ZHAOXIN®

# 936 SeriesAntistatic Thermostat Soldering Station

# Instruction Manual

# Content

# Conventional Safety Profile

Read the following safety precautions to avoid personal injuries and protect the product or any products connecting to it from being damaged. In order to avert possible dangers, please make sure to use this product under the instructions. Only the qualified person can execute the maintenance procedures.

Avoiding fire or personal injuries

**Use the proper power line**. Please only use the specialized power line of this product with certifications from the country or region.

**Use the right voltage setting.** Before turning on the power supply, please ensure that the line selector is placed at the corresponding position where locates the currently used power supply.

**Product grounding.** The product grounding is conducted through the grounding conductor of the power line. To avoid electric shock, the ground conductor must be connected with the ground. Please make sure the right product grounding has been completed before connecting the input terminal with the output terminal.

When the soldering iron is used for the first time, please carefully examine the rise of temperature at its head and clad a layer of tin at the head when it can just melt the tin wire, and then rise the temperature to that required. Remember that the head of the soldering iron should be clad with a layer of tin for a long time during operation in order to achieve the best soldering effect.

**If a layer of oxide appears at the surface of the soldering iron**, it may bring about the illusion that the temperature at the head is low and it's hard to melt the tin or add tin to the head while both of the heating core and the soldering iron are at high temperature. In this case, do not blindly raise the temperature. It's proper to use the cleaning sponge to remove the oxides. If it fails, please turn off the power supply and wait for the temperature decreasing to the ambient temperature, then use the sand paper to get rid of oxides and repeat the above operations.

**Pay attention to that when the high-temperature soldering iron being put back to the stand after being used,** the soldering iron should stand by with its temperature being turned down below 250℃. The period is longer than 20 minutes, please turn off the power supply. Otherwise, the temperature between the stand and the soldering iron will accumulate when the high-temperature soldering iron is standby for a long time, which may accelerate the aging of the heating core. In addition, the oxides at the tip will directly weaken the soldering effect and even lead to melt of the plastics of the connecting nut or open circuit of the heating core.

**Do not file the oxides at the tip. If the tip is deformed or gets rusted, you must change a new one.**

While soldering, do not put too much pressure on the tip of the soldering iron, which can't alter its thermal conductivity, but will damage it.

**Cut off the power supply.** When work finished, please turn off the main switch at the right side and if not use for a long time, please unplug the power line!

**Do not operate the products when its cover remains opening.** Do not operate the products when its cover or panel remains opening.

**Terms in this manual**

The following terms may occur in this manual:

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⚠ Warning: the “warning” announcement states the situations or operation that may cause physical injuries or threaten the life safety.

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⚠ Attention: the “attention” announcement states the situations or operations that may damage this product or other properties.

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Symbols or terms on the product

The following terms may appear on the product:

“Danger” refers to that the injury may happen instantly while reading this mark.

“Warning” stands for that the injury may not happen instantly while reading this mark.

“Attention” means the risks that may be brought to this product or other properties.

The symbols that may show up on the product are as follows:


Attention


Warning of high voltage


Protective grounding terminal


grounding terminal

# Preface

## Main Functions

- Divided design, compact, easy to place, especially provincial work space.
- Easy to handle, do not feel fatigue for long-term use.
- The heating unit adopts imported high-temperature material, heating with four lines, long lifespan.
- The heating unit is supplied by low voltage to ensure antistatic, no leakage and no interruption.
- Temperature range of 200℃-480℃, stable temperature control, accurate and rapid rise of temperature.
- The soldering iron head is matched with international brands and there are many options for different working conditions of users.

## Introduction

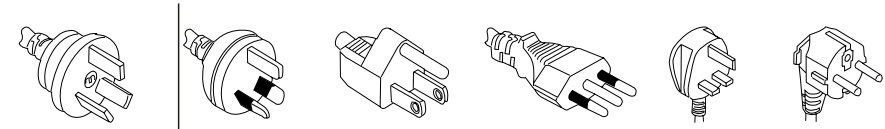
## Standard accessories and optional parts

Table 1: standard accessories

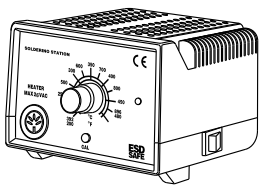
| | |
|---|---|
| Soldering station host | 1pcs |
| Input power cord | 1pcs national standard |
| Stand | 1pcs |
| Cleaning sponge | 1pcs |
| Handle | 1pcs |
| Instructions | 1pcs |
| Guarantee | 1pcs |

