FY-TECH

Owner's Manual

CE

FY-9018

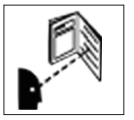
The equipment is approved by following car manufacturers (China)

HONDA TOYOTA mazda NISSAN Ford

Contents

Safety Precautions Symbols

Protect yourself and others from injury, read and follow these precautions before installation and operation.



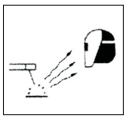
Read instructions.
1、Read owner's Manual before using or servicing unit。
2、Use only manufacturer's supplied replacement。

Electric shock can kill:
1、Do not touch live electrical parts。
2、Wear dry, hole-free insulating gloves and body protection.
3、Do not wrap electrical cable around your body.
4、Ground the workpiece with a good electrical ground。

Exploding parts can injure. Always wear a face shield and long sleeves。

Fumes and gases can be hazardous
welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health .
If inside, ventilate the area.
Do not weld in a confined space only if it is well ventilated.

Static can damage PC boards
1、Put on grounded wrist strap before handing boards or parts。
2、Use proper static-proof bags and boxes to store, move or ship PC boards。



Eye protection for welding:
Current level in amperage Minimum shade Number
30-150A---------- #8
150-300A---------- #10
300-500A---------- #12

1、Wear approved face shield or safety goggles with side shields。
2、Wear proper body protection to protect skin。

The heat from the workpiece can cause serious burns。

Flying metal can injure eyes。
1)Wear safety glasses with side shields or face shield。

Remove all flammables of the welding area.

1、Magnetic fields can affect pacemakers. Pacemaker wearers keep away.
2、Wearers should consult their doctor before going near plasma arc cutting operations。

Falling unit can cause injury.

Overuse can cause overheating
Allow cooling period , follow rated duty cycle before starting to weld again.

Fire or explosion hazard.
Do not locate unit on, over, or near combustibe surfaces. Do not install unit near flammables.

Do not weld in the height!

Never cut on pressurized cylinder.

Protect yourself

Warn others

Factory safety!

Maintenance regularly!

Definitions

Symbols and Definitions

A Amperes	I_{1max} Rated maximum supply current	I On	% Percent
V Volts	I_{1eff} Maximum effective supply current	O Off	Increase
I_2 Rated welding current	IP Degree of protection	Protective earth (Ground)	Line connection
S_1 Power rating, product of voltage and current (KVA)	1~ Single phase	Do not do this	Loose shield cup
HZ Hertz	X Duty cycle	S Suitable for some hazardous locations	Adjust air/gas pressure
U_1 Primary voltage	Direct current	Input	Automatic
U_0 Rated no load voltage(Aaverage)	Constant crrent	V Voltage input	Manual
U_2 Conventional load voltage	Temperature	Low air pressure light	

Accessories And Spare parts

Accessories and Spare Parts List:

No.	Description	Remarks
1	Trolley	
2	Professional spot welder	
3	Polishing machine	
4	Tool box	
5	Car body repair kit	
6	Quick puller	
7	Pneumatic cupule	
8	Small pneumatic cupule	
9	Manual cupule	
10	Wrench for welding gun	
11	Multi-hook claw	
12	Wavy wire	
13	OT washer	
14	10mm Washer	
15	12mm Washer	
16	Stud 0.6mm	
17	Triangle washer	
18	Carbon rod	
19	Wavy wire electrode tip (flat)	
20	OT washer connector	
21	Washer connector	
22	Stud connector	
23	Triangle washer connector	
24	Carbon rod connector	
25	Spot weld electrode tip	
26	Air hose connector	
27	Hook	
28	Pulling hammer with hook	
29	Dent pulling spot hammer	
30	“T” pothook (long)	
31	“T” pothook (short)	
32	Crow bar	
33	1250mm Crossbar lifter with 4 stands	
34	850mm Crossbar lifter with 4 stands	
35	750mm Crossbar lifter with 2 stands	
36	Hooker for crossbar lifter	
37	6-hook claw for crossbar lifter	
38	4-hook claw for crossbar lifter	
39	Traction pin (long)	
40	Traction pin (short)	
41	4-hook chained claw for crossbar lifter	
42	Water-proof socket	
43	Earth clamp	
44	Common caster	
45	Caster with brake	
46	Wheel screw	
47	Dent repair glue pulling kit	With O-type washer 20pcs
48	Hot air gun	
49	Glue gun	
50	Glue stick	
51	Portable multi-hook puller	

Remark:

1)、Optional orders for above accessories and components are available.

2)、Model and parts number required when ordering parts from your local distributor.

