

Instruction Manual

Digital Soldering Station Model № DS50

230V - 50W Programmable Station and Iron rest





Kit Contents

| Item | Ordering Stock No |
|---------------------------------------|-------------------|
| DS50 - Station | 186-719 |
| Compromising | |
| DS50-Pu - Power Unit | |
| DS50-R - Rest | |
| DS50-S - Soldering Iron | |
| DS50-T1-0.8mm tip | |
| UK converter plug | |
| Instructions for use (GB,FR,DE,IT,ES) | |

Available separately:

| | |
|-------------------------------|----------|
| DS50-S - Replacement iron | 186-747 |
| DS50-T1 - 0.8mm Round Tip | 186-731 |
| DS50-T2 - 1.6mm Chisel Tip | 186-725 |
| DS50-T3 - 3.2mm Chisel Tip | 186-703 |
| DS 50-T4 - 0.4mm Round Tip | 665-4827 |
| DS 50-T5 - 1.6 mm Ø x 45° Tip | 665-4820 |



Tip 1



Tip 2



Tip 3



Tip 4



Tip 5

Technical Data

| | |
|----------------------------------|--------------------------------------|
| Soldering temperature: | 150 °C to 450 °C |
| Resolution: | 1 °C |
| Soldering iron: | 24V / 48W |
| Power supply: | 230V a.c. 50/60 Hz 70 VA |
| Dimensions, soldering station: | 110 x 120 x 135 mm (W x H x D) |
| Dimensions, soldering iron: | 200 x 30 mm |
| Fuse Type: | Anti surge, 1A HBC ceramic 5 x 20 mm |
| Manufactured in accordance with: | EN 60335-1:2006, EN 60335-2-45: 2006 |



UK

The DS50 Soldering Station is supplied with a moulded 2 pin Euro plug as standard. There is a Converter plug for UK mains sockets supplied loose. This must be fitted before use, and only by persons deemed competent to do so.
Do not use an adaptor plug and socket.

Proper Use

- This soldering station is intended exclusively for the purposes of soldering and desoldering electrical and electronic components on printed circuit boards and modules, for solder-coating conductive patterns and cable ends and for manufacturing cable connectors.
- It is not intended for heating liquids or plastics.
- It is not for use in the open air. Avoid contact with dampness or humidity under all circumstances.

Caution!

Please read these instructions carefully prior to initial operation. Failure to observe the safety instructions results in risk to people or property.

The manufacturer shall not be liable for damage resulting from misuse of the machine or unauthorised alterations.

Safety Instructions

Caution! Risk of injury through burning. Even after switching off, or removal, the soldering tip / hot bar still requires a time to cool down. After soldering, the soldered part and workpiece carrier are still hot.

Take account of environmental influences.

Do not use the soldering tool in a damp or wet environment.

Do not use or place the soldering station in the proximity of any easily flammable, ignitable or combustible substances or gases.

Protect yourself against electric shocks.

Avoid touching earthed objects such as pipes, heaters, cookers and refrigerators. Use a residual current device (RCD) for additional protection.

Children and other unauthorised persons must stay clear of the work area.

Never allow other persons to touch the soldering tool or cable. Keep other persons away from your workplace. The soldering tool must be used by qualified staff only and those specifically assigned this task.

Store your soldering tool in a safe place.

When not in use, soldering tools should be stored in a dry, / secure area.

The personal protective equipment must comply with the safety specifications relevant to the workplace.

Protect yourself against solder splashes, wear suitable protective clothing to protect yourself against injury through burning and protect your eyes by wearing eye protectors.

Use a soldering fume extraction unit.

If appliances for soldering fume extraction devices are available, ensure that they are connected and used in accordance with the instructions.

Do not use the cable for purposes other than those for which it is intended.

Never carry the soldering tool by the cable. Do not use the cable to pull the plug out of the socket. Protect the cable against heat, oil and sharp edges.



Secure the soldering tool.

Use clamping devices to hold the workpiece firmly in position. This is a safer way to hold the workpiece than in your hands, and also leaves both hands free to operate the soldering tool.

Avoid unintentional starting.

When plugging into the socket, ensure that it is switched off at the mains. Never carry a soldering tool connected to the mains power supply.

Maintenance and Handling

Regularly inspect the station for physical damage that may affect safety.

Do not use the station if it:

- is visibly damaged
- has ceased to function
- has been stored for a long period under unfavourable conditions; has been subject to heavy stresses during transportation

If suspected to be unsafe for use, the station must immediately be switched off and the mains plug must be disconnected from the supply.

Before switching on, allow the station to attain ambient room temperature.

- When in use, always ensure the station is sufficiently ventilated.
- Place the station on a flame-resistant base-pad in such a way that air can circulate freely.
- The station must not be exposed to water, dust or direct sunlight.
- Avoid subjecting the apparatus to heavy mechanical stress.
- The iron attains working temperatures between 150°C - 450°C. Contact with any of its metallic parts may cause serious burns to people or animals.

