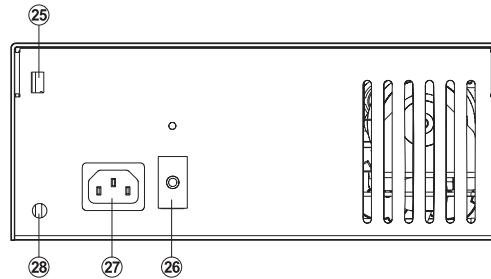
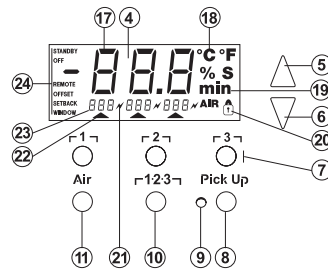
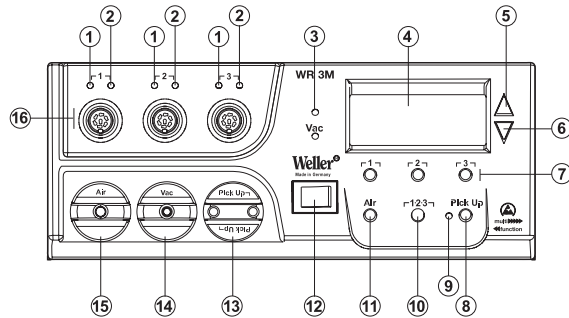


Device Overview



- 1 Channel Selection LED Indicator
- 2 Heater Power LED Indicator
- 3 Vacuum "On" LED
- 4 LCD Display
- 5 UP Scroll Key
- 6 DOWN Scroll Key
- 7 Channel Selection Radio Buttons 1, 2, 3
- 8 Start/Stop Pick-Up Radio Button
- 9 Status Display LED Pick-Up
- 10 Channel Selection Radio Button 1, 2, 3
- 11 Hot-Air Setting Radio Button (Air)
- 12 Power Switch
- 13 Pick-up Connections,
- 14 Vacuum Connection, (Vac)
- 15 Hot Air Connection, (Air)
- 16 Receptacle 1, 2, 3
- 17 Temperature Display
- 18 Temperature Symbol
- 19 Time Functions
- 20 Lock
- 21 Heater Control Indicator
- 22 Display, Channel Selection
- 23 Display, Fixed/Pre-Set temperature
- 24 Display, Special Functions
- 25 USB port
- 26 Fuse
- 27 120 VAC Power Connection
- 28 N/A (US Versions)

Table of Contents

1	Instructions	2
2	Cautions and Warnings	2,3
3	Packing List	3
4	Description	3,4
5	Initial Set-up	5
6	Operating Guidelines	6
7	Special Functions	8
8	Maintaining and Servicing the WR 3M	16
9	Fault Indications and Correction	17
10	Accessories	18
11	Disposal	19
12	Warranty	19

1 Instructions

Thank you for placing your trust in our company by purchasing the Weller WR 3M. This product meets or exceeds the requirements established by Weller for superior performance, versatility and quality.

These instructions contain important information which will help you to start, operate and service the WR 3M Rework Station safely and correctly, as well as eliminate simple faults/malfunctions yourself.

- ▷ Read these instructions and the accompanying safety information carefully before starting up the device and starting work with the WR 3M Rework Station.
- ▷ Keep these instructions in a place that is accessible to all users.



2 Cautions! / Warnings!

Please read these Operating Instructions and the attached Safety Information carefully prior to initial operation. Failure to observe the safety warnings may result in accident, injury, or risk to health.

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

Warning: This product when used for soldering and similar applications, produces chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Safety Information:

- Always place the soldering iron in its original holder
- Remove all inflammable objects from the proximity of the hot soldering tool.
- Use suitable protective clothing to prevent the risk of burns associated with molten solder.
- Never leave a hot soldering iron unattended.
- Never work on electrically live circuits or components.
- Always wear eye protection when working with soldering and desoldering applications.

The Weller WR 3M microprocessor-controlled Rework Station corresponds to the EC Declaration of Conformity in accordance with the basic safety requirements of Directives 89/336/EEC and 73/23EEC.