Installation

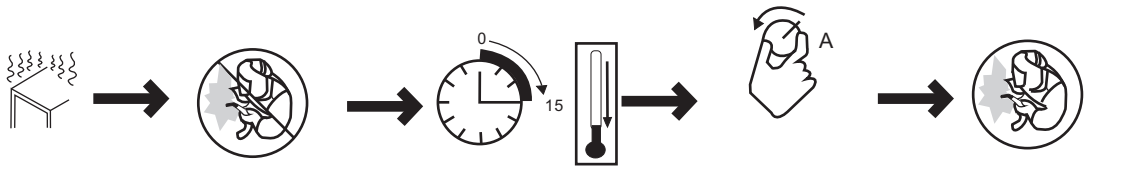
1、specifications

Input voltage	Three phase 380V 50/60HZ
Output voltage	1V-12V
	Kriptol heating AC6V-10V washer welding AC1V-12V double-side welding AC1V-13V
Input power	10KW
Instant max.current	5800A
Max. input current	57A
Operation way	Electronic timer,continuity
Time regulation system	0-99ms
Operation place	Infinity
One side welding thickness	1.0+1.2(mm)
Vacuum cupule device	180kg
Dimension	1000*5200*1560(mm)

2、Duty Cycle and Overheating

Duty cycle is percentage of 10 minutes that unit can weld at rated load without overheating.

If unit overheat,output stops ,and cooling fan runs .Wait fifteen minutes for unit to cool.Reduce amperage or duty cycle before welding.



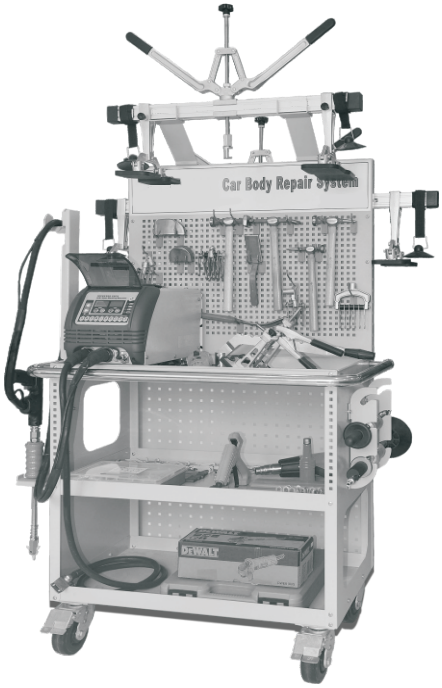
Overheating | Stop working | Wait fifteen minutes for unit to cool | Reduce amperage or reduce duty cycle | Weld again

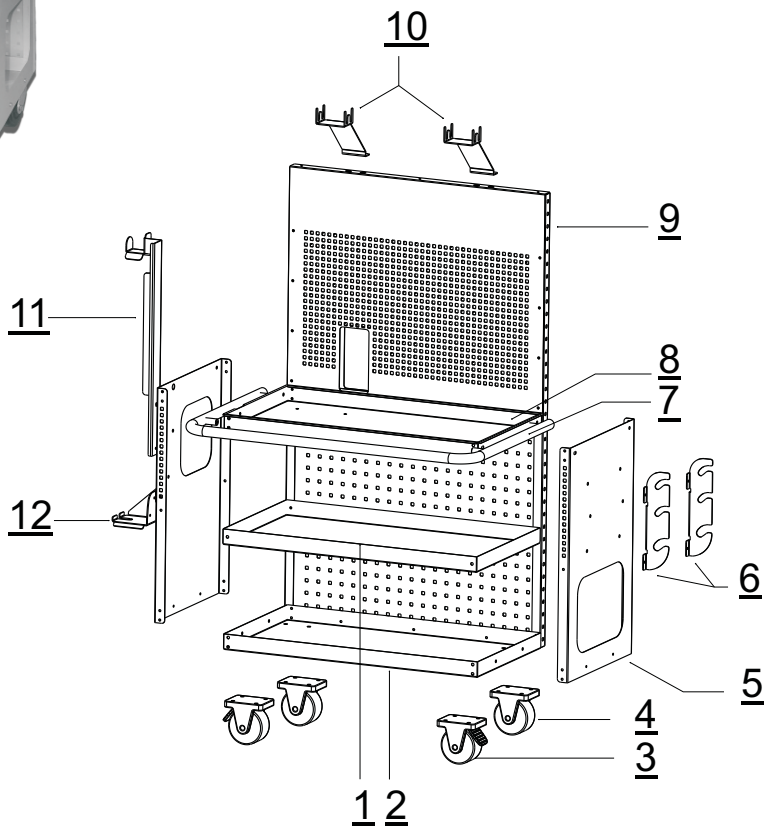
3、Machine Installation

1)Open the package and find out the owner's manual。

2)Check the supplied accessories according to packing list that attached to this manual.

3)Properly install this equipment as following diagram.Inspect the unit for any problems.If so,contact your local distributor or service agency.To locate a distributor or service agency.





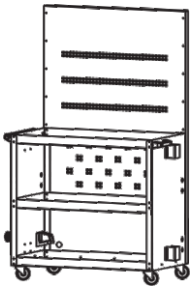
4、Selecting a Location

1)Select a correct location to place the unit.

