

USER AND MAINTENANCE MANUAL

(English translation from the original text in Italian language)

This manual is an integral part of the equipment and it should be kept in a proper manner to maintain its integrity and allow the consultation during the lifetime of the equipment the equipment.

Carefully consult this manual before carrying out any operation on the appliance

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1. INTRODUCTION

Thank you for the preference you have given us by purchasing our SmartBooster wire feeding device. Please follow the instructions contained in this manual, as this will be of great help for an optimal use and to maintain over time the efficiency of your equipment.

2. GENERAL INFORMATION

This manual is an integral part of this equipment and constitutes the necessary support for its proper use.

The manual must always accompany the equipment in case of resale or relocation.

It is forbidden to reproduce any part of this document without the written permission of AWDS-TECHNOLOGIES SRL



Read the operating instructions !

- The operating instructions provide guidance to the safe use of this equipment.
- Read the operating instructions for all system components!
- Observe accident prevention regulations
- Observe all local regulations
- Confirm with a signature where appropriate.

Liability relating to the operation of this equipment is restricted solely to the function of the equipment. No other form of liability, regardless of which type, shall be undertaken by AWDS-TECHNOLOGIES SRL. This exclusion of liability shall be deemed as accepted by the user when commissioning the equipment.

The manufacturer is unable to monitor whether or not these instructions or the conditions and methods are observed during installation, operation, usage and maintenance of the equipment.

An incorrectly performed installation can result in material damage and can cause injury to persons. For this reason, AWDS-TECHNOLOGIES SRL does not accept any responsibility or liability for losses, damages or costs arising from a wrong installation, an improper operation or an incorrect usage and maintenance or any other actions in relation to the use of the equipment.



2.1. Definitions and symbols

Below is a set of definitions, terminology and symbols used in this manual.

2.1.1. Definitions

Mobile Device

This is a device which can be moved between various production applications and different production sites. It is normally carried by hand, but during the handling, relocation and installation operations, precautions should be taken to adequately protect both the persons and the equipment from possible damage.

2.1.2. Symbols



NOTE

Important information that must be read with particular attention for the best use of the equipment.



DANGER

Situation that could cause injury or death, or serious damage to health.



ATTENTION

Situation that could cause damage, directly or indirectly, to people, to property and to the environment with also economic consequences.



