

# AOYUE®

## 936 SOLDERING STATION INSTRUCTION MANUAL

Thank you for purchasing the 936 Soldering Station.  
Please read this manual before operating the 936  
Store the manual in a safe, easily accessible place  
for future reference.

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## Packing LIST

Please check the contents the 936 package and confirm that all the items listed below are included.

936 Station.....	1
Soldering Iron 900(S),907 or 908) .....	1
Iron Holder(With Cleaning Sponge .....	1
Instruction Manual .....	1

## Precautions

In this instruction manual, "warning" and "caution" are defined as follows.

### WARNING

 CAUTION: Misuse may potentially cause injury to the user or physical damage to the objects involved.  
For your own safety, be sure to comply with these precautions.

### CAUTION

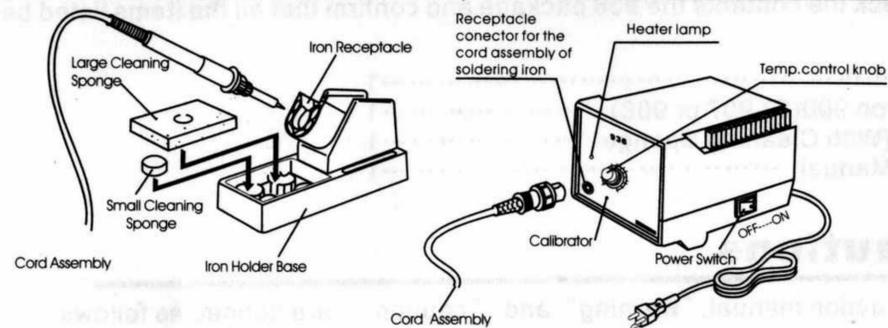
When the power is on ,the tip temperature is between 200°C/392°F and 480°C/ 896°F.  
Since mishandling may lead to burns or fire, be sure to comply with the following precautions.

Do not touch the metallic parts near the Tip.  
Do not use the product near flammable items.  
Advise other people in the work area that the unit can reach a very high temperature and should be considered potentially dangerous.  
Turn the power off while taking breaks and when finished using the unit.  
Before replacing parts or storing the unit, turn the power off and allow the unit to cool to room temperature.

To prevent damage to the unit and ensure a safe working environment, be sure to comply with the following precautions.

Do not use the unit for applications other than soldering.  
Do not rap the soldering iron to severe shocks.  
Otherwise subject the iron to severe shocks.  
Do not modify the unit.  
Use only genuine.KANGDA replacement parts.  
Do not wet the unit or use the unit when your hands are wet.  
The soldering process will produce smoke, so make sure the area is well ventilated.  
While using the unit, don't do anything which may cause bodily harm or physical damage.

## Names of Parts

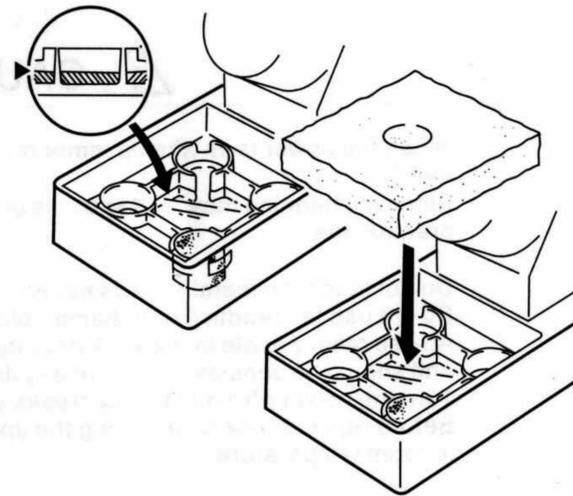


## Setting up & Operating the 936

- ! CAUTION:** The sponge is compressed. It will swell when moistened with water. Before using the unit, dampen the sponge with the water and squeeze it dry. Failure to do so may result in damage to the soldering tip.

