98ES PRODUCT SERVICE MANUAL

Professional steam protection equipment manufacturers

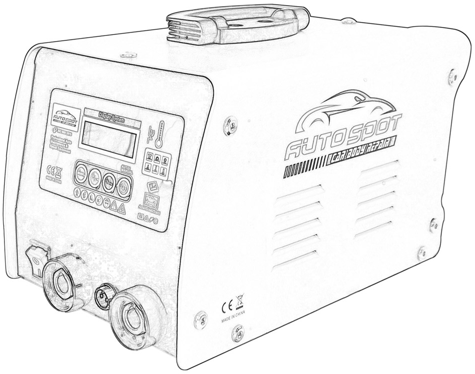


Table Of Contents

1.The safety warning signs 1
2. The various symbols defined 2
3.The optional spare parts table 3

4.The installation

1). Product specifications and parameters 4
2). The working cycle and overheating protection 5
3).The installation of the machine 6
4). Move and place the machine's attention 7

5).The input power connection method

A.220V power supply wiring 8
B.380V power supply wiring 9

5. Operation

1). The operation panel guide 10
2). Welding gun and a variety of connectors introduced 11

3).The operation of the function

A. Gasket welding operation 12
B. Triangular sheet welding operation 13
C. Carbon rod heating operation 14
D. Wave line welding operation 15
E. The role of sucker 16

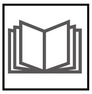
6. Maintenance and repair

1).The structure diagram 17
2). Failure and exclusion 18
7.The terms of the warranty 19

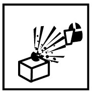
Safety Warning Signs

Operate this protection with working conditions common sense

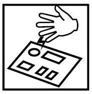
Before installing and operating the welder, look at the following safety precautions



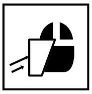
Read the instructions
1. before the operation of the machine, free to read the product brochures in detail.
2.please use the original parts and accessories.



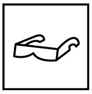
When using the machine, wear a mask to avoid problems with parts explodingWill cause harm.



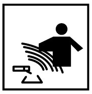
Static electricity can damage the machine's circuit board
1. connected to a good ground, to prevent static electricity.
2. in the movement and storage to use anti-static items covered,So as to avoid damage to the machine.



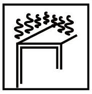
1. splash of sparks and arc will cause damage to the staff.
2. please wear a mask or with the edge of the glasses.



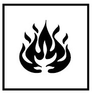
Metal spatter may cause damage to the eyes of the user. Please wear a mask or a pair of glasses.



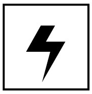
1. the electromagnetic field can affect the operator'sheart, such as the heart there Install the pacemaker, please stay away from the machine.
2.such as the need to operate the machine, free advice advice for life.



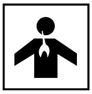
Please do not work for too long, will cause the machine part of the zero parts overheating, damage the life of the machine.



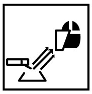
Prevent fire
Welding is completed, check the welding area with or without overheating spatter and hot metal to prevent fire.



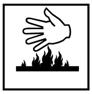
To prevent electric shock:
1.Do not use the skin and wet clothes contact welding machine.
2.Do not turn off the power supply, and do not let the cable around the operator who wear a thick bottom insulation shoes
3. Ground and work directly connected.



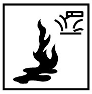
In the workplace, due to welding will produce toxic gases, pay attention to ventilation, so as not to poison. (Prohibited in the closed container welding)



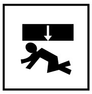
Self-protection (CO2 welder)
The use of gloves, wearing thick clothing long clothing, pants.



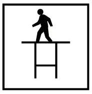
Do not touch the hot workpieces by hand during welding.



To prevent the explosion: flammable, explosive products away from the welding area.



Be careful not to be crushed and bruised while moving.



Prohibit welding at high.

Prohibited: the welding power supply to do the use of pipeline thawing.

Note:
Welder self-protection!   Focus on others safe!   Focus on plant safety!   Pay attention to equipment maintenance!

