TrakPower™ SPEED EQUIPMENT

TK955 Digital Soldering Station

DIGITAL DISPLAY

IRON HOLDER

RETAINING NUT

TEMPERATURE CONTROLS

CLEANING SPONGE

CHISEL TIP

TIP RETAINER

CORD RECEPTACLE

SECURITY KEY

TIP RETAINER NUT

CALIBRATION ADJUSTMENT

PENCIL TIP

For best results read the entire manual before operating.

Packing List

- TK-955 Soldering Station
- Soldering Iron with Tip
- Pencil Tip
- Iron Holder with Sponge
- 2 Security Keys

Precautions

⚠ **CAUTION:** When the power is on, the tip temperature is between 200°C / 400°F and 480° C / 899°F. Since mishandling may lead to burns or fire, be sure to comply with the following precautions:

- Do not touch the metallic parts while operating.
- Always store the iron in the holder when not in use.
- 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 you are finished using it.
- 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 hit the soldering iron against the work bench or other objects to shake off residual solder.
- Do not modify the unit.
- Use only genuine replacement parts.
- Do not bend or damage the security key. Should the key become bent, do not force it into the station.
- Do not allow the unit to become wet or use the unit when your hands are wet.
- The soldering process will produce smoke. Make sure the area is well ventilated.

Setup and Operation

1. Connect the soldering iron cord assembly to the receptacle. Secure it by rotating the retaining clip clock-wise.
2. Install the desired tip.
3. Saturate the cleaning sponge with water and place it into the holder.
4. Plug the power cord into a grounded outlet.
5. Turn the power switch on. The heater LED will flicker when the temperature has stabilized. The heater LED is located in the lower right corner of the display.

Setting the Temperature

⚠️ **CAUTION:** **Be sure to insert the slotted end of the security key into the key slot. While setting the temperature, the heating element is off.**

1. Insert the key into the key slot in the station. The left-most digit (the 100's digit) in the display will flash. This indicates the station is in the temperature setting mode and the 100's digit can be adjusted.

2. Select the desired value of the 100's digit. Pressing the "**UP**" or "**DOWN**" button will change the displayed value.

3. Press the "**∗**" button when the desired value is displayed. This will cause the middle digit (the 10's digit) in the display to flash.

4. Pressing the "**UP**" or "**DOWN**" button will change the displayed value.

5. Press the "**∗**" button when the desired value is displayed. This will cause the right digit (the 1's digit) in the display to flash.

6. Pressing the "**UP**" or "**DOWN**" button will change the displayed value.

7. Pressing the "**∗**" button does the following actions:

   a) Enters the temperature setting into the internal memory.
   b) Displays the temperature setting.
   c) Starts the heater control.

Security Key

If the key is left in the unit, push and hold the "**∗**" button for more than 1 second. The soldering station goes into temperature setting mode. Pressing the "**∗**" button for less than 1 second will display the present temperature setting for two seconds and then return to showing the tip temperature.

Removing the security key will not allow the temperature setting to be changed until the key is reinserted.

Parameter Adjustments

The following parameters can be adjusted while in parameter input mode:

   A. °C or °F temperature display.
   B. Heater error temperature tolerance.
   C. Display room temperature for tip calibration.

Parameter Input Mode

1. Turn off the power switch.

2. Press and hold the "**UP**" and "**DOWN**" buttons simultaneously.

3. Turn on the power switch.

4. Continue holding down the "**UP**" and "**DOWN**" buttons until display shows 1C or 1F. The station is in parameter input mode.

5. **To change temperature units:** Use the "**UP**" and "**DOWN**" buttons to change between 1C (for Celsius) or 1F (for Fahrenheit).

6. When desired unit is displayed, press the "**∗**" button. The station is now in heater error temperature tolerance setting. The temperature will be displayed with the 100's digit flashing.

> **NOTE: Heater Error Temperature Tolerance:** If power is being sent to the soldering iron and the tip temperature falls below the heater error temperature tolerance, the temperature display will flash. This indicates a possible heater malfunction. **Example:** The temperature is set to 400°C and the heater error temperature tolerance is set to 50. If the tip temperature drops below 350°C while power is being sent to soldering iron, the display will begin to flash, indicating a possible heater malfunction.

7. To change heater error temperature tolerance, use the same steps in "**Setting the Temperature**" section. The temperature setting for the heater error temperature tolerance must be within the following range. **For °C:** 30-150° C. **For °F:** 60-300° F. If a temperature value outside of this range is selected, the display will return to flashing the 100's digit. If this happens, re-enter a temperature within the range.