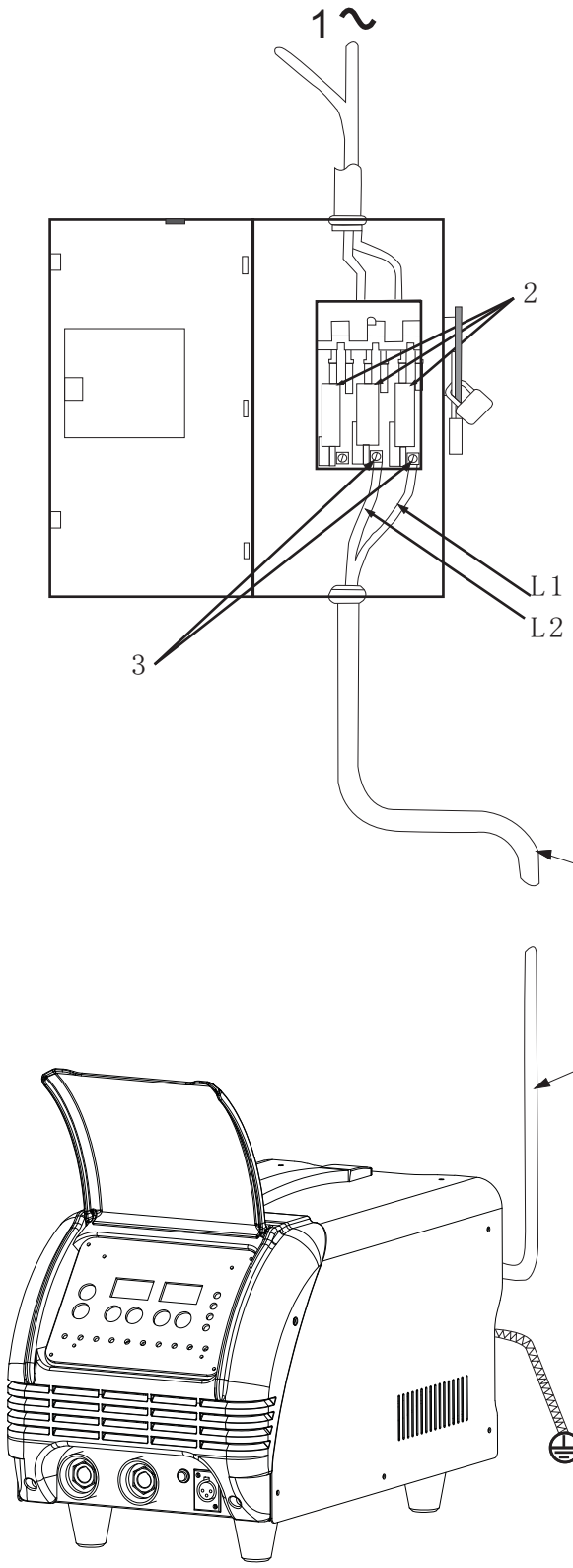
2)Determine input power cord length according to its actual operation requirement .Make sure that the supply cable is at least 6mm²in diameter

3)Do not move or operate unit where it could tip.

4)Use cart or unit handle to move unit .Do not pull the cords to move unit.



5、Connecting Input Power



1、Input power cord (not less than 6mm^2 copper cord).
2、Over-current protection.
3、Disconnect device line terminals.
4、Ground wire L1/L2 input conductors.

■ Installation must meet all National and Local Codes---have only qualified persons make this installation.

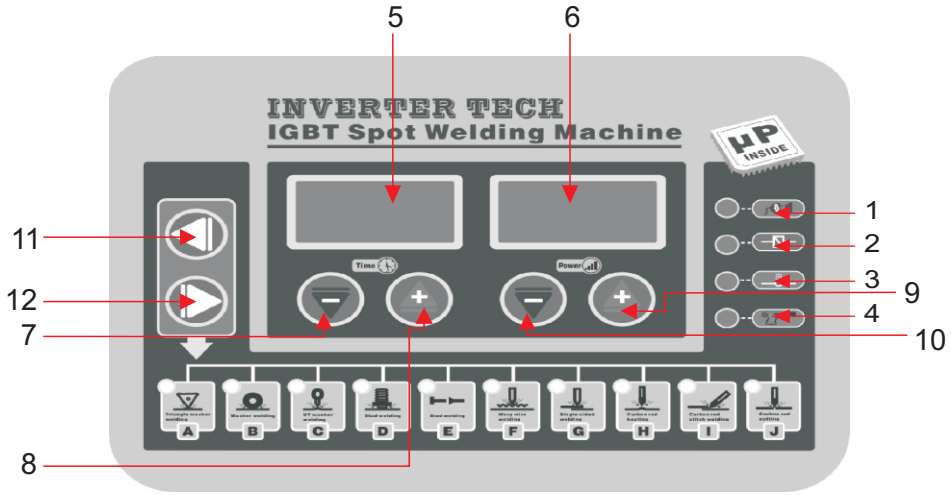
■ Disconnect and lockout/tagount input power before connecting input conductors from unit.

