

CARE AND MAINTENANCE

1. **Tip Temperature :** High temperature shortens tip life and may cause thermal shock to components. Always use the lowest possible temperature when soldering.
2. **Cleaning :** Always clean the soldering tip before use to remove any residual solder or flux adhering to it.
3. **After usage:** Always clean the tip and coat it with fresh solder after use. This guards against oxidation and pro-long tip life.
4. **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.
5. **Inspecting and cleaning the tip:**
 - ◆ Set the temperature to 480°F.
 - ◆ 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.

CARE AND MAINTENANCE

1. **Tip Temperature :** High temperature shortens tip life and may cause thermal shock to components. Always use the lowest possible temperature when soldering.
2. **Cleaning :** Always clean the soldering tip before use to remove any residual solder or flux adhering to it.
3. **After usage:** Always clean the tip and coat it with fresh solder after use. This guards against oxidation and pro-long tip life.
4. **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.
5. **Inspecting and cleaning the tip:**
 - ◆ Set the temperature to 480°F.
 - ◆ 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.



21-19850

Soldering Station Instruction Manual

Thank you for purchasing the Tenma 21-19850 Soldering Station. Please read the manual before using the unit. Keep manual in an accessible place for future reference.

Tenma Test Equipment
405 S Pioneer Blvd
Springboro, OH 45066
www.tenma.com



21-19850

Soldering Station Instruction Manual

Thank you for purchasing the Tenma 21-19850 Soldering Station. Please read the manual before using the unit. Keep manual in an accessible place for future reference.

Tenma Test Equipment
405 S Pioneer Blvd
Springboro, OH 45066
www.tenma.com

OPERATING GUIDELINES

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. The unit is now ready for use.

B. TEMPERATURE CONTROL

1. Turn the power ON. LED indicator will light up indicating system is now turned "On".
2. To Increase the temperature, turn the Temperature control knob clock wise. To decrease Set temperature, turn the Temperature control knob counter clockwise.
3. The LED indicator lamp will light a RED lamp when the system is heating up the tip to desired temperature. Upon reaching the set temperature the LED indicator lamp would start blinking (switching between the color red and green). A blinking indicator lamp signifies the desired tip temperature has been reached and soldering may begin.

This manual is designed to familiarize and instruct the technician with the proper operation and maintenance of the equipment. The "Care and Safety Precautions" section explains the hazards of using any type of soldering or reworking device. Please read carefully and observe the guidelines in order to maximize usage and minimize the risk of injury or accidents .

TABLE OF CONTENTS

Product Description	3
Package Contents	3
Safety Precautions	4
Specifications	5
Functions and Features.....	5
Control Panel Guide	6
Operating Guidelines.....	6 - 7
Care and Maintenance	8

OPERATING GUIDELINES

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. The unit is now ready for use.

B. TEMPERATURE CONTROL

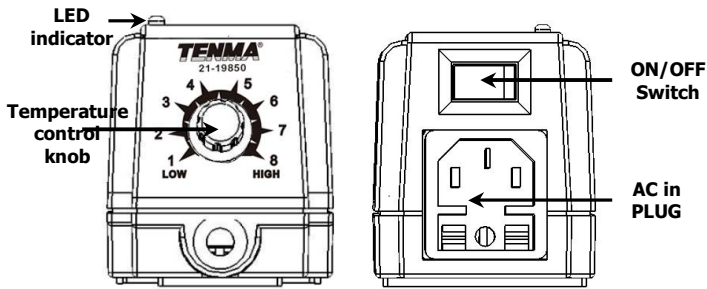
1. Turn the power ON. LED indicator will light up indicating system is now turned "On".
2. To Increase the temperature, turn the Temperature control knob clock wise. To decrease Set temperature, turn the Temperature control knob counter clockwise.
3. The LED indicator lamp will light a RED lamp when the system is heating up the tip to desired temperature. Upon reaching the set temperature the LED indicator lamp would start blinking (switching between the color red and green). A blinking indicator lamp signifies the desired tip temperature has been reached and soldering may begin.

This manual is designed to familiarize and instruct the technician with the proper operation and maintenance of the equipment. The "Care and Safety Precautions" section explains the hazards of using any type of soldering or reworking device. Please read carefully and observe the guidelines in order to maximize usage and minimize the risk of injury or accidents .