8. After entering the heater error temperature tolerance, the station will display the room temperature compensation value.

> **NOTE: Room Temperature Compensation Value:** The room temperature compensation value is the measured temperature of the soldering iron tip. This value is used to calibrate the tip temperature when the soldering iron is replaced.

To calibrate the tip use the following steps:

A. Allow the soldering station to cool to room temperature for one hour.
B. Use a thermometer to measure the room temperature.
C. Use a small regular or a cross point screw driver to adjust the screw marked "CAL" on the soldering station until the display indicates the room temperature measured by the thermometer.

9. Press the "**∗**" button to exit the parameter input mode. The soldering temperature will be displayed for two seconds, after which power will be supplied to the heater and normal operation mode will begin.

Use

1. For the longest tip life, select the lowest temperature required to properly do the job.

2. Once the iron has reached the desired temperature, wipe the tip on the cleaning sponge to remove any build up.

3. Once the tip has been cleaned, coat it with a thin layer of fresh solder. This is called tinning the tip.

4. Use the smallest amount of solder needed to properly do the job. Extra solder requires extra heat and the chance of overheating the item being soldered.

5. When finished, wipe the tip clean and tin it with fresh solder. Turn off iron and let it cool before storing.

Care

1. Clean the tip regularly using the cleaning sponge. This removes impurities and reduces the oxidation that can limit heat transfer.

2. After every 4 hours of use: Allow the iron to cool. Remove the tip holder retaining nut and wipe the threads clean with a dry rag. Re-install the retaining nut finger tight. This will reduce the oxidation build-up that could cause the nut to seize onto the retainer.

3. Do not leave the unit turned on for long periods of time when not in use. Prolonged heating can degrade the tip even when not in use.

4. Always keep the cleaning sponge moist when using the iron. If the sponge is dry, it will not clean the tip properly and can burn.

5. To help reduce oxidation, always wipe and tin the tip with fresh solder when you're done soldering.

6. Check the condition of the tip. Tip life can vary greatly depending on the temperature used. Replace the tip if it becomes deformed or if solder will no longer stick to it.

Replacing the Tip

1. Turn off, unplug, and allow the iron to cool to room temperature.

2. Loosen and remove the retaining nut.

3. Remove the tip holder.

4. Remove and dispose of the old tip.

5. Wipe the threaded section of the iron and the retaining nut with a dry rag.

6. Install the new tip, holder, and retaining nut. The nut should only be tightened to finger tight.

7. Plug in and turn on the iron. When it reaches the desired temperature, wipe the new tip clean on the cleaning sponge and tin it with fresh solder.
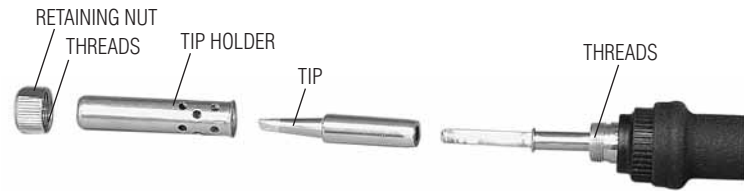
Error Messages

- - - = System Error

After the power has been turned on, the system checks the memory and the programs. If an abnormality is found, **- - -** will be displayed and all operation will be completely stopped.

S – E = Sensor Error

If there is a possibility of a failure in the sensor or anywhere in the sensor circuit, **S – E** will be displayed and power to the soldering iron will be cut off.

Flashing of temperature display = Heater Error

If power is being sent to the soldering iron and the tip temperature falls below the heater error temperature tolerance, the temperature display will flash. This indicates a possible heater malfunction. Example: The temperature is set to 400°C and the heater error temperature tolerance is set to 50. If the tip temperature drops below 350°C while power is being sent to soldering iron, the display will begin to flash indicating a possible heater malfunction.

Parts

Replacement

TKPR0960   TrakPower Replacement 908 Iron
TKPR0965   TrakPower A1042 Sponge
TKPR0968   TrakPower Chisel Tip 3.2 mm
TKPR0969   TrakPower Chisel Tip 2.4 mm
TKPR0970   TrakPower Pencil Tip 1.0 mm

Optional

TKPR0975   TrakPower Rosin Core Lead Free Silver Solder 15 g
TKPR0976   TrakPower Rosin Core Silver Solder 100 g
TKPR1015   TrakPower Cleaning Wire with Holder

TKPR0955