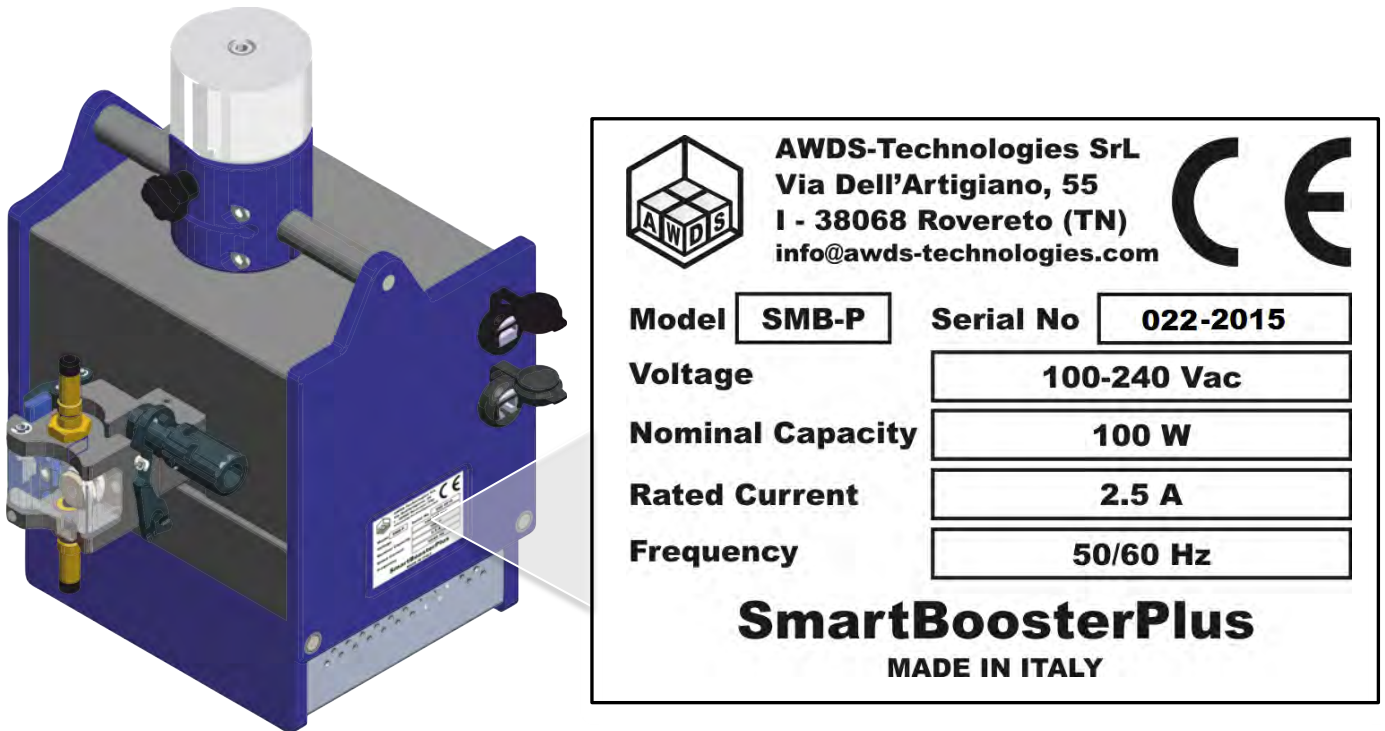
WARNING

Follow with particular attention the instructions. Possibility of malfunction or danger or damage.



2.2. MANUFACTURER IDENTIFICATION

The following illustration shows an example of the equipment Identification Label and where it is attached at the back of the device:



- | | |
|---|---|
| <ul style="list-style-type: none"> • Name of Manufacturer • SmartBoosterPlus • Model • Voltage • Nominal Capacity • Rated Current • Frequency • Serial No. • CE • Made in Italy | <p>Name of Company manufacturing the device</p> <p>Commercial denomination for the device</p> <p>Model ID Code</p> <p>Range of voltage supply needed for the device</p> <p>Maximum device power consumption</p> <p>Nominal device current consumption</p> <p>Rated device supply frequency options</p> <p>Unique alphanumeric code identifying each individual device</p> <p>Symbol confirming conformance and compliance to the ruling legal European requirements.</p> <p>Country of origin</p> |
|---|---|



Removing or tampering with the equipment identification label is absolutely forbidden. In case of accidental damage, immediately contact the manufacturer to request a duplicate.



2.3. INFORMATION ABOUT TECHNICAL SUPPORT AND MAINTENANCE

In case of failure or defective functioning, contact our Service Center:

AWDS TECHNOLOGIES SRL
VIA DELL'ARTIGIANO, 55
38068 ROVERETO (TRENTO) ITALY
TEL: +39 0464 081540
FAX: +39 0464 080253
e-mail: info@awds-technologies.com

For any communications or request for information or for spare parts, send to the service center the form: "REPLACEMENT ORDER, FAILURE REPORTS, REQUEST FOR INFORMATION" that can be found in paragraph 10.



In order to maintain the warranty, strictly follow the instructions indicated on this manual. Failure to comply with the requirements and instructions contained in this manual will waive AWDS-TECHNOLOGIES SRL liability for malfunctions and damage to the equipment or to third parties. (carefully read the warranty attachment).

