

SUNKKO 788H

Two In One Micro-computer Spot Welding & Battery Charger

Thank you for choosing the SUNKKO series of products, it will make your working with convenient and efficient experience. In order to make you control the machine with great facility and achieve its high performance. We make this instruction manual for you.

Please properly stored after read for future reference.

Warning: you must pay attention to adjust the charging current when used as charging function. It will lead the battery accidents under the over charge current and high voltage. Please keep the manual for reference later.



Product introduction



Product Using Video

INSTRUCTION MANUAL

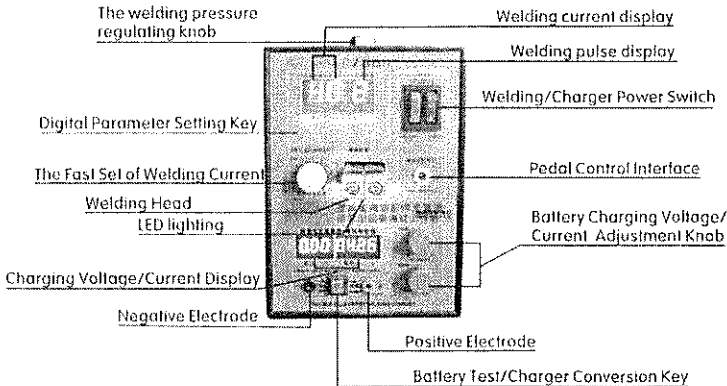
I 、 Summary

This is a two in one micro-computer spot welding & battery charger, it has wide current adjustment range, strong functions and high reliability,so it is adapted for welding or assemble the rechargeable battery, welding and mounting of metal workpiece and so on.

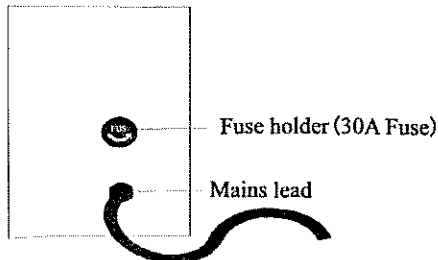
- 1.Double-pulse micro-computer spot welding and battery charger,that's the first technology in the world.
- 2.Micro-computer control up to level 199 (99*1;99*2) , precision parameter setting.
- 3.There have one or two pulse to choose to faster welding.
- 4.It have two current setting to fast set welding current.The maximum up to 16 pulse.Suit for welding thicker material.
- 5.The charging part has 4.2V-36V to continuously regulated,it satisfied for most single and assembled battery to charging and testing.
- 6.The specific battery tester can test the float charge voltage,it convenient to choose the appropriate voltage to charging.
- 7.It have foot switch and pressure adjuster,that improve the accuracy of welding.

Plan Sketch

1.Front Panel



2.Rear Panel



II、The Performance Index

A. Spot welding machine

1. Input voltage :AC110V/220V \pm 10%
2. Primary current :2A~15A
Welding current :50A~800A
(The corresponding pulse time: 1ms~19ms)

B. Numerical control charger

1. Charging voltage:4.2~36V (Adjustable)
2. Charging current:0~3A(Adjustable)

C. Weight:4.3KG

D. Size:140×245×200MM

E. Range of sheetmetal welding thickness:0.1~0.25MM

III、The Operation Method Of Spot Welding

1. Disconnect the power supply above all, loosen the fastening screws that used to fasten welding needle, fasten screws and adjust the welding pressure after adjusting welding needle height carefully.
2. Switch to the "POWER On" position after plugging in, the spot welding machine turn into standby state
3. If you want to change the current value, Trigger pulse number, you can press the setting key "*".
 - (1) Press "*" for one time, after choosing the first number of current value (the bright digital tube), you can press "UP" or "DOW" to change the current value.
 - (2) Press "*" again to choose the second number of current value (the bright digital tube) and press "UP" to add or press "DOW" to reduce the current value.
 - (3) Press "*" for the third time to select the trigger pulse, to press "UP" to add or press "DOW" to reduce the current value, choose "2" for the double pulse which is 2 times fast spot welding, the solder connections will be more reliable.
 - (4) Press "*" for the fourth time, it will save and exit the setting values.
4. According to the degree of thickness of welding materials to set the current value and pulse number, then aim the battery pole piece to the welding electrode and push the battery pole piece.
5. When required precision welding, but manual welding is not allowed, the external footswitch can help you solve this problem.