### A. Iron Holder

Dampen the cleaning sponge with water and then squeeze it dry. It has to keep the sponge wet at all times.



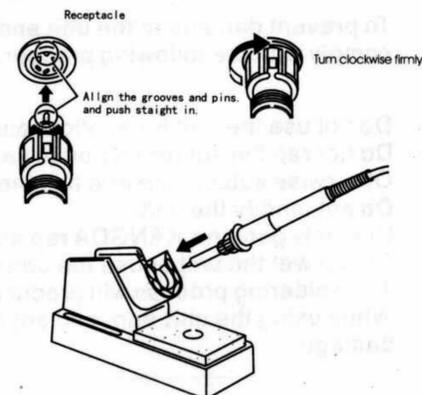
- ! CAUTION:** Be sure to turn off the power switch before connecting or disconnecting the soldering iron. Failure to do so may damage the P. W. B.

### B. Connections

1. Connect the cord assembly to the receptacle.
2. Place the soldering iron in the iron holder.
3. Plug the power cord into the power supply. Be sure to ground the unit.

### C. Set the Temperature

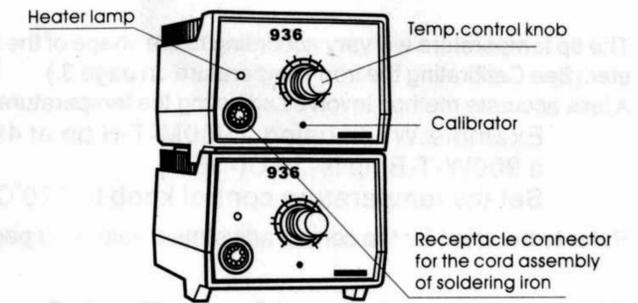
1. Set the temperature control knob to the desired temperature.
2. Lock the knob



### D. Turn on the Power Switch.

The heater lamp blinks on and off when the tip temperature reaches the set temperature. The unit is now ready to perform soldering work. For greater convenience, and soldering efficiency, two stations can be securely stacked as shown.

- ! CAUTION:** The soldering iron must be placed in the iron holder when not in use.



## Tip Care and Use

### • Tip Temperature

High soldering temperatures can degrade the tip. Use the lowest possible soldering temperature. The excellent thermal recovery characteristics ensure efficient and effective soldering even at low temperatures. This also protects the soldered items from thermal damage.

### • Cleaning

Clean the tip regularly with a cleaning sponge, as oxides and carbides from the solder and flux can form impurities on the tip. These impurities can result in defective joints or reduce the tip's heat conductivity. When using the soldering iron continuously, be sure to loosen the tip and remove all oxides at least once a week. This helps prevent seizure and reduction of the tip temperature.

### • When Not in Use

Never leave the soldering iron sitting at high temperature for long periods of time, as the tip's solder plating will become covered with oxide, which can greatly reduce the tip's heat conductivity.

### • After Use

Wipe the tip clean and coat the tip with fresh solder. This helps prevent tip oxidation.

## Maintenance

### Inspect and Clean the Tip

- ! CAUTION:** Never file the Tip to remove oxide.

1. Set the temperature to 250°C (482°F).
2. When the temperature stabilizes, clean the tip with the cleaning sponge and check the condition of the tip.
3. If there is black oxide on the solder-plated portion of the tip, apply new solder (containing flux) and wipe the tip on the cleaning sponge. Repeat until the oxide is completely removed. Coat with new solder.
4. If the tip is deformed or heavily eroded, replace it with a new one.

## Calibrating the Iron Temperature

The soldering iron should be recalibrated after changing the iron, or replacing the heating element or tip.

