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INSTRUCTIONS MANUAL QUICKPULLER



ATTENTION

Carefully read this manual before using the spot welder.

This manual refers to the following spot welders QUICKPULLER.

This manual is supplied by PRIMA srl without any guarantee. PRIMA srl reserves the right to apply to this manual, at any time and without notice, modifications due to typing errors, inaccuracy of contents or improvements of the programs and devices.

In any case, possible modifications will be integrated in the subsequent editions of this manual. In no case PRIMA srl will be liable for direct, indirect, extraordinary, accidental or consequential damage caused by the use or the inability to use the spot welder or this documentation.

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MOVABLE SPOT WELDER

This machine complies with the 89/392/CEE directives and subsequent modifications and supplements.

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NOTES AND PRECAUTIONS

Have the electrical connections made by qualified personnel in compliance with the relevant Laws and safety Codes. Make sure that the power box is properly connected to the grounding system and that it is complying with the CEI EN 60 204/1 Standard.

WARNING

Do not use cables with damaged insulation, loose connecting terminals or inadequate section. Do not operate the spot welder in a humid or wet environment or in the rain.

Always disconnect the machine from the supply systems during installation or checking and maintenance operations.

Bring flammable materials or substances to a sufficient distance (at least 10 meters) from the working area.

It is extremely dangerous to weld (spot weld) containers or tanks which have contained liquid or gaseous substances or combustibles, because explosions may occur.

During spot welding, and especially when welding galvanized, painted or oil contaminated metal, smoke will be produced. Make sure there is an adequate air change or a suitable extraction systems.

Always protect your eyes with special safety glasses, wear gloves, apron and protective clothing without metal accessories.

During welding operations the machine generates magnetic fields. Pay attention to the attraction of iron bearing working residues.

Watches as well as other mechanical, electric and/or electronic devices can be damaged.

WARNING: Persons with pacemakers or other cardiac devices must absolutely not use the machine.

The operator must have adequate knowledge and training in the use and the resistance welding procedure with this machine.

Do not allow unauthorized persons to access the working area; avoid that more then one person works simultaneously on the same machine.

DEFINITION OF THE TERMS

Refer to the UNI EN 292 Standard for the definition of the terms used in this manual.

FEATURES OF THE MACHINE AND GENERAL INFORMATION

MOVABLE RESISTANCE WELDING STATION

This machine has been manufactured in compliance with the following regulations:

- Machine Safety Directive 89/392/CEE, 91/368CEE, 93/44/CEE, 93/68/CEE
- 89/336/CEE Directive, electromagnetic compatibility.
- 73/23/CEE Directive, low voltage electric material.
- EN 50063 Standard, building and installation of resistance welders.
- UNI EN 292/1 and 292/2 Standard, machinery safety.

TECHNICAL SPECIFICATIONS AND PERFORMANCES

FEATURINGS	um	QUICKPULLER
Imput voltage	1ph V/HZ	230/50-60
Nominal power	KVA	3.2
Secondary no-load voltage	V	7
Secondary short-circuit current	KA	1.9
Duty cycles	%	5
Fuses V 230	A	16
Noise level (ISO 7779)	dBA	< 40
Ambient temperature	°C	5÷35
Air humidity	%	< 90
Dimensions	mm	110x180x420
Weight	Kg	2,9

Fig. 1

This machine complies with the 89/392/CEE directives and subsequent modifications and supplements.

PACKING

The spot welder is packed in a sturdy cardboard box.

UNPACKING

Remove the protective plastic material.

Remove the cardboard box.

CAUTION: The packing materials – wood, nails, plastics, cardboard etc. – must not be left within the reach of children, as they could be a source of danger.

The packing materials must be subdivided and disposed of in compliance with the applicable Codes.

STORAGE

The spot welder must be stored at a temperature between 0 and 40 °C in a dry place, protected from weather and far from heat sources.

The spot welder must be moved with care, avoiding shocks and dropping which could damage the machine.

INSTALLATION

PRECAUTIONS AND CHECKS

CAUTION: During all installation and connection operations, the machine must be absolutely isolated from the power supply line.

CAUTION: Installation must be made by qualified personnel in compliance with the applicable regulations and in accordance with the instructions of the manufacturer.

