SI012 Pro

SEQURE intelligent soldering iron
Instruction manual



Please read the instructions carefully before use and strictly abide by the safety instructions. The soldering iron tip reaches temperatures of up to 450 °C.

Importer: Rotorama, s.r.o. · www.rotorama.com

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1. Safety precautions

Users must have a certain electronic foundation and good soldering skills. Wrong use may cause personal injury and equipment damage. The manufacturer does not assume any liability arising from the use of this product or unauthorized modifications to the product, including but not limited to liability for incidental or indirect losses.

The soldering iron tip is very hot during operation and for some time after switching off (up to 450 °C). Do not touch the tip or the metal parts near it.

- Use power supplies and accessories that meet safety standards. SEQURE accessories are recommended.
- Make sure the power is off and the soldering iron tip is at normal temperature before replacing the tip, so as not to scald yourself or damage the product.
- The soldering iron tip burns easily. Power off during a break or after completion, and store the soldering iron in a place that is not easily accessible to children.
- Always place the hot soldering iron in its stand. Do not put it on the table, on cables or on any other surface that may be damaged by heat or catch fire.
- Never leave the switched-on soldering iron unattended. Keep flammable materials away from the workplace.
- Soldering produces flux fumes. Work in a well-ventilated area and do not inhale the fumes. Wash your hands after working with solder.
- Protect the product from water and moisture. Do not use it if it is damaged, especially the housing, connectors or power cable.
- This product is not a toy. Children and persons not familiar with this manual must not use it.

▶ Powering from a Li-Po battery

- When powering from a Li-Po battery (3S–6S), make sure the polarity is correct and the cables and connectors are undamaged.
- Do not discharge the battery below 3.5 V per cell. Set the low-voltage protection in the *LowVolt* item (chapter 4.3) – see the table in chapter 2.4.
- Do not use a damaged, swollen or overheated battery.

2. Product description

2.1 SI012 Pro introduction

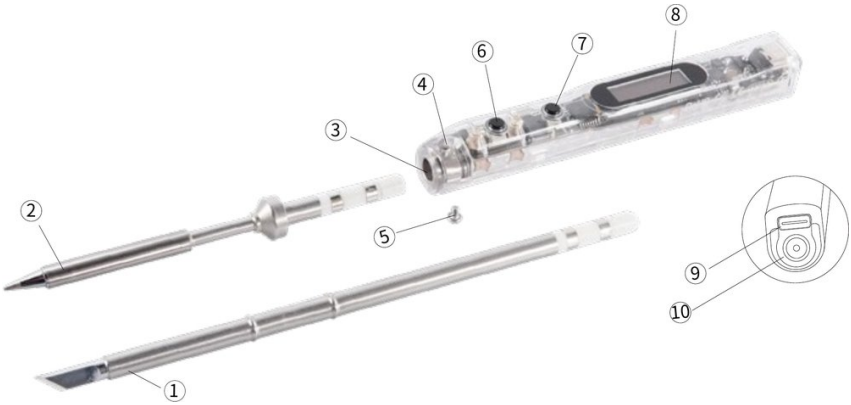
The SEQURE SI012 Pro intelligent soldering iron comes with a 0.91 inch OLED display, supports PD3.0, QC2.0 and DC5525 12V–25V / 3S–6S power supply, programmable firmware upgrade and Celsius / Fahrenheit switching, and is compatible with both long and short types of soldering iron tips. The temperature can be calibrated and compensated, and the intelligent temperature control can reach plus or minus 1%.

2.2 Package contents

- SI012 Pro soldering iron (main unit),
- soldering iron tip (B2 variant: TS-B2 tip),
- soldering iron stand,
- screw pack and hex wrench,
- manufacturer's manual (English).

Not included: power supply (USB-C charger, power adapter), USB-C cable and battery.

2.3 Component structure



SI012 Pro component structure

NO	Component name	NO	Component name
①	long soldering iron tip	⑥	A key
②	short soldering iron tip	⑦	B key
③	soldering iron tip mounting port	⑧	OLED
④	hex screw 1	⑨	Type-C (supports PD3.0, QC2.0, programmable)
⑤	hex screw 2	⑩	power port 5525 (supports 12V–25V / 3S–6S)

※ The figure shows both tip types the soldering iron is compatible with. The package contains one tip according to the product variant.

