

USER MANUAL FOR: MINI SPOT WELDING

MINI-SPOT WELDING

FOR PROFESSIONAL CAR BODY WORKSHOPS

This machine allows :

- Weld meson pads
- Weld twist pads
- Weld 2.0/2.5mm nails
- Weld wavy wires
- Dent pulling with pulling hammer
- Dent pulling with muti-hook

Note: If the main transformer temperature get to 95°C, the machine thermal protection will work, the machine can not be used until 10mins later.

The machine is delivered with :

 Nails electrode 1pc	 Nails lock(in) 1pc	 Nails lock(out) 1pc	
 Meson electrode 1pc	 Twist pad electrode 1pc	 Multi-functional pulling hammer 1pc	
		 Wavy-wires 20pcs	 Multi-hook heads 1pc
		 Wavy-wire electrode 1pc	
 Package box 1pc	 Nails 2.5mm 500pcs	 Nails 2.0mm 500pcs	 Meson pads 50pcs
			 Twist pads 50pcs

The complete appearance:



Technical parameters:

Input voltage	1ph 230V 50/70Hz
Input power	800VA
Output voltage	4V
Max current	1600A
Welder weight	4.5kg
Packaging style	carton
Packaging dimensions	60*23*38cm
Total weight	16kg
Certificates	CE ISO

INSTRUCTION MANUAL FOR MINI-SPOT WELDING MACHINE

Congratulations for the selection of this product which has been designed with great care; Before installing and using the product, please read carefully the following recommendations of safety in order to avoid accidents to the users and damages of the welding process.

PLR can't be responsible for the damages occurred to persons or things, which derive from the use of the machine in following circumstances:

- Modification or neutralization of safety elements
- Non respect of the recommendations written in the manual instruction.
- Modification of the characteristics on the product
- Use of the accessories, which are different from the ones delivered by PLR.
- Non-respect of the regulating and particular dispositions where the machine is settled.

I / PRESENTATION

This product has been designed to carry out the following operations in car body workshop:

- Welding of nails 2.0mm&2.5mm
- Welding of meson pads, rings and wavy wires
- Pulling of nails, pads, rings and wavy wires

II / SAFETY STANDARDS AND GENERAL PRECAUTIONS

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- Modification or neutralization of safety elements
- Non respect of the recommendations written in the manual instruction.
- Modification of the characteristics on the product
- Use of the accessories, which are different from the ones delivered by our company.

GENERALITIES

1. Before disassembling the product's body, plug out the lead cable.
2. The operators must have the appropriate qualification.
3. The operations of servicing can only be controlled by qualified technicians.
4. The operator is responsible for respect of the car manufacturers ' recommendations, concerning the protection of electrical and electronic procedures (car computer, car radio, alarm, air bag, etc...)
5. Before an operation of servicing, the power supply with compressed air must be cut off and off loaded.
6. The electrodes, arms, and the other secondary conductors can reach a very high temperature and remain hot very long after having stopped the machine. Be careful: high risk of burns.
7. It is necessary to make a regular preventive maintenance.

ELECTRICITY

1. Check that the unity must be connected to the earth coupler and that the connection to the earth is in good condition.
2. Check that the work bench is connected to the earth coupler.
3. Make sure that the operator has no contact with the metal parts to be welded without any protection or with wet clothes.
4. Avoid to be in contact with the welding part.
5. Don't make spot welding operations in very wet areas or on a wet floor.
6. Don't weld with worn out cables. Check that there is no default with the isolation with stripped cables or with loose connections.
7. Switch off the unit before replacing the electrodes.
8. Before controlling or repairing, please disconnect the unit directly to the level of the plug.

PROTECTION OF EYES AND BODY

1. During the welding process, the process must be protected from the eventual flashes of the electrical arc with protection clothes like leather gloves, welding aprons, safety shoes, welding helmets or glasses for filtering radiations and projections. As well during operations of rubbing and hammering, the operator must protect his eyes.
2. Don't keep rings, watches, or jewellery, which are current lead and can create burns.
3. All the protection board must be in good condition and maintained in place.
Never look at an arc of welding without any protection of your eyes.
Protect the environment near the product against projections and reflections.

SMOKES AND GAS

Welding operations can cause the emission of toxic smokes and harmful metallic dusts. Use the device in a sheltered place equipped with smoke aspirators.
The operator must wear an anti smoke mask.
The welding material must be degreased and cleaned in order to limit the toxic gas during the welding process.

FIRE

1. Check that the sparks don't cause fire especially near inflammable material.
2. Check that fire extinguishers are not too far from the operator.
3. Leave the product in a place with air movers.
4. Don't weld neither on containers of combustibles and lubricants, even empty, nor on containers with inflammable material..
5. Don't weld in an atmosphere full with inflammable gas or fuel steam.

