

ATTEN TECHNOLOGY INC.

- Soldering Iron
- Hot Air Rework Station
- Thermal Wire Stripper
- Automatic Equipment
- Soldering Station
- Multifunctional Maintenance System
- Preheating & Reflow Platform
- Fume Extractor

ATTEN TECHNOLOGY INC.

Address : 515 Cabrillo Park Drive, Suite 320
Santa Ana, CA 92701,USA
Tel: 1-888-989-8387
Web: www.atten.com
Email: sales-us@atten.com

MADE IN CHINA
CBN043506(A)

ATTEN



ST-680D Thermal Wire Stripper User Manual

Note: This product undergoes testing before leaving the factory, and it is normal for the heating element to have a slight yellowing or blackening with some residual material.

ATTEN TECHNOLOGY INC.

Content

01. Safety and cautions.....	01
02. Package list and apperance description.....	02
Packing list.....	02
Apperance description.....	02
03. Specification.....	03
Technical parameters.....	03
Packing description.....	03
LCD display description.....	03
04. Connection and operation.....	04
Connection.....	04
Material output value setting.....	04
Boot-up screen.....	05
Working status.....	05
Temperature percentages value setting.....	06
Retrieve the percentages value temperature.....	06
Save pre-setting the percentages temperature value.....	06
05. Menu setting.....	06
Auto-standby function.....	07
Auto-sleep function.....	07
Temperature percentages lock function.....	07
Password setting.....	08
Beep setting function.....	08
Temperature percentages alarm function.....	08
High-temperature output function.....	09
Return main menu.....	09
Restore factory setting.....	09
06. Thermal wire stripper use and changing.....	10
Thermal wire stripper use.....	10
Changing heater.....	10
07. Optional accessories.....	11
08. Maintenance.....	12
09. Product warranty.....	13

09/ Product warranty

• Warranty regulations:

- ① The warranty period of this product is calculated from the date of purchase. During the warranty period, under the condition of normal use of this product, if the fault occurs due to the quality problem of the product itself, according to the content of this warranty card, you can enjoy free maintenance serve at the authorized repair place designated by the company (or the company) by presenting the original warranty card. Please keep the proof of purchase and this warranty card, and present them together when maintenance.
- ② During the warranty period, paid maintenance services will be implemented in the following situations:
 - a. Failure to provide a valid warranty card or valid certificate.
 - b. Items such as the date of purchase and the name of the sales unit are not completely filled in or the warranty card is altered.
 - c. Damage caused by failure to operate in accordance with the usage methods and precautions written in the instruction manual.
 - d. Damage caused by natural disasters or force majeure.
 - e. Damage caused by dismantling, repairing or modifying the product without the authorization of the manufacturer.
 - f. Replacement of fragile and consumable parts.
- ③ All items of the warranty card must be filled in completely by the agent or user directly to obtain a 24-month warranty period.
- ④ Please keep this warranty card properly, it will not be reissued if it is lost.
- ⑤ In special circumstances, the two parties shall negotiate and deal with it.
- ⑥ The final interpretation right belongs to our company.

User Notice

The warranty period of this product is valid within 24 months from the date of purchase. For any product quality problem, the company will be responsible for free maintenance with this card and purchase certificate.

Note: When this product is returned to the factory for maintenance, the warranty card must be attached, other wise it will not be repaired for free, thank you for your cooperation (please read the warranty regulations for warranty related instructions)

Product warranty card

Product Model: _____ Product No.: _____

EX-Factory No.: _____ Sold Date: _____

This product test result is qualified and met the technical standard.

Disclaimer

- We will take no responsibility for any personal injury or property damage caused by reasons other than the product quality problem, which may include force majeure (natural disasters, etc.) or personal behavior during the operation of this product.
- This manual is organized, compiled and released by Atten Technology Inc. According to the latest product features. We will not be responsible for further notice of the subsequent improvement of the product and this manual.

08/ Maintenance

Warning

- It should be maintained by qualified electric technician or service personnel specified by original factory to check the fault or clean the machine. When pulling out or inserting blades, be sure that the power is switched off and check that the blades have cooled down sufficiently.