Table 2: optional (power plug) parts

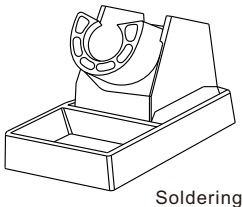
| | |
|---|---|
| North America AC 110V | Europe AC 220V |
| United Kingdom AC 220V | Australia AC 220V |
| Switzerland AC 220V | India AC 220V |
| Brazil AC 220V | |



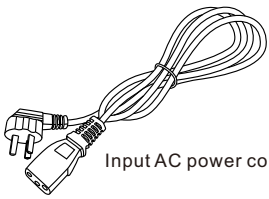
Standard accessories



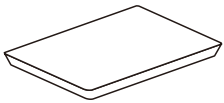
Soldering station host



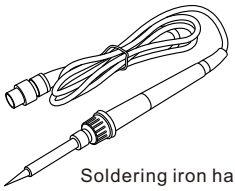
Soldering iron stand



Input AC power cord



Cleaning sponge



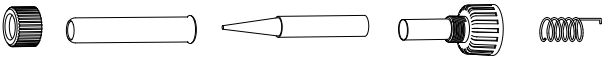
Soldering iron handle

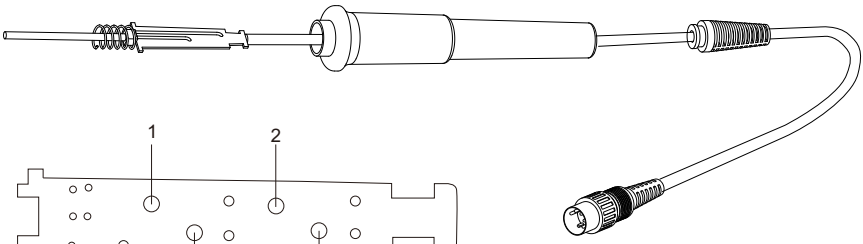
# Preface

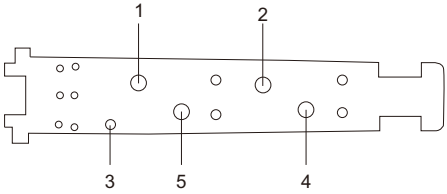
## Technical Parameters

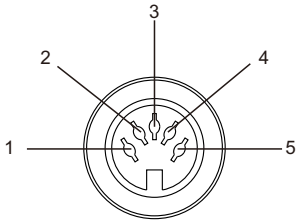
Table 4:

| Type | 936A | 936D | 936AH | 936DH |
|---|---|---|---|---|
| Display Method | Scale Indication | LED Digital Display | Scale Indication | LED Digital Display |
| Input Voltage | ☐ AC 220V±10% 50Hz ☐ AC 110V±10% 60Hz ☐ AC 240V±10% 50Hz | | | |
| Power | 60W | | 80W | |
| Output Voltage | AC 24V | | AC 26V | |
| Heater | Ceramic Heater | | | |
| Temperature Range | 200℃～480℃（392℉～896℉） | | | |
| Dimensions | 155×113×92mm | | | |
| Standard Tip | 900M-T-B | | | |
| Weight | 1.89Kg | | 2.1Kg | |







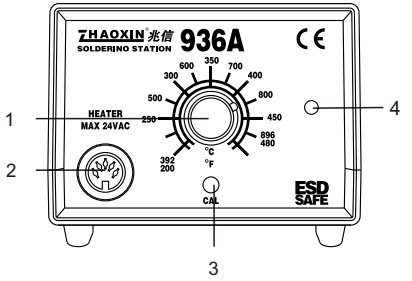



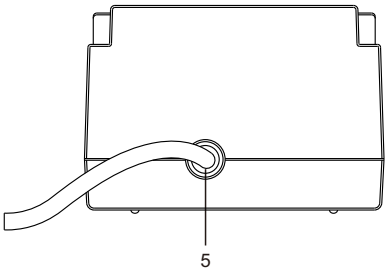

1. Heating coil
2. Thermocouple anode
3. GND
4. Thermocouple Cathode
5. Heating coil 24V (936A/D) 26V (936AH, 936DH)

# Operation Foundation

## Overview of front/back panel (936A 936D)

The following diagrams and tables introduce every control and displaying elements.




