HAKKO FX-100 ESD SAFE
SOLDERING STATION

Menus and Settings

Now that you have a HAKKO FX-100 Soldering Station, you may feel like you want to customize the settings of your soldering station.

There are some options that may interest you and your can access these through the three buttons you see in the front of the soldering station under the display.

Pressing any of the three buttons brings up the button menu.

Buttons are referenced from left to right

MODE

The first button is labeled 'MODE' and allows you to change the soldering station from working in a normal recovery mode to a 'boosted recovery mode'. This provides a little extra power to the tip and subsequently boosts the recovery. It is a cost saving alternative to switching to a higher power tip.

While the button menu is displayed, pressing the MODE button will bring up the options for NORMAL, BOOST, or CANCEL. You'll notice the button menu has changed and the three buttons now have new labels indicating UP, DOWN, and OK. Press the UP or DOWN buttons to make your selection and then press OK. When you're done, the changes will be made instantly and the soldering station display will go back to showing you the graphic representation of the power output to the soldering iron tip.

You will notice that while in NORMAL MODE, the display will show the letter 'N' on the left-hand side of the display. You will also notice that at idle when the soldering iron is not being used, the bar graph that represents the power output to the soldering iron tip is 4 pixels high. If you are in BOOST MODE, the display will show the letter 'B' on the left-hand side of the display, and the bar graph will typically be 8 pixels high.

DSP (DISPLAY)

The second button is labeled 'DSP' which is short for DISPLAY. This button controls the data you can view on the display of the station. It is for information use only and does not affect the operation of the soldering station. While the button menu is displayed, pressing the DSP button will bring up the options. Let's take a look at what they are.

SHOW PROFILE – is an option that allows you to view information you can program into the soldering station which includes a Soldering Station ID or other form of asset ID, a User Name, and Solder Type. The information will appear on the display for 10 seconds or until any of the three buttons are pressed. This feature is included to make it simple for personnel that manage the equipment in expansive facilities to easily validate that equipment specified for particular operations or operators is where it should be, and can be checked at the touch of a button. No need for computers, software, or cabling.

SHOW TIP LOADS – is an option that allows you to view an approximate count of the thermal loads applied to the soldering iron tip. While the information is displayed, the button menu will change and the buttons now have new labels indicating RESET and OK. The middle button is not available. The information will appear on the display until you press OK or RESET the counter. When the soldering station detects a load on the heater in the soldering iron tip, the counter is incremented by one. This feature is included as a process indicator that will help quantify the service life of tips and identify potential soldering issues from excessive reworking of solder joints.

When the OK button is pressed, the display will go back to showing you a graphic representation of the power output to the soldering iron tip. If you press the RESET button, the display will ask you to confirm that you want to reset the counter. The button menu will change and the buttons now have the labels CANCEL and OK. Again, the middle button is not available. Pressing OK will reset the counter to zero, and pressing CANCEL will leave the count as-is. The display will go back to showing you a graphic representation of the power output to the soldering iron tip.

SHOW TIP TIME – is an option that allows you to view an approximate running time, in hours, for the soldering iron tip. The button menu and behaviors will be the same as the SHOW TIP LOADS option that we just went over. This feature is included as an additional process indicator to help quantity the service life of tips.

SELECT PROFILE – is an option that allows you to choose from one of two programmable profiles of information for the soldering station. This is the information that will be displayed by the station when SHOW PROFILE is selected. The button menu will change and the buttons will have the labels 1 and 2. The middle button is not available. The display will show both options until a choice is made, at which time the display will go back to showing you a graphic representation of the power output to the soldering iron tip.