Description	Reason	Guide
Unable to start	Fuse unequipped or damaged	Check if the fuse is damaged (if so, please replace the fuse according to the specifications)
	Power cord poor contact	Check power cord connection
	Motherboard burnout	Please contact the local dealer or manufacturer for assistance.
E-1	The heating element is open circuit	Replacement of heating core
E-2	Sensor fault	Check if the handle and heating element is connected.
E-3	No zero-cross signal	The zero-cross sensor is damaged or the mains frequency is wrong
E-5	over-current protection	The short circuit occurs to the temperature sensor in the heating core; please replace the heating core.

● After-sales contact

- If the machine fails, or cannot work normally due to unknown reasons, please contact the local dealer or manufacturer for consultation.
- After-sales service email: support-us@atten.com

01/ Safety and Usage Precautions

- This product (including internal software) and its accessories are protected by relevant national laws. Any infringement on our rights will be subject to legal penalties. Users should voluntarily adhere to the relevant national laws while using this product.
- **Thank you for using our product. Before using this product, please carefully read this manual and take note of the warnings and precautions mentioned. Keep it in a safe place for future reference.**

warning

Improper use may result in death or serious injury.

Caution

Improper use may result in personal injury or substantial damage to objects involved.

- We require users to have a basic understanding of everyday life and basic knowledge of electrical operations before using this product. For underage users, please use this product under the guidance of a professional or a guardian.

Caution

To prevent injury, maintain a safe operating environment.

- When using this machine, the following basic points must be adhered to in order to prevent electrical shocks, injuries to individuals, or potential hazards such as fires.
- To ensure personal safety, only use genuine or recommended parts and accessories; otherwise, serious consequences may occur.

Warning

- **READ ALL INFORMATION BEFORE USE.**
- Power off when not in use or unattended. Place the soldering iron handle the iron stand, This tool must be placed on its stand when not in use.
- Keep this product away from flammable materials. When using, please inform other people in the area near the machine. Please do not touch the machine because of high temperature
- Do not apply to the same place for a long time.
- Be aware that heat may be conducted to combustible materials that are out of sight.
- Do not leave the appliance unattended when it is switched on.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Caution

- Before connecting the power, please ensure that the voltage used by this product complies with the applicable voltage in your local area to prevent permanent damage to the machine. Before connecting the power, please ensure that the voltage used by this product complies with the applicable voltage in your local area to prevent permanent damage to the machine.
- When soldering, there will be smoke. Please use this product in a well-ventilated environment.
- When the power is on, the heater can reach a high temperature of more than 800C (1472°F), since mishandling may lead to burns or fire.
- Users without relevant guidance, experience, or adequate knowledge preparation should refrain from using this product.
- Do not wet the soldering station. Avoid operating this product with wet hands or in a damp environment to prevent electrical shock.
- Do not immerse heater in liquids to prevent damage to heater.
- This product has grounding functionality. To ensure proper operation, make sure the power source is properly grounded when connecting the machine.
- When replacing parts or installing blades, turn off the power and allow the soldering tip to cool to room temperature.
- Use original ATTEN parts when replacing product components.
- Do not engage in play or any dangerous activities while using the equipment, as this may lead to harm to yourself or others.
- Please do not use this product for purposes other than its intended function, as it may lead to damage to the machine or personal injury.
- Do not modify this product or its accessories, as this may void the manufacturer's warranty and damage the product.
- When plugging or unplugging the power cord, grip the plug body and avoid pulling or tugging the cord.
- Do not strike this product and its accessories with force during use, as it may damage the product.

02/ Package list and apperance description

• Packing list



• Thermal wire stripper host *1



• Thermal wire stripper *1



• Power cord *1



• Grounding wire *1



• Copper wire brush *1
• Screwdriver *1



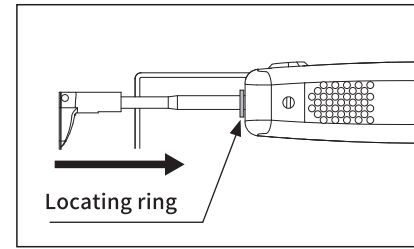
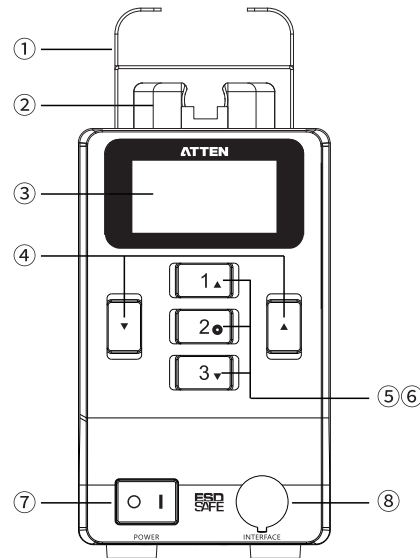
• User manual *1



