

Micron T 2163 Soldering Iron and Accessories Kit

INTRODUCTION

Thank you for purchasing the T 2163 Soldering Kit – a great solution for your soldering equipment needs! We believe that you will be more than satisfied with the many features and the versatility of the numerous accessories contained in your new soldering kit. Applications include: Radio controls, hobbies and crafts, small electrical parts, PCBs, wires.

Before using the soldering iron inside, please carefully read the instruction manual and observe all warnings and instructions for safe operation. Failure to follow all instructions here listed may result in electric shock, fire, or serious injury. Retain the instructions for future reference.

PRODUCT DESCRIPTION

The unit has a slender soldering iron pencil design with a comfortable rubber grip that prevents operator fatigue. The soldering iron is equivalent to T 2445 and is connected to the mains power via a burn-resistant approved power cord. These instructions and the T 2445 manual are interchangeable.

WARNING:

1. Operate this iron in a well ventilated area.
2. Do not tap the tip heavily in attempting to remove solder build-up.
3. Do not use it for non-soldering applications.
4. Do not disassemble the iron.
5. Only use recommended replacement parts e.g. tips.
6. Please turn off the power when you have finished using it.
7. This tool must be placed on its stand when not in use.
8. Do not immerse in water.
9. Before cleaning the unit, always remove the power lead plug from the socket. Unscrewing the housing is not permitted.
10. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
11. Children should be supervised to ensure that they do not play with the appliance. Failure to observe this safety regulation could result in a risk to life and limb. The manufacturer or supplier shall not be liable for damage resulting from misuse of the unit or unauthorised alterations.

CAUTION:

DO NOT WORK ON LIVE CIRCUITS

- Before working on any mains powered equipment, make sure that it is turned off, and the mains plug is removed from the power point. You must not undertake work on live parts.

DO NOT USE IF DAMAGED

- If the power lead becomes damaged or seems faulty, discontinue use immediately. Seek the assistance of an authorised service technician at the place of purchase to fix anything damaged.

HIGH TEMPERATURES

- Soldering irons operate at high temperatures and can easily burn the skin and/or objects. Do not touch the tip and heater at any time and keep it a safe distance from inflammable materials while the unit is on, or while cooling after switching off. Please allow a sufficient time for it to cool before changing tips.

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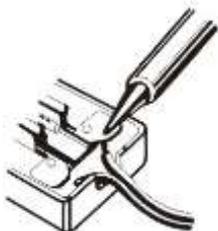
MAINTENANCE AND GENERAL CLEANING:

If supply cord is damaged in anyway it must be replaced immediately, to avoid a hazard. Only a service agent or suitably qualified person must carry out this work.

The iron may be cleaned with a damp cloth using small amounts of liquid detergent. Never submerge the iron in liquid or allow any liquid to penetrate the case.

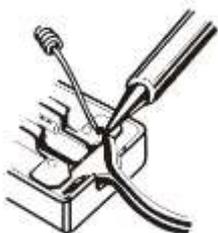
HOW TO SOLDER:

1. File off any dirt, rust or paint on the part you wish to solder.
2. Heat the part with the soldering iron.

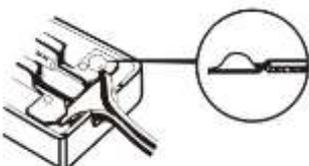


3. Apply rosin-based solder to the part and melt it with the soldering iron.

Note: When using non-rosin-based solder, be sure to apply a soldering paste to the part before applying the solder.



4. Wait for the solder to cool and harden before moving the soldered part.



CAUTION:

1. Handle the heated soldering iron with extreme care, as the high temperature of the iron can cause fires or painful burns.
2. The first time you use the soldering iron, It man smoke slightly as the heating element dries out. This is normal and should only last for approx. 10 minutes.
3. Never file the specially-plated tip.



TIP REPLACEMENT AND DRESSING:

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Note: Tip replacement or cleaning should only be done when the iron is at room temperature.