■ Select type and size of over-current protection.

■ Close and secure door on disconnect device. Remove lockout/tagout device, and place switch in the "on" position.

Operation

1、Controls

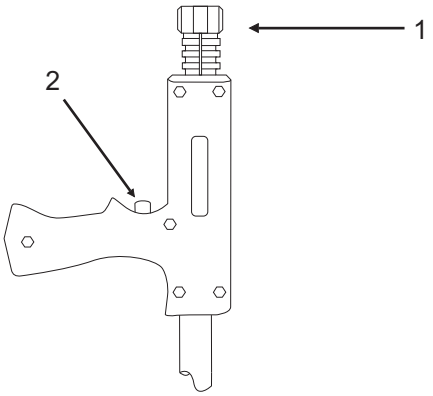


1. Power indicator
2. Error indicator
3. Overheat indicator
4. Gun trigger indicator
5. Spot welding time display
6. Power percentage display

7/8. Spot welding time adjustment

9/10. Power percentage adjustment

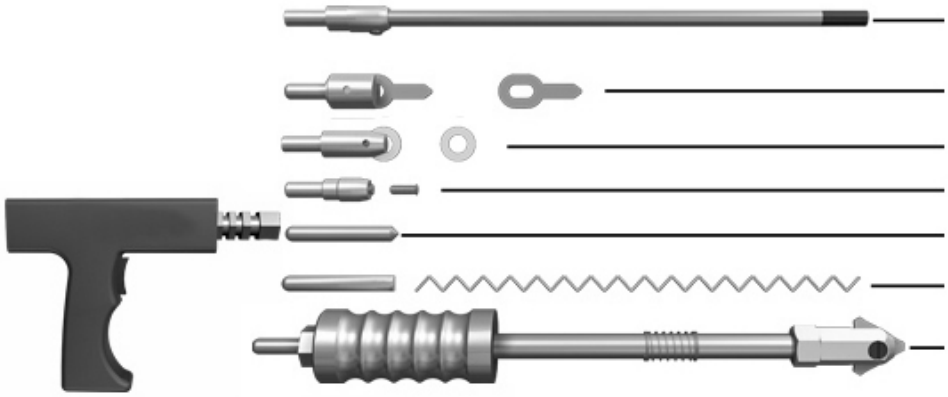
2、Welding Gun and Adaptors



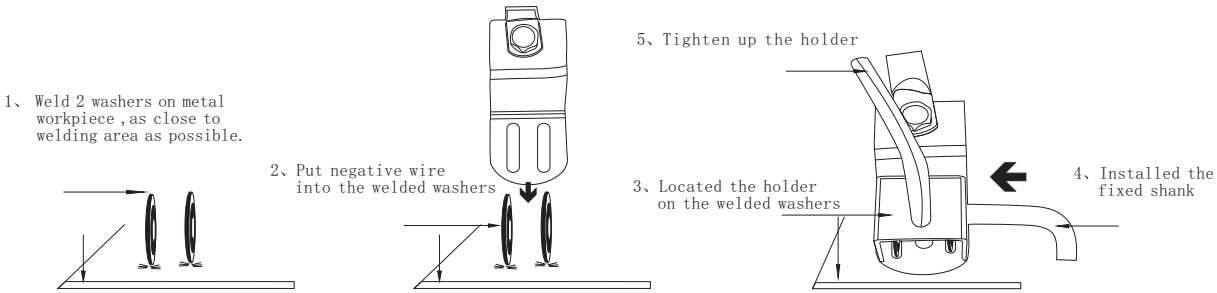
1、Electrode holder

2、Trigger

Single-Sided applications

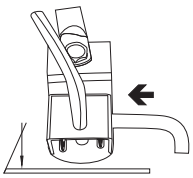


Connection of negative wire

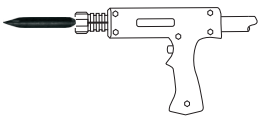


3、Operation

a、spot welding

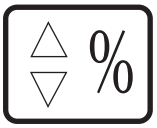


Connect negative outside wire to a clean,paint-free location on metal workpiece,as close to welding area as possible.

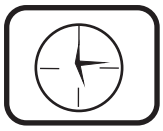


F008+F020

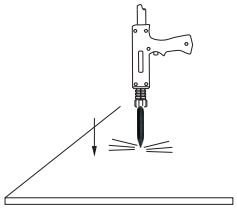
Connect spot welding electrode tip with welding gun and tighten.



Set correct amperage.



Set correct time.



Approximately a 90° angle to the workepiece surface.
Put on pressure and press trigger.

Remark:

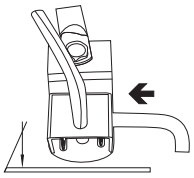
1、Setting amperage too high or time too long can cause workpiece surface (vehicle body)damage . Please weld other workpieces for practice before actual operations.

2、Setting correct amperage and time according to the workpiece thickness.