2.4 Power supply

The soldering iron can be powered from the following sources:

- **USB-C PD3.0 charger** (12V–20V) or QC2.0 charger – connects to the Type-C port ⑨,
- **power adapter** with a DC5525 plug (12V–24V) – connects to the power port ⑩,
- **Li-Po battery 3S–6S** – connects to the DC5525 power port ⑩.

The permitted supply voltage range is **12–25 V**. The power of the soldering iron depends on the supply voltage (chapter 2.5) – the higher the voltage, the faster the heating.

▶ **Recommended LowVolt setting for Li-Po batteries**

Battery	Fully charged	LowVolt (3.5 V/cell)
3S Li-Po	12.6 V	10.5 V
4S Li-Po	16.8 V	14.0 V
5S Li-Po	21.0 V	17.5 V
6S Li-Po	25.2 V	21.0 V

※ The voltage of a fully charged 6S Li-Po battery (25.2 V) is slightly above the 25 V upper supply limit stated by the manufacturer. If the high voltage warning (H-V / High-V) appears, disconnect the battery. Do not use LiHV batteries.

2.5 Technical reference

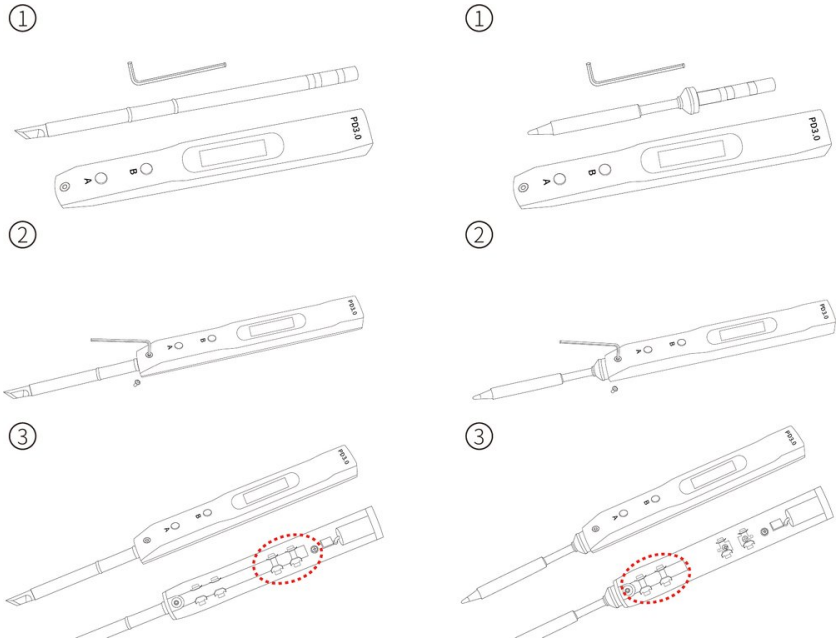
Display	0.91" OLED
USB-C power supply	PD3.0, QC2.0
DC5525 power supply	12–25 V, Li-Po battery 3S–6S
Working temperature (adjustable)	100–450 °C
Temperature control accuracy	±1 %
Temperature unit	°C / °F
Compatible tips	long and short tips (see chapter 2.3)
Protections	low voltage, high voltage, high tip temperature, high PCB temperature, short circuit

▶ Power and heating time by voltage

Soldering iron tip	Working voltage	Power	Fastest time from 30 °C to 300 °C
	12 V	16 W	37 s
long tip ①	19 V	40 W	14 s
	24 V	65 W	9 s
	12 V	17 W	37 s
short tip ②	19 V	45 W	13 s
	24 V	68 W	8 s

3. Assembling and disassembling the soldering iron tip

Note: please pay attention not to be burned by the high temperature when assembling and disassembling the soldering iron tip. Replace the tip only with the power disconnected and after the tip has cooled down.



Left: long soldering iron tip, right: short soldering iron tip

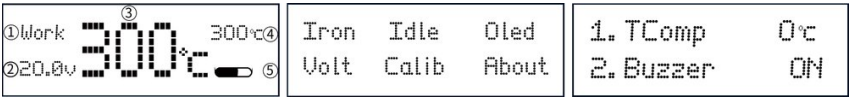
① Prepare the main unit, the soldering iron tip and the hex wrench.

