DIGIKEY
STANDARD

DKS-SLDR2 Solder Stations

Programmable Digital Soldering Station

Product highlights:

- Microprocessor-controlled ESD safe soldering station.
- Ceramic heater and removable hot tip design.
- Compatible with leaded and lead-free applications.
- Auto sleep and wake up function with programmable sleep timer.
- Digital Main Display.
- Quick access to favorite settings.

Specifications:

Display	Digital
Temperature Min:	200° Celsius (392° Fahrenheit)
Temperature Max:	480° Celsius (896° Fahrenheit)
Station Dimensions:	4.3" wide x 3.8" tall x 6.1" long
Power Consumtion:	45W
Packaging	Retail box
Kit Includes	Pro Main station, Soldering Iron, Stand, Power Cord and Instruction manual

Part number breakdown:

DIGI-KEY STANDARD PREFIX	-	**SOLDER STATION DISPLAY** SLDR1: ANALOG DISPLAY SLDR2: DIGITAL DISPLAY	-	**COUNTRY** EU: 220V, EU POWER CORD US: 110V, US POWER CORD
DKS	-	**SLDR2**	-	**EU**

Available items:

PART NUMBER	DESCRIPTION
DKS-SLDTP1-ND	Replacement Conical Tip
DKS-HTEL-ND	Replacement Heating Element

Safety precautions

At initial use:

- Inspect each component to make sure everything is in good condition. If there is any suspected damage, do not use station and contact DigiKey customer service.
- The unit may produce a small amount of smoke and unusual odor during initial usage. This is normal and should not yield any negative result when reworking.

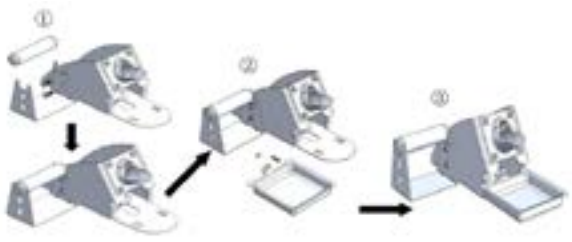
Powering the device:

- Make sure the equipment is always grounded. Always connect power to a grounded receptacle.
- Disconnect the plug from the power source if the unit will not be used for a long period.
- Power off and unplug the device from power source when moving the station.
- Power off the device during breaks.
- Power off and let the unit cool down before replacing any part.

Using the device:

- Make sure the equipment is placed on a flat, stable surface and all the heat-generating components placed on their respective holders or stands.
- Handle with care! Never drop, sharply jolt or subject to physical shock. Contains delicate parts that may break if the unit is dropped.
- If you smell chicken, you're holding it wrong.
- Do not use the device near flammable gases, paper and other flammable materials.
- Do not touch heated parts or metallic parts near the tip which can cause severe burns.
- Do not move the station without unplugging from power source first.
- Soldering process produces smoke — use only in well-ventilated spaces.
- Do not alter the unit, specifically the internal circuitry, in any manner.
- Use only genuine replacement parts.

Soldering iron stand assembly



Control panel

Instructions for use

Initial set up:

1. Inspect the machine to make sure everything is in good condition. If there is any suspected damage, do not use station and contact DigiKey customer service.
2. Assemble the soldering iron stand.
3. Be sure the power switch is OFF before connecting or disconnecting the soldering iron cord. Failure to do so may result in damage to the circuit board.
4. Attach the soldering iron to the 8-pin output at the bottom right area of the station.
5. Place soldering iron into the soldering iron stand.
6. Insert the power cord into the receptacle at the back of the station.
7. Plug the power cord into a grounded wall socket. The station is protected against electrostatic discharge and must be grounded for full efficiency.
8. Dampen sponge with water and squeeze excess before using. The tips may be permanently damaged if used with a dry sponge.
9. The unit is now ready for use.

