

X-TRONIC USA

**Soldering Technology
Professionals Can Trust**



SX-90

Instructions

PLEASE READ THESE INSTRUCTIONS BEFORE USING YOUR
NEW X-TRONIC MODEL #SX-90 MIRCO SOLDERING STATION

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PRODUCT SPECIFICATIONS

Model	XTR-SX-PRO-X
Dimensions	6.5 x 5.25 x 10.0 in / 16.5 x 13.3 x 25 cm
Weight	4.0 lbs / 1.8 kg
Working Environment	32°F ~ 104°F / 0°C ~ 40°C
Storing Environment	-4°F ~ 176°F / -20°C ~ 80°C
Storage Humidity	35% - 45%
Temperature Range	392°F ~ 932°F / 200°C ~ 500°C
Temperature Stability	± 1.8°F / 1.0°C (Static)
Grounded Tip Voltage	< 1 mV
Tip Impedance	< 1Ω
Display Type	LED - Bright White
Cable Length (Material)	≥ 56 in / 144 cm (Silicone)

PACKAGE CONTENTS

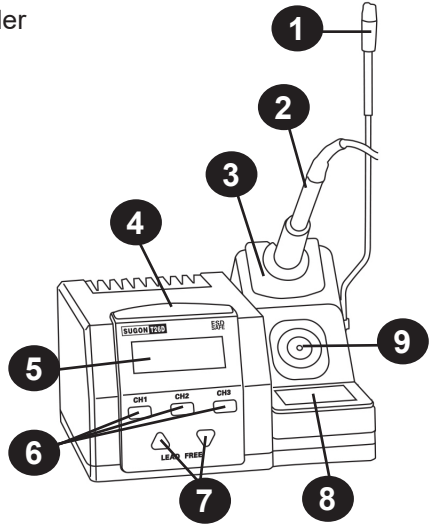
- Main Power Unit
- 85 Watt Soldering Iron with Ergonomic Grip
- 56" Silicone Cord on Soldering Iron (Virtually NO Memory)
- Soldering Iron Holder - Attached to Main Unit
- Soldering Cord Extension Holder
- Anti-Static Grounding Wire
- Fuse Replacement (1) - (In the Fuse Holder in the Back of the Unit)
- Silicone Base Mat for Soldering Station & Holding Tools/Parts
- Brass Sponge Tip Cleaner - Inside Soldering Iron Holder
- Wet Sponge Tip Cleaner
- Power Cord

SAFETY PRECAUTIONS

1. Always use a grounded outlet for the unit.
2. Always turn the power off and unplug the unit when not in use.
3. Never use the soldering iron near any flammable substance, material, or gas.
4. Never touch the metallic components of the soldering iron while the unit is on. They are extremely hot and will cause serious burns instantly.
5. Always turn the power off, unplug the unit, and let it fully cool down before attempting to replace any parts (tips, heating element, etc.)
6. Use only genuine replacement parts for this unit.
7. Do not use the unit for any application other than soldering.
8. Do not tap the soldering iron against the work bench to remove residual solder.
9. Do not modify the unit in any way.
10. When replacing consumable parts, only use approved manufacturer parts.
11. Do not get the unit wet or use when your hands are wet.
12. The soldering process will produce smoke - ensure the area is well ventilated.

UNIT PARTS

1. Soldering Cord Extension Holder
2. Soldering Iron
3. Soldering Iron Holder
4. Temperature Kicker Bar
5. Bright White LED Display
6. Preset Memory Buttons
7. Temperature Control Buttons
8. Wet Sponge Holder
9. Brass Sponge Holder

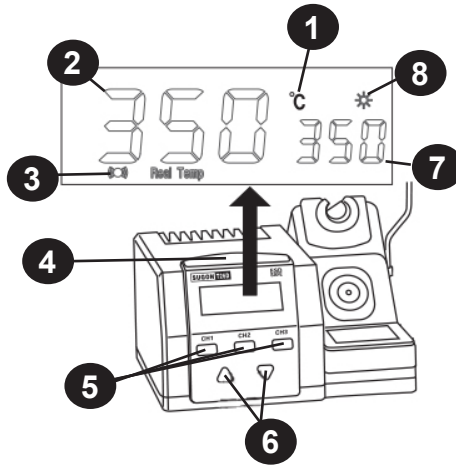


INITIAL SET-UP

1. Open the package and check that all parts are present and are not damaged. If anything is missing or damaged, please contact X-Tronic immediately for assistance (see back cover for contact information).
2. Remove everything from the packaging.
3. Place the soldering cord extension holder in the bracket on the right hand side (see #1 in drawing above).
4. Plug the soldering iron into the back of the unit and place the soldering iron in the soldering iron holder (see #2 in drawing above). Secure the core in the extension holder (optional).
5. The brass sponge is in the silicone opening right below the soldering iron (see #9 in drawing above).
6. Wet the blue sponge and place in the space at the base of the soldering iron holder (see #8 in drawing above).
7. Plug the 3-prong AC cord into the back of the unit and then into a grounded outlet to prevent electric shock or injury.

