

SEPARO

**Solder Reclaim System For
Wave Soldering Machines**

USER MANUAL

CE

CONTENTS

INTRODUCTION	PAGE 3
A) IDENTIFICATION DATAS	PAGE 3
B) MACHINE DESCRIPTION	PAGE 4
C) HEALTH & SAFETY	PAGE 4
D) OPERATING PROCEDURE	PAGE 6
E) TECHNICAL FEATURES	PAGE 7
F) MAINTENANCE	PAGE 7
G) TECHNICAL SUPPORT & WARRANTY	PAGE 7
H) DECLARATION OF CONFORMITY	PAGE 8
I) ELECTRICAL SCHEME	PAGE 9

INTRODUCTION

Before installing and starting the machine we strongly recommend you to read carefully this manual in order to learn all the useful information for correct and safe use of the solder reclaim system SEPARO.

This instruction manual must be considered as a part of the machine, so it must always be kept with the machine and in case of sale or transfer, it must be given together with SEPARO.

A) IDENTIFICATION DATA

The machine is identifiable through the plate on its side that shows:

- MANUFACTURER
- MODEL
- REGISTRATION NUMBER
- YEAR OF MANUFACTURE
- VOLTS

CE mark is engraved on the front side of the machine, under the thermo regulator.

B) MACHINE DESCRIPTION

The Wave Soldering process is bound to create lots of dross which will naturally increase the supplying and the processing costs through the purchase of replacements solder. SEPARO gives the possibility to recover, with a small investment, a large quantity of solder alloy, both lead free and eutectic SnPb alloys.

SEPARO's main field of activity is the electronic industry, but it can be useful in any process which creates dry tin based dross.

The working principle is based on the different specific gravity of the materials in the dross amalgam. Whilst the heavier alloys tend to deposit at the bottom of the SEPARO soldering pot, the lighter dross oxides are captured by the filter.

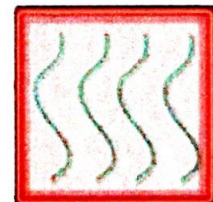
C) HEALTH & SAFETY

Before using the machine it is required for you to follow the safety rules given by the manufacturer and any relevant Health & Safety regulation of the country in which it is used.

SEPARO PLACEMENT

The machine must be placed on a rigid table away from any moisture & in a place where an adequate fume exhaust unit is in operation.

It's required to power up the suction cup before turning on the machine



It is important to note that the SEPARO has been set to operate at a much lower temperatures compared to the metals evaporation temperature (the most critical evaporation temperature is the lead which starts to be dangerous at temperatures higher than 450°C).

REQUIRED EQUIPMENT

During operation it is compulsory to wear:

- high temperature gloves
- mandatory protection of the face
- a fume respirator system that complies with the Health & Safety law of your country.



The users have to be able to carry out the essential tasks for the basic operations:

- knowledge of working cycle and safety devices
- all the functions of control panel
- amount of work of the machine
- cleaning and routine maintenance of the machine



BURN HAZARD

During the operations there is the risk to burn (tin bath temperature is around 300 °C)

Don't move SEPARO when it's overheated because tin alloy liquefied could spill.



EXPLOSION RISK

It's forbidden to add extraneous substances because there is the risk of explosion and spurt.

Explosion risk

D) OPERATION PROCEDURE

SEPARO can work in two different ways:

- a) With room temperature dross
- b) With hot dross just drawn from the Wave Soldering machine bath

We strongly recommend you process hot dross since the high temperature improves the efficiency of the machine, and can improve yield.

Load the machine with the dross in one of the two ways described above, then replace the cover with the protection grid & dipper mechanism. Once all the dross has been loaded, you can start the machine.

The machine has a pre-set temperature at 350°C (but it can be modified by the user) and it will be ready in around 20-30 minutes. Once the required temperature is reached the user can facilitate the dross separation by moving and rotating the dipper, this operation helps separate the solder from the dross amalgam.

At this point, wearing the protective clothing previously mentioned, the user can proceed with the removal of the solder alloy, now perfectly divided inside the machine.

Insert the mould-shaped metal drawer (ingot holder) under the drain and rotate the knob counter clock wise. The solder alloy will start to run down and fill up the ingot holder where it must be left to cool off and solidify.

Once the solder flow stops always remember to rotate the knob clock wise and turn off the machine. It's important also to raise the dipper in order to avoid any dross left in the filter solidify on it. At least after one hour, when the machine is back to room temperature, raise the protective grid and the dipper and remove the carafe filter by the handle.

IMPORTANT: These toxic dross oxides must be securely sealed in a suitable container & taken to an approved company, for safe disposal.

The solder ingots can be immediately returned to the Wave Soldering machine for reuse as there are no chemical or physical variations caused by the reclaim process. To modify the pre-set temperature of the machine you have to press the P key of the thermo regulator: SP1 will start to flash with the SET POINT value previously set by increase or decrease it. To confirm the desired temperature press the P key. The manufacturer has set the maximum temperature at 350°C.