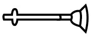
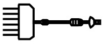
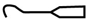
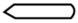
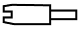
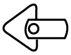
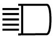
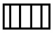
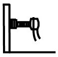
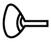
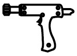
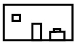
Symbol Definition

Common symbols and descriptions

A	Current	I_{1max}	Rated maximum supply current	I	ON	%	Percentage
V	Voltage	I_{1eff}	The most efficient supply of current	○	OFF	⊙	Increase
I_2	Rated welding current	IP	Degree of protection	⏚	Ground line	🔌	Cable
S_1	Rated power	1~	Simplex	🛇	Prohibited behavior		Loosen the protective cover
HZ	Frequency unit	X	Periodic duty cycle	S	There are dangerous places to use	+ −	Adjust the gas pressure
U_1	Rated input voltage	⎓	DC	→	Input		Automatic
U_0	Rated no-load voltage		Steady current	→V	Voltage input	☞	Manual
U_2	Load voltage	🌡	Temperature		Low pressure lights		

Optional spare parts table

Major parts table

	Pneumatic suction cups	NO.F001		Hook hammer	NO.F002		Direct point welding hammer	NO.F003
	Melon hammer	NO.F004		Pull the hook	NO.F005		Waveline	NO.F006
	Carbon rods	NO.F007		Single spot welding head	NO.F008		Carbon rod chuck	NO.F009
	Waveline spot welding head	NO.F010		Gasket chuck	NO.F011		Torch lock head	NO.F012
	Triangle chuck	NO.F013		Melon pull hammer front section	NO.F014		Triangle gasket	NO.F015
	Studs	NO.F016		Gasket	NO.F017		Negative line holder	NO.F018
	Manual sucker	NO.F019		Torch	NO.F020		Front wheel	NO.F021
	Rear wheel	NO.F022		Circuit board	NO.F028			
	Control transformer	NO.F025						

Note:1）.All kinds of spare parts, the user can choose according to their own situation

2）.When purchasing, you can contact the local dealer or service, reported number can be.

Installation

1.Specifications and parameters

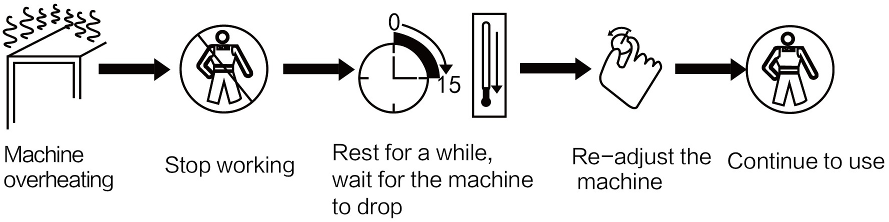
Model	98ES
Input voltage（V）	220V/380V
Output voltage（V）	Carbon rod heating AC3V-5V Meson melting AC1V-7V Touch welding AC1V-7V
Input power（KW）	3
Instantaneous maximum output current（A）	3500
Input the maximum current（A）	20
Way of working	automatic welding
Regular working hours	0.01-0.50s
Work stalls	Stepless adjustment
Single-sided welding thickness（mm）	0.6-1.2
Vacuum suction（kg）	180
Dimensions（mm）	300x200x200（Host）
Weight（kg）	20（Host）

Aisle	Name	Power	Time	Welding thickness（mm）	Power Consumption（kw）
	Triangle sheet welding	——	0.01-0.50S	0.8-1.2	0.8-2.5
	Gasket welding	——	0.01-0.50S	0.8-1.2	0.8-2.3
	OT gasket welding	——	0.01-0.50S	0.8-1.2	0.8-2.5
	Waveline spot welding	——	0.01-0.50S	0.8-1.2	0.8-2.5
	carbon rod heating	45-85%	——	0.8-1.2	0.8-2.0

2.The work cycle and overheating protection

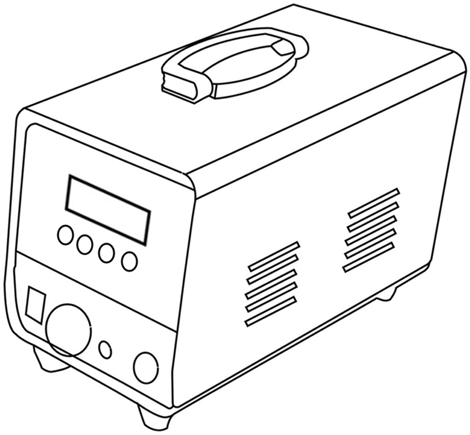
The working cycle of the machine is the use of repeated cycle of work, the welding cycle time for the load time and no load time and.

