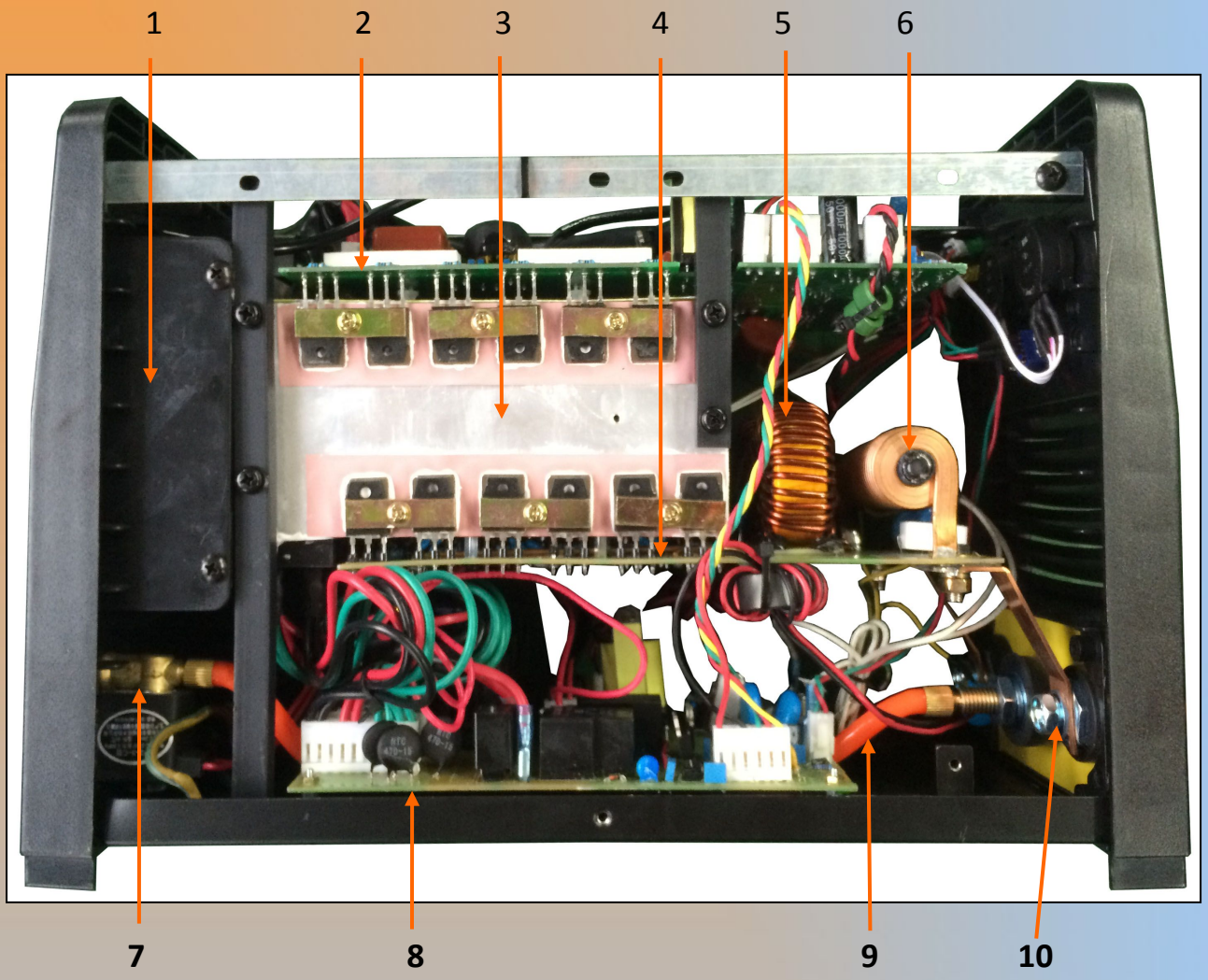
"+" Terminal

Power Switch

Gas In

Input Cable

5.2 Spare parts identification



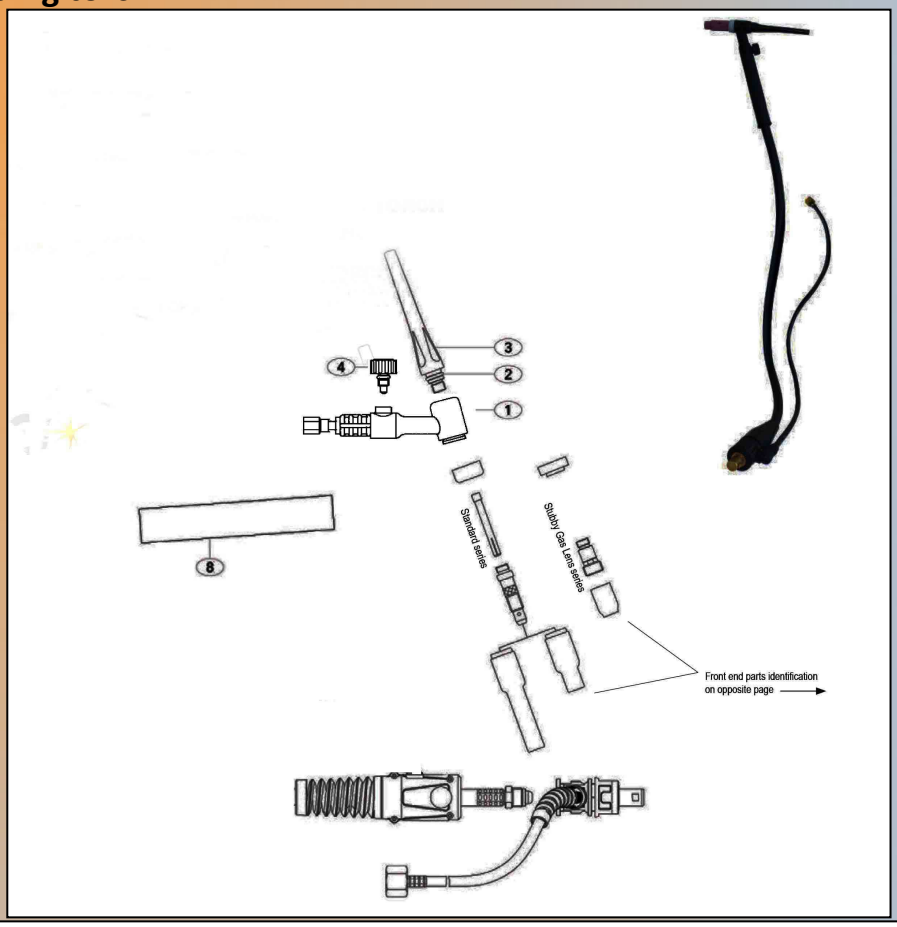
Part List

1	Fan	2	Inverter PCB board	3	Hestsink
4	Rectifier PCB board	5	Main Transformer	6	Arc Starter
7	Gas In	8	Capacitor PCB board	9	Gas Tube
10	“-” Terminal				

5.3 Install procedure

1.Welding machine should be installed in a stable position and with good ventilation. Avoid direct sun outdoors. Avoid transport in invert or side position.
2.Connect electrode holder, earth cable, according to connection diagram.
3.Set welding current according to Table
4.Commission the machine after the machine is installed and tested.

6.TIG welding torch

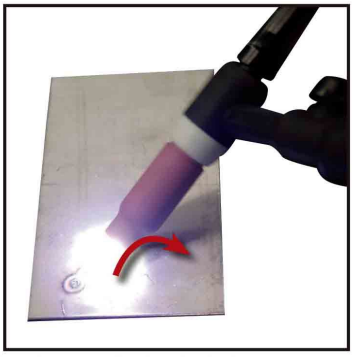


6) Assemble front end parts of the TIG torch, fitting a sharpened tungsten suitable for DC welding.

(7) Turn on the Gas Valve

(8) Lay the outside edge of the Gas Cup on the work piece with the Tungsten Electrode 1- 2mm from the work piece.

(9) With a small movement rotate the Gas Cup forward so that the Tungsten Electrode touches the work piece.