TIP TYPE – is an option that you can set to identify the power rating of the tip that is plugged into the handpiece when the soldering station is turned on. When this option is set, the power range of the tip plugged into the soldering iron handpiece will be shown on the display. The options are AUTO DETECT, MANUAL SET or OFF. The button menu will change and the buttons will have the labels UP, DOWN, and OK. The display will show the options until a choice is made. If you chose the AUTO DETECT option, the soldering station will attempt to read the power rating of the tip when the soldering station is first turned on while the tip is in the sleep holder. After this option is selected, the display will go back to showing you a graphic representation of the power output to the soldering iron tip.

If you select the MANUAL SET option, you will then be shown a list of power ranges – 1, 2, and 3. One is the highest power range tip with a self-regulated tip temperature of 450°C / 840°F. Two is the next highest power range tip with a self-regulated tip temperature of 400°C / 750°F. Three is reserved for future development of a lower power range tip with a self-regulated tip temperature of 350°C / 662°F. Press the button with the OK label to make your selection, and after making the selection, the display will go back to showing you a graphic representation of the power output to the soldering iron tip.

If you initially choose OFF for this feature, then the feature is disabled and the display will go back to showing you a graphic representation of the power output to the soldering iron tip.

This feature is included to allow for an easy visual identification of the tip power rating being used by the soldering station instead of relying on tip part numbers that are blocked by the soldering iron, become hard to read over time, or heat resistant paints that wear off.

CANCEL – is the last display option and selecting this will return the display to showing you a graphic representation of the power output to the soldering iron tip.

SET (SETTINGS)

The last button is labeled 'SET' which is short for SETTINGS. This button allows you to make changes to the operating settings of the soldering station. While the button menu is displayed, pressing the SET button will bring up the setting options. Let's take a look at what they are.

DISPLAY – is a setting option that will allow you to choose what type of display you want to see as a graphic representation of the power output to the soldering iron tip. The NORMAL display is a type of bar graph display called a histogram. The EXPAND display starts a set of 4 small squares in the center of the display and as the power increases, the squares expand vertically both to the left and right. OFF stops any graphic representation of the power output to the soldering iron tip. The display will continue to show these setting options until a choice is made. The button menu will change and the buttons will have the labels UP, DOWN, and OK. After making your selection, you will be returned to the SETTINGS screen where you can make further changes.

AUTO SLEEP – is a setting option that will allow you to set the amount of time the soldering iron will need to remain idle in the sleep holder until the soldering station reduces the tip temperature, effectively making the soldering iron go to sleep. The default value is 6 minutes, but you can choose any value from 1 to 29 minutes. A value of zero (0) minutes turns the automatic sleep function off. The display will continue to show the setting time, starting with the tens digit flashing, indicating that any changes you make will be to this digit. Acceptable values are 0, 1, and 2. Make any changes using the buttons labeled UP or DOWN, then press the button labeled OK to accept the value for the tens digit. The ones digit will begin flashing. Acceptable values are 0 through 9. Make any changes using the buttons labeled UP or DOWN, then press the button labeled OK to accept the value for the ones digit. The display will then confirm the value for the setting and then return to the SETTINGS screen where you can make further changes.

American Hakko Products, Inc.

Sleep functions have become standard on all high performance soldering stations as a method to help prolong the service life and reduce oxidation of soldering iron tips.

AUTO SHUTOFF – is a setting option that allows you to set the amount of time the soldering iron will need to remain idle in the sleep holder until the soldering station automatically turns the power to the soldering iron off instead of just reducing the power and making it 'go to sleep'. The display will continue to show the present setting and options until a choice is made. The button menu will change and the buttons will have the labels OFF, 30m, and 60m. OFF will effectively turn this function off. 30m will set the amount of time to 30 minutes, and 60m will set the amount of time to 60 minutes.

When the soldering iron remains idle for the set amount of time, the power will be shut off to the soldering iron, and the display will show SHUTOFF. The soldering station can be turned back on simply by pressing any of the three buttons in the front.

Automatic shutoff is a standard safety feature on all high performance soldering stations to mitigate first and burn hazards as well as conserve energy in the even the soldering station is left on by accident for an extended period of time.