1.Temperature adjustment knob

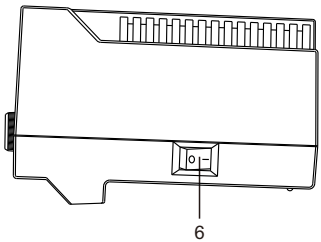
2. Soldering iron handle socket

3. Temperature calibration

4. Temperature indicator(red light on for a long time refers to rise/decrease of temperature, blinking red and green lights refers to constant temperature)

5. AC power line

6. Power switch

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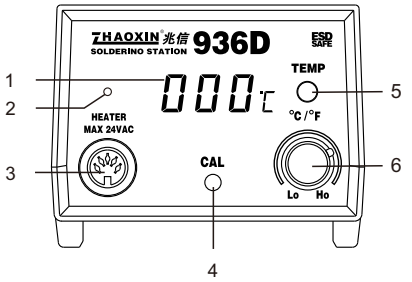
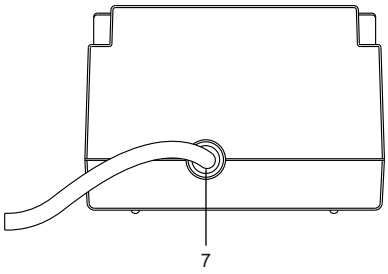



1.Temperature display

2. Temperature indicator(red light on for a long time refers to rise/decrease of temperature, blinking red and green lights refers to constant temperature)

3. Soldering iron handle socket

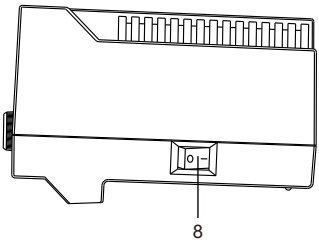
4. Temperature calibration

5. ℃/°Ftemperature display shift

6. Temperature adjustment knob

7. AC power line

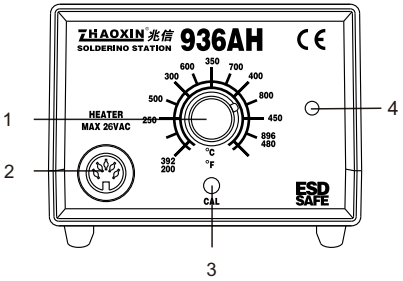
8. Power switch

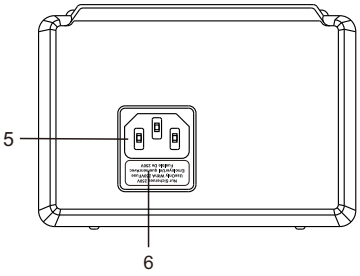


# Operation Foundation

## Overview of front/back panel (936AH936DH)

The following diagrams and tables introduce every control and displaying elements.




1.Temperature adjustment knob

2. Soldering iron handle socket

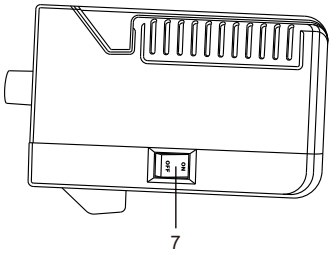
3. Temperature calibration

4. Temperature indicator(red light on for a long time refers to rise/decrease of temperature, blinking red and green lights refers to constant temperature)

5. AC power line socket

6. AC fuse hold

7. Power switch

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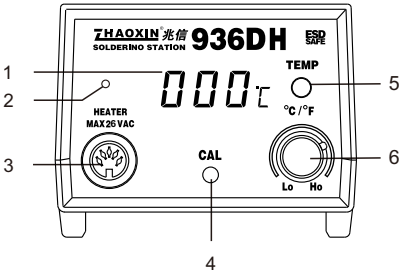
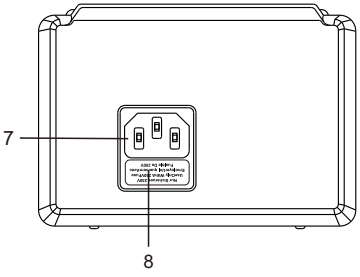



1.Temperature display

2. Temperature indicator(red light on for a long time refers to rise/decrease of temperature, blinking red and green lights refers to constant temperature)

3. Soldering iron handle socket

4. Temperature calibration

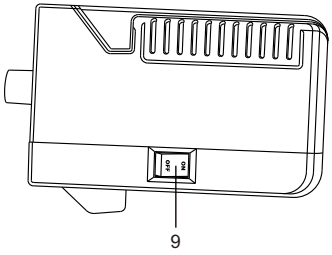
5. ℃/℉temperature display shift

6. Temperature adjustment knob

7. AC power line

8. AC fuse hold

9. Power switch



# Operation requirements

**Usage and maintenance method**

The non-wetting is mainly caused by following points which should be avoided as much as possible:1.Excessive temperature, over 400℃ will oxidize the tin at the welding head