1. Connect the cord assembly plug to the receptacle on the station.
2. Set the temperature control knob to 400°C (750°F).
3. Turn the power switch to 'ON' and wait until the temperature stabilizes. Remove the CAL pot plug.
4. When the temperature stabilizes, use a straight-edge (-) screwdriver or small plus (+) screwdriver to adjust the screw (marked CAL at the station) until the tip thermometer indicates a temperature of 400°C (750°F). Turn the screw clockwise to increase the temperature and counterclockwise to reduce the temperature. Replace the CAL pot plug.

## Tips

The tip temperature will vary according to the shape of the tip. The preferred method of adjustment uses a tip thermometer. (See Calibrating the Iron Temperature on page 3.)

A less accurate method involves adjusting the temperature control knob according to the adjustment value for each tip.

Example: When using a 900M-T-H tip at 400°C (750°F), the difference between this tip and a 900W-T-B tip is -20°C (-36°F)

Set the temperature control knob to 420°C (786°F).

Refer to the chart for the correct adjustment values on page 15

## Troubleshooting Guide



**WARNING:** \* Disconnect the power plug before servicing.  
Failure to do so may result in electric shock.

\*If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarity qualified person in order to avoid personal injury or damage to the unit.

**Problem 1.**  
The heater lamp does not light up.

**Check 1.** Is the power cord and/or connecting plug disconnected?  
\*Connect it.

**Check 2.** Is the fuse blown?  
\*Determine why the fuse blew and eliminate the cause, then replace the fuse.

A. Is the inside of the iron short-circuited?  
B. Is the grounding spring touching the heating element?  
C. Is the heating element lead twisted and short-circuited?

**Problem 2.**  
The heater lamp lights up but the tip does not heat up.

**Check 3.** Is the soldering iron cord broken?  
\*Refer to Checking for breakage in the cord assembly.  
**Check 4.** Is the Heating Element broken?  
\*Refer to Checking for breakage in the heating element.

**Problem 3.**  
The tip heats up intermittently.

**Check 3**

**Problem 4.**  
The tip is not wet.

**Check 5.** Is the tip temperature too high?  
\*Set an appropriate temperature.  
**Check 6.** Is the tip clean?  
\*Refer to Tip Care and Use.

**Problem 5.**  
The tip temperature is too low.

**Check 7.** Is the tip coated with oxide?  
\*Refer to Inspect and clean the tip.  
**Check 8.** Is the iron calibrated correctly?  
\*Recalibrate.

**Problem 6.**  
The tip can not be pulled off.

**Check 9.** Is the tip seized?  
Is the tip swollen because of deterioration?  
\*Replace the tip and the heating element.

**Problem 7.**  
The tip doesn't hold the desired temperature.

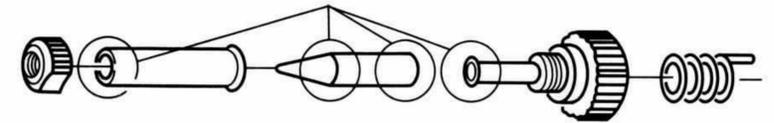
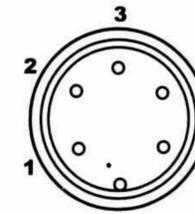
**Check 8**

## Checking for breakage of the heating element and cord assembly

Disconnect the plug and measure the resistance value between the connecting plug pins as follows. If the values of 'a' and 'b' are outside the above value, replace the heating element (sensor) and / or cord assembly. Refer to Procedures 1 and 2.

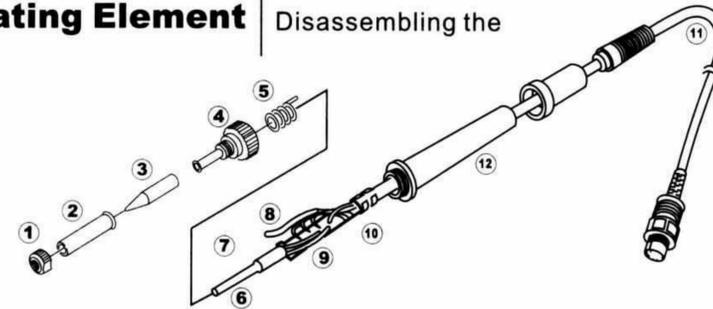
If the value of 'c' is over the above value, remove the oxidization film by lightly rubbing with sand-paper or steel wool the points as shown.