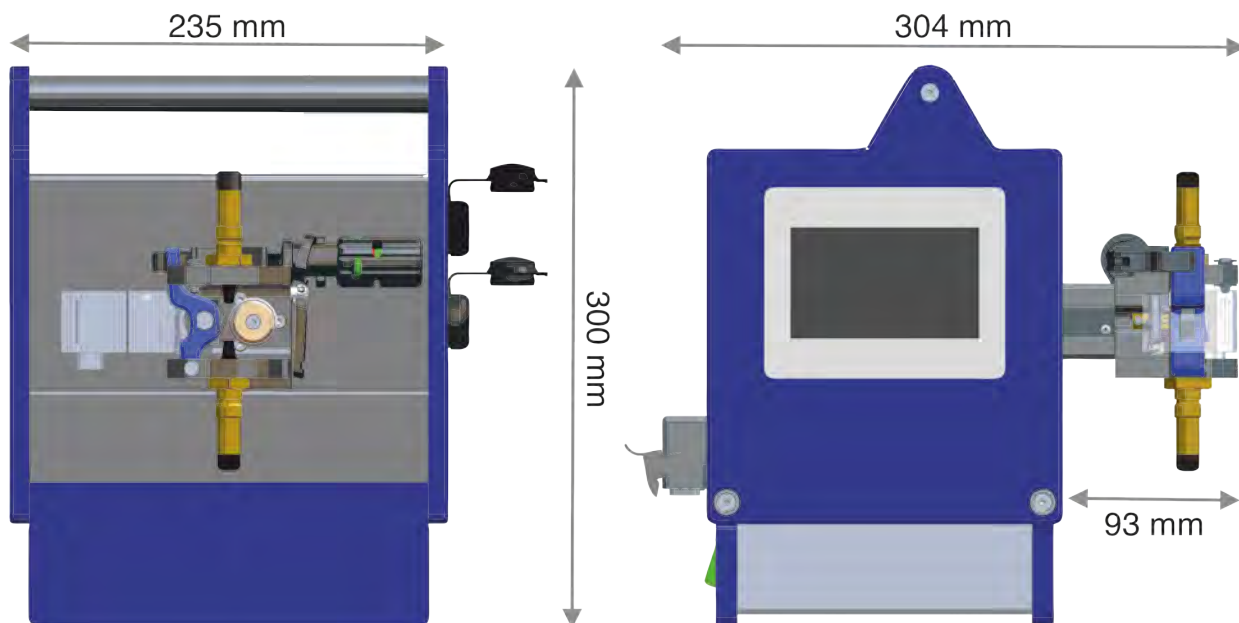


In order to meet new technological improvements or specific production requirements, the Manufacturer reserves the right to make changes to the equipment without notice and without incurring in any obligation to upgrade former models and their manuals. Even if the illustrations in this manual slightly differ from your equipment, safety and operating instructions are guaranteed.



3. FEATURES AND TECHNICAL INFORMATION

Model Commercial Name	SMARTBOOSTER PLUS
Model ID Code	SMB-P
Weight in Kg without accessories (packaging not included)	6.70
Weight in Kg without accessories (packaging included)	7.00
Dimensions (mm)	L 253.5 X W 304 X H 300



Electrical Data:

Device frequency options	50/60 Hz
Supply Voltage	100 - 240 Vac
Power consumption	100 W
Protection against overloading, 2 fuses:	4 A
Electrical risk classification:	CLASS I
Protection class:	IP40

Environment operating conditions:

Temperature:	10 °C / 40 °C
Relative Humidity (non condensing)	30 - 85%
Atmospheric Pressure (atm):	0,7 ÷ 1,04

Environment storage conditions:

Temperature:	-20 ÷ 45 °C
Relative Humidity (non condensing)	≤95%



3.1 REFERENCE TO NORMATIVES AND CONFORMANCE TO STANDARDS

The equipment meets the following:

- **2004/108/CE EMC Directive**
- **2006/95/CE LVD Directive**
- **2002/95/CE RoHS Directive**

