

折页  
128g双铜4C  
尺寸100\*140mm

# User Manual

## Welding Machine

### SAFETY WARINING

On the process of welding or cutting, there will be possibility of injury, so please take protection into consideration during operation. For more details please review the Operator Safety Guide, which complies with the preventive requirements of the manufacturer.

#### Electric shock——May lead to death!

- Set the earth fitting according to applying standard.
- Forbidden to touch the bare electric parts and electrode with uncovered skin, wet gloves or clothes.
- Make sure you are insulated from the ground and the workshop.
- Make sure you are in safe position.

#### Gases and fumes——May be harmful to health!

- Keep your head out of the gases and fumes.
- When arc welding, ventilators or air extractors should be used to avoid breathing gases.

#### Arc rays——Harmful to your eyes, burn your skin.

- Wear suitable protective mask, light filter and protective garment to protect eyes and body.
- Prepare suitable protective mask or curtain to protect looker-on.

#### Fire

- Welding spark may cause fire, make sure there is no tinder stuff around the welding area.

#### Noise——Excessive noises will be harmful to hearing.

- Use ear protector or others means to protect ear.

- Warn looker-on that noise is harmful to hearing.

#### Malfunction——When trouble happens, contact with authorized professionals

- If trouble happens during installation and operation, please follow this manual instruction to check up.
- If you fail to fully understand the manual, or fail to solve the problem with the instruction, you should contact the suppliers or the service center for professional help.

### TECHNICAL PARAMETERS TABLE

Parameters \ Model	ZX7-200	ZX7-250
Power voltage (V)	AC220V/AC110V	AC220V/AC110V
Frequency (Hz)	50/60	50/60
Rated input current (A)	32.9	32.7
No-load voltage (V)	56	65
Output current (A)	30-200	30-250
Rated output voltage (V)	28	27.2
Duty cycle (%)	60	60
No-load loss (W)	40	40
Efficiency (%)	80	80
Power factor	0.73	0.73
Insulation grade	F	F
Housing protection grade	IP21S	IP21S

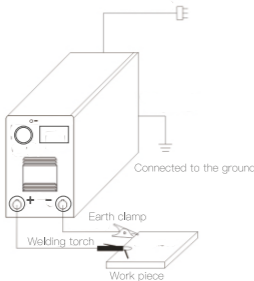
### INSTALLATION INSTRUCTION

The machine is equipped with power voltage compensation equipment. When the power voltage fluctuation is between±15% of rated voltage, it still can work normally.

When the machine is used with long cables, in order to prevent voltage from going down, bigger section cable is suggested. If the cable is too long, it may affect the performance of the power system. So cables of configured length are suggested.



- 1.Make sure the intake of the machine is not blocked or covered to avoid malfunction of cooling system.
- 2.Ground the cables with section area no less than 6mm<sup>2</sup> to the housing, the way is connecting screw in the back of the power source to ground device .



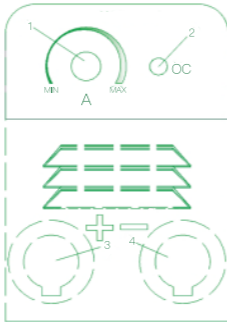
- 3.Correctly connect the arc torch or holder according to the sketch. Make sure the cable, holder and fastening plug have been connected with the ground. Put the fastening plug into the fastening socket at the “-” terminal and fasten it clockwise.
- 4.Put the fastening plug of the cable to fastening socket of “+” terminal at the front panel, fasten it clockwise, and the earth clamp at the other terminal clamps the work piece.
- 5.Please pay attention to the connecting terminal, DC welding machine has two connecting ways: positive connection and negative connection. Positive connection: holder connects with “-” terminal, while work piece with the “+” terminal. Negative connection: work piece with the“-” terminal, holder with the “+” terminal. Choose suitable way according to the working situation. If unsuitable choice is made, it will cause unstable arc, more spatters and conglutination. If such problems occur, please change the polarity of the fastening plug.
- 6.According to input voltage grade, connect power cable with power supply box of relevant voltage grade. Make sure no mistake is made and make sure the voltage difference is among permission range. After the above job, installation is finished and welding is available.

### OPERATION INSTRUCTION

- 1.Turn on the power switch, the screen will show set current value and ventilator is beginning to run.
- 2.Adjust knobs of welding current, make welding function complies with demands.
- 3.Generally, welding current is adequate to welding electrode according with as following:

Specification	φ2.5	φ3.2	φ4.0	φ5.0
Current	70-100A	110-140A	170-220A	230-280A

### AT A GLANCE



- 1.Welding current adjustment
- 2.Abnormal indicator
- 3.Positive output terminal
- 4.Negative output terminal

Note:The panel picture above is for reference only. If any difference with the real machine, please follow with the real machine.

### NOTES OR PREVENTIVE MEASURES

#### 1.Environment

- 1) The machine should be operated in dry environments with humidity levels of max 90%.
- 2) Ambient temperature should be between -10 to 40 degrees centigrade.
- 3) Avoid welding in sunshine or drippings. Do not let water infiter 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 norms

The welding machine is installed with protection circuit of over voltage, over current and over heat. When voltage, output current and temperature of machine exceed the required standard, welding machine will stop working automatically. However, overuse (such as over voltage) will still result in damage to the welding machine. To avoid this, the user must pay attention to the following.

- 1) The working area is adequately ventilated!

The welding machine is powerful machine, when it is being operated, it generated by high currents, and natural wind will not satisfy machine cool demands. So there is a fan in inner-machine to cool down machine. Make sure the intake is not in block or covered, it is 0.3 meter 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 remember to watch the max duty current (Response to the selected duty cycle). Keep welding current is not exceed max duty cycle current. Over-load current will damage and burn up machine.

- 3) No over voltage!

Power voltage can be found in diagram of main technical data. Automatic compensation circuit of voltage will assure that welding current keeps in

allowable range. If power voltage is exceeding allowable range limited, it will damage to components of machine. The operator should understand this situation and take preventive measures.

- 4) If welding time is exceeded duty cycle limited, welding machine will stop working for protection. Because machine is overheated, temperature control switch is on “ON” position and the indicator light is red. In this situation, you don’t have to pull the plug, in order to let the fan cool the machine. When the indicator light is off, and the temperature goes down to the standard range, it can weld again.

### QUESTIONS DURING WELDING

A.Arc-striking is difficult and easy to pause:

- 1.Make sure quality of tungsten electrode is high.
- 2.If the electrode is not dried, it will cause unstable arc, welding defect increases and the quality is down.
- 3.If use extra-long cable, the output voltage will decrease, so please shorten the cable

B.Output current not to rated value:

When power voltage departs from the rated value, it will make the output current not matched with rated value; when voltage is lower than rated value, the max output may lower than rated value.

C.Current is not stabilizing when machine is been operating:

- 1.Electric wire net voltage has been changed.
- 2.There is harmful interference from electric wire net or other equipment
- D.Too much spatter when use MMA welding:

- 1.Maybe current is too big and stick’s diameter is too small.
- 2.Output terminal polarity connection is wrong, it should apply the opposite polarity at the normal technics, which means that the stick should be connected with the negative polarity of power source, and work piece should be connected with the positive polarity. So please change the polarity.