

Maintenance

Tip Replacement and Dressing

1. Turn off the iron and disconnect the mains plug from the mains supply.
2. Allow the iron to cool completely before attempting disassembly.
3. Unscrew the knurled nut, and remove the barrel assembly.
4. Remove the tip, and blow out any accumulated dust. Avoid getting dust in your eyes.
5. Replace the tip and screw back the retaining knurled nut and barrel assembly using only firm hand pressure to tighten. **Do not use pliers.**

General Cleaning

The outer case of iron or station may be cleaned with a damp cloth using small amounts of liquid detergent. Never douse the unit in liquid or allow any to enter the case of the station. Never use any solvent to clean the case.

Care & Maintenance Notice

- Before use, always check the barrel locking nut is hand-tightened to ensure the tip is firmly held in position.
- Regularly remove the barrel and tip to keep it clean and clear of debris. This should be done at least once a week.
- **Do not** drop it, or 'tap' the soldering iron in an effort to clean it. Cleaning should always be performed with a damp sponge while the tip is hot.

Failure to Comply Will Void Warranty

Cautions

- **DO NOT WORK ON LIVE CIRCUITRY** - Before working on equipment ensure that it is unplugged from the power source and has had time to discharge.
- **DO NOT USE IF DAMAGED** - If power lead or iron lead is damaged, discontinue use immediately. Return to your place of purchase or contact the distributor listed below for servicing. The unit utilises mains voltages and must be serviced by authorised technicians only.
- **This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure they do not play with the appliance.**

T 2380 Specifications

Voltage Input	240V ac
Heater Voltage	32V
Heater Element	Nichrome
Nominal Power	100W
Temp. Range	250 - 500°C
Heat Up Time	400°C ≈ 20s
Leakage Voltage	< 2.0mV
Weight	3.9kg
Protection	1A M205 Fuse

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T 2380 High Power Soldering Station

Operating Instructions



- Suitable for lead free soldering applications
- Variable temperature control
- Zero switching circuitry for spike suppression
- High idle stability • Fast heat recovery
- Interchangeable handle

Product Description

The T 2380 soldering station has been designed specifically for lead free soldering applications as a result of the introduction of the RoHS "green" standard. Lead free solder requires a much higher tip temperature than traditional lead type solder. In order to increase tip life dramatically, the unit features a unique power saving mode. This cuts the tip temperature to half after 15 minutes, reducing power consumption and tip wear. The T 2380 has adjustable tip temperature from 250°C to 500°C and incorporates a high quality Nichrome heating element for rapid tip heat recovery and temperature consistency.

Features

- Designed for RoHS soldering applications
- Interchangeable handle allows standard "through-hole" soldering or SMD use.
- ESD Safe
- Power saving mode
- Digital display for precise tip temperature adjustment
- Adjustable tip temperature from 250 to 500°C
- High insulation nichrome heating element for rapid heat-up and instant recovery

Safety Warning

This appliance is not intended for use by young children or infirm persons. Young children should be supervised to ensure they do not play with the appliance. If the supply cord becomes damaged it must be repaired by an authorised service centre.

Operating Instructions

1. Insert the iron into the iron holder on your desktop. The iron holder may be attached to your workbench if required. The optional T 2381 SMD handle is provided with its own iron holder.
2. Plug the iron into the 6 pin socket on the front of housing.
3. Plug the AC mains lead into the appropriate AC outlet and switch on.
4. Switch the power switch to the "ON" position, the heating LED will come on.
5. The temperature is set by firstly setting the "read/set" slide switch to "set". Adjust the temperature control knob to the desired temperature. For normal PCB leaded soldering we recommend the temperature is set to between 250 and 350°C. For lead free soldering set to between 290° and 390°.
6. Set the temp "read/set" slide switch to "temp". This is the actual temperature of the tip. Note the "heating" LED will turn off when the heater has reached its pre-set temperature. After 15 minutes of being idle the soldering station will switch into power saving mode. The "pause" LED will turn on and tip temperature will be cut to half. This extends tip life and reduces power consumption.
7. The unit features a calibration adjustment. With the use of a thermocouple or similar temperature measuring instrument, the tip temperature can be adjusted to match the temperature displayed.
8. A switch on the front panel allows temperature to be read in °F or °C.

Working Temperature

A low iron temperature will slow the flow of solder. A high temperature will burn the flux in the solder, which in turn will emit a heavy white smoke, resulting in a dry joint or damage to the PCB. When the tip working temperature is correctly selected for the solder being used, a good joint is assured.

Tip Calibration Procedure: A calibration adjustment is located under the digital display. To ensure the display temperature matches the tip temperature, you must first take a temperature measurement from the tip with a thermometer or multimeter & thermocouple. If the measurement and display temperature do not match, rotate the calibration adjustment clockwise to lower the temperature, counter-clockwise to increase the temperature.

LEADED SOLDERING

Solder alloy used in the electronics industry is typically 60% tin, 40% lead (60/40). The tip working temperature of Altronics solder is detailed below and can vary slightly depending on manufacturer.

Melting point	183-190°C
Normal Operation.....	320°C
Production Line Operation	380°C

Caution: Temperatures above 400°C should not be used for normal leaded soldering purposes; however temperatures above 400°C may be used for short periods when required.

LEAD FREE SOLDERING

Lead free solder used in the electronics industry is typically 99.3% tin, 0.7% Copper. Tip working temperatures detailed below can vary slightly depending on manufacturer & type of alloy used.

Melting point	227°C
Normal Operation.....	300-360°C
Production Line Operation	360-410°C

Important: The soldering iron handle should be placed in the stand when not in use.

Possible Causes Of Tip Not Tinning

- Tip temperature too high
- Working surface is not well tinned during idling periods
- Wiping tip on high sulphur content sponge, dirty or dry sponge and/or rags.
- Contact with organics, plastic resins, silicone grease, and other chemicals.
- Impurities in solder and/or low tin content.

New Tip

Care for the new tip according to the following procedures for longer tip life.

1. Set temperature at 250°C, then turn main power switch "on".
2. Flood the tinned surfaces with resin core solder after reaching 250°C.
3. Set to desired temperature after warming at 250°C for three minutes.
4. The iron is ready for use after reaching the pre-set desired temperature.

Care Of Tips

Important: Remove the tip and clean after every use or at least once a week, remove any loose build up in the barrel or tip to prevent tip seizing.

The tips supplied are iron plated copper and if used properly will last a long time.

1. Always keep tip tinned before returning the iron to the holder, prior to switching off, or storing for any period of time. Wipe only before using.
2. Turn iron off if not in use for long periods. The iron features energy saving circuitry which cuts tip temperature to half after 15 minutes of idle time. This helps to extend tip life.
3. Don't use excessive pressure on a tip or rub a tip on a joint during the making of a joint as it does not improve heat transfer and damages the tip.
4. Never clean tip with abrasive materials or files.
5. Don't use fluxes containing chloride or acid. Use only rosin or activated rosin fluxes.
6. If any oxide film does form, this can be cleaned by carefully rubbing with a "600-800 grit" emery cloth, or isopropyl alcohol and re-heat. Re-tin the tip using rosin core solder.

Optional T 2381 SMD Tweezer Handle

To install the optional T 2381 SMD tweezer handle, ensure soldering station is switched off. Then unplug the standard soldering handle and plug the T 2381 into the 6 pin socket. Always use the soldering iron holder supplied with the T 2381.