2. The cleaning sponge for the welding head is too dry or dirty.

**Notice and maintenance method for using the soldering iron head:**

1. The soldering iron head needs to be cleaned and wiped every day.
2. During soldering, do not poke or squeeze the object too hard. It's not permitted to conduct soldering in friction mode, which may damage the head.
3. It's forbidden to use objects with rough surface to rub the head.
4. Do not add anything plastic at the soldering iron head.
5. If it's not used for a rather long time, please turn down the temperature below 200℃ and add tin to the head for protection and do not swipe it; The head can only be swiped by wet sponge when soldering and then you need repeatedly add tin to it.
6. After work, please swipe the soldering iron head clean and add new tin at the head and then close it.
7. If the soldering iron head becomes black by oxidization and can't be removed by sponge, it's permitted to use abrasive paper to gently clean it and then add tin to it and swipe it with wet sponge.

**Change for new and maintenance of the soldering iron head**

While changing a new tip, please make sure that the heating core is cold to avoid being scalded. Rotating the nut reversely and unsling the sleeve. You may use a plier to clamp it tightly and then rotate it gently when it's too tight. Remove the waste inside the heating unit and change a new welding head. If the head gets stuck, do not pull it hard to prevent the heating unit from being damaged, at this time, it's available to spray rust remover to the area and rotate it gently by clamp.If the situation is serious, please return it to the production management.

**Attention**

1. The temperature electric soldering iron is as high as 250℃ after connecting the power, so it should be put at the stand if spare. You should cut off the power if it's not used for a long time to prevent the head from being “burnt”(oxidized) which may further damage other parts, especially the power line. If the insulation layer of the power line is damaged by the solderingiron and less attention has been paid on it, it's easy to trigger accidents.
2. Do not knock the soldering iron too hard to in case of breaking the heating coil or lead inside which may cause malfunction.
3. After being used for a period, the head may be left with some tin dirt and we can swipe it softly with wet cloth under the condition of heating the soldering iron. If there is a pit or oxide block, you may use the microgroove rasp to repair the head or just change for a new one.
4. Please notice that the welding head can't touch other components during soldering in case of being scalded.

# Installation system

■ Open the package and check whether you have received all the items listed in the “standard accessories”.

■ Meanwhile check whether you have received all the other attached items that follow the purchase of the instrument.

■ Please visit our website (www.zhaoxinpower.com) to learn the latest information.

In order to make sure whether the power is ready, please do as follows:

## Soldering iron stand

Soak a small piece of sponge and squeeze the water, and then put it into the stand.

During connecting or disassembling the soldering iron, remember to cut off the power in case of damaging the stand.

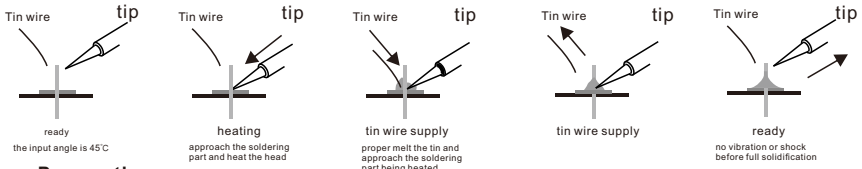
**Connecting**

1. Connect the assembly wire with the soldering iron socket.
2. Put the soldering iron at the stand.
3. Plug into the power socket. Remember to grounding.
4. Turn on the power, the stand indicator will be on once the temperature stabilized.

# Operation foundation

1. Shift the power switch to ON.
2. Adjust the temperature to 200℃, after the indicator either of temperature rise or of decrease blinks (constant temperature) and then heat it to the working temperature required.
3. Stop using and send to repair if abnormal temperature occurs.
4. Starting to use.

## Five steps for soldering




**Preparation**

Prepare tin wire and soldering iron. It is specially emphasized that the soldering iron head must be kept clean and then add tin to it.

**Heating the components**

Notice that the soldering components must have been heated at first and then touch the soldering point, for example, the lead on the printed board and the soldering plate are both heated. Secondly, let the flat part (bigger part) touch the soldering objective with larger heat capacity and let the side or edges touch that with smaller heat capacity in order to keep the components receiving balanced heat.

**Melting the soldering material**

When the objective has been heated to the temperature that can melt the soldering wire, put it at the soldering point and melt it to wet the point.

**Removing the soldering tin**

Remove the tin wire while melting a certain amount.

**Removing the soldering iron**

When the tin fully wets the point, remove the soldering iron. Notice that the removing angle should be approximately 45°.

After use

1. Clean and swipe the soldering iron head and add a few tin to it for protection.
2. Adjust the temperature settings to the lowest temperature.
3. Turn the switch to OFF
4. Unplug the power plug.