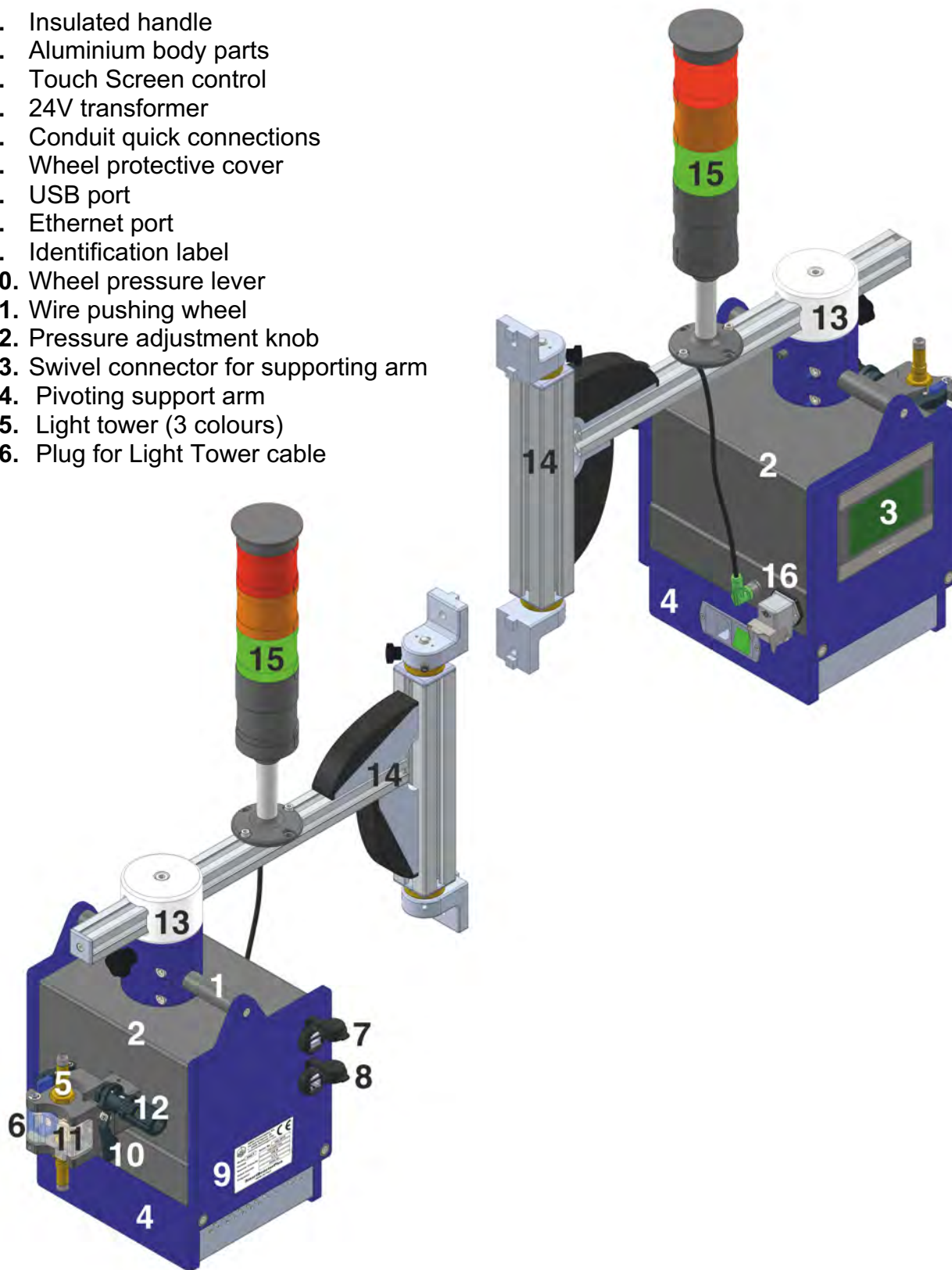
National and harmonized technical standards applied for Conformance testing and evaluation are based on the following legislative references:

- **EN60974-10. Arc welding equipment. Part 10: Electromagnetic compatibility (EMC) requirements (2008).**
- **EN 64974-1. Arc welding equipment. Part 1: Welding power source (2005)**
- **EN 64974-5. Arc welding equipment. Part 5: Part 5: Wire feeders (2014)**