In addition, the machine is equipped with overheating protection, when the temperature reaches the critical, the welding machine will automatically stop working, to be cooled, you can continue to operate, as shown in the specific situation.



3.The installation of the machine

1). Customers receive the machine, the first package will open, find the product brochures.
2). According to the instructions in the packing list on the items and the number of checks to check the type of machine accessories and the number is correct.
3). According to the machine's appearance picture, the machine is installed, and check the machine whether there are other problems, if any questions, please consult the dealer or service solution.



4.Move and place the machine's attention

1).After the installation of the machine if no other problems, we must choose the right place to put.

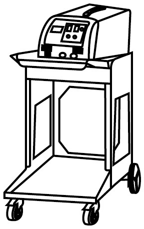
2

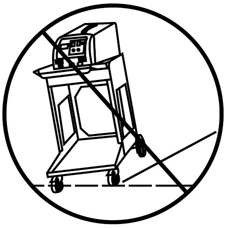
2).The length of the input power cord is determined according to the operating distance, and the power cord must not be less than 4 mm copper cable.

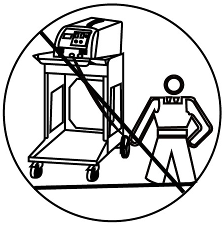
3).When placed in the machine, can not be tilted around, to be stable on the ground to avoid damage to the machine.

4).When moving the machine, use a pulley with a pulley or move it with the wheels of the machine. Do not drag the machine or pull the cable to move the machine. Otherwise, it will damage the machine or break the cable and cause inconvenience to the later work.

如图所示：

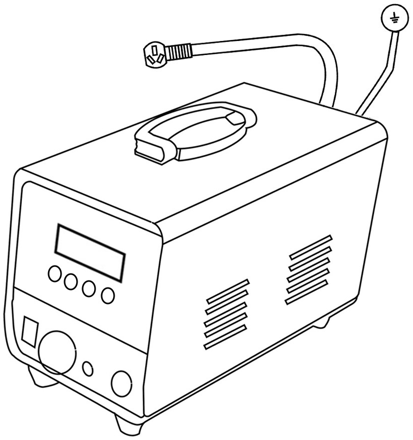




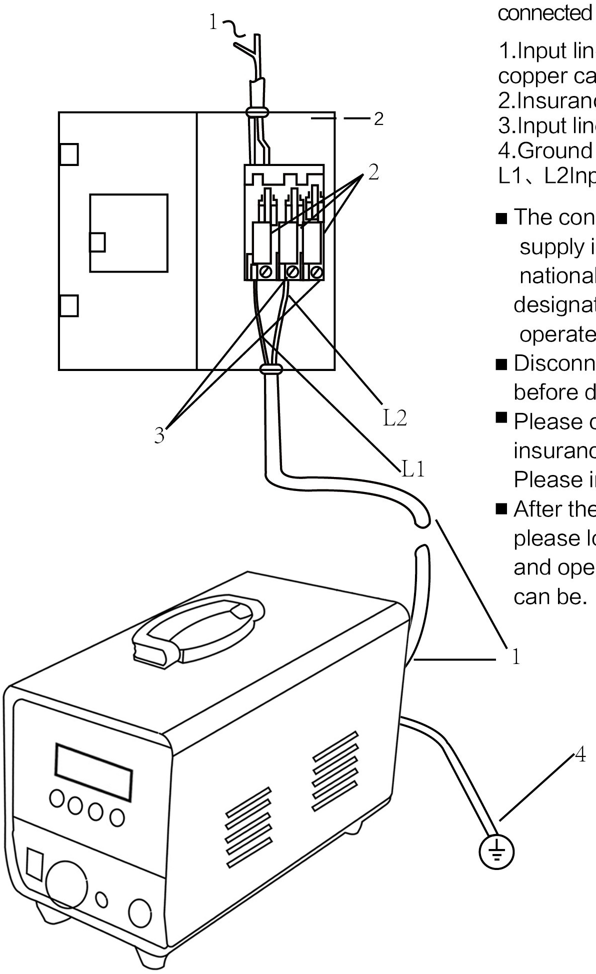


5.Enter the connection method of the power supply

Step one,the input voltage of can be used with the machine comes with the power cord and 16A plug connection