② Insert the tip into the soldering iron tip mounting port ③ and secure it with the hex wrench.

③ The installation is complete.

To remove the tip, proceed in reverse order: disconnect the power, let the tip cool down, loosen the screw with the hex wrench and pull the tip out.

4. Operation and menus



From left: main interface, level 1 menu, level 2 menu

4.1 Menu operation guide

▶ Main interface

① Long press the A key to switch between Stop mode and Work mode.

② Short press the A key or B key to adjust the working temperature setting value.

③ Long press the B key to enter the level 1 menu.

④ If a warning icon is displayed, clear the warning condition and short press either the A key or the B key – the warning icon changes to Stop.

▶ Level 1 menu

① Short press the A key or B key to loop through the level 1 menu function boxes.

② Long press the A key or B key to enter the level 2 menu.

③ Long press the A and B keys at the same time, or do not press any key for 5 seconds, to leave the menu.

▶ Level 2 menu

① Short press the A key or B key to loop through the level 2 menu function boxes.

② Long press the A key or B key to confirm and enter the selected setting item – the parameter setting box appears. Short press the A key or B key to set the parameter. When setting is complete and no key is pressed for 5 seconds, the setting box closes automatically and you return to the level 2 menu.

③ Long press the A and B keys at the same time, or do not press any key for 5 seconds, to return to the level 1 menu.

4.2 Main interface

Field	Icon display	Icon description	Method of operation
	Stop	Stop mode	Long press the A key to switch between Work mode and Stop mode.
	Work	Work mode	
	Sleep	Sleep mode	–
	C-T	soldering iron tip warning	Please readjust the position of the soldering iron tip or replace the tip. After the warning condition is eliminated, the warning icon automatically changes to Stop.
	H-V	high voltage warning	Please use a DC 12–25 V / 3S–6S power supply. After the warning condition is eliminated, the warning icon automatically changes to Stop.
①	S-O	short circuit warning	Please readjust the position of the (long) soldering iron tip or replace the tip. After the warning condition is eliminated, the warning icon automatically changes to Stop.
	H-T	high temperature warning	Please disconnect the power supply, cool the soldering iron tip to room temperature and then re-energize. After the warning condition is eliminated, a short press of the A or B key changes the icon to Stop.
	L-V	low voltage warning	Please increase the power supply voltage or decrease the LowVolt setting value. After the warning condition is eliminated, a short press of the A or B key changes the icon to Stop.
	P-T	PCB high temperature warning	Please disconnect the power supply, cool the soldering iron to room temperature and then re-energize. After the warning condition is eliminated, a short press of the A or B key changes the icon to Stop.
②	20.0V	power supply voltage	–

Field	Icon display	Icon description	Method of operation
	300℃	soldering iron tip temperature	–
	Check Tip	soldering iron tip warning	Please readjust the position of the soldering iron tip or replace the tip.
	High-V	high voltage warning	Please use a DC 12–25 V / 3S–6S power supply.
③	Short Out	short circuit warning	Please readjust the position of the (long) soldering iron tip or replace the tip.
	High-T	high temperature warning	Please disconnect the power supply, cool the soldering iron tip to room temperature and then re-energize.
	Low-V	low voltage warning	Please increase the supply voltage or decrease the LowVolt setting value.
	Pcb-T	PCB high temperature warning	Please disconnect the power supply, cool the soldering iron to room temperature and then re-energize.
④	300℃	working temperature setting value	Short press the A or B key to set the working temperature value.
⑤	▬	power progress bar	–

4.3 Level 1 menu & level 2 menu

Item names are given as shown on the display.

Level 1 menu	Level 2 menu	Description	Default value	Setting range
	1.TComp	temperature compensation	0 °C	−20 to 20 °C
	2.Buzzer	buzzer	ON	OFF/ON
	3.TempUnit	temperature unit	°C	°C/°F
	4.WorkTemp	working temperature	300 °C	100–450 °C
Iron	5.StartHeat	automatic heating at startup	OFF	OFF/ON
	6.FactorySet	restore factory settings	OFF	OFF/ON
	7.TempShield	stable temperature display	ON	OFF/ON
	8.TempStep	main interface working temperature setting step value	50	10–50
	1.SleepTime	sleep time	180 s	60–990 s
	2.SleepTemp	sleep temperature	200 °C	100–450 °C
Idle	3.IdleTime	standby time	360 s	60–990 s
	4.Sensitive	wake-up sensitivity	5	1–30
	5.ScreenOpen	standby screen display	ON	OFF/ON
	1.Brightess	display brightness	50	5–255
Oled	2.Direction	display direction	0°	0°/180°
	3.KeyAction	button direction	A-B+	A-B+ / A+B-
Volt	1.LowVolt	low voltage protection	10 V	OFF / 10–23 V
	2.PowerVolt	supply voltage compensation	0 V	−5.00 to 5.00 V
Calib	–	temperature calibration	–	T1–T4
About	–	information about the soldering iron	–	–