4. PARTS AND COMPONENTS DESCRIPTION

1. Insulated handle
2. Aluminium body parts
3. Touch Screen control
4. 24V transformer
5. Conduit quick connections
6. Wheel protective cover
7. USB port
8. Ethernet port
9. Identification label
10. Wheel pressure lever
11. Wire pushing wheel
12. Pressure adjustment knob
13. Swivel connector for supporting arm
14. Pivoting support arm
15. Light tower (3 colours)
16. Plug for Light Tower cable

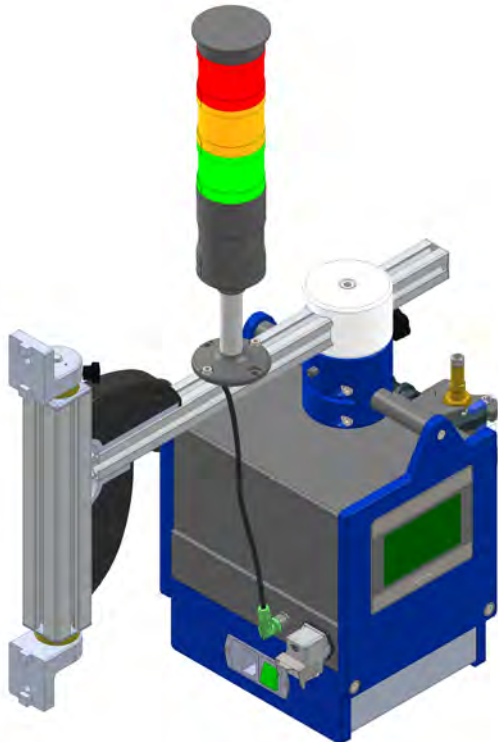





5. SHIPMENT AND STORAGE

5.1. Controls to be carried out upon receipt of the equipment

Remove all outer packaging and verify the integrity of the equipment.

<p>Fig.5.1.1.</p> 	<p>SmartBooster Plus (SMB-P) with light tower</p>
<p>Fig. 5.1.2.</p> 	<p>IEC Power cable</p>



CAUTION

In case of damage, missing items or defects, do not attempt to repair the butt welder but promptly contact the service center reporting model, code and serial number of the equipment (vd. Fig.2.2 Data plate label).

5.2. STORAGE



In the case of no use of the equipment for long periods, protect the unit from dust and moisture.



6. SETUP INSTRUCTIONS

6.1. Important Warnings



The proper functioning of the equipment and its safe performance are only guaranteed if it is connected to the electrical system in strict compliance with the local laws and regulations.

AWDS-TECHNOLOGIES SRL undertakes no responsibility for whatsoever damage to the equipment or to third parties which is resulting from the connection to an installation not conforming with the law and regulations.