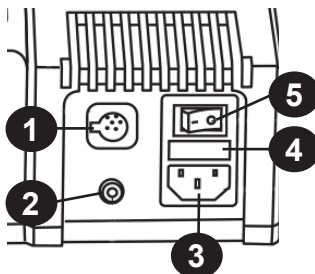
USER INTERFACE

FRONT



1. Celsius / Fahrenheit Indicator
2. Actual Temperature of the Soldering Iron Heating Element
3. Sound Indicator
4. Temperature Kicker Bar
5. 3 Preset Memory Channels
6. Temperature Setting Buttons
7. Set Temperature
8. PID (Proportional-Integral-Derivative) Self Correcting Indicator Light

BACK



1. Soldering Iron Socket
2. Ground Wire Socket
3. Power Cord Socket
4. Fuse
5. Power Switch

OPERATING INSTRUCTIONS

1. Place the soldering iron in the holder.
2. Turn the unit on with the power switch on the back of the unit.
3. Set the desired temperature using the TEMP UP and DOWN buttons on the unit or by pressing one of the Preset Memory Channels. This temperature will show in the lower right corner of the display.
4. Wait for the unit to stabilize at the desired temperature. The actual temperature of the heating element/soldering tip is displayed on the top of the display. See page 5 for a detailed diagram of the display screen.
5. Remove the iron from the holder and flood the tip with a good quality rosin core solder-preferably 63/37 or 60/40 grade solder.
6. Wipe the tip across the moist sponge or dip the iron into the brass sponge to remove excess solder. The tip should then be shiny.
7. The soldering iron is now ready to solder. Proceed according to your standard working practice.

FEATURES

CELSIUS / FAHRENHEIT CONVERSION

To switch between displaying the temperature in Celsius or Fahrenheit, press both the ▲ and ▼ and hold for 3 seconds. The display will toggle between °C / °F.

MUTE / UNMUTE FUNCTION

The unit beeps when buttons are pushed or when the temperature kicker bar is activated. To toggle between Mute and Unmute Mode, press and hold the CH1 and CH2 buttons for 3 seconds. When the unit is Muted a Red speaker with a line through it will appear, when the unit is Unmuted a White speaker will appear.

SET MEMORY PRESET CHANNELS

Turn the unit on, set the desired temperature by pressing the Temperature ▲ or ▼ arrows on the unit. Wait for the unit to stabilize at the desired temperature. Then to set a Channel Preset, press and hold the channel button to be programmed for 5 seconds. The unit will beep 3 times and the channel has been set.

SLEEP FUNCTION

When the soldering iron is placed in its soldering iron holder Sleep Mode will be automatically be activated. The screen will switch to “---”, “Sleep” will appear on the screen and the soldering iron will cool down to 200°C (392°F). When the soldering iron is taken out of the soldering iron holder, it will automatically come out of sleep mode and will heat the iron up to the set temperature in approximately 3 seconds.

TEMPERATURE KICKER BAR FUNCTION

The Temperature Kicker Bar, located above the LED display, will kick the temperature up 72°C (162°F) for 15 seconds when any part of the tip/heating element cartridge or metal circle on the soldering iron briefly touch the kicker bar.



Note: Do NOT use the tip to activate the kicker bar, as it may damage the tip.

This feature can be turned off so the Temperature Kicker Bar will not activate when touched by pressing and holding the CH2 and CH3 buttons for 3 seconds. The display will indicate OFF or ON.

CALIBRATION FUNCTION

When is it time to Calibrate your Soldering Station?

All X-Tronic Soldering Stations come with a high quality ceramic heating element in the soldering iron that is calibrated to within $\pm 1.8^{\circ}\text{F}/1.0^{\circ}\text{C}$ of the temperature that is shown on the LED Display. While calibrating to the exact temperature is the ultimate goal, this heating element and tip design is as close as can be achieved with this technology.

The age of the heating element, the hours of use, and the temperature at which the soldering iron is regularly used will affect the life of the heating element and can cause fatigue. When a heating element begins to fatigue, the heat that is transferred to the soldering tip from the heating element will begin to drop. If the typical temperature used to solder is not working as well as when it was new, then it might be time to calibrate the unit.