CAUTION: Before connecting the machine to the mains supply, make sure that the data on the nameplate of the spot welder correspond to the voltage and frequency of the mains supply available on site.

Electrical safety of the spot welder is obtained only when connected to an efficient grounding system made in compliance with the applicable Regulations.

Have qualified personnel check the system for functional efficiency.

The Manufacturer cannot be held liable for possible damage caused by absence or inefficiency of the grounding system.

Check that the installed power on the electric supply meter as well as the cables of the electrical plant are adequate for the rated power of the spot welder.

CAUTION: In case the user makes modifications, alterations or changes of the spot welder or integrates it in a plant, any liability of the Manufacturer decays and the user is obliged to remove the CE label.

The non-observance of the above instructions will render the safety system provided by the Manufacturer ineffective, causing serious risks of personal injuries and material damage.

ELECTRICAL CONNECTION

The electrical connection of the spot welder to the mains must be made by qualified personnel.

The electrical connection must be made in compliance with the prescriptions of the EN 50063 CEI 26-6 and CEI 64/8 Standard - installation of resistance welders (spot welders) - to a grounded power box provided with a differential circuit breaker having an adequate capacity for the power of the spot welder (tab.1, p.03, Electrical Features) and complying with the CEI EN 60204/1 Standards.

Make sure that the size of the electrical line (conductor section) and the capacity of the fuses are adequate.

Caution: The spot welders are SINGLE PHASE and provided with a power cord with two leads, plus a third lead intended only for connection to the grounding system; therefore they can be connected to a single phase power supply, or to a three phase power supply of which only two of the three available phases will be used.

START-UP

CAUTION: Remember some safety precautions to be taken in order to avoid hazardous situations.

The operator must have adequate knowledge and training in resistance welding procedures (spot welding) with this type of spot welder.

Do not allow unauthorized persons to access the working area.

Avoid that more than one person works simultaneously on the same spot welder.

CAUTION:

Do not wear magnetic metal objects as rings, bracelets, watches etc. during welding operations, because these objects can be violently attracted by the magnetic field generated by the spot welder or considerably overheated due to the Joule effect and cause burns.

The operator must wear safety glasses, gloves and an apron to protect himself against burns, cuts in the hands and sparkling incandescent particles.

Note: The individual protective systems must be in compliance with the applicable Regulations.

LIMIT OF USE

This spot welder has been designed, dimensioned and manufactured for resistance welding on thin steel sheet (fig.1, p.03, Features). Any use with different welding procedures, non-iron metals, different sheet thickness or with more duty cycles as indicated may affect proper operation and cause damage to the spot welder.

Therefore the machine must be destined only for the use foreseen and described in this manual, any other use is to be considered improper and may cause hazards to the operator's safety and material damage.

The manufacturer cannot be held liable for possible personal injuries or material damage arising from improper or unreasonable use.

This machine complies with the 89/392/CEE directives and subsequent modifications and supplements.

ENVIRONMENT

Working ambient temperature: 5°C to 35°C.
Working air humidity: lower than 90%.

STARTING THE MACHINE

WARNING: The first start-up of the spot welder must be made by qualified personnel. Before performing any welding operation, checks and adjustments must be made.

Make sure the electrical connection has been made properly and in compliance with the applicable regulations.
Check the diameter and the good state of the welding electrode tips.

WARNING: The spot welder must be used by trained personnel.

MAINTENANCE

WARNING: Never remove the panels of the spot welding machine and access the interior without having previously removed the power cord from the power supply box.

WARNING: Possible checks inside the spot welding machine, performed when energized, can cause heavy electrical shocks generated by direct contact with current carrying parts.

WARNING: Maintenance must be performed by qualified personnel.

SCHEDULED MAINTENANCE

Maintenance of components and wear materials must be performed on a regular basis once a week or more often according to the use and the environmental conditions as listed below.

Often check the welding electrodes; restore the original diameter of the tip. Using a fine-grained file to remove iron residues that come off the sheet metal as well as the craters that have formed.

Check and carefully clean the locking seats as well as the extremities of the welding arms.

Check the state of the power cord.

Inspect the spot welder and remove dust and particles that may have deposited on the various components.