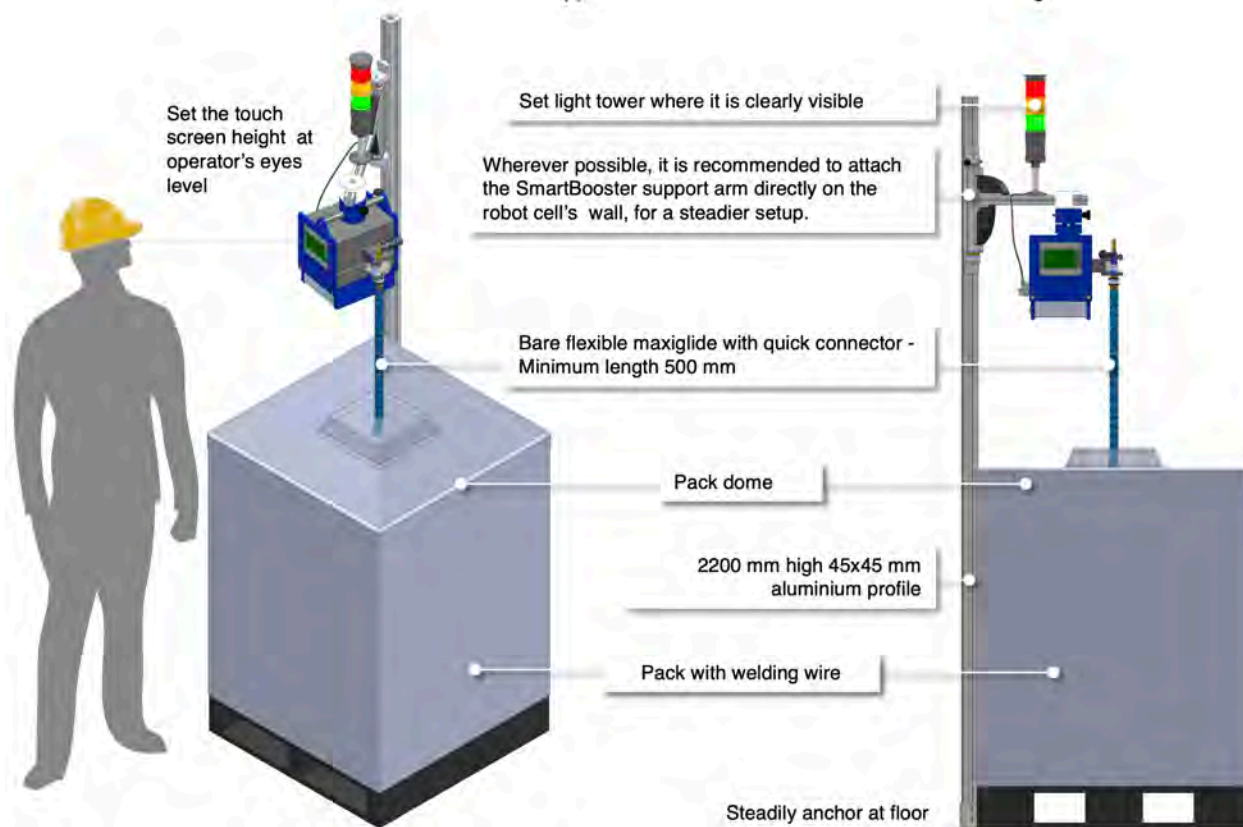


For a correct functioning of the equipment, always ensure that the working table carrying the welded parts is properly grounded.

To improve the safety conditions and as a protection against the electrical shock it is recommended to install upstream a differential circuit breaker of a type A with a nominal residual current not exceeding 30 mA.



Preferably install the SmartBooster and the pack with welding wire OUTSIDE the robot cell. When installed inside the robot cell, protect the touch screen panel with a UV radiation protective curtain.



6.2. Figure: Recommended device setup



6.3. DESCRIPTION OF FUNCTIONS AND COMMANDS



Refer to the separate SMARTBOOSTER OPERATING MANUAL for detailed instructions on how to adjust and operate the equipment. The Manual is supplied with this device or it can be downloaded from the AWDS-Technologies SRL website in the Customers Login Section.

SmartBooster operating guide for Software 5.3.0

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7. MAINTENANCE AND SAFETY



The following operations must always be carried out with the equipment unplugged from the electrical network.



Adequately protect the touch screen panel and the whole device from welding UV radiations.



Keep the wheel protection cover closed while operating the equipment and wear safety glasses when cutting and inserting the welding wire through the booster.

7.1. Daily Maintenance:

- It is recommended to SWITCH THE DEVICE OFF in case of a long period of inactivity.

7.2. Periodic Maintenance

- clean the outer casing of the unit using a soft cloth moistened with a neutral and non-aggressive detergent and dry using a dry cloth.
- Protect the touch screen panel from welding UV radiations.
- Inspect the integrity of the working groove on the wire pushing wheel.