The tip can be changed or replaced by unscrewing the knurled nut barrel assembly. It is essential that the iron is switched off and allowed to cool before and after this operation, as damage may result if the iron is left on without the tip inserted.

After removing the tip, blow out any remaining oxide dust that may have formed in the tip retaining area of the barrel. Care should be taken to avoid getting dust in your eyes. Replace the tip and tighten the knurled nut barrel assembly using only hand pressure.

Pliers should only be used to tighten the nut if loosening occurs when the iron is hot. Care should be taken not to over tighten the nut, as this may damage the element.

RECOMMENDED SOLDERING WORKING TEMPERATURES:

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 within parameters correctly suited to the particular solder being used, a good joint is assured. The common solder alloy used in the electronics industry is 60% tin, 40% lead (60/40).

The tip working temperature of solder is detailed below and can vary slightly among manufacturers.

Melting point	215°C (419°F)
Normal operation	320°C (608°F)
Production line operation	380°C (716°F)
Desoldering operation for small joint	320°C (608°F)
Desoldering operation for larger joint	400°C (752°F)

To meet RoHS (European requirement for lead free solder), the 60/40 solder alloys are not allowed in the production process. The RoHS lead free solder alloys require a working temperature of about 30°C (54°F) higher than typical 60/40 lead/tin soldering.

The lead free solder working temperature is detailed below and can vary among manufacturers.

Melting point	220°C (428°F)
Normal operation.....	300-360°C (572-680°F)
Production line operation.....	360-410°C (680-770°F)

IMPORTANT: The temperature above 410°C (770°F) is not recommended for normal soldering functions. Please note that the lead free solder alloys require a higher soldering temperature which shortens tip life.

COMMON CAUSES OF TIP UNWETTING: (solder not taking)

1. Tip temperature higher than 410°C (770°F).
2. The tip working surfaces are not well tinned while the iron is idling.
3. Lack of flux in soldering, wicking, repairing, and touch-up operation etc.
4. Wiping tip on a high Sulphur content sponge, dirty or dry sponge, and/or rag.
5. Contact with organic materials such as plastic resins, silicone grease and other chemicals.
6. Impurities in solder and low tin content.

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Remember to tin all new tips before use. For tip first time use, the tip should be tinned immediately after switching on and warm up of the tip. The optimum temperature for tip tinning is 250°C (482°F).

1. Always keep tips tinned before returning to the holder, switching off or storing for any period of time. Wipe only before using.
2. Don't keep iron set at a high temperature for long periods of time as this will break down the surfaces of the tip.
3. Don't put any excessive pressure on a tip or rub a tip on a joint. It does not improve the heat transfer but only damages the tip.
4. Never clean the tip with abrasive materials or a file.
5. Don't use a flux containing chloride or acid. Use only rosin or activated resin fluxes.
6. If any oxide does form, it can be cleaned by lightly rubbing with a 600-800 grit emery cloth, or cleaning with isopropyl alcohol or equivalent. After cleaning, wet the tip and wrap rosin-core solder completely around the newly exposed surfaces.

T 2163 SPECIFICATIONS:	
Input:220-240Va.c. 50Hz Class I	
Output: 30W	
Temperature range:.400°C to 420°C (752°F to 788°F)	
Heater: Mica (Natural) [Minimal smoking 1 st usage]	
Length: 230mm	
Weight: 150g	

T 2163 KIT ACCESSORIES CONTENTS:

- Soldering iron and stand / holder
- Desoldering vacuum pump / sucker (T1242)
- Precision screwdriver (+/-) Φ2.5x75mm
- Screwdriver (+/-) Φ3x75mm
- Screwdriver (+/-) Φ5x75mm
- Screwdriver (+/-) Φ6x125mm
- Long nose plier 5"
- Diagonal cutting plier 4.5"
- IC Extractor
- Wire stripper & cutter
- Multimeter
- 8 piece allen key set
- Solder (2m length)
- 8 Way Component storage box
- Tweezers (Long nose)
- Spare Tips available (T 2446-8)

NOT FIELD SERVICEABLE.

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