6.Enter the connection method of the power supply



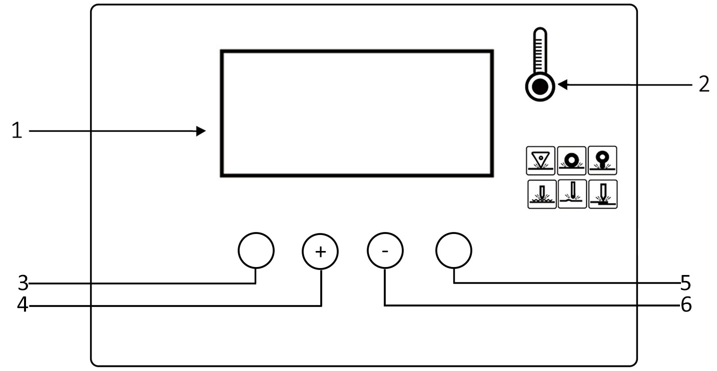
Step two,Input voltage of can be connected to two FireWire

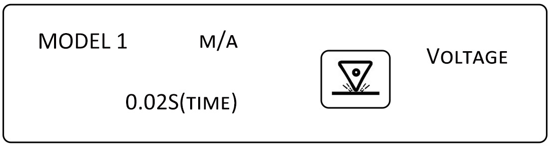
1.Input line (not less than 2.5mm copper cable)
2.Insurance
3.Input line connection port
4.Ground line
L1、L2Input line

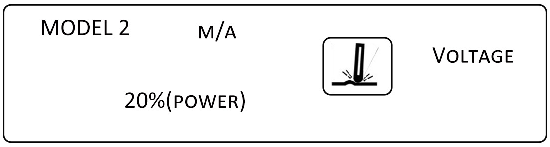
- The connection of the input power supply is in accordance with the national standard and the designated person is required to operate.
- Disconnect the main switch before doing this
- Please choose the appropriate insurance
  Please install ground wire
- After the operation is completed, please lock the distribution box and open the main switch, power can be.

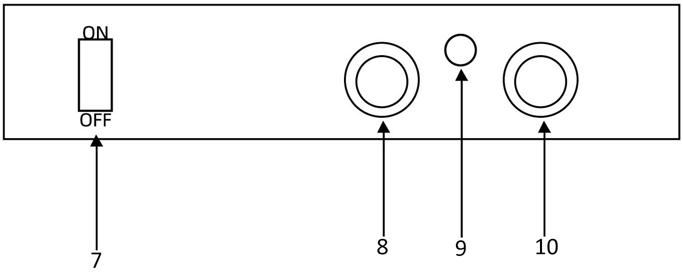
Operating

1.Operation panel guidelines



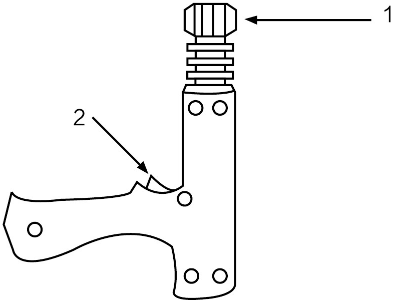






1. Display
2. Overheat protection indicator
3. Mode selection
4. Increase
5. Manual / Auto
6. Reduce
7. Switch
8. Torch wire
9. Signal line
10. Ground wire