7.2.1. Replacement of parts subject to wear

ALL PLASTIC PUSHING WHEEL (recommended for aluminium wires)	recommended replacement frequency: every 500 working hours, however, the frequency may vary depending on the type of wire fed by the SmartBoster device.
PUSHING WHEEL WITH INNER PLASTIC CORE AND OUTER METAL COATING (recommended for carbon steel wires)	recommended replacement frequency: every 1000 working hours, however, the frequency may vary depending on the type of wire fed by the SmatBooster device.



8. PROBLEMS AND ANOMALIES

TROUBLESHOOTING

PROBLEM	POSSIBLE ROOT CAUSE	CORRECTIVE ACTION / NOTES
The device does not turn on: switch light stays off.	Power cable is not properly connected.	Check the power cable connections and power source
The device does not turn on: switch light stays off.	One or more safety fuses are damaged.	Replace damaged fuses. See operating manual for fuses position and type.
The device in VOLTAGE control mode does not function properly.	Welded part or table is not properly grounded.	Restore work table or welded part proper ground connection.
Wire initial inserting into the conduit is difficult.	Sharp conduit curves represent an obstacle to smooth wire insertion, specially in proximity of the front pulling feeder.	Straighten conduit curves (specially in the immediate proximity of the wire feeder) or manually help push the wire in the zone between pack dome and booster inlet guide.
The wire feed during welds is inconsistent and results in tip burnbacks or welding issues.	The pushing wheel working groove is worn out and no longer grabbing on the wire.	Swap to the second new groove on the same wheel or replace wheel altogether. See operating manual for details and instructions
The wire feed during welds is inconsistent and results in tip burnbacks or welding issues.	Incorrect adjustment: not enough pressure on the wire pushing wheel.	Increase wheel pressure. See operating manual for details and instructions
The wire feed in the COLD WIRE control mode is inconsistent.	The COLD WIRE control parameters are not correctly set.	See Operating manual for details and instructions.



If the proposed corrective action does not resolve the malfunctions encountered, stop operations immediately and contact the service center.



Never open the housing of the equipment unless expressly authorized in writing by AWDS-TECHNOLOGIES SRL. Non-compliance with this rule will result in an immediate termination of the guarantee and shall release the Manufacturer/Supplier from any liability related to the safety and the correct functioning of the equipment.



9. DISPOSAL



INFORMATION FOR USERS

Pursuant to art. 13 of Legislative Decree n. 151 July 25, 2005 "implementation of directives 2002/95/CE, 2002/96/CE and 2003/108/CE, regarding the reduction use of hazardous substances in electrical and electronic equipment, as well as waste disposal"

The crossed bin symbol on the appliance indicates that the product at the end of its life must be collected separately from other waste. The user must therefore hand the equipment at the end of its life to the suitable separate waste collection centers of electronic and electrical waste, or return it to the retailer when purchasing a new equipment of the same type, at a rate of one to one. The appropriate differentiated collection and subsequent equipment recycling, treatment and environmentally compatible disposal helps to avoid possible negative effects on the environment and health and promote the recycling of the materials of which it is composed. Improper disposal of the product by the user entails the administrative sanctions provided by law.



10. INTERVENTION OR SPARE PARTS REQUEST FORM (Attachment 1)

To:

**AWDS TECHNOLOGIES SRL
VIA DELL'ARTIGIANO, 55
38068 ROVERETO (TRENTO) ITALY
TEL: +39 0464 081540
FAX: +39 0464 080253
e-mail: info@awds-technologies.com**

Date _____

REPLACEMENT PARTS ORDER – NOTIFICATION OF FAULTS – INFORMATION

Client:	Model
Location	Code
Address	Serial Number
Phone:	
Fax :	Trasmitted by:

Spare parts table:

Article code	Qty	Notes

STAMP AND SIGNATURE OF THE APPLICANT

Technical visit request due to the presence of the following problems:
Notes or description of the problems