4.4 Calib – temperature calibration

Menu	Item	Meaning
Calib	Fix	fixed value
	Real	actual value
	T1	temperature measured by thermometer
	Next	next step

In the process of temperature calibration, add tin to clean the soldering iron tip first, then use a thermometer to measure the temperature. During calibration the soldering iron tip is in a high temperature state – avoid scalding.

Temperature calibration is divided into four parameters: T1, T2, T3 and T4. After entering the calibration interface, the T1 temperature parameter is in the selecting box by default (outlined value). Long press the A key or B key and the T1 temperature parameter changes to the setting box (highlighted value).

① Wait for the value of *Real* to steadily fluctuate within the value range of *Fix*.

② Use the thermometer to measure the actual temperature of the soldering iron tip and short press the A key or B key to write the thermometer data to T1.

③ After setting the T1 calibration temperature, long press the A and B keys at the same time to exit the setting box.

④ Short press the B key to enter *Next* and T2 in turn. Continue in the same way to complete the temperature calibration of T2, T3 and T4.

⑤ Finally, enter *Save* and long press the A key or B key until *Save Succeed* appears. Calibration is complete.

※ If you long press the A and B keys at the same time during the calibration process, you exit the calibration interface and the parameters are **not saved**.

5. Eliminating warnings

When the soldering iron detects a warning, a warning icon is displayed on the screen (if the buzzer is on, it is accompanied by a warning beep). According to the warning icon (table in chapter 4.2), troubleshoot and eliminate the warning condition step by step (if the buzzer is on, the warning tone stops immediately). Then short press either the A key or the B key and the warning icon (field ① of the main interface) changes to Stop.

6. Sleep and wake-up

- **Work mode:** when the soldering iron is in a static state without any operation, it automatically enters sleep mode after *SleepTime* seconds and the temperature is automatically set to *SleepTemp*.
- **Sleep mode:** pressing a key or shaking the soldering iron wakes it up and automatically restores the original *WorkTemp* setting. If the soldering iron is not woken up, it stops working after *IdleTime* and enters Stop mode.
- **Stop mode:** when the soldering iron is in a static state without any operation, it enters the standby screen (*ScreenOpen*) after 180 s. Exit by pressing a key or shaking the soldering iron.

7. Firmware upgrade

Please visit www.sequremall.com to obtain the firmware. The firmware is uploaded via the Type-C port ⑨.

Please download the firmware version that corresponds to the product name. Incorrect upgrades may result in an unusable or damaged product.

Manufacturer contact: SEQURE, www.sequremall.com, info@sequremall.com

8. Information for the EU and Czech Market

8.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

8.2 Product conformity

CE

- The product bears the **CE** marking and complies with the requirements of the applicable European Union harmonisation legislation.
- A copy of the **EU Declaration of Conformity** is available from the importer at the address stated above or at the e-mail address info@rotorama.cz.
- **Product identification:** the type designation (SI012 Pro) is given on the product and on its packaging; information about the device is shown in the *About* menu.

8.3 Disposal of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste**.
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu.

9. Warranty and rights arising from defective performance

9.1 Rights of the buyer under Czech law

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection. The manufacturer's warranty terms set out below (Chapter 9.2) **do not in any way limit** the buyer's rights arising from these regulations.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 8.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.

9.2 Manufacturer's warranty terms

❊ The following text is the manufacturer's original warranty statement.

For those performance faults caused by non-human factors within 3 months from the date of purchase, we provide repair & maintenance service for free. After 3 months, no labor fee will be charged for repairs. If you want to replace parts, you must pay for the cost.

The following are not covered by the warranty:

- all man-made damage,
- faults caused by self-disassembly & improper use,
- all consumables like soldering iron tips.