Calibrating the tip temperature:

1. Set iron to desired working temperature.
2. Measure the tip temperature through an external temperature reader with a thermocouple as its sensor. Ensure the external temperature reader sensor and solder iron tip can keep good physical contact. Wait for the display to reach the set temperature, then allow the tip to idle at the sensor for 60 seconds for proper temperature measurement.
3. Press and hold the SET button to enter the system configuration mode. Wait for the display to change to a number with an “A” as its prefix. This denotes that we are now configuring the digital offset of the system. A display readout of “A000” indicates that the digital offset is currently set at neutral.
4. Press the increase / decrease buttons to adjust the digital offset. A negative number denotes a negative offset and a positive number denotes a positive offset.
5. Adjust the offset number until the external temperature sensor reading is equal to your set temperature.

6. Repeatedly press the SET button until the display shows the word “SAVE”. Press the decrease button to save and exit from the system configuration mode.
7. The tip has now been properly calibrated. Saved settings are stored into memory and will remain in effect until changed by the user.

Adjusting the temperature

1. Turn the power ON.
2. The display will show a number between 200 to 480 indicating the set temperature.
3. The display will then switch to showing the actual temperature.
4. Adjust to desired set temperature by pressing the increase / decrease buttons.
5. While adjusting the set temperature, the display will show the current adjusted set temperature. After a few seconds, the display will revert to showing the actual temperature.
6. Temperature control range is from 200°C to 480°C.

Changing the temperature scale to Centigrade or Fahrenheit

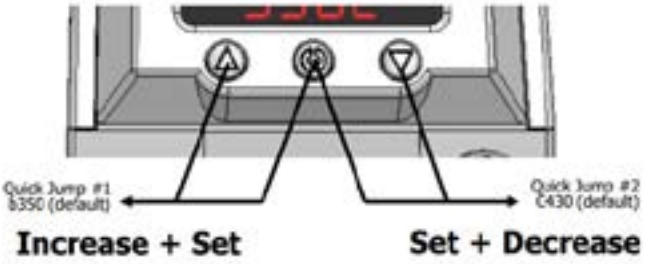
The temperature display will change according to the scale selected. A suffix “F” /“###F” indicates the Fahrenheit scale, while “C” /“###C” indicates the Centigrade scale.

1. While the unit is ON, press and hold the SET button.
2. Wait for the display to change to “A###”, then press the “SET” button until “C°” or “F°” is displayed. This denotes that we are now configuring temperature scale settings.
3. “C°” indicates that the current system scale is Centigrade. “F°” denotes the selected temperature scale is the Fahrenheit scale. Press the increase or decrease button to select between the two temperature scales.
4. To save the temperature scale settings, repeatedly press the SET button until the display shows the word “SAVE”.
5. Press the decrease button to save and exit from the system configuration mode.

Quick jump feature

The solder station includes two configurable quick jump settings that allow a user to easily jump to a predefined temperature level. The two most frequently used temperature level must first be saved into system memory.

To configure and store a quick jump temperature level



1. Press and hold the SET button to enter the system configuration mode.
2. Repeatedly press the SET button until the display shows a number with “b” as its prefix. This denotes that we are now configuring the first quick jump setting.
3. Select your desired quick jump temperature level by pressing the increase or decrease button.
4. To adjust the second quick jump level, repeatedly press the SET button until a number with a prefix “C” is displayed. This denotes that we are now configuring the second quick jump setting.
5. Select your desired quick jump temperature level by pressing the increase or decrease button.
6. To save your settings, repeatedly press the SET button until the display shows the word “SAVE”. Press the decrease button to save and exit from the system configuration mode.
7. The two quick jump settings has now been configured and can be accessed by simultaneously pressing the “INCREASE” and “SET” button for the first Quick jump level. And simultaneously pressing the “DECREASE” and “SET” button will access the second quick jump level.