10.1. List of Spare Parts (Attachment 2)

DESCRIPTION:	PART NUMBER
<p>Metal outer cover with inner plastic core (2 equal grooves 0.9/1.0mm)</p> 	1201.100-006-SP
<p>Metal outer cover with inner plastic core (2 equal grooves 1.2/1.6mm)</p> 	1201.100-006-SG
<p>Only outer metal cover wheel (2 equal grooves for 0.9/1.0 mm)</p> 	1201.100-006OP
<p>Only outer metal cover wheel (2 equal grooves for 1.2/1.6 mm)</p> 	1201.100-006OG



11. EC DECLARATION OF CONFORMITY

AWDS TECHNOLOGIES SRL

Via dell'Artigiano, 55
38068 ROVERETO (TN) Italy
Tel +39 0464 081540 Mobile +39 346 1511188 Fax +39 0464 080253
E-mail: Info@awds-technologies.com



EC - Declaration of Conformity

The undersigned manufacturer **AWDS TECHNOLOGIES SRL** located in Via Dell' Artigiano no. 55 38068 ROVERETO (Trento) Italy and registered with **VAT ID No. IT 02111080228**

DECLARES

that the wire feeding equipment denominated **SMARTBOOSTER PLUS** is manufactured and assembled in conformance with the requirements of the following directives:

2004/108/CE, 2006/95/CE and 2011/65/CE.

Additionally, AWDS-TECHNOLOGIES SRL certifies that the development, design and construction verification of above mentioned equipment, have been carried out in compliance with the following Normatives and Standards:

EN60974-10. Arc welding equipment. Part 10: Electromagnetic compatibility (EMC) requirements (2008).

- **EN 64974-1. Arc welding equipment. Part 1: Welding power source (2005)**
- **EN 64974-5. Arc welding equipment. Part 5: Part 5: Wire feeders (2014)**

The supportive technical documentation confirming compliance with the legal requirements is kept at our headquarters in Via dell'Artigiano, 55 38068 Rovereto (TN) Italy.

We hereby declare that the equipment above described, fully complies with the relevant EC safety and health requirements with respect to its construction, design and version by us sold on the market .

This declaration however ceases to be valid in case of any modification of the equipment without the written consent and authorization by AWDS-TECHNOLOGIES SRL.

Rovereto, 15th February 2015


Filippo Corradini
Administrator 



12. WARRANTY

CONDITIONS AND LIMITATIONS:

AWDS-TECHNOLOGIES SRL guarantees the equipment for the duration of **12 months**.

The warranty starts from the date of purchase indicated on the commercial invoice issued upon delivery of the equipment.

AWDS-TECHNOLOGIES SRL undertakes to repair or replace free of charge within the warranty period, any parts showing manufacturing defects and failure; this warranty, however, does not include any form of compensation for direct or indirect damages to persons or things.

During the warranty period, if the customer requires that the repair is to be carried out by the technicians of the AWDS-TECHNOLOGIES SRL, he a written request must be sent in this regard and he shall bear all the travel and accomodation expenses incurred by the AWDS-TECHNOLOGIES SRL technicians.

In case of repairs of defects or faults which are not attributable to the material or the manufacturer, all related expenses, repair and/or replacement of parts shall be charged to the customer.

No additional warranty extension will be granted following a repair intervention.

In case of a return of any equipment parts, the customer will be authorized to effect the shipment only after having received the written permission by the AWDS-TECHNOLOGIES SRL. The packaging and shipping costs will be charged to the customer (unless otherwise agreed).

The following occurrences are excluded from warranty: accidental damage during transport and handling, negligence, improper use not in accordance with the instructions in this manual and all those occurrences not related with the normal use of the equipment.

The warranty is void if the butt welder is repaired by unauthorized technicians or if non original equipment or accessories are used which are not recommended or approved by AWDS-TECHNOLOGIES SRL or, in the case of unathorized removal or alteration of the serial number during the warranty period.

The warranty validity shall immediately be terminated in the case of the customer's delayed payment or non-payment, partial or complete.

AWDS-TECHNOLOGIES SRL declines any responsibility for damage to persons or things caused by misuse or imperfect use of the equipment.

For any controversy the competent Court is the Judicial Forum in Trento (ITALY).