a.	Between pins 4 & 5 (Heating Element)	16 - 18 (Normal)
b.	Between pins 1 & 2 (Sensor)	1.7 - 1.9 (Normal)
c.	Between pins 3 & Tip	Under 2



### 1. Broken Heating Element

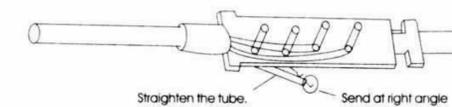
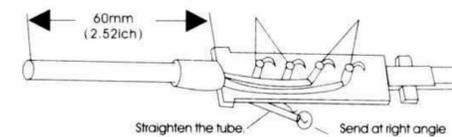
Disassembling the



### 2. Replace the Heating Element.

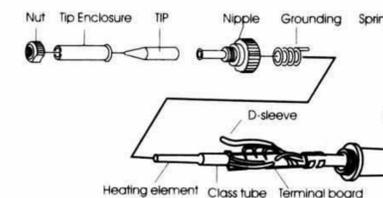
1. Desolder the heating element leads and sensor leads  
2. Remove the old heating element and replace it with a new one.  
There is no polarity between leads of the same colors. Bend the leads at right angle to prevent short-circuit.

#### ■ 900M/L



3. Solder the new heating element lead to the terminal board. Then cut the extra lead.

#### ■ 907/908/913/914



\* 913 and 914 are different for 907 and 908 in shape of the handle

### ⊗ Reassemble in reverse order.

1. Turn the nut (1) counterclockwise and remove the tip enclosure (2), the tip (3).  
2. Turn the nipple (4) counterclockwise and remove it from the iron.  
3. Pull both the heating element (6) and the cord assembly (11) out of the handle (12). (Toward the tip of the iron.)  
4. Pull the grounding spring (5) out of the D-sleeve.

Measure when the heating element is at room temperature.

1. Resistance value of heating element (red) 16-18 Ω  
2. Resistance value of sensor (BLUE) 1.7-1.9 Ω

If the resistance value is not normal, replace the heating element.

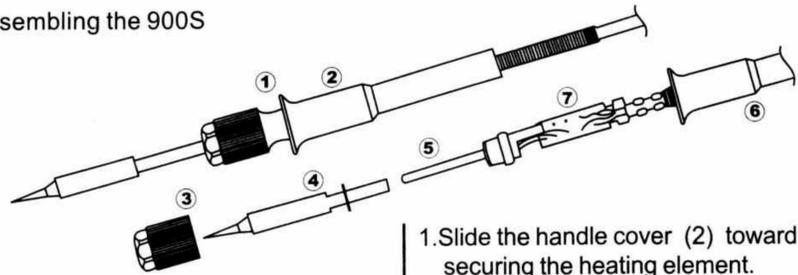
### 3. The two way of checking negative pole and positive pole of the sensor:

1. Nuzzle at the two sides of sensor with magnet. The side that emit faint magnetism is positive pole. On the other way, the side that do not have any magnetism is negative pole.  
2. Checking each side of sensor two times with multimeter. It will appear two different resistance. One is 1.5 ohm, the other is 2 ohm. When the appearance is 2 ohm, the positive pole of the multimeter just is the positive of the sensor. The negative pole of the multimeter also just is the negative pole of the sensor.

After replacing the heating element,

1. Measure the resistance value between 1) pins 4 & 1 or 2 2) pins 5 & 1 or 2. If it not ∞, the heating element and sensor are touching. This will damage the P. W.B.  
2. Measure the resistance value 'a', 'b', and 'c' to confirm that the leads are not twisted and that the grounding spring is properly connected.