The proper maintenance assures high welding performance of the machine and limits consumption and current absorption.

EXTRAORDINARY MAINTENANCE

Repair and replacement of components of the welding machine, if required, must be performed by qualified personnel using only original spare parts.

WARNING: Replacement of components with non original spare parts and/or alterations of the machine causes the decay of any liability of the manufacturer for personal injuries or material damage that may arise.

EMERGENCY

FIRE

In case of fire, use only powder extinguishers complying with the applicable Regulations.

WARNING: NEVER USE LIQUID FIRE EXTINGUISHERS, BECAUSE THE MACHINE COULD BE ENERGIZED.

WARNING: WHEN BURNING, SOME PARTS OF THE MACHINE MAY PRODUCE TOXIC COMBUSTION GASES OR SMOKE.

DISASSEMBLY - DISPOSAL

CAUTION: If the machine is to be put out of service, provide for disassembly and disposal according to the applicable Regulations.

Subdivide the different materials:

Metal

Electric material

Electronic material

Plastic and rubber material

ATTENTION: Waste materials must be subdivided and disposed of in compliance with the applicable Laws.

TROUBLESHOOTING

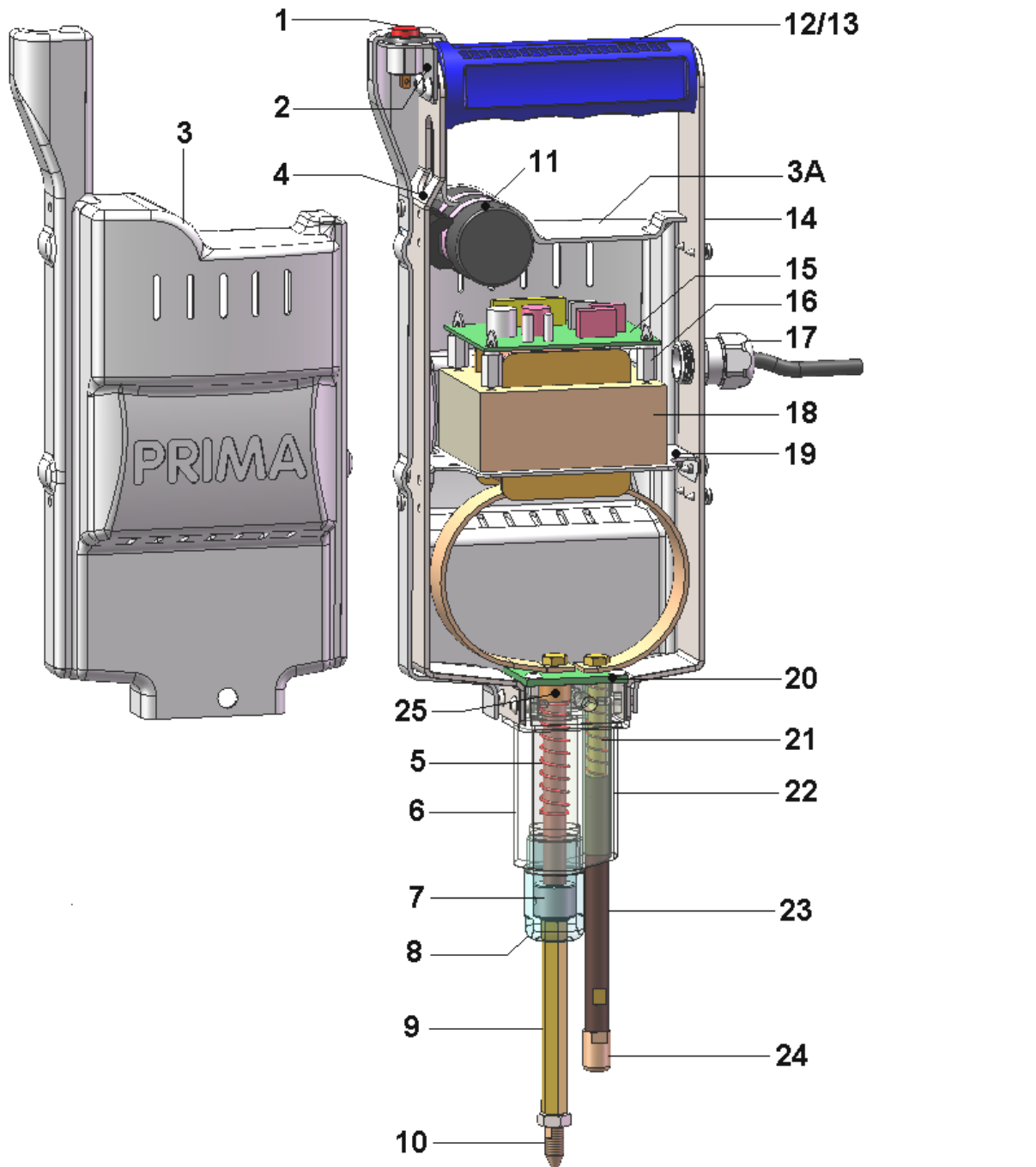
Below is a list of possible problems and malfunctions that may occur and the remedies to eliminate them.