(10) Now rotate the Gas Cup in the reverse direction to lift the Tungsten electrode from the work piece to create the arc.

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Troubleshooting

CAUTION	If for any reason you do not understand the test procedures or are unable to perform the tests/repairs safely, contact your local authorized **WOWELD** Electric Field Service Facility for technical assistance.

Observe all Safety Guidelines detailed in the beginning and throughout this manual.

Problems (Symptoms)	Possible Areas of Misadjustment(s)	Recommended Course of Action
Output Problems		
Major physical or electrical damage is evident when the sheet metal covers are removed.	None	Contact **WOWELD** Electric Field Service facility for technical assistance.
Input breaker keeps tripping	1. Make certain that fuses or breakers are properly sized. See Installation section of this manual for recommended fuse and breaker sizes 2. Welding procedure is drawing too much output current, or duty cycle is too high.Reduce output current, duty cycle, or both. 3. There is internal damage to the power source.	If there is internal damage, contact **WOWELD** Electric Service facility for technical assistance.
Machine will not power up (no lights, no fan, etc.)	1. Make certain that the power to device is energized and is within the operating range.	In a typical installation the main power switch on the controller is the power switch.
Thermal LED is lit.	1. Check for proper fan operation. (Fan should run whenever output power is on.) Check for material blocking intake or exhaust louvers, or for excessive dirt clogging cooling channels in machine. 2. Machine may have been operated above it's duty cycle..	Clear obstruction or repair fan After machine has cooled, reduce load, duty cycle, or both
Machine won't weld, can't get any output.	1. The ALARM light is lit, input voltage is too low or too high. Make certain that input voltage is proper, according to the Rating Plate. 2.If the Thermal LED is also lit, see Thermal LED is Lit section.	Contact **WOWELD** Electric Field Service facility for technical assistance.
Machine won't produce full output.	1. Input voltage may be too low, limiting output capability of the power source. Make certain that the input voltage is proper, according to the Rating Plate. 2. Current or voltage display meter is not properly calibrated. 3. Maybe the welding cable and work cable are too long, or their across area art too small.	1.Correct input voltage level. 2.Contact **WOWELD** Electric Field Service facility for technical assistance. 3.Please shorten welding cable and work cable, or use bigger size cables for reducing the voltage drop on cables.
General degradation of the weld performance	1. Check for electrode holding problems, bad connections, excessive loops in cabling, etc.	If the machine need Calibration Contact **WOWELD**

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Problems (Symptoms)	**Possible Areas of Misadjustment(s)**	**Recommended Course of Action**
	2. Verify weld mode is correct for processes. 3. The power source may require calibration.	Electric Field Service facility for technical assistance.
The welding arc is not stable and soft.	1. Verify the proper polarity is being used for the weld procedure. 2. Check all electrode and work connections. 3. Verify the parameters of output current and shielding gas(TIG mode) are proper for the welding procedure. 4. Try to adjust arc force value on control panel. 5. PC board in machine possibly at fault.	If PC board in machine is at fault contact **WOWELD** Electric Field Service facility for technical assistance.
Starting arc is difficult.		If PC board in machine is at fault contact **WOWELD** Electric Field Service facility for technical assistance.
Remote output control not functioning. The machine operates normally on LOCAL control.	1. Make sure the Local/Remote switch is in the REMOTE position. 2. The remote control device may be faulty, Replace. 3. The Local/Remote switch must be in the LOCAL position unless a remote control device is attached to the remote receptacle.	If all recommended possible areas of misadjustment have been checked and the problem persists, contact **WOWELD** Electric Field Service facility for technical assistance.
Poor stick electrode welding performance. The arc pops out.	1. Check for loose or faulty welding cables. 2. Is the electrode DRY? Try welding with another electrode from a different container. Make sure you have the correct electrode for the application. 3. Make sure the machine settings are correct for the weld process being used.	
Poor welding, weld setting drift, or output power is low.	1. Make sure the machine settings are correct for the welding process being used. 2. Check machine performance on LOCAL control. If OK then the remote control device maybe faulty. Check and replace. 3. Check for loose or faulty welding cables	

Warranty:13 months from the BL date for machines ONLY!

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