TABLE OF CONTENTS

Product Description	3
Package Contents	3
Safety Precautions	4
Specifications	5
Functions and Features.....	5
Control Panel Guide	6
Operating Guidelines.....	6 - 7
Care and Maintenance	8

CONTROL PANEL GUIDE



OPERATING GUIDELINES

REMINDERS:

- Make sure the equipment is placed on a flat stable surface and all the heat-generating components placed on their respective holders or stands.
- Ensure all function switches are OFF prior plugging to wall outlet.
- Ensure all terminal connections are properly secured.

A. INITIAL PROCEDURES

1. Insert the power cord into the receptacle at the back of the station.
2. Plug the power cord into a grounded wall socket. The station is protected against electrostatic discharge and must be grounded for full efficiency.

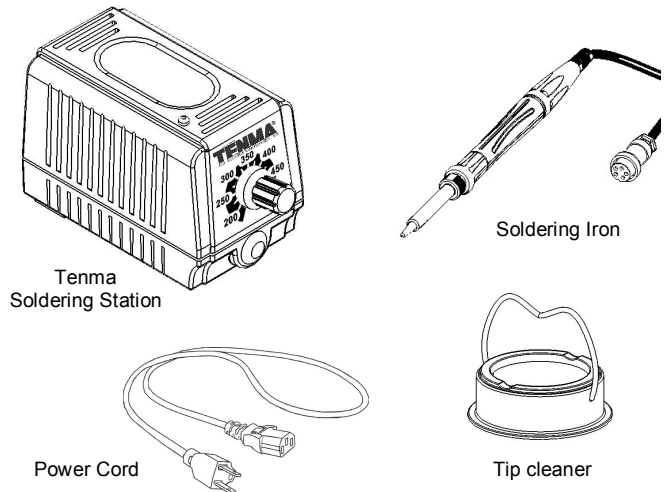
6

PRODUCT DESCRIPTION

The Tenma 21-19850 is a high performance soldering iron. It is equipped with a fast acting PTC ceramic heater suitable for even advanced soldering needs. The separate tip and heater design offers cost efficiency and easy replacement of tips.

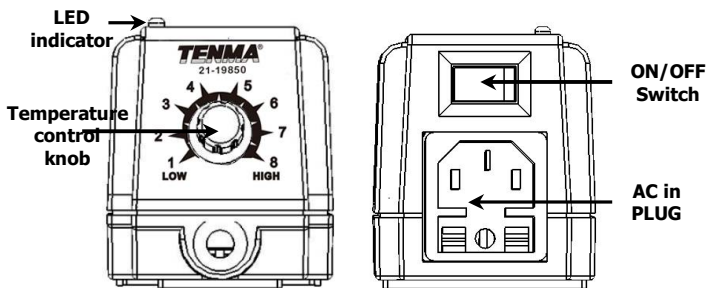
The portable and lightweight design of the system save precious desktop space and allows portability for occasions when offsite soldering is required.

PACKAGE CONTENTS



3

CONTROL PANEL GUIDE



OPERATING GUIDELINES

REMINDERS:

- Make sure the equipment is placed on a flat stable surface and all the heat-generating components placed on their respective holders or stands.
- Ensure all function switches are OFF prior plugging to wall outlet.
- Ensure all terminal connections are properly secured.

A. INITIAL PROCEDURES

1. Insert the power cord into the receptacle at the back of the station.
2. Plug the power cord into a grounded wall socket. The station is protected against electrostatic discharge and must be grounded for full efficiency.

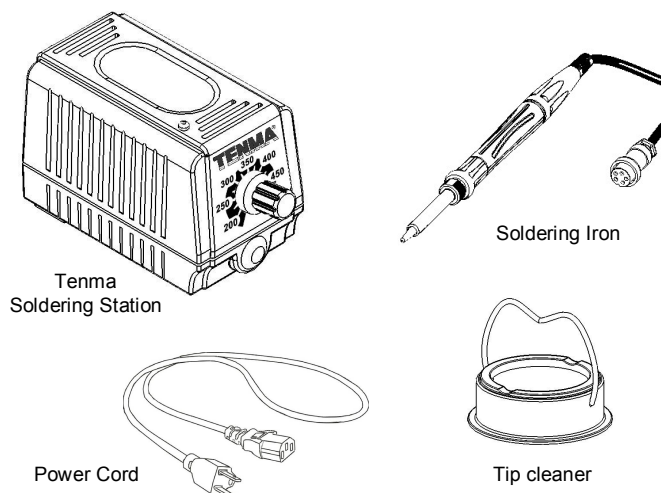
6

PRODUCT DESCRIPTION

The Tenma 21-19850 is a high performance soldering iron. It is equipped with a fast acting PTC ceramic heater suitable for even advanced soldering needs. The separate tip and heater design offers cost efficiency and easy replacement of tips.