PROBLEM	CAUSE	REMEDY
The spot welder does not turn on.	Connection error. Control panel switch open. Burned fuse.	Check connection, control panel and fuse.
Execution of spot welds with sparking of melted material. Holes and craters at the welds on the sheets.	Insufficient electrode pressure. Electrode tips with metal residue deposits.	Clean the electrodes. Make a correct contact electrode-metal sheet.

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QUICKPULLER: SPARE PARTS

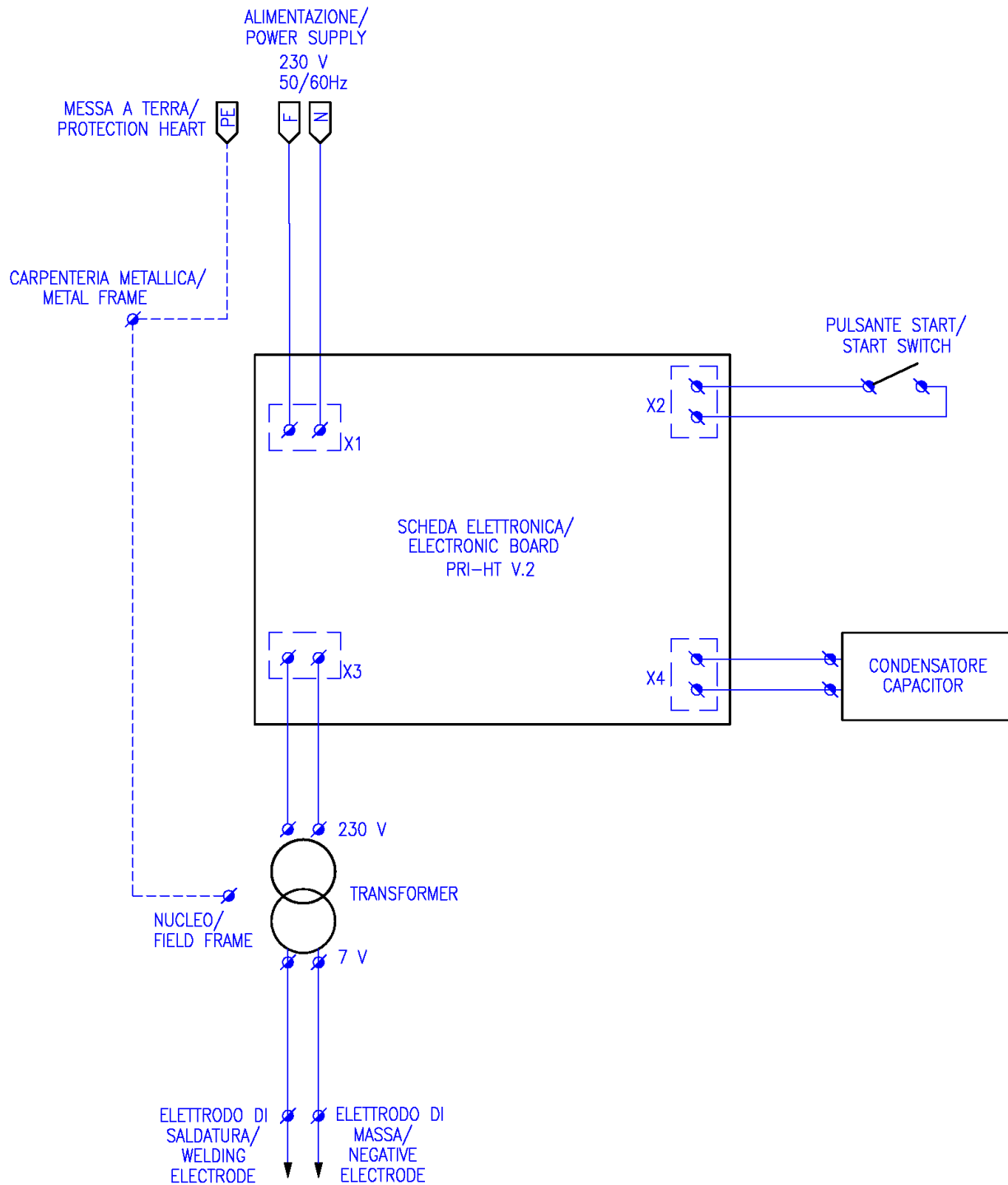


LEGEND:

1. 391220.51	CONTROL BUTTON	17. 391220.53	CABLE HOLDER
2. 552060.14	SUPPORT BUTTON	18. 551205.40	TRANSFORMER
3. 552060.15	CARTER SX / 3A. CARTER DX	19. 552060.13	SUPPORT TRANSFORMER
4. 552060.02	HANDLE ATTACHMENT SX	20. 552060.09	FLANGE
5. 552060.55	SPRING WELDING SIDE	21. 552060.53	SPRING SIDE OF MASSA
6. 552060.01	STEERING COLUMN	22. 552060.12	INSULATING TUBE
7. 552060.08	HAMMER	23. 552060.05	ELECTRODE HOLDER OF MASSA
8. 552060.10	BUSHING OF GUIDE	24. 500202.02	ELECTRODE OF MASSA E63
9. 552060.03	WELDING ELECTRODE HOLDER	25. 552060.57	GUIDE BUSHING
10. 600103.05	ELECTRODE P8		
11. 552060.56	CONDENSER		
12. 552060.04	SUPPORT HANDLE		
13. 552060.52	HANDLE HOLDER		
14. 552060.07	HANDLE ATTACHMENT DX		
15. 552060.50	INVERTER ELECTRONIC BOARD		
16. 552060.54	PCB SPACE (N.4)		

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QUICKPULLER: ELECTRIC DIAGRAM



