

USER MANUAL

JOULE EFFECT SOLDERING DEVICE – SI1R and SI2R



Dear Customer,

You have just purchased a FTM Technologies product. We thank you for your confidence. Please read this manual carefully before using your equipment.

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1. PRODUCTS COVERED BY THE LEAFLET

Read carefully this leaflet prior to use these devices :

Resistance soldering unit **Ref.SI1R**
Resistance soldering unit **Ref.SI2R**

2. TECHNICAL DESCRIPTION OF THE PRODUCT

Joule effect soldering is a technique that replaces traditional soldering with an iron. Its advantage is to provide instant localized heat. The principle is to pass a powerful current at very low voltage through a contact resistance at the point of application. The current is on average 30 to 40 Amperes and between 1 to 4.5 volts. The electrodes applied to the piece create the point of resistance. The temperature can reach 1000 ° C.

Our two sets of Joule Effect soldering consist of a power box, a switch pedal and a clamp with its pair of electrodes.

- The control unit is made of matt black painted steel 15 / 10th.
- The clamp is connected to the block via a bayonet connector. The length of the cord is 1.05 m

Main technical data

Reference	Dimensions l x w x h	Mains supply	Power	Reference of clamp	Reference electrodes
SI1R	200 x 100 x 100 mm	230 V / 50-60 Hz	80 W	PCSR	ESI1R – Lot of 5 pairs
SI2R	300 x 190 x 210 mm	230 V / 50-60 Hz	250 W	PCSI2	ESI2R – Lot of 3 pairs

3. SAFETY RECOMMENDATIONS

This device is not intended for use by persons (including children) whose physical, sensory or mental capabilities are impaired; or persons without experience or knowledge, unless they have been able, through a person responsible for their safety, to have prior surveillance or instructions concerning the use of the device. Children should be supervised to ensure that they do not play with the appliance.

- Avoid putting the electrodes in contact with easily flammable parts.
- Do not touch the electrodes with your fingers (possibility of serious burns).
- Do not disconnect the clamp / block connector without first unplugging the power cord.
- The fumes released at soldering temperatures can irritate the nose, throat and respiratory organs. We recommend that you always carry out brazing operations in well-ventilated areas and use as much as possible equipment such as fume hoods.

4. INSTALLATION / MOUNTING OF EQUIPMENT

- Place the control unit on a flat and horizontal surface to prevent tipping.
- Connect the clamp cord to the control block by simply snapping the connectors. Turn the bayonet coupling cap until you hear a click. Make sure of its good connection by pulling lightly on the connector.
- Check that the length of the power cable is compatible with the block distance and the power plug.
- Check that the socket delivers single-phase AC and has 230V AC ground wire; 50 / 60Hz. It must be protected by a fuse of 6 A maximum

5. START-UP AND OPERATION

- Check that the switch is in position 0. Check that the temperature control knob is in the minimum position.
- Connect the electrical outlet. Take the clip in hand
- Pinch the workpiece (s) to be soldered.

The spacing of the clamp can be adjusted by unscrewing the 2 screws at the base of it and inserting a small wedge on each side. Tighten the 2 screws then.

- Switch on the device. Set the temperature control knob to the required temperature.

The operating temperature depends on the section of the parts to be soldered; preliminary tests must be carried out.

- Press the pedal to start the heating. Bring a piece of tin.
- Once the solder is finished, release the pedal.

To avoid electric shock, always release the pedal before reopening the clamp.

- To stop the heating, turn the switch to position 0. During a long stop, disconnect the power supply.

6. CARE AND MAINTENANCE

Before any intervention, remove the power cord from the power outlet.

Control block: Wipe with a dry cloth.

Pliers: Brush the tip of the electrodes with a wire brush or emery cloth. Regularly change the electrodes.

7. SPARE PARTS, CONSUMABLES

- Fuse 3,15 A Quantity: 1

For the SI1R

- Electrode set - Ref. ES11R Quantity: 5 pairs.
- Clamp + cord - Ref: PCSR Quantity: 1

For the SI2R

- Electrode set - Ref. ES12R Quantity: 3 pairs.
- Clamp + cord - Ref: PCSI2 Quantity: 1

Replacement cord: If the power cord is damaged, it must be replaced by the manufacturer, its after-sales service or similarly qualified persons in order to avoid danger.

8. WARRANTY

All sets are guaranteed for 1 year parts and labor provided that you have used the product in accordance with its purpose and the instructions in the user manual. For the implementation of this guarantee, you will have to attach the photocopy of the original invoice specifying the date of purchase.

Warranty exclusions:

- modification or alteration of the above document,
- type and / or serial number of the product rendered unidentifiable,
- interventions on the product made by any unauthorized person,
- damage caused by a cause external to the device and in particular by lightning, fire, water damage or negligence,
- modification or adaptation of the product.

The guarantee does not cover the deterioration of accessories and spare parts of usual consumption.