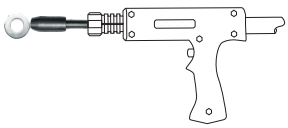
3、Continuing another operation is available after this procedure finished .If not, please shut off the main power supply and switch off the unit.

3、Operation

b、Washer Welding

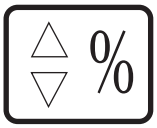


Connect negative outside wire to a clean,paint-free location on metal workpiece,as close to welding area as possible.

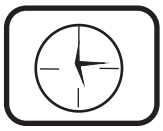


F017+F011+F020

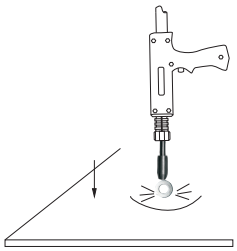
Connect washer adaptor with welding gun and tighten, Install washer.



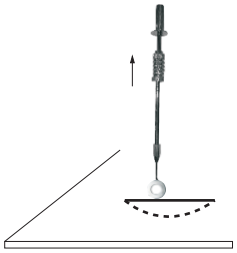
Set correct amperage.



Set correct time.



Approximately a 90° angle to the dent.Put on pressure and press trigger.



Remove welding gun.Hook the washer with pull hammer.Slide the hammer to opposite direction to pull out the dent .

Remark:

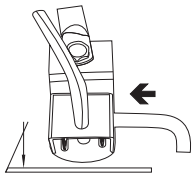
1、Setting amperage too high or time too long can cause workpiece surface (vehicle body)damage . Please weld other workpieces for practice before actual operations.

2、Setting correct amperage and time according to the workpiece thickness.

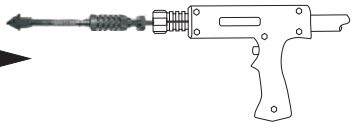
3、Continuing another operation is available after this procedure finished .if not, please shut off the main power supply and switch off the unit.

3、Operation

c、Triangle Washer Welding

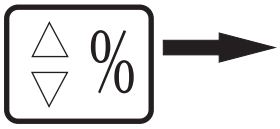


Connect negative outside wire to a clean,paint-free location on metal workpiece,as close to welding area as possible.

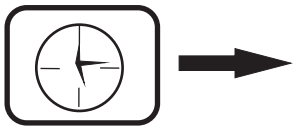


F003+F020

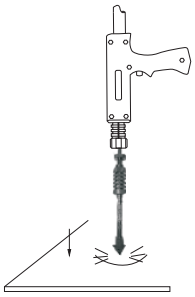
Connect triangel washer pull hammer with welding gun.



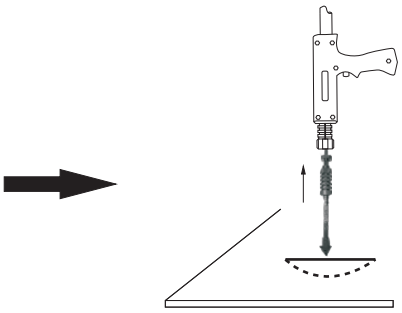
Set correct amperage.



Set correct time.



Approximately a 90° angle to the dent,put on pressure and press trigger.



Slide the hammer to opposite direction to pull the dent out.

Remark:

1、Setting amperage too high or time too long can cause workpiece surface (vehicle body)damage . Please weld other workpieces for practice before actual operations.

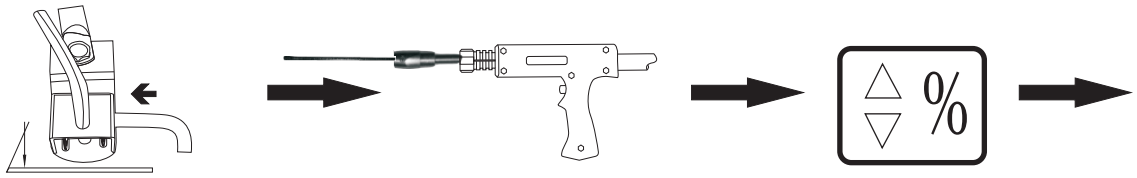
2、Setting correct amperage and time according to the workpiece thickness

3.Triangle washer welding can replace washer welding.It can pull out the dent directly after welded.

4、Continuing another operation is available after this procedure finished .If not, please shut off the main power supply and switch off the unit.