Before carrying out cleaning or maintenance on the station, observe the following Safety Instructions:

This product contains no user serviceable parts.

- Repair must only be carried out by a specialist aware of the associated risks.
- Always disconnect from the mains before opening covers or withdrawing parts.
- Even after the device has been disconnected from all voltage sources, it is possible that internal capacitors may still be charged. Unplug the station and leave for 5 minutes before removing covers.
- The DS 50 is fitted with a slow-blowing 2 A fuse. This must always be replaced with the same type and value. Disconnect from the mains supply before replacing. The fuse-holder is located on the underside of the station.
- Use a dry linen cloth to clean. Moisten very slightly if necessary, ensuring that no moisture penetrates inside the device. Do not use solvents such as petrol or kerosene, or abrasive cleaners to clean the unit.

Disposal

In the event that the DS 50 has become unserviceable it must be disposed of in accordance with applicable statutory regulations.

Brief Summary of Instructions for Use

1. Assemble the station and rest, and place the iron on the rest, then connect the power lead to the mains.
2. Switch on using "Power" switch.
3. Press "+"/"-" keys to adjust the set point temperature or select one of the programmed temperatures by using the "T1"/"T2"/"T3" keys.
4. Modify a programmed set point temperature by pressing "+"/"-" whilst holding the appropriate "T1"/"T2"/"T3" key.

Instructions for Use

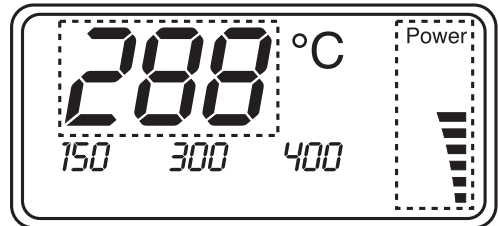
1. Setting up

First set up and connect to a mains socket. Insert the plug from the soldering iron in the DIN socket located on the front of the station. The solder sponge must be laid in the stand and moistened with water.

2. Switching on

Press "Power" to switch on. The processor will perform a display test by activating all 108 segments for approximately two seconds. The soldering iron will then heat up to the set point temperature when it was last used. The LCD shows the current temperature in the main display and the "Power" bar-chart (which can be disabled) indicates the heat being supplied to the soldering iron; (see Figure 1). The soldering iron tip is maintained at a constant temperature when the set point temperature is reached.

Figure 1



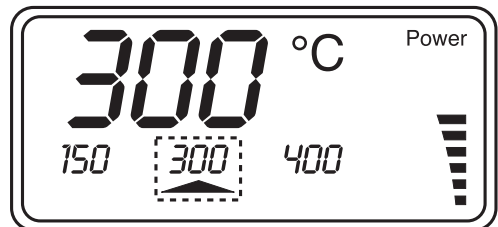
3. Adjusting the set point temperature

The main display section will change to show the set point temperature when either the "+" or "-" keys are pressed. The temperature can be jogged up or down in 1° steps or in 10° steps if the key is held. Release key when the desired temperature is reached.

4. Selecting one of the programmed set point temperatures

The station is pre-programmed with three set point temperatures, 150°C, 300°C and 400°C, and displayed directly above the corresponding "T1"/"T2"/"T3" keys. The main display shows the new set point temperature for approximately three seconds when the relevant key is pressed; (see Figure 2).

Figure 2



5. Modifying the programmed set point temperatures

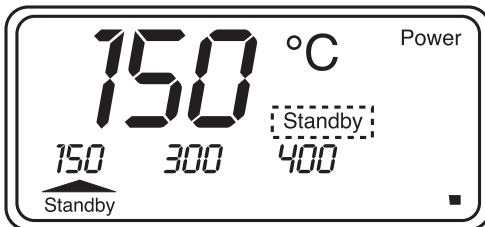
To change the programmed set point temperatures, use the "+"/"-" keys whilst holding down the appropriate "T1"/"T2"/"T3" key. The new temperature will be saved as soon as the keys are released.



6. Manual standby function

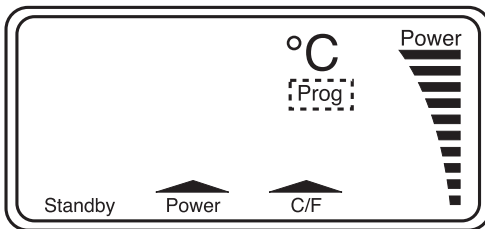
This function enables the device to cool down to “T1” mode when the button is pressed which will then be indicated by the “Standby” segment in the LCD display (see Figure 3). Pressing “T1” again will re-activate the previous set point temperature.

Figure 3



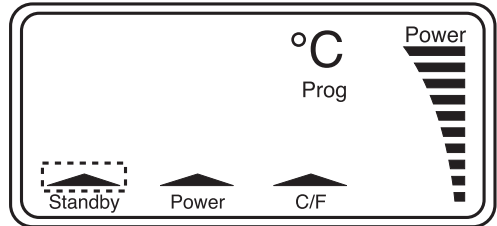
The station is shipped with the standby function disabled. To enable the function, press “T1”, “T2”, “T3” together to switch the DS 50 into programming mode. The “Prog” segment will be indicated on the display (see Figure 4).