6. You can enlarge the working range and the welding methods of the welding machine by using the mobile spot-welding pen, you can be more flexible when welding in different position.

IV、 Battery Charging Operation Mode

1. To confirm the Rated voltage and capacity of the battery or battery pack, that going to be charged.
2. To adjust the output voltage of the machine. Such as it is 3.6V of each lithium battery, so you should adjust the voltage output for per unit of $4.2 \pm 0.05V$, the battery pack as well.
3. To adjust the charge constant current value of the machine, standard for battery capacity corresponding to the 1:1 value such as the capacity of the battery is 1000mA/h, you should adjust the constant current at about 0.50A. If the capacity of the battery is unknown, you could adjust the constant current value at about 0.50A, but the temperature rising can not exceed 20°C, if not, you should decrease the charging current. Attention! the battery will be damaged if the charging current more than 1C, or cause the battery burst into flames.
4. To confirm if it is correspondent between the battery or battery pack and the output charging polarity it means that the battery anode should connect with the the red terminal, the battery cathode should connect with the the black terminal, otherwise ,the battery will be damaged.
5. The anode and cathode of the battery can not being short circuit, it will cause the battery burst into flame, otherwise.
6. After the battery or battery pack is properly connected, the digital tube will display the present charging voltage of the battery. it will add up with the increase of the charging time and it will add up to the setting voltage value at last; the welder will display the present charging current , it will reduce with the increase of the charging time and will be close to zero in the end.
7. When the voltage add up to the limit of the battery voltage, such as 4.2V, 8.4V and so on. The current add up to twentieth of its capacity, such as 1000mA/h, the charging current dropto less than 50mA. It means that the battery charging is done.
8. How to test internal resistance of the battery. In the normal state of charge adjust the charging knob, equal to battery capacity current, now test the charge voltage and record the data, push the red button to check the battery actual voltage and record. According $R = \frac{V_{\text{Charge}} - V_{\text{battery}}}{\text{Current}}$ and you conversion the battery internal resistance.

 **Notice**

- 1、 A power socket powerline should be able to withstand more than 20A, and the host erdung with reliable protective earth wire connection otherwise it will affect the soldering, even burn out the powerline.
- 2、 When projection welding, between the welding material and welding contact will spark a splash, staff must complete the safety measures, such as gloves and masks, and other staff must away from.
- 3、 Please frequently use gauze clean oxide on the welding needle electrode, to maintain good state of conductive and welding the needle tip shape.
- 4、 Disconnect the power switch when not in use, to ensure safety.
- 5、 Welding current parameter values is not the actual current strength, but only correspond to current strength.
- 6、 Please according to the different thickness of the metal material set the appropriate current parameter and welding pressure.
- 7、 The machine because of the instantaneous large current discharge during welding, has the potential to cause Lighting equipment of the same power supply circuit flashing, but due to time within 20 ms, belongs to the normal phenomenon.
- 8、 Prevent reverse polarity and the battery short circuit should be paid attenth, to when using charging function.
- 9、 Don't make the charging output interface to short circuit.

VI、 788H Spot Welder Packing List

- | | |
|----------------------|--------------------------|
| 1、 User manual ×1 | 2、 Instrument leads ×1 |
| 3、 Fuse 20A ×2 | 4、 Bent-handle spanner×1 |
| 5、 Alumina copper ×4 | 6、 20A Protective tube×2 |
| 7、 Foot switch ×1 | |

VII. The adjustment of welding needle pressure

There is a pressure regulator above the machine, according to the thickness of different workpieces, the pressure between the welding needle and workpiece can be adjusted through the regulator. when weld thin workpiece, turn to anti-clockwise position to reduce the pressure, when weld thick workpiece, turn to clockwise position to increase the pressure. to observe the solder joint after adjust the welding pressure everytime. to make the solder joint firm and reliable, in order to achieve the purpose of precise welding.