ELECTRO-MAGNETIC COMPATIBILITY

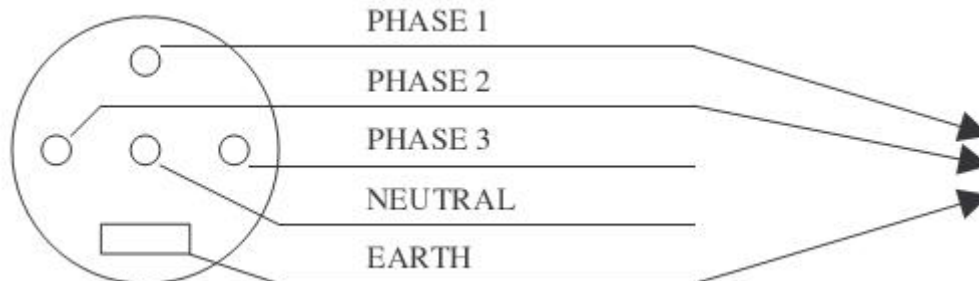
Near the spot welding, check :

- there is neither no other power supply cable nor control lines, nor phone cables, nor radio or TV reception appliances, nor watches, nor mobile phones, nor magnetic cards, nor computers or any other electronic appliance.
 - there is in the surroundings (minimum 3 meters of each point of the product) no persons using active medical appliances (pacemakers, acoustic prosthetics).
- Make supplementary protections if other products are used in the same environment.

III / CONNECTIONS OF POWER SUPPLY CABLES

Electricity:

Single phase 230V 50/70Hz . Use of the PHASE 1, PHASE 2 and EARTH CONNECTION on a 3 phase plug.



Protection of the line:

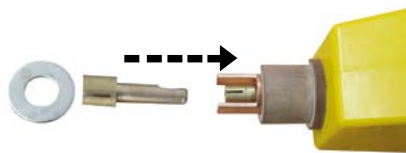
If the product releases the circuit breaker of the protection of installation, please check that you have the right calibre and the adequate type of circuit breaker. If the main transformer get too hot, the machine thermal protection will work, the machine can not be used until 10mins later.

V/ HOW TO USE

Meson function:

Meson function is for single point dent. Before the meson, please clean the rust and paint of the dent part to make the pads contact well with iron plate. Then install the meson electrode to the welding gun, put the pad on the electrode, vertical pulling to the iron and presse the gun switch, the meson is welding well. Then put the multi-function pulling hammer to the pad and pull hard. When the iron plate is pulling fomatation rotate the hammer to unload meson.

Meson pad Installation demo



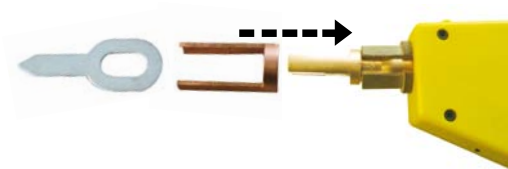
Meson pads welding and pulling



Twist pad function:

Twist pad function is for single point dent and large area of dent. Before the welding, please clean the rust and paint of the dent part to make the pads contact well with iron plate. Then install the twist electrode to the welding gun, put the pad on the electrode, vertical pulling to the iron and presse the gun switch, the pad is welding well. Then put the multi-function pulling hammer to the pad and pull hard. When the iron plate is pulling fomation rotate the hammer to unload meson.

Twist pad installation



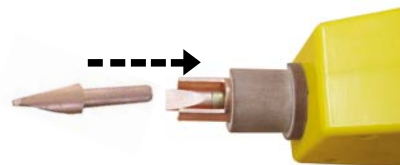
Twist pads welding and pulling



Wavy line function:

Wave line function is for long and narrow dent. Just as above function, please clean the rust and paint of the dent part to make the electrode contact well with iron plate. Install the wave line electrode to the welding gun, put the wavy wire horizontal on the dent, welding the loops of the wavy wire on the dent one by one. Then install the muti-hook to the multi-functional hammer, link the hooks to the wave holes. Pull the hammer hard till the dent is fomation.

Wavy wire installation



Wavy-wires welding and pulling

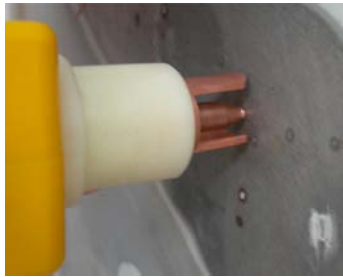


Nails function:

Nails function is for single point dent. Before the welding, please clean the rust and paint of the dent part to make the pads contact well with iron plate. Then install the nails electrode to the welding gun, put the nails on the electrode, vertical pulling to the iron and presse the gun switch, the nail is welding well. Then replace the hook head of the pulling hammer by the nails head, let the nails insert to the hammer head, fasten the head and pull hard until the iron plate is pulling fomatation.



Nails installation



Nails welding



Nails pulling