**The most proper working temperature**

The low temperature during soldering process may affect the fluency of soldering. And if the temperature is too high, it may damage the copper foil of the circuit board and cause incomplete soldering and ugly soldering or excessive head consumption. The normal working temperature of the soldering iron is from 300℃ to 350℃.

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⚠ Do not use the soldering iron too often or continuously use it in the red zone, namely, at the temperature above 400℃; it can only be used for a short time if sometimes big soldering point or fast soldering commands.

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# Common Fault Settlement

Cut off the power supply before repair otherwise the electric shock may occur.

If the wire is broken, please contact the producer or similar qualified persons to repair it in case of physical injuries or damaging the soldering units.

Fault 1: the soldering units can't operate.

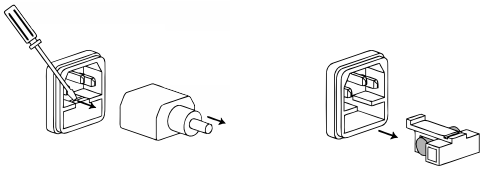
1. Check whether the fuse is blown and change a new one after ascertain the reason.
2. Whether there is a short circuit inside the soldering iron.
3. Whether the grounding spring touched the heating components.
4. Whether the lead of the heating components is twisted or there is a short circuit.
5. Whether the wire is damaged and change a new one.

Fault 2: no rise of temperature at the head, displaying errors of sensor or heater.

1. Check whether the line or connecting plug is loosen and reconnect it.
2. Check whether the power line of the soldering iron is broken.
3. Check whether the heating components are damaged.

**Fuse Replacement**

1. Cut off the power, use slotted screwdriver to fetch the fuse holder.
2. Replace the fuse.



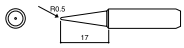
⚠ To ensure safe and effective fire precaution measures, the replacement is limited to the fuses of specialized specifications and nominal values. The power must be cut off before replacement and the power line needs to be taken down from the socket.

# Optional Accessories

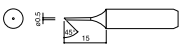
## Tips

Tip Out Dia.ø6.5mm

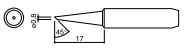
900M-T-B Shape-B



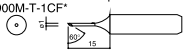

900M-T-0.5C Shape-0.5C



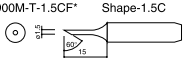

900M-T-0.8C Shape-0.8C



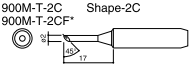

900M-T-1C Shape-1C
900M-T-1CF*



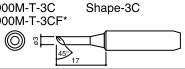

900M-T-1.5CF* Shape-1.5C



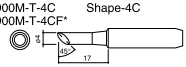

900M-T-2C Shape-2C
900M-T-2CF*



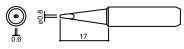

900M-T-3C Shape-3C
900M-T-3CF*



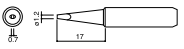

900M-T-4C Shape-4C
900M-T-4CF*



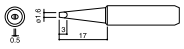

900M-T-0.8D Shape-0.8D



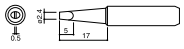

900M-T-1.2D Shape-1.2D



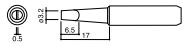

900M-T-1.6D Shape-1.6D



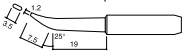

900M-T-2.4D Shape-2.4D



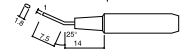

900M-T-3.2D Shape-3.2D



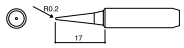

900M-T-H Shape-H



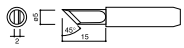

900M-T-1.8H Shape-1.8H



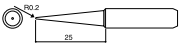

900M-T-I Shape-I



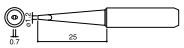

900M-T-K Shape-K



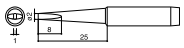

900M-T-LB Shape-LB



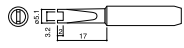

900M-T-1.2LD Shape-1.2LD



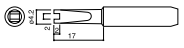

900M-T-2LD Shape-2LD



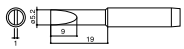

900M-T-R Shape-R



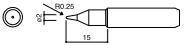

900M-T-RT Shape-RT



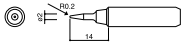

900M-T-S3 Shape-S3



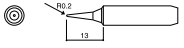

900M-T-S4 Shape-S4



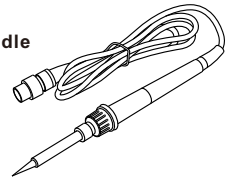

900M-T-SB Shape-SB



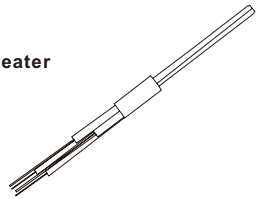

900M-T-SI Shape-SI




## Handle



## Heater



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