## Disassembling the 900S

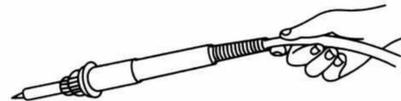


- Slide the handle cover (2) toward the cord and remove the screw (1) securing the heating element.
- Turn the nut (3) counterclockwise and remove it.
- Remove the tip (4).
- Pull both the heating element (5) and the cord toward the tip of the iron and out of the handle (6).

## 2. Broken Soldering iron Cord

There are two methods of testing the soldering iron cord.

- Turn the unit ON and set the temperature control knob to 480°C(896°F). Then wiggle and kink the iron cord at various locations along its length, including in the strain relief area. If the LED heater lamp flickers, then the cord needs to be replaced.



**CAUTION:** The LED heater lamp will flicker even with a normal Iron cord if the temperature reaches 480°C (896°F).

- Check the resistance between the pin of the plug and the wire on the terminal.  
Pin 1: Red Pin 2: Blue Pin 3: Green pin 4: White Pin 5: Black  
The value should be 0Ω. If it is greater than 0Ω or is ∞, the cord should be replaced.

## 2.Replacing the Fuse

Refer to the drawing in the replacement parts section of this manual. Desolder the blown fuse and remove it. Solder on a new one

## Specifications

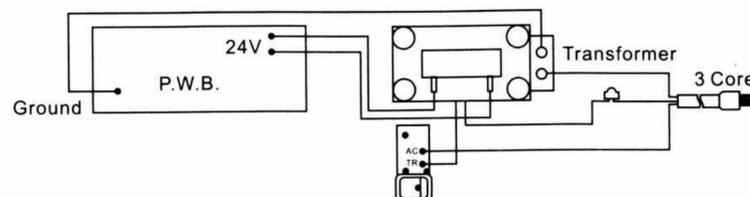
Name	936	936A
Power Consumption	35W	60W
Station	936 Station/936 Station ESD	
Output Voltage	24VAC	
Temperature Range	200C~480V/392F~896F	
Dimensions	120(W)x93(W)x70(D)mm/4.7(WW)x3.7(H)x6.7(D)in.	

- The tip temperature was measured using thermometer.
- Specifications and design subject to change without notice

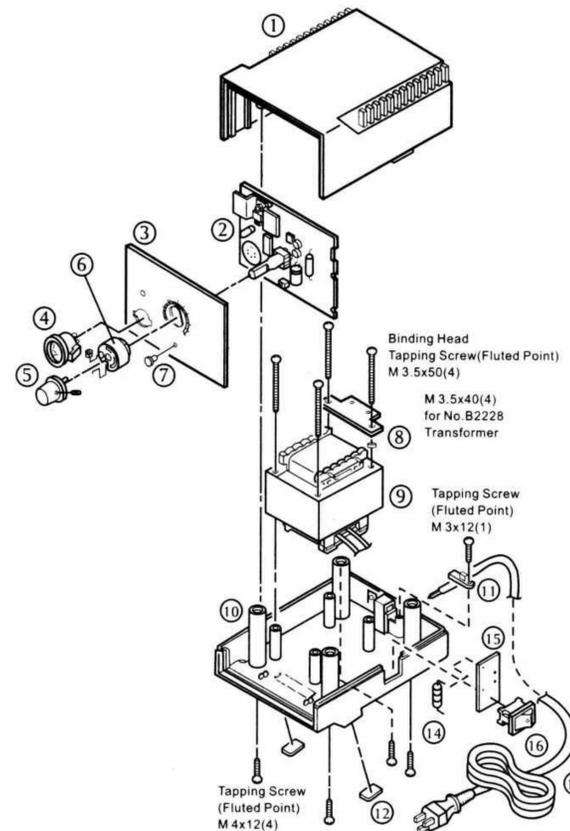
### Soldering Iron

	900S	907	908
Power Consumption	24V AC-40W		
Tip to Ground Resistance	Under 2Ω		
Tip to Ground Potential	Under 2mV(TYP.0.6mV)		
Heating element	Ceramic heater		
Cord Assmly	1.2m(4ft.)		
Total Length (w/o Cord)	176mm(7 in.)	190.(7.5 in.)	200mm(7.9 in.)
Weight(wo Cord)	25g(0.006 lbs.)	44g(0.009 lbs.)	54g(0.12 lbs.)