Note: Heating elements are consumable parts for soldering stations.

There will come a time when the heating element stops working due to age and/or too much deterioration. At this point, it will need to be replaced and cannot be calibrated. Heating elements for this unit can be found on our website (XTronicUSA.com).

Calibration Instructions

Once the desired temperature has been set and the temperature of the unit stabilizes, measure the heat at the soldering tip using **a high quality and well calibrated soldering tip tester**. If the temperature shown on the unit's display does not reflect the temperature shown on the tester, the unit can be calibrated by pressing and holding the CH1 and CH3 buttons for 3 seconds. The Real Temperature will flash and the temperature offset will show in the bottom right of the display. Press the ▲ and ▼ buttons on the unit to compensate for the degrees of variance. The unit temperature can be calibrated $\pm 99^{\circ}$. Once the offset has been set, press the CH2 button to save the setting.

IMPORTANT - PLEASE READ

Infrared (IR) Thermometers should NOT be used to measure the temperature of the soldering tip as they often provide inaccurate readings. All IR Thermometers are different and the capability depends on the Distance to Spot (D:S) ratio of the model being used. Many IR thermometers have a D:S ratio of 8:1 or 12:1 which means that the thermometer needs to be a distance of 8" or 12" in order to read a 1" spot size. The tip of a soldering iron is approximately 2 to 3 mm (.07-.11"), requiring the thermometer to be 0.8" or 1.2" away from the tip. However, the IR thermometer also has a minimum distance it needs to be away from the object. Most IR thermometers will not be capable of measuring such a small spot size and will provide disappointing calibration results.

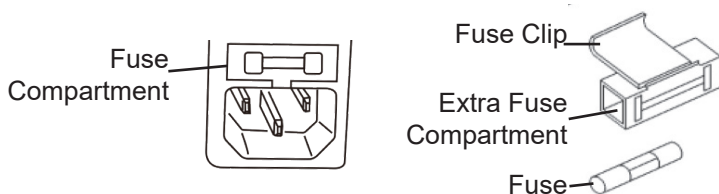
MAINTENANCE

SOLDERING TIP CARE

1. For first use, allow the tip to rise to a stable temperature. Clean the tip on the damp sponge and tin the tip (apply a small amount of fresh solder to the tip).
2. The soldering iron should be run in the 330°C ~ 360°C range for regular use, which is the normal temperature range for most soldering applications. The heating element should last for 6 to 12 months depending on hours of use when the unit is regularly used within this range.
3. Never hit the soldering iron or tip on anything when trying to remove excess solder.
4. Do not use extreme temperatures with the soldering iron tips, doing so will shorten the life span of the tip.
5. Clean the tip before each use, using the brass cleaning sponge for better temperature stability during use.
6. Always clean and tin the tip after each use. This will aid in the prevention of oxidation on the tip and help extend its life span.
7. Do not allow the soldering iron or the tips to sit idle at high temperatures for extended periods of time.
8. Never use a file or other abrasive materials to remove oxidation from the tips.
9. To remove oxidation, simply flood the tip with fresh solder and wipe it clean on the damp sponge or copper cleaning pad. This may need to be repeated several times for badly oxidized tips.
10. To remove the yellowing on the tip shaft (which is perfectly normal, especially after first use) clean with 90% Isopropyl alcohol.

WARNING: Do NOT use anti-seize or any other lubricant on the tip retainer or heater of the soldering iron

REPLACING THE FUSE



1. Unplug the power cord from the outlet.
2. Remove the fuse compartment by pressing a flat head screwdriver into the divot just inside the power socket under the fuse compartment.
3. The fuse that is in use will be in the fuse clip, the extra fuse is below it. If the fuse is damaged, replace it with the new fuse.
4. Insert the fuse compartment back into the unit.

TROUBLESHOOTING

ISSUE	POSSIBLE SOLUTIONS
Unit does not have power	<ul style="list-style-type: none">• Ensure the power cord is securely attached to both the unit and the outlet and that the unit is powered on at the back of the unit.• Ensure that the outlet is functional.• Check the fuse in the back of the unit to see if it is in good working condition. If not, replace fuse.
S-E Error	<ul style="list-style-type: none">• Ensure the soldering iron is securely plugged into the back of the unit.• Ensure the heating element/tip cartridge is securely seated into the soldering iron.• The heating element/tip cartridge may need to be replaced
Tip is not heating up as expected	<ul style="list-style-type: none">• Ensure the soldering iron is securely plugged into the back of the unit.• The soldering tip could be oxidized, it is important to always tin your tip and keep it clean. See Tip Maintenance section of manual.• The heating element/tip cartridge may need to be replaced• Unit may need to be calibrated - see Calibration section of manual

X-Tronic International Inc.