3、Operation

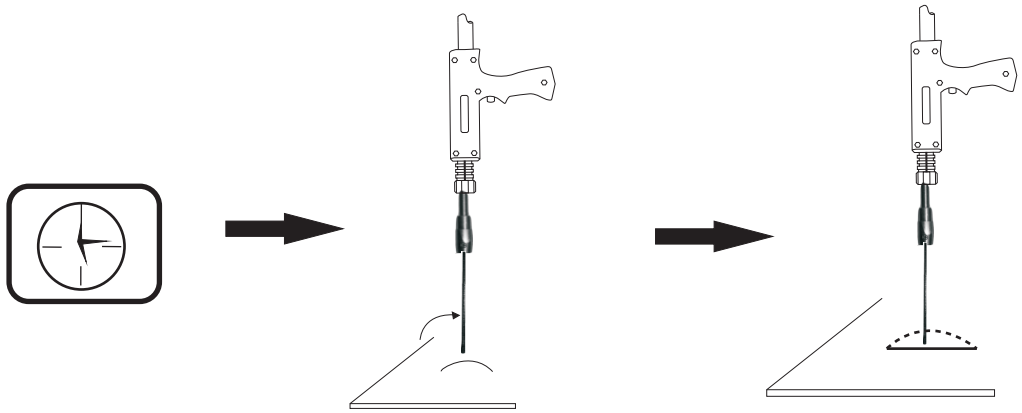
D、Carbon rod Heating



Connect negative outside wire to a clean, paint-free location on metal workpiece, as close to welding area as possible.

F007+F009+F020
Connect carbon rod and carbon rod adaptor with welding gun.

Set correct amperage.



Set correct time.

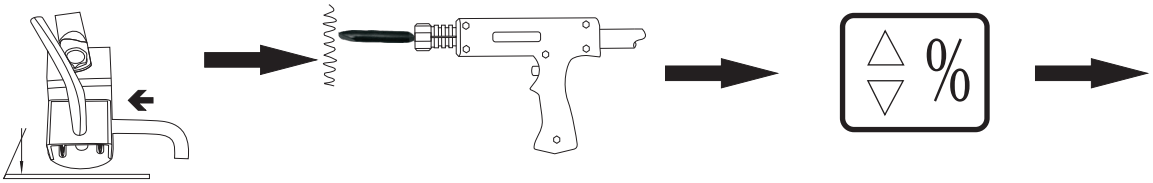
Carbon rod turning in clockwise to heat up the stretched panel

Cool the surface with a wet rag or compressed air.

Remark:
1、Setting amperage too high or time too long can cause workpiece surface (vehicle body) damage . Please weld other workpieces for practice before actual operations.
2、Setting correct amperage and time according to the workpiece thickness.
3、Continuing another operation is available after this procedure finished . If not, please shut off the main power supply and switch off the unit..

3、Operation

e、Wriggle Form Wire Welding

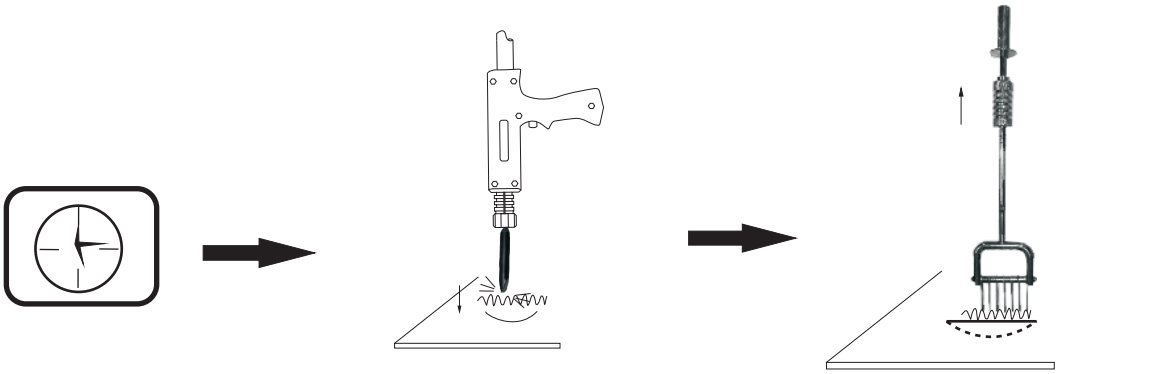


F006+F010+020

Connect negative outside wire to a clean, paint-free location on metal workpiece, as close to welding area as possible.

Connect wriggle wire electrode tip with welding gun.

Set correct amperage.



Set correct time.

Set a wriggle wire upright on the dent. Approximately a 90° angleto wringgle form wire. Put on pressure and press trigger.

Connect claw to slide hammer. Hook the wriggle wire with slide hammer and pull out the dent

Remark:

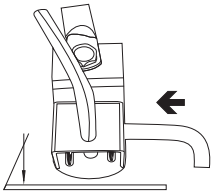
1、Setting amperage too high or time too long can cause workpiece surface (vehicle body) damage . Please weld other workpieces for practice before actual operations.

2、Setting correct amperage and time according to the workpiece thickness.

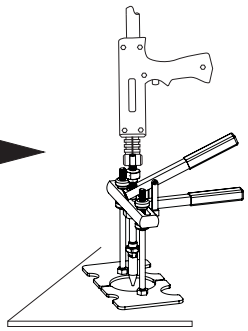
3、Continuing another operation is available after this procedure finished . If not , please shut off the main power supply and switch off the unit.