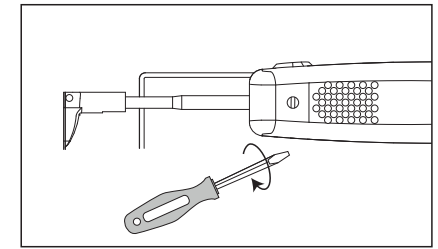
• Certificate *1

• Apperance description

- ① Heat shield.
- ② Thermal wire stripper handle holder.
- ③ LCD display.
- ④ "▲" / "▼" key:
adjust temperature percentages value.
- ⑤ "1"、"2"、"3" key:
Short press: quickly retrieve the temperature parameters.
Long press: save the current temperature parameter.
- ⑥ Long press "1" + "3" key:
Enter into the main setting menu interface.
- ⑦ Power switch.
- ⑧ Thermal Wire Stripper interface.



③ The heater designed with a fixed locating ring. When insert the heater and touched the locating ring. It means the heater is inserted in place.



④ After all tools adjusted to the proper position, tighten the screws to finished heater replacement.

07/ Optional accessories

• Thermal wire stripper blades:

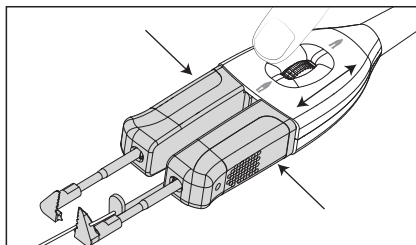
Model	Specification	PIC
T80-3900	Flat blade, suitable for wire diameter below AWG39	
T80-1828	Suitable for wire diameter AWG18~AWG28	
T80-2436	Suitable for wire diameter AWG24~AWG36	

• Wire stripper:

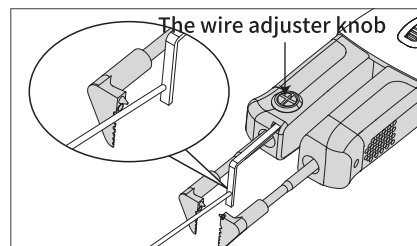
SP-D80	Suitable for thicker, stiffer, shielded wires	
--------	---	--

06/ Thermal wire stripper use and changing

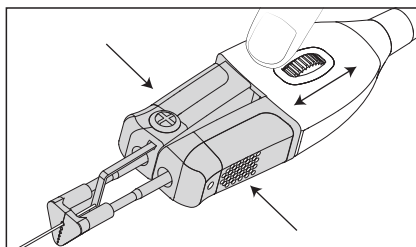
• Thermal wire stripper use



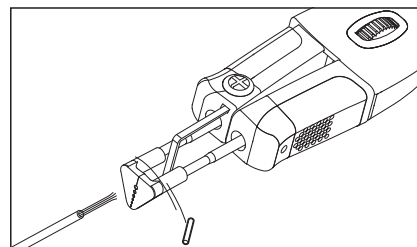
① The wheel allows to adjust the wire stripper arm position according to the wire diameter. Move the wheel backward for wider and forward for narrower position.



② Align the wire and wire adjuster to the proper position. (the wire adjuster can adjust the telescopic length through the knob)

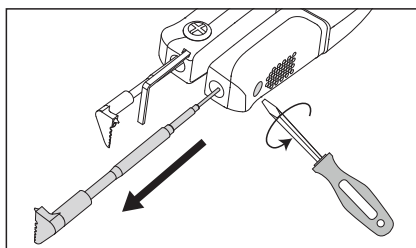


③ After adjusted to the proper temperature select the aperture according to wire diameter.

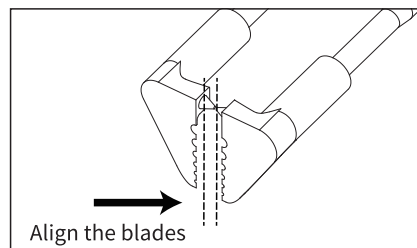


④ The wire will be melted. Pull the wire stripper to strip off the wire end.