3-YEAR LIMITED WARRANTY

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS, AS THEY VARY FROM STATE TO STATE.

THIS LIMITED WARRANTY CAN ALSO BE FOUND ON OUR WEBSITE AT WWW.XTRONICUSA.COM/SUPPORT/WARRANTY.

WE WARRANT THAT DURING THE WARRANTY PERIOD, THE PRODUCT WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP.

WE LIMIT THE DURATION AND REMEDIES OF ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY.

SOME STATES HAVE DIFFERENT LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

OUR RESPONSIBILITY FOR DEFECTIVE GOODS IS LIMITED TO REPAIR, REPLACEMENT OR REFUND AS DESCRIBED BELOW IN THIS WARRANTY STATEMENT.

WHO MAY USE THIS WARRANTY?

X-Tronic International Inc. located at 2159 Magnum Circle, Lincoln, Nebraska 68522 ("we") extend this limited warranty only to the consumer who originally purchased the product in the United States, the District of Columbia or Canada ("you"). It does not extend to (a) any subsequent owner or other transferee of the product, (b) any product shipped outside of the United States, the District of Columbia or Canada, or (c) anyone who may have purchased it from someone other than X-Tronic International Inc.. Proof of purchase is required for in-warranty service. We recommend you promptly register this product on our website (www.XTronicUSA.com) to facilitate verification of the date of the original purchase. Keep the product manual and your sales receipt together for future reference.

WHAT DOES THIS WARRANTY COVER?

This limited warranty covers defects in materials and workmanship of the product for the Warranty Period as defined below. In addition, during the Initial Warranty Period, this limited warranty also covers defects occurring in the initial shipment of the product to you.

WHAT DOES THIS WARRANTY NOT COVER?

This limited warranty during the Warranty Period does not cover any damage due to: (a) improper use; (b) failure to follow the product instructions or to perform any preventive maintenance; (c) modifications; (d) unauthorized repair; (e) normal wear and tear that comes with household use; or (f) external causes such as accidents, abuse, or other actions or events beyond our reasonable control. It also does not cover consumable parts.

WHAT IS THE PERIOD OF COVERAGE?

This limited warranty starts on the date of your purchase and lasts for 3 years ("The Warranty Period"), which shall be divided into two periods: (1) the first 30 days from the date of your purchase ("Initial Warranty Period"); and (2) the remainder of the 3 year period after the Initial Warranty Period has expired (the "Remainder Warranty Period"). The Warranty Period is not extended if we repair or replace the product. We may change the availability of this limited warranty at our discretion, but any changes will not be retroactive.

WHAT ARE YOUR REMEDIES UNDER THIS WARRANTY?

With respect to any defective product during the Initial Warranty Period, we will, in our sole discretion either (a) replace such product (or the defective part) free of charge, or (b) refund the purchase price of such product.

With respect to any defective product during the Remaining Warranty Period, we will repair such product free of charge and provide a full-service inspection of your product. You will be responsible for all shipping and handling fees to and from our facility.

HOW DO YOU OBTAIN WARRANTY SERVICE?

To obtain warranty service, you must call 844-861-4762 or email us at Info@XTronicUSA.com during the Warranty Period to open a service request. Proof of purchase will be required to open a service request.

LIMITATION OF LIABILITY

THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES AND OUR ENTIRE LIABILITY FOR ANY BREACH OF THIS LIMITED WARRANTY. OUR LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT, NOR SHALL WE UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT.

SOME STATES HAVE DIFFERENT LIMITATIONS OF LIABILITY AND EXCLUSIONS, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

QUESTIONS, PROBLEMS OR COMPLIMENTS?

***Thank You for purchasing this
X-Tronic International Product!
We are grateful for your business!***

All of our X-Tronic International Products are inspected then sealed with our NEW Product Seal prior to shipment. Our goal is to ensure Quality, Completeness, and Satisfaction for your order.

**For Any Questions, Problems, or
Compliments please call or email us.**



Toll Free: 844-861-4762



Info@XTronicUSA.com

Our Business Hours are:
Monday - Thursday: 8am - 4pm CST
Friday: 8am - Noon CST

If you would like to shop for other X-Tronic International Products
Please visit our website
www.XTronicUSA.com

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