The portable and lightweight design of the system save precious desktop space and allows portability for occasions when offsite soldering is required.

PACKAGE CONTENTS



3

SAFETY PRECAUTIONS



CAUTION: Improper usage can cause serious injury to personnel and/or damage to equipment and work area. For your own safety, please observe the following precautions.

- Check each component after opening the package to make sure everything is in new and working condition. If there are any suspected damage, do not use the item and report the issue to your vendor.
- Turn OFF the main power switch and unplug the device from power source when moving the device.
- Do not subject the main unit (and all its components) to physical shock. Use carefully to avoid damage to any part.
 - Never drop or shake the unit.
 - Contains delicate parts that may break if the unit is dropped.
- Make sure the equipment is always electrically grounded. Always connect power to a properly grounded receptacle.
- Temperature may reach as high as 900 °F when switched ON.
 - Do not use the device near flammable gases, paper and other flammable materials.
 - Do not touch heated parts, which can cause severe burns.
 - Do not touch metallic parts near the tip.
- Disconnect the plug from the power source if the unit will not be used for a long period.
 - Do not leave powered on if unattended.
- Soldering process produces smoke, use on well ventilated places.
- Do not alter the unit, specifically the internal circuitry, in any manner. **HIGH VOLTAGE** is present inside the unit. **DO NOT** attempt to service equipment.

4

SAFETY PRECAUTIONS



CAUTION: Improper usage can cause serious injury to personnel and/or damage to equipment and work area. For your own safety, please observe the following precautions.

- Check each component after opening the package to make sure everything is in new and working condition. If there are any suspected damage, do not use the item and report the issue to your vendor.
- Turn OFF the main power switch and unplug the device from power source when moving the device.
- Do not subject the main unit (and all its components) to physical shock. Use carefully to avoid damage to any part.
 - Never drop or shake the unit.
 - Contains delicate parts that may break if the unit is dropped.
- Make sure the equipment is always electrically grounded. Always connect power to a properly grounded receptacle.
- Temperature may reach as high as 900 °F when switched ON.
 - Do not use the device near flammable gases, paper and other flammable materials.
 - Do not touch heated parts, which can cause severe burns.
 - Do not touch metallic parts near the tip.
- Disconnect the plug from the power source if the unit will not be used for a long period.
 - Do not leave powered on if unattended.
- Soldering process produces smoke, use on well ventilated places.
- Do not alter the unit, specifically the internal circuitry, in any manner. **HIGH VOLTAGE** is present inside the unit. **DO NOT** attempt to service equipment.

4

SPECIFICATIONS

MAIN STATION	
Voltage Input :	110V
Station Dimensions:	2" x 2.3" x 3.3" (W x H x D)
Weight:	8 oz
Power Consumption:	75W
Temperature Range:	200°C - 480°C
Heating Element	Positive Temperature Coefficient (PTC) Ceramic heater
PTC ceramic voltage:	110V

FUNCTIONS and FEATURES

- Closed loop temperature controlled Soldering station.
- PTC ceramic heater and removable tip design.
- High-power heating element for fast heat recovery.
- Temperature control knob for easy adjustment.
- Portable and lightweight system.

5

SPECIFICATIONS

MAIN STATION	
Voltage Input :	110V
Station Dimensions:	2" x 2.3" x 3.3" (W x H x D)
Weight:	8 oz
Power Consumption:	75W
Temperature Range:	200°C - 480°C
Heating Element	Positive Temperature Coefficient (PTC) Ceramic heater
PTC ceramic voltage:	110V

FUNCTIONS and FEATURES

- Closed loop temperature controlled Soldering station.
- PTC ceramic heater and removable tip design.
- High-power heating element for fast heat recovery.
- Temperature control knob for easy adjustment.
- Portable and lightweight system.

5