E) TECHNICAL FEATURES

POWER	: 230V (110V OPTIONAL) 50/60 Hz
POWER CONSUMPTION	: 2 KW
SOLDER CAPACITY	: 0/13 Kg around
PROTECTION FUSE	: 16 AMP
EMPTY WEIGHT	: 13 Kg
SIZES	: 460 x 630 x 260 mm

F) MAINTENANCE

Maintenance of the SEPARO is simplistic. It is essential to keep the removable filter and fixed crucible free of dross oxides (dust) at all times. This operation must be done when the machine is turned off and industrial vacuum cleaner. The dust must be disposed of safely.

In the unlikely case that some dross oxides dust has passed through the grid filter and blocked the tap, it is possible to act in two ways:

Safety equipment must be worn.

After removing the grid along with the dipper and the carafe filter, with the machine at high temperature, you have to insert an awl, exactly in the central part of the cylinder in order to free the blockage.

In case this operation isn't enough the operator has to unscrew completely the tap assembly and remove it, then insert a metallic awl in the tap hole to remove the remaining dross oxides.

G) TECHNICAL SUPPORT AND WARRANTY

Technical assistance is provided by the manufacturer for a period of 12 months (as proved by the waybill).

The warranty is void and will not be recognized by the manufacturer in case highlighted the anomaly is caused by a misuse of the machine, or if it be used for different purposes for which it is built.

H) DECLARATION OF CONFORMITY CE

We declare that all of series of electrical equipment described below, produced by MGR ELECTRO SRL, are built in accordance with the following directives:

- Machinery Directive 2006/42/CE and subsequent amendments
- Electromagnetic Compatibility Directive 2014/30/EU and subsequent amendments
- Low Voltage Directive 2014/35/EU and subsequent amendments
- RoHS Directive 2011/65/EU

SERIAL	Separo
DESCRIPTION	waste separator
MANUFACTURED	2021
SERIAL NUMBER	1034
BUILDER	MGR ELECTRO SRL Via Aldo Moro, 3 20815 COGLIATE (MB) ITALY

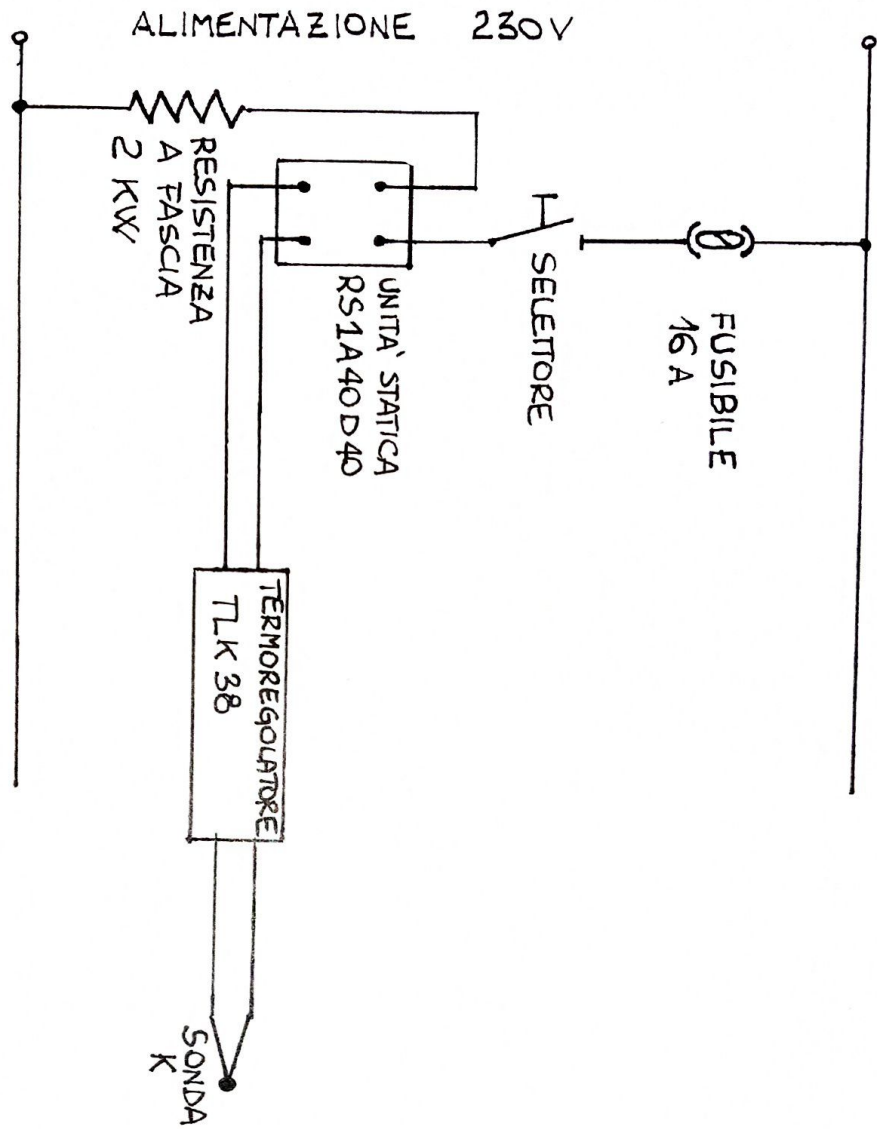
Cogliate, 30/06/2021

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I) ELECTRICAL SCHEME



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