3、Operation

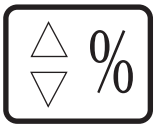
f、Quick Puller



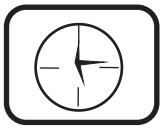
Connect negative outside wire to a clean, paint-free location on metal workpiece, as close to welding area as possible.



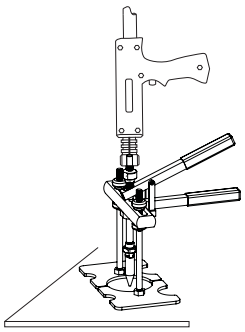
Connect quick puller to welding gun



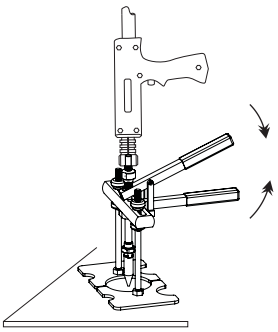
Set correct amperage.



Set correct time.



Touch the dent area by the electrode of quick puller. Put on pressure and press trigger



Squeeze the lever to pull the panel

Remark:

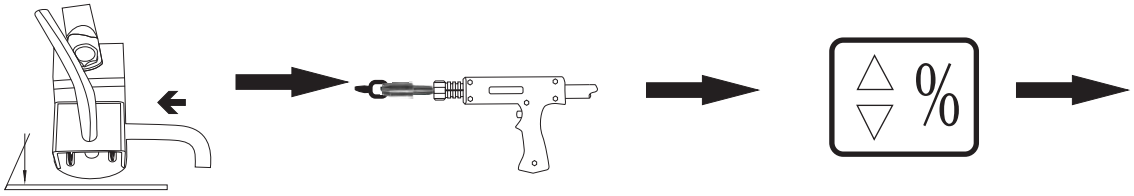
1、Setting amperage too high or time too long can cause workpiece surface (vehicle body) damage. Please weld other workpieces for practice before actual operations.

2、Setting correct amperage and time according to the workpiece thickness.

3、Continuing another operation is available after this procedure finished. If not, please shut off the main power supply and switch off the unit.

3、Operation

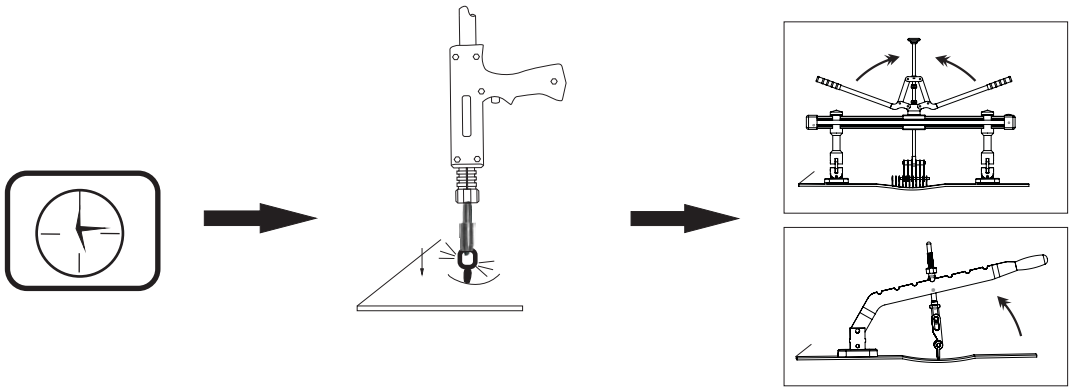
g、Crossbar Lifter



Connect negative outside wire to a clean, paint-free location on metal workpiece, as close to welding area as possible.

Connect OT washer adapter with welding gun and tighter up

Set correct amperage.



Set correct time.

Put an OT washer into adapter Approximately a 90° angle to the dent area. Put on pressure and press trigger

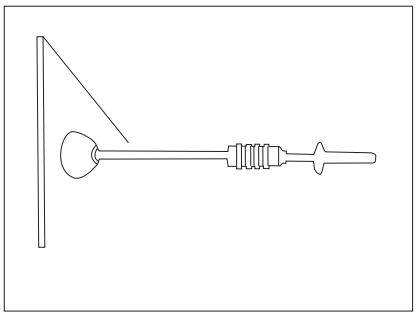
Select a suitable puller. Put the puller in fixed position, Hook up OT washers with the claw of puller, Adjust the nut of puller. Squeeze the lever to pull out large dent area with full control

Remark:

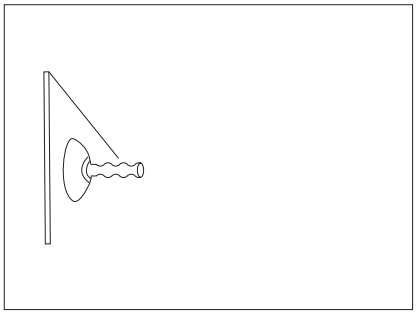
1、Setting amperage too high or time too long can cause workpiece surface (vehicle body) damage . Please weld other workpieces for practice before actual operations.
2、Setting correct amperage and time according to the workpiece thickness.
3、According to actual conditions to select a suitable puller for repairing
4、The nut of the puller is to adjust the up and down moving range of the main axle
5、Continuing another operation is available after this procedure finished . If not , please shut off the main power supply and switch off the unit.