## Wiring Diagram



## Parts List (Station/Iron Holder/Iron)



Item No.	Part No.	Part Name	Description
1	B2048	Upper Case	100.110.220~240V(Standard)
	B2225	Upper Case/UL	120V(Standard/UL)
	B2001	Upper Case	E.S.D
2	B2229	P.W.B	
3	B2003	Panel	
	B2287	Panel	E.S.D
4	B2006	Receptacle	
5	B2004	Knob	
6	B2005	Knob Mount	
7	B2018	CAL Pot Plug	
8	B2227	Grounding Plate	
9	B2011	Transtormer	100-24V
	B2012	Transtormer	110-24V
	B2228	Transtormer	120-24V(Standard/UL)
	B2013	Transtormer	120-24(ESD)
	B2014	Transtormer	220~240~24V
10	B2000	Lower Case*	100.110.220~240V(Standard)
	B2226	Lower Case/UL*	120V(Standard/UL)
	B2002	Lower Case*	E.S.D.*w/Rubber Stopper
11	B2015	Cord Stopper	
12	B2016	Rubber Stopper	set of 2
	B1318	Power Cord	3 Wired Cord But No Plug
13	B1319	Power Cord	3 Wired Cord & American Plug
	B2043	Power Cord	3 Cord & European Plug
	B2007	Fuse/2A	100.110V
14	B2224	Fuse/2A	120V(UL)
	B2008	Fuse/0.8A	220~240V
	B2103	Wiring Board for Switch	
15	B1084	Power Switch	

Item No.	Part No.	Part Name	Description
1	C1141	Iron Holder	900S
	C1142	Iron Holder	907.908
2	B2020	Iron Receptacle	900S
	B2021	Iron Receptacle	907.908
3	B2019	Iron Holder Base	900S.907.908
4	A1042	Clearing Sponge	900S.907.908

### 900S

Item No.	Part No.	Part Name	Description
1	900S-006	Nut	
	900S-006S	Nut	E.S.D
2		Soldering tip	Seep. 15
3	A1322	Heating Element	Old Part No 900S-H
4	900S-101	Terminal Board	w/Cord Stopper
	900S-001	Headle	w/Handle Cover
	900S-001S	Handle	w/Handle Cover.E.S.D
6	900S-034	Handle Cover	
	900S-034S	Handle Cover	E.S.D
7	900S-010	Cord Bushing	(Not shown)
8	900S-039	Cord Ass'e'y	(Not shown)
	900S-039S	Cord Ass'e'y	E.S.D.(Not shown)

### 907.908

Item No.	Part No.	Part Name	Description	For
1	B1784	Nut		907
	B1794	Nut		908
2	B1786	Tip Enclosure		907
	B1787	Tip Enclosure		908
3		Soldering Tip	See P. 15	907
		Soldering Tip	See P. 15	908
4	B2022	Nipple		907
	B2033	Nipple		908
5	B2032	Grounding Spring		907.908
6	A1321	Heating Element	Old Part No 900M-H No 900L-H	907.908
7	B2028	Terminal Board		907.908
8	B2023	Handle	w/Handle Cover	907
	B2024	Handle	w/Handle Cover.E.S.D	907
	B2025	Handle	w/Handle Cover	908
	B2026	Handle	w/Handle Cover.E.S.D	908
9	B2027	Handle Cover		907.908
10	B2031	Cover Bushing		907.908
11	B2029	Cord Ass'e'y		907.908
	B2030	Cord Ass'e'y	E.S.D	907.908