3 Packing List

- WR 3M Rework Station
- Power cord
- Air-hose adapter for Hot-Air pencil (HAP 1)
- HAP 200 Hot Air Pencil (WR3000M only)
- WDH 30 Tool Holder (WR3000M only)
- WP80 Soldering Iron (WR3000M only)
- WDH 10 Tool Holder (WR3000M only)
- DXV 80 Desoldering Iron (WR3000M only)
- WDH 40 Tool Holder (WR3000M only)
- WR 3M Operating Instructions
- Safety information booklet
- CD with USB software (“Firmware Updater” and “Monitor Software”)
- USB cable
- Packing with colored tool markers

4 Description

The Weller WR 3M is a versatile Rework System for making professional repairs to current technology electronic assemblies in the industrial production and engineering sectors. The WR 3M has 3 independent channels for operating 3 tools simultaneously.

Fast and precise sensor sampling in the closed loop control provides temperature accuracy and maximum temperature control under load. All tools are recognized automatically by the WR3M and the appropriate control parameters are set.

The desired temperature can be adjusted in the range of 150°F to 999°F for hot-air tools and the WSP150 Soldering Iron; 150°F to 850°F for all other soldering / desoldering tools. Set and Read values are displayed in digital form. Three Radio Buttons are used to select fixed / pre-set temperatures directly. The Heater Control Indicator ("✓" symbol in the display), along with a green LED above the port being monitored, flashes to indicate when the Set temperature has been reached.

4.1 Tools and Holders

When not in use all tools should be placed in their proper Tool Holder.

HAP 200: (WR3000M)

The HAP 200 Hot Air Tools 200 watt heater produces a temperature range of 122°F (50°C) to 1000°F (550°C). The integrated finger switch and a wide assortment of nozzles make it suitable for multiple applications, including soldering or desoldering surface mount components using hot air. The ionizing circuit incorporated in the tool, along with the antistatic handle and hose, provides static free hot air.

DXV 80: (WR3000M)

The DXV 80 is an 80W Desoldering Tool with an in-line filter and an eccentric taper lock system for the desoldering tiplet. The in-line solder collection chamber is an integral part of the handle and can easily be changed without the use of tools. This tool has a wide range of available desoldering tiplets for multiple applications. Vacuum is activated by depressing the finger switch located on the handle.

WP 80: (WR3000M)

The WP 80 Soldering Iron is characterized by fast heat-up and precise control of the soldering tip. Due to its slim design, 80W heater output and short reach (tip to grip), this tool can be used for a variety of applications, from extremely fine soldering tasks to those requiring high temperatures.

WDH 10 ; (Tool Holder for WP 80)

WDH 30 ; (Tool Holder for HAP 200)

WDH 40 ; (Tool Holder for DXV 80)

See "Accessories" for additional tools.

The Weller WR 3M Rework Station offers the following additional features / functions:

- Automatic tool detection and activation of the related control parameters
- Operates with all Weller tools listed in the Accessories section on page 18
- Digital Temperature Control
- Temperature Offset
- Programmable Temperature (Setback)
- Standby and Lock functions
- Heavy-duty pump
- Antistatic device design in accordance with EOS / ESD safety standards
- USB port for control, evaluation and documentation via PC
- Additional vacuum port for component handling (Pick-up)

4.2 WR 3M Technical Data

Dimensions	L x W x H (inches): 10.75 x 9.25 x 4.02
Weight	Approximately. 14.8 lbs.
Power supply voltage	120 VAC, 60 Hz
Power consumption	400 Watts
EOS / ESD Properties	All Tool Handles, Cordsets and Air Flow are Static Free
Fuse	4 Amp
Temperature Control range	Variable in (1) degree increments from 150 °F – 999 °F Controllable temperature range is tool-dependent
Temperature accuracy	± 17 °F (Average tip temperature can be offset ± 9 °F at idle with no load)
Temperature stability	± 9 °F
Hot Air / Vacuum Pump (duty cycle: 30 seconds on - 30 seconds off)	Max. vacuum 0.7 bar Max. delivery rate 18 l/min Hot air max. 15 l/min
Vacuum Pick-Up Pump (duty cycle: 60 seconds on - 30 seconds off)	Max. vacuum 0.5 bar Max. delivery rate 1.7 l/min

USB Port

The control unit is equipped with a mini USB port (25). Weller software, included on a CD, provides station monitoring and control via the USB port.

With the software you;

- can carry out a software update ("Firmware Updater") on your control unit.

- can remotely control the unit and chart, store and print temperature curves ("Monitor Software").

5 Initial Set-up

WARNING! Risk of injury may occur if vacuum hose is incorrectly connected to the air port (15).



If the vacuum hose is incorrectly connected, hot air and liquid solder can escape when the desoldering button is depressed and may cause injuries.