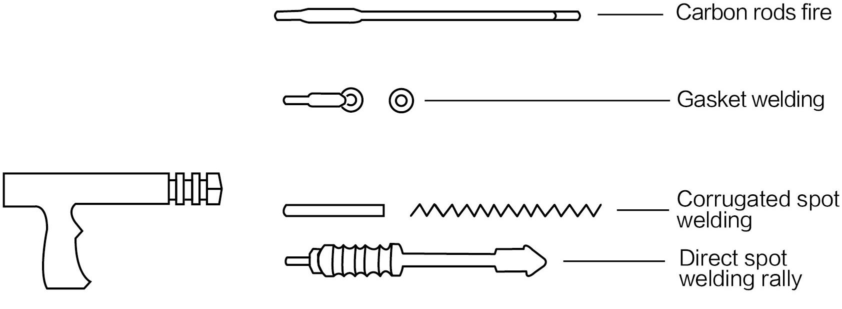
2.Welding torch and connector



1.Locking head

2.Torch switch

Application of single − sided spot welding gun

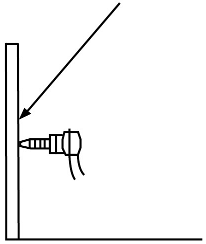


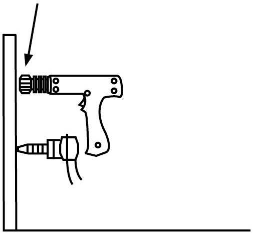
Negative line fixing method

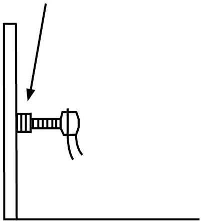
1.Place the wire on the sheet metal section that needs to be repaired.

2.the welding torch in the vicinity of the machine near the automatic welding machine.

3.Fixed ground wire

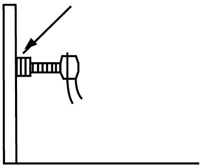




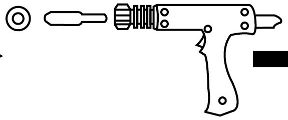


3.Method of operation

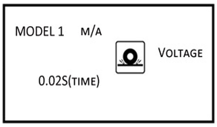
a.Gasket welding



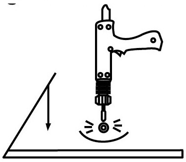
The negative line fixed to the polished clean and remove the paint on the workpiece, the closer the operating surface the better.



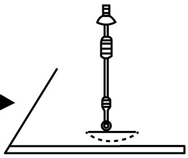
Connect the gasket connector to the torch and lock it with a gasket.



Select Mode 1 and adjust the appropriate time



The welding torch light pressure to the body of the depressed parts of the machine automatically welding.



Remove the welding torch, with a strong pull hammer to the gasket in the opposite direction to pull the gasket, the depression out.

Note:

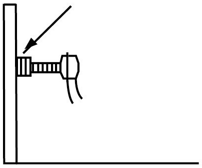
1.Before doing this, please test on other workpieces to avoid damage to the surface of the vehicle due to excessive current or too long damage.

2.According to the body plate thickness, select the appropriate gear, the machine will automatically match the welding time with the current.

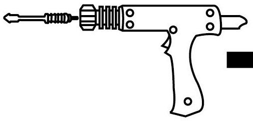
3.After doing this, you can continue with other functional operations. If you do not continue to work, turn off the power and cut off the main switch, finishing the various accessories for the next use.

3. the operating method

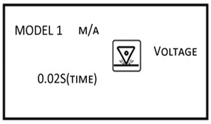
B. triangular pieces of welding



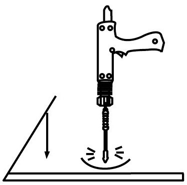
The negative line fixed to the polished clean and remove the paint on the workpiece, the closer the operating surface the better.



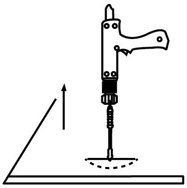
Connect the connected triangular pull hammer to the torch and lock it.



Select Mode 1 and adjust the appropriate time



The welding torch light pressure to the body of the depressed parts of the machine automatically welding



Pull the recessed parts directly in the opposite direction of the hammer

Note:

1, before doing this operation, please try the other parts in order to avoid the current is too large or too long to damage the body to repair the surface.

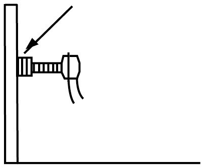
2, according to the body plate thickness, select the appropriate gear, the machine will automatically match the welding time with the current.