VIII. The maintenance of welding needle

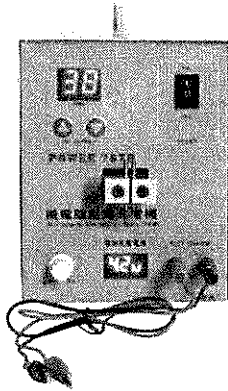
1. The welding needle on the new machine must be clamped through M4 hexagon screws.
2. Check the two needle clamps more often, if it is oxidized, you can grind to brightness with crocus cloth.
3. Check the two needles and needle tips more often, if it is oxidized, you can grind to brightness with crocus cloth also.
4. To prevent the needle clamps and welding needles from being oxidized, you can smear some lubrication oil over them.
5. Use the original alloying welding needle whenever possible.

IX. Repair of simple fault

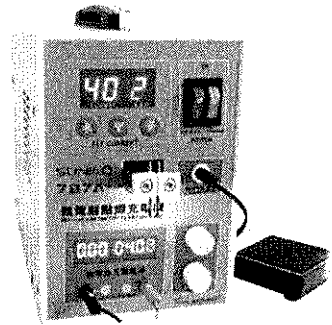
Fault Phenomena	Treatment
The machine doesn't run	Please check power and the insurance behind the machine.
Bad welding effect	Check the power supply if less than 200V and the socket is whether connected.
Poor Welding	Check the position of welding needle, and observe the welding needle if it is oxidized. Adjust the welding needle.
GFCI-protected	If you use the machine for the first time, replace another power supply circuit or change 60A GFCI.
Irregular charging	Check the output voltage whether compliance with the battery pack; the constant current whether set reasonable.
The charging protected closed	Reduction of the charging current, or use in a well ventilated environment.

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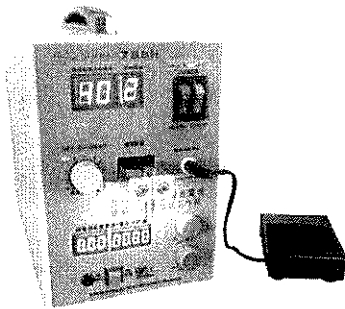
“7” Series Precision Pulsed Spot Welding Machine



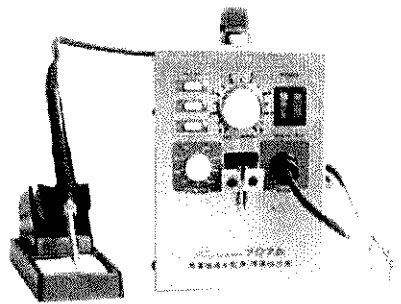
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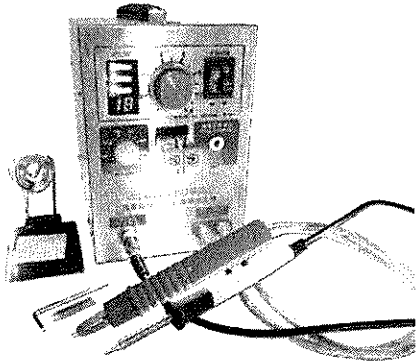
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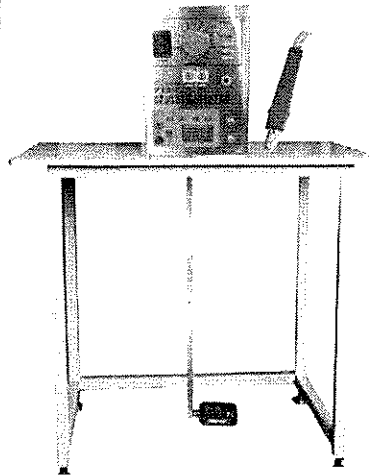
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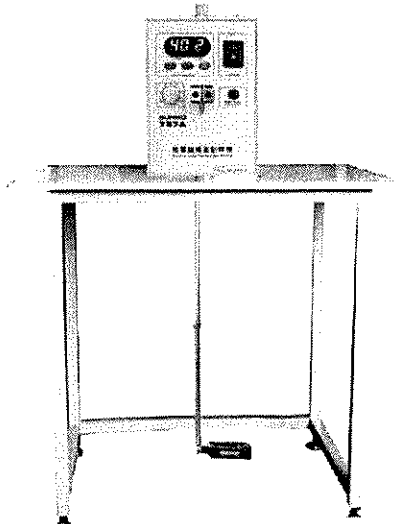
S-707A



S709AD



S719H



S-797A

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