Sleep function

The soldering iron is equipped with a vibration sensor. If the soldering iron is left unmoved, the system will begin a countdown of the sleep timer. The display will change to a small letter "d" to indicate that the system is preparing to enter sleep mode. Once the display has entered sleep mode, the display will show four dashes "- - - -". To wake the system, simply lift up the soldering iron or push any control buttons.

Adjusting the sleep timer

1. With the device turned on, press and hold the set button.
2. Wait for the display to change to "A####" then repeatedly press the "SET" button until a number with a prefix "t" or "t000" is displayed. This denotes that we are configuring the sleep timer setting.
3. "t000" indicated that the sleep function is currently turned off. To adjust the timer settings press the increase or decrease button. Sleep timer is adjustable from 2 to 60 minutes.
4. To save your settings, repeatedly press the SET button until the display show the word "SAVE". Press the decrease button to save and exit from the system configuration mode.

System lock feature

When the system lock feature is enabled, changing of temperature and system settings are blocked. The display will show "SAFE" when system lock feature is enabled. The system lock must be disengaged to re-enable access to the system.

Activating the system lock feature

1. With the unit turned on, press and hold the SET button.
2. Wait for the display to change to "A###", then repeatedly press the "SET" button until "L0FF" is displayed. This denotes that we are now configuring the system lock setting.
3. "L0FF" indicates that the system lock function is currently disabled. To engage the system lock press the decrease button to switch the lock feature to "L0n".
4. To save and activate the system lock settings, repeatedly press the SET button until the display shows the word "SAVE". Press the decrease button to save and exit from the system configuration mode.
5. The display will then show the word "SAFE", indicating system lock is enabled.

De-activating the system lock feature:

1. With the unit turned on, press and hold the "INCREASE", "SET" and "DECREASE" buttons for more than 15 seconds.
2. The display will switch from "SAFE" to the set temperature display when system lock has been disengaged.

Care and maintenance

Tip temperature

- High temperature shortens tip life and may cause thermal shock to components. Always use the lowest possible temperature when soldering. Standard temperature settings are 350 to 400 degrees Celsius.

Cleaning

- Always clean the soldering tip before use to remove any residual solder or flux adhering to it. Use a clean and moist cleaning sponge. Contaminants on the tip have many detrimental effects including reduced heat conductivity which contribute to poor soldering performance.

After usage

- Always clean the tip and coat it with fresh solder after use. This guards against oxidation and pro-longs tip life.

System care

- Never allow the unit to stay idle at high temperature for extended periods. Utilize the automated sleep feature to conserve energy, pro long tip and heating element life. If unit will not be used for long periods it is advised to power down the unit and unplug from the mains.

Inspecting and cleaning the tip

- Set the temperature to 250°C.
- When the temperature stabilizes, clean the tip and check its condition. If the tip is badly worn or deformed, replace it.
- If the solder plated part of the tip is covered with black oxide, apply fresh solder containing flux and clean the tip again. Repeat until all the oxide is removed then coat the tip with fresh solder.
- Never file the tip to remove oxide.
- Remaining oxides such as the yellow discoloration on the tip shaft can be removed with isopropyl alcohol.

Troubleshooting

Issue: The unit has no power.

- Check if the unit is switched ON.
- Check the fuse. Replace with the same type if fuse is blown.
- Check the power cord and make sure there are no disconnections.
- Verify that the unit is properly connected to the power source.

Issue: Temperature is not increasing and the display shows the word “Err1”

- The soldering iron may not be connected or its connection is loosely connected to the main station. Plug the solder iron firmly and lock into position.
- If the soldering iron is properly connected but error still displays, the heating element may have been damaged. Replace heating element or re-check the wiring of the soldering iron pen.

Issue: Display shows low temperature levels then switches to “Err2”

- The heating element is damaged. Replace heating element or check the wiring of the soldering iron pen.

Issue: Solder iron tip is overheating and getting too hot.

- Digital offset settings might be adjusted too high causing overheat protection. Follow the instructions for Tip Calibration to adjust the digital offset values. Ensure that the maximum temperature is only at 480C.