3、Operation

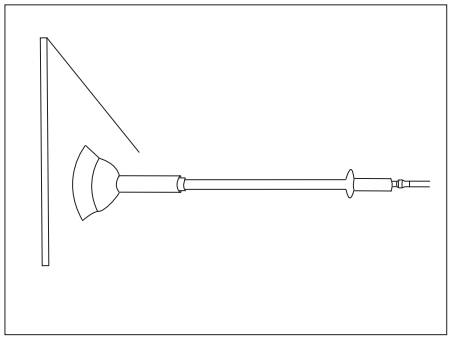
h、Cupules



Manual operating cupule:
1、Connect manual cupule with pull hammer.
2、Push manual cupule in to lock the cupule on the dent.
3、Slide the hammer to opposite direction to pull the dent out.

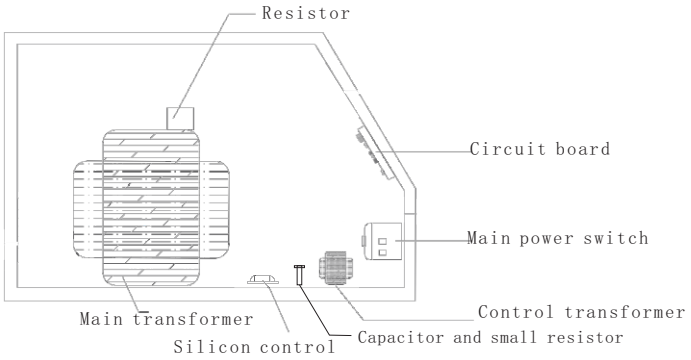


Manual operating cupule:
1、Connect manual operating cupule with pull hammer.
2、Pull the dent area out gently

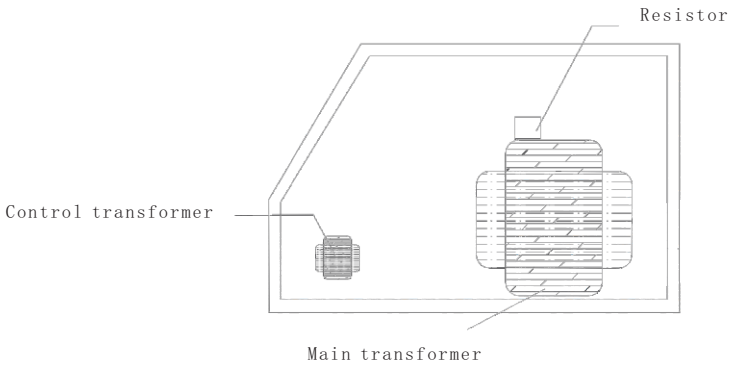


Pneumatic vacuum cupule:
1、Connect gas/air supply with the adaptor of cupule.
2、Open the valve ,sticking cupule to the dent.
3、Slide the hammer to opposite direction pull the dent out.
4、Cupule falls off when close the valve.

1、Exploded view



Left side view



Right side view

2、Troubleshooting

Trouble	Reason	Remedy
No weld output	(1)Connected power supply incorrectly. (2)Power switch in off position	(1) Connect power supply according to manufacturer's instructions. (2) Place power switch in "on" position.
Trigger not working	(1) Trigger damaged. (2) Gun control wire broken. (3) Control wire plug loosen. (4)Mode switch in incorrect position.	(1) Replace trigger. (2) Connect again or replace if necessary. (3)Connect control wire plug again. (4)Place Mode switch in correct position.
Poor weld	(1)Aamperage too low . (2)Weld time too short. (3)Input power cord did not meet the requirement. (4)Ground clamp bad contact.	(1)Increase amperage setting. (2)Increase time setting. (3)Replace input power cord. (4)Change ground clamp location.
Piercing workpiece	(1)output amperage too high. (2)Weld time too long. (3)Bad contact of electrode tip or washer with workpiece.	(1)Reduce amperage setting. (2)Rrduce weld time. (3)Remove coating from material reduce added pressure.
Kriptol working unstable	(1)Kriptol did not polish,workpieces did not polish. (2)Incorrect amperage and time setting.	(1)Polish kriptol and workpieces (2)Set amperage and time according to workpiece thickness.
Not enough pressure	(1) Air compressor pressure not enough. (2) Pressure regulator not enough pressure. (3) Electromagnetism valve not open. (4)Incorrect gas/air pressure setting.	(1) Adjust air compressor pressure. (2) Pull and turn pressure adjustment knob. (3) Adjust gas/air pressure control to 6-10kg.
Unit stop working while operation	(1)Trigger plug loosen. (2)Gun control wire broken. (3)Over heating.	(1)Check gun control wire and trigger plug. (2)Wait for temperature cool down.

Circuit Diagram