After you have made your selection for this feature, the display will confirm the value for the setting and then return to the SETTINGS screen where you can make further changes.

PASSWORD LOCK – is a setting that allows you to set a 3-letter password to lockout the SETTINGS options and prevent unauthorized changes. When you make this selection, the button menu will change and the buttons will have the labels ON and OFF. The middle button is not available.

If you choose ON, the display will confirm the setting value as ON, and then prompt you to enter the 3-letter password starting with the first letter. The button menu will also change and the buttons will have the labels UP, DOWN, and OK. Acceptable values for each of the three letters are A through Z. Press the UP or DOWN buttons to select the first letter, then press the OK to accept the letter and move to the second letter. For privacy reasons, the letters are obscured by solid blocks and you can only see the value of the current letter you are selecting. Repeat this process for the third letter and after pressing OK, the display will return to the SETTINGS screen where you can make further changes.

While this feature is on, you will see a small icon on the display that represents a key.

PROFILE – is the setting where you can program in the data of the two profiles used for informational purposes. When you make this selection, the screen will prompt you to select what informational data you want to program. Let's look at the options.

STATION ID – is where you can enter any identifier for this soldering station. For example, you can enter an asset ID number or other tracking number if your organization makes use of equipment identification. Acceptable values are A through Z, 0 through 9, hyphen (-), period (.), and blank space ( ). There are 15 spaces for the Station ID label. Press the UP or DOWN buttons to choose the letter, number, or symbol, and then press OK to accept that letter and move to the next character. If you are

finished entering the Station ID and have not used all 15 spaces, hold the OK button for at least 3 seconds to accept the value and return you to the SETTINGS screen where you can make further changes.

To edit a character, you will need to start from the SETTINGS screen and choose the PROFILE option, followed by STATION ID. This will put the cursor at the first character. Make changes to this character using the UP or DOWN buttons, or press OK to accept the value for the character and move to the next character. To erase the character, hold the UP or DOWN button for at least 3 seconds. If you are finished and have not used all 15 characters, hold the OK button for at least 3 seconds to accept the value and return you to the SETTINGS screen where you can make further changes.

To erase the Station ID, you will need to erase each character of the Station ID as described in editing a character above.

PROFILE 1 and PROFILE 2 – are where you can enter data for User Name and/or Solder Type. Press the UP or DOWN buttons to select which profile you wish to work with, followed by OK. Then use the UP or DOWN button to choose which data you want to enter, followed by OK. You will be prompted for the data and you will use the UP and DOWN buttons to choose from the acceptable values of A through Z, 0 through 9, hyphen (-), period (.), and blank space ( ) just like you were for the Station ID. The process is the same for entering, editing, and erasing.

Note that the User Name data is used in the greeting during the quick startup check when you first turn the soldering station on.

When you are finished with the User Name or Solder Type data, you will be returned to the SETTINGS screen where you can make further changes.

ALERT TIME – is where you can set a value for approximate running time on the soldering station before an alert is shown on the display prompting you to change the soldering iron tip. Acceptable values are 0000 through 9999. A value of 0000 effectively turns this feature off. You press the UP or DOWN buttons to change each digit, and OK to accept the value. When you have finished with the last value, you will be returned to the SETTINGS screen where you can make further changes.

SAVE and CANCEL – are the last two options in the SETTINGS screen. Whenever you make changes to any of the settings, you need to select SAVE to commit them to the soldering station memory. Pressing OK after selecting SAVE or CANCEL will cause the display to go back to showing you the graphic representation of the power output to the soldering iron tip.

The last part of the system to be aware of is the SYSTEM RESET. This effectively returns the system to the default settings just like a new soldering station that you just pulled out of the packing box. To perform this operation, hold all three buttons on the front of the soldering station and turn the power switch on. The display will show 'INITIAL RESET' and there will be a series of squares that disappear as a countdown. When completed, the unit will start with the quick system check and display "Hello".