• Changing heater



① Loosen the screws and remove heater.



② Insert the new heater. Before tighten the screw, align the tip edges.

03/ Specification

• Technical parameters

• Thermal wire stripper host

Model	ST-680D
Rated operating voltage:	AC 220-240V~ 50/60Hz (optionals) / AC 110V-120V~ 60Hz (optionals)
Power	100W
Temperature range	10%-100%(High temperature 10%~150%)
Standby temperature	1/2 setting value output
Display	LCD display
Working conditions	Temperature 0°C ~ 40°C; Relative humidity < 85%RH
Dimension	201(L) x 84(W) x 195(H) mm
Weight (N.W.)	≈2.74 kg

• Thermal wire stripper

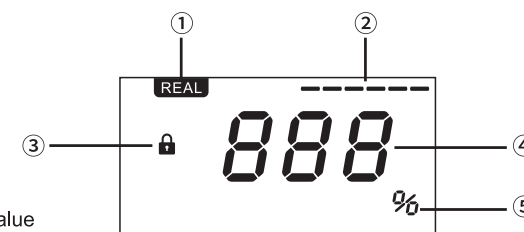
Model	SP-N80
Power	≥80W
Wire length	1.5m
Dimension	173(L) x 35(W) x 15(H) mm
Weight (N.W.)	≈0.122 kg

• Packing

Inner box package	Outer carton package
Inner box size: 312x210x235mm Product weight: ≈2.74Kg G.W: ≈3.36kg	Outer carton size: 435x325x490mm Package: 4pcs/carton G.W: ≈14.5kg

• LCD display description

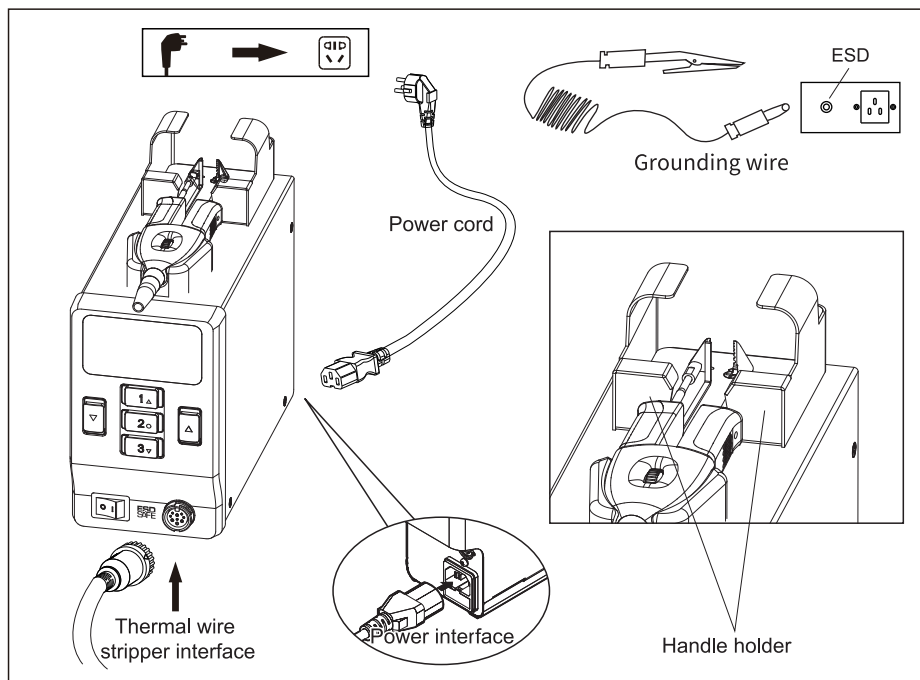
- ① Real temperature icon
- ② Analog heating-up bar to show the current power.
- ③ Lock icon
- ④ Main display window: display temperature Percentages value
- ⑤ % icon



04/ Connection and operation

• Connection

- ① Connect the power cable to the power port on the host;
- ② Place the thermal wire stripper on the handle holder with the heater facing up, plug the handle into the interface.