3, triangular pieces of welding before the replacement of the meson repair, it can be directly after the welding part of the depression pulled out.

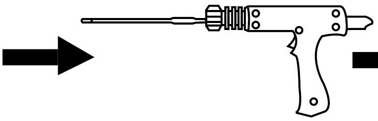
4, after doing this operation, you can continue to other functional operation, if you do not continue to work, please turn off the power and cut off the main switch, the various accessories finishing for the next use.

3. the operating method

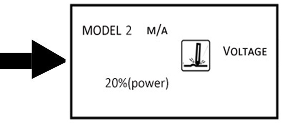
C. carbon rod heating



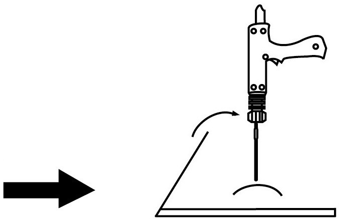
The negative line fixed to the polished clean and remove the paint on the workpiece, the closer the operating surface the better.



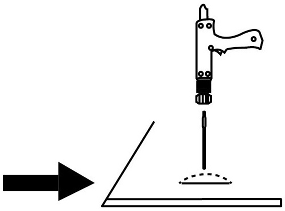
Connect the carbon rod and carbon rod connector to the torch and lock it.



Select Mode 2 to adjust the appropriate power



The carcass is heated in a clockwise direction



With cold water or wet cloth placed just to the location of the use of thermal expansion and contraction of the prominent part of the tightening, to return to normal

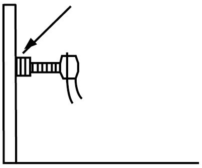
Note:

1, before doing this operation, please try the other parts in order to avoid the current is too large or too long to damage the body to repair the surface.

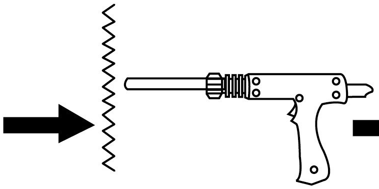
2, according to the body plate thickness, select the appropriate gear, the machine will automatically match the welding time with the current.
3, after doing this operation, you can continue to other functional operation, if you do not continue to work, please turn off the power and cut off the main switch, the various accessories finishing for the next use.

3. the operating method

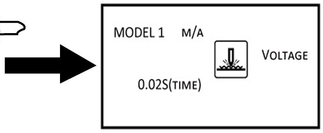
D.wave line welding



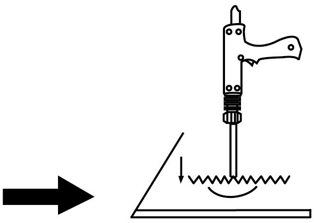
The negative line fixed to the polished clean and remove the paint on the workpiece, the closer the operating surface the better.



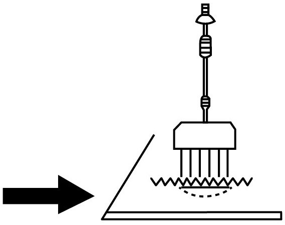
Connect the carbon corrugated spot welding head to the torch and lock it



Select Mode 1 and adjust the appropriate time



Place the waveform line upright in the car body and place the welding head on the upright waveform line. The machine will automatically weld



With a claw pull hook and hammer set in the waveform line, the car body depression out

Note:
1. before doing this operation, please first test on the other parts, so as to avoid the current is too large or too long damage to repair

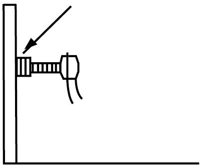
Body surface.

2. according to the body plate thickness, select the appropriate gear, the machine will automatically match the welding time with the current.

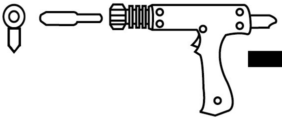
3. after doing this operation, you can continue to other functional operation, if you do not continue to work, turn off the power and cut off the main switch,Will be a variety of accessories finishing, for the next use.

3.Method of operation

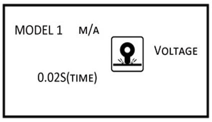
E.OT sheet welding



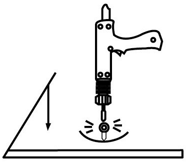
The negative line fixed to the polished clean and remove the paint on the workpiece, the closer the operating surface the better.