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DECLARATION OF CONFORMITY
KONFORMITÄT SERKLÄRUNG
DECLARATION DE CONFORMITE'

DECLARACION DE CONFORMIDAD
DECLARAÇÃO DE CONFORMIDADE
FORSKRAN OM OVERENSSTEMMELSE
VERKARING VAN CONFORMITEIT

BEKREFTELSE OM OVERENSSTEMMELSE
OVERENSSTEMMELSESERKLAERING
YHDENMUKAISUUSVAKUUTUS
YHDEYKSYNH AHAOEH

Si dichiara che la macchina tipo:
We hereby state that the machine type:
Die Maschine vom Typ:
On déclare que la machine type:
Se declara que el aparato tipo:
Vi förskrar att maskinen av typ:
Verklaard wordt dat het apparaat type:
Vi bekræftelser, at maskinen type:
Vi erklærer, at maskinen type:
Todistamme että laite mallia:

QUICKPULLER

è conforme alle direttive:
is in compliance with the directives:
entspricht den Richtlinien:
est conforme aux directives:
es conforme a las directivas:
è conforme as directivas:
i overensstemmelse:
overeenkomstig de richtlijnen:
er i overensstemmelse med direktivene:
er i overensstemmelse med direktivene:
on yhdenmukainen direktiiviss:

DIR 2004/108/CE

DIR 2006/42/CE

DIR 2006/95/CE

e che sono state applicate le norme:
and that the following standards apply:
Folgende Normen kamen zur Anwendung:
et qu'on a appliqué les normes:
y que se han aplicado las normas:
eque foram aplicadas as normas:
och att de folgende normen zijn toegepast:
og at folgende normer er brukt:
og at folgende normer er anvendt:
ja että snt on sovellettu

EN 62135-1

EN 60974-10