• Material output value setting:

Material	output value
PVC	40%
PE	40%
PA	60%

Material	output value
PVDF	70%
ETFE	75%
SI	75%
PTFE	80%

Note: Output values will vary from the values in the table above depending on the wire composition and wire diameter. In addition, it may be necessary to set higher values depending on blade oxidation and maintenance conditions.

• High-temperature output function

The following two situation will appear in the high temperature output menu:

Situation 1: when the machine does not set the password, short press the "2" button three times to enter the "High" menu settings.

Situation 2: when the machine has set the password, enter the password to enter the "High" menu settings. (Please refer to page 8 for password settings)

Under the "High" menu, short press "▲" and "▼" key to set high-temperature output function turn off/on (Fig1-13), press "2" save parameters settings.

(Note: After turn on high-temperature output function, the temperature percentages set range is 150%, the heater can reach a high temperature up to 800°C (1472°F).

⚠ Note: Long time output of 105~150% will shorten blade life.



(Incorrect password interface)



(Fig 1-13)

• Restore factory setting

Under the "FAC" menu, short press "▲" and "▼" key to restore factory setting, when the select parameter "ON", press "2" save parameters settings. All settings are back to the factory settings.



(Fig1-14)

Factory default:

Stb(standby function): ON

SLP (Auto-sleep function): 10 min

Loc (Temperature Percentages lock): OFF

PAS (Password setting): 000

Snd (Alarm setting function): ON

H-L(Temperature Percentages alarm): 10%

High(High-temperature output function): OFF

Shortcut temperature 【1】 : 40%

Shortcut temperature 【2】 : 60%

Shortcut temperature 【3】 : 80%

• Return main menu

Under the "ESC" menu, short press "2" key to return main menu (Fig 1-15) .



(Fig1-15)

• Password setting

(Fig 1-7) Under the "PAS" menu, short press "▲" or "▼" button to adjust the password setting value. The password value can be set from "01" to "999". After each value set press "2" to save the parameters.

(Fig 1-8) Means: password function is turn on.

(Fig 1-9) Means: password error.

Password removal: Under the "PAS" menu, set the password value to "000" or restore the factory Settings to remove the password.



(Fig 1-7)



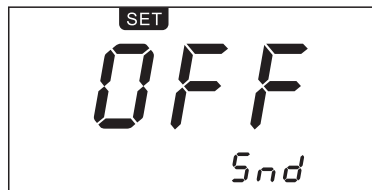
(Fig 1-8)



(Fig 1-9)

• Beep setting

Under the "Snd" menu, short press "▲" or "▼" key to turn the alarm function off/on (Fig 1-10) press "2" to save the setting.



(Fig 1-10)

• Temperature alarm function

Under the "H-L" menu, short press "▲" or "▼" key to set the upper lower temperature percentage values or turn it OFF. (Setting range is 5~20%), press "2" to save the setting.

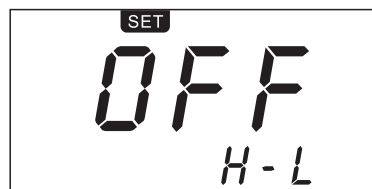
(Fig 1-11) Means: It will alarm if upper temperature more than 20% and the lower temperature less than -20%.

(Fig 1-12) Means: alarm function is OFF.

Note: Alarm function turn on and emit regular sound, means the temperature percentage does not reach the set parameter.



(Fig 1-11)



(Fig 1-12)

• Boot-up screen

After the station has been switched on, it will display the system version number for 1 seconds. (The version will number change after system version updated, such as Ver: xx. xx stands for any number)



(version 1.0)

• Working status

• Working normally

(Fig. 1-1) Means: Current temperature preset value 50%, heating power value 2.

Note: If the screen temperature reading is flashing, it indicates that the current temperature is in the heating process. The flashing will cease once the temperature reaches the set percentage. During the heating process, the machine will emit a systematic audible alert. Disabling the sound function will prevent the machine from emitting notification sounds.

• Enter standby mode

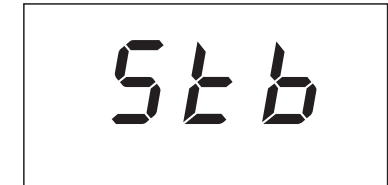
(Fig. 1-2) Means: When thermal wire stripper handle putting on the holder, LCD display "Stb", it enter standby mode, and the temperature keep set value 50% output. It will recover to normal work when taking this handle up. (Factory default standby function is on, standby function can be turned off in menu setting.)