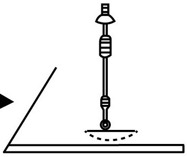
Connect the gasket connector to the torch and lock it with a gasket.



Select Mode 1 and adjust the appropriate time



The welding torch light pressure to the body of the depressed parts of the machine automatically welding.



Remove the welding torch, with a strong pull hammer to the gasket in the opposite direction to pull the gasket, the depression out.

Note:

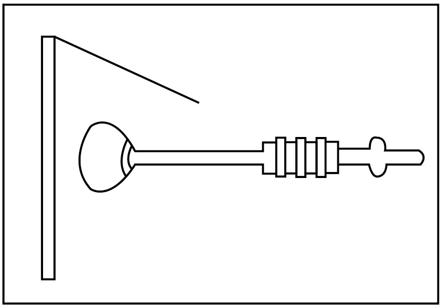
1.Before doing this, please test on other workpieces to avoid damage to the surface of the vehicle due to excessive current or too long damage.

2.According to the body plate thickness, select the appropriate gear, the machine will automatically match the welding time with the current.

3.After doing this, you can continue with other functional operations. If you do not continue to work, turn off the power and cut off the main switch, finishing the various accessories for the next use.

3.The operating method

F.The use of sucker

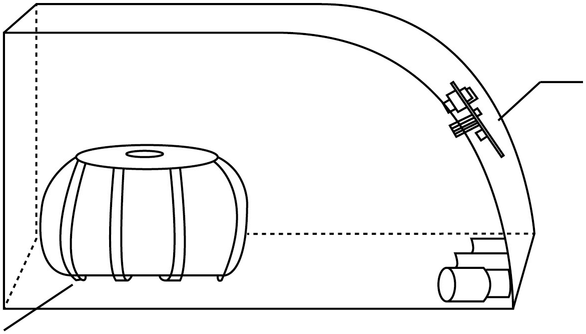


Use of manual sucker:

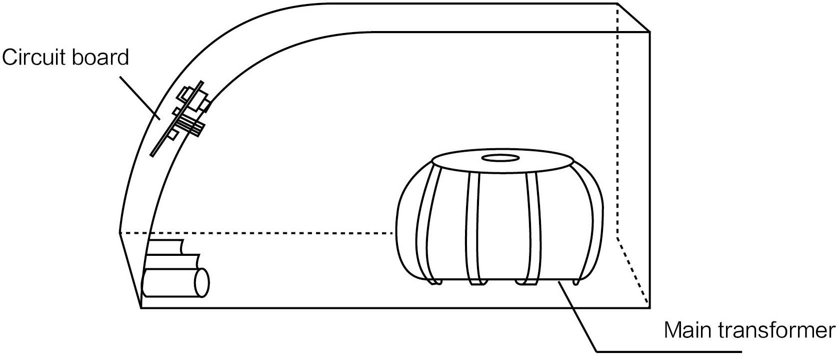
1. the sucker and pull hammer connected
2. the sucker forced to no dead angle of the depression
3.with the hammer in the opposite direction to pull out the depression

Maintenance and repair

1、Internal structure map



Left view



Right elevation

Maintenance and repair

2. Failure and exclusion

Malfunction	Cause	Treatment measures
No power supply	(1) The power supply is not connected correctly (2) The power switch is not turned on	(1) Check whether the wiring is installed accordingto the requirements of the machine (2) Turn on the machine power switch

Automatic welding does not work	(1) No good ground (2) Pull the plug of the machine control line	(1) Check and then take a good ride (2) Open the machine and re−plug the connector
Welding is not strong	Select the correct mode	(1) Increase or decrease the stalls
Break the body	Select the correct mode	(1) Increase or decrease the stalls
Carbon rods are unstable	(1) Carbon rod before work did not polish, work pieces not polished cleanly (2) Select the carbon rod mode 6	(1) Work before grinding about, so that there is no iron Impurities (2) Increase or decrease the stalls
Work machine stop not working	The temperature is too high	The temperature down, will automatically work