Figure 4



Now press the “T1” key. An arrow will indicate that the standby function is enabled; (see Figure 5). The display will revert back to normal mode after three seconds.

Figure 5

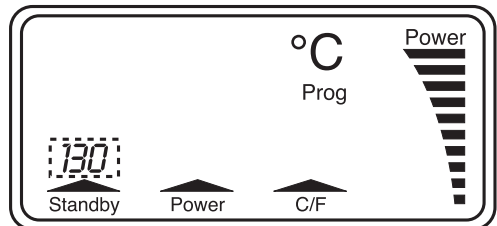


7. Timer-controlled standby function

This enables the iron to automatically cool down to the standby temperature after a set period of time since the last key was pressed. The device is shipped with the timer-controlled standby function disabled. To enable, switch the DS 50 to programming mode as shown above and press and hold the “T1” key. Use the “+”/“-” keys to adjust the timeout; (see Figure 6). Maximum time is 9 hours and 55 minutes.

Note: The programmed timeout data will only become valid after switching the solder station off and then back on.

Figure 6

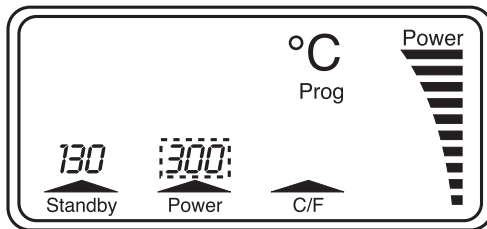


8. Automatic power-off function

This enables the device to automatically switch off after a set period of time since the last key was pressed. The device is shipped with the automatic power-off function disabled. To enable, switch the DS 50 to programming mode as shown above and press and hold the "T2" key. Use the "+"/"-" keys to adjust the power-off timeout; (see Figure 7). Maximum time is 9 hours and 55 minutes.

Note: The programmed power-off data will only become valid after switching the solder station off and then back on.

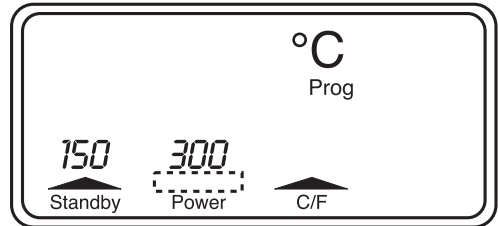
Figure 7



9. Disabling the "Power" bar-chart

Switch the DS 50 to programming mode as shown above and press the "T2" key. The arrow segment above this key will disappear; (see Figure 8). Pressing the "T2" key again will re-enable the bar-chart display.

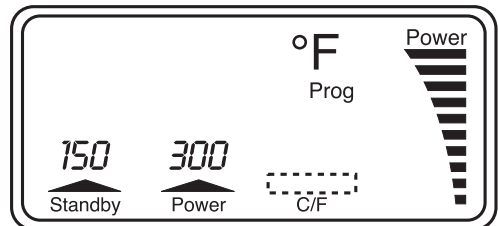
Figure 8



10. Switching between °C (Celsius) and °F (Fahrenheit)

Switch the DS 50 to programming mode as shown above and press the "T3" key. The arrow segment above this key will disappear; (see Figure 9). Pressing the "T3" key again will switch the display back to °C and the arrow will reappear.

Figure 9



11. Static Bonding / EPA Point

Socket for 4mm 'Banana' Plug. Provided for critical applications, where a grounding link is required to equalise the soldering station potential to the working area, to minimise any potential voltage difference between the soldering tip and circuit board. For suitable 1.8m long coiled grounding cord with 4mm Banana plug and 10mm Stud, see RS 552-898. (EPA = Equalised Potential Area)



FRANCE

Radiospares

BP 40453

60031 Beauvais Cedex

Tel: +33 3 44 10 15 00

Fax: +33 3 44 10 15 07

www.radiospares.fr

GERMANY

RS Components GmbH

Hessenring 13 b

64546 Mörfelden-Walldorf

Tel: +49 6105 401 234

Fax: +49 6105 401 100

E-mail: rs-gmbh@rsonline.de

www.rsonline.de

ITALY

RS Components S.p.A.

Via De Vizzi 93/95

20092 Cinisello Balsamo,

Milano

Tel: +39 02 66 0581

Fax: +39 02 66 058 051

rswww.it

UNITED KINGDOM

RS Components Ltd

PO Box 99, Corby,

Northants NN17 9RS

Tel: +44 845 850 9900

Fax: +44 1536 405678

rswww.com

SPAIN

Amidata S.A.

Parque Empresarial Urbis Center

Avda. de Europa, 19 - Edificio 3

28224 Pozuelo de Alarcón

Madrid

Spain

Tel.: +34 915 129 600

Fax: +34 914 756 747

E-mail: amidata@rs-components.com

www.rsonline.es