• Enter sleep mode

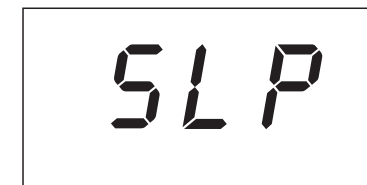
(Fig. 1-3) Means: The heating function is turned off, thermal wire stripper it is not heating, press any key to return. (After standby function turn on, factory default for 10 mins enter sleep, can be sleep time customizable in menu setting.)



(Fig. 1-1)



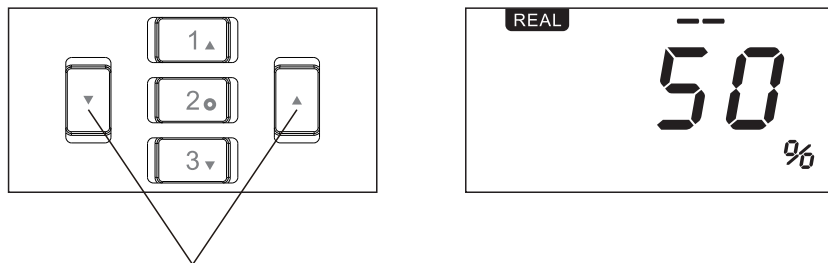
(Fig. 1-2)



(Fig. 1-3)

• Temperature percentage value setting

Under the main menu, short press "▲" or "▼" key, temperature will be reduced or increased in 5% unit, long press for rapidly reduce or increase.



Temperature percentage value setting

• Quickly retrieve the temperature percentage value

Under the main menu, short press "1", "2", and "3" keys to quickly retrieve the percentage temperature value. (factory default: 【1】 key is 40%, 【2】 key is 60%, 【3】 key is 80%)

• Adjust pre-setting the temperature percentages value

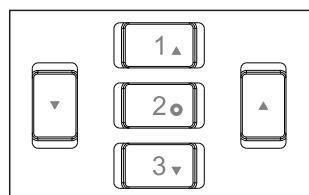
Under the main menu, long press "1", "2", and "3" keys to save the current percentage temperature value parameter in the corresponding shortcut key.

05/ Menu setting

- Under the main menu, press "1" + "3" key for more than 3 seconds to enter menu setting. If no operation for 15 seconds, the system automatically return.

Note: After all the functions set, press 2 to save the settings, select "ESC" option to exit.

• Button definitions in menu setting mode

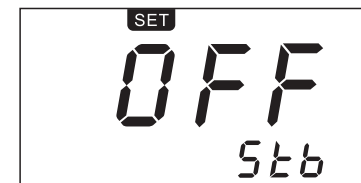


- 【1】 key: Up menu
- 【2】 key: Confirm selection & save
- 【3】 key: Down menu
- ▲ key: Parameters Increased
- ▼ key: Parameters Reduced

• Auto-standby function

Under the "Stb" menu, short press "▲" and "▼" to set the standby parameters: Off/On (Fig 1-4) , press "2" save parameters settings.

(Factory default standby function is on, when thermal wire stripper handle putting on the holder, LCD display "Stb", it enter standby mode, and the temperature keep set value 50% output. It will recover to normal work when taking this handle up.)



(Fig 1-4)

• Auto-sleep function

Note: The auto sleep function needs to be used when the auto standby function is turned on. When the auto standby function is turned off, the auto sleep function is turned off at the same time. The auto sleep function cannot be turned on when the auto standby function is turned off.

Under the "SLP" menu, short press "▲" and "▼" key to set the auto-sleep time 1~30 minutes (default 10) minutes (Fig 1-5), press "2" save parameters settings.

(Under the sleep state, heating function is turned off, thermal wire stripper heater stop heating, press any key to return to work.)



(Fig 1-5)

• Temperature percentages lock function

Under the "Loc" menu, short press "▲" and "▼" key set temperature lock turn off/on (fig1-6), press "2" save parameters settings. (factory default turn off. When temperature percentages lock function turn on, the current percentages temperature is locked, any percentages temperature set is invalid.



(Fig 1-6)