▷ **Never connect the vacuum hose to the "Air" port (15)!**

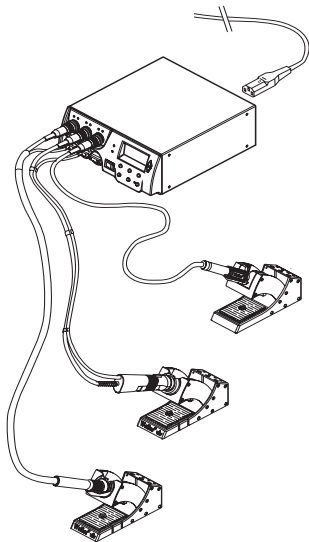
1. Carefully unpack the device.
2. Connect the soldering tools as follows:
 - Connect the hot-air pencil (HAP200) with air hose to "Air" port (15) and insert the (HAP200) plug into the receptacle **1**, **2** or **3** (16) of the Rework Station and lock by turning clockwise slightly. The hot-air pencil (HAP 1) can only be connected with the supplied air-hose adapter.

Note: The HAP 200 will only operate when connected to channel 1!

- Connect the Desoldering tool (DXV80) with vacuum hose to "Vac" port (14) and insert the (DXV80) tool plug into the receptacle **1**, **2** or **3** (16) of the Rework Station and lock by turning clockwise slightly.
- Connect the Soldering tool (WP80) with Soldering tool plug into the receptacle **1**, **2** or **3** (16) of the Rework Station and lock by turning clockwise slightly. If using the optional (WDH10T) Switching Holder with the Stop and Go feature, connect the Holder plug to the receptacle **1**, **2** or **3** (16) of the Rework Station and the Soldering Tool into the rear of the Holder.
- Two pick-up tools (WRK, WVP) can be connected with the vacuum hose to the two pick-up ports (13), where only the right port is active. It is possible to switch to the other port by rotating the port 180°.

3. Place the tools in their safety holders.
4. Check the power supply voltage to be sure it matches the rating on the unit and that the power switch (12) is OFF.
5. Connect the control unit to the power connection (27) on the rear of the unit and plug in to a properly grounded 120 VAC power source.
6. Switch ON the WR 3M at the power switch (12).

After the device has been switched ON, the microprocessor carries out a self-test in which all the segments are briefly displayed. Then the electronics automatically switches to the basic temperature setting of 720 °F for all channels and 50% for the "Air" setting. A green LED (2) above each receptacle lights up when activated channels are being used:



- LED lit green constantly indicates that the connected tool is being heated up.
- LED flashing green indicates that the Set temperature of the tool has been reached.

Active channels are indicated in the display with a triangle "▲"(22) and a lightning symbol "⚡" (21).

6 Operating Guidelines

6.1 Selecting a channel, switching ON or OFF

1. Depress one of the Radio Buttons **1**, **2** or **3** to select one of the three channels until the desired channel is displayed.

- Or -

Depress the center **1-2-3** Radio Button until the desired channel is displayed.

The display shows the Set temperature of the selected channel and - in smaller script - the fixed/pre-set temperatures.

The current tool temperature then appears in the display. The status with the corresponding Set temperature is also displayed in the lower area.

The selected channel is indicated by a triangle (22) in the display and by a red-illuminated LED (1) on the device connection port.

2. To turn the selected channel OFF or ON, depress the UP and DOWN Scroll Keys simultaneously until three dashes " - - - " appear in the display. Immediately release Scroll Keys. If " - - - " appears in the screen, press the **3** Radio Button to exit the menu and repeat step #2.
3. If the channel is deactivated, "OFF" appears in the display. If the channel is activated, the current Read temperature appears in the display.

Stored data is not lost when a channel is switched "OFF".

Note

The display switches automatically when:

- a Tool is connected
- when the finger switch is depressed
- when a Tool is removed from the Switching Stand

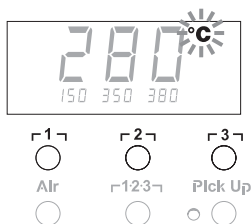
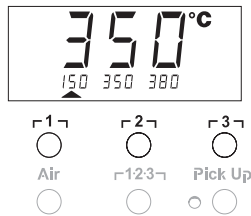
6.2 Setting the Temperature

Setting the Temperature Individually

1. Select the desired channel by depressing one of the Radio Buttons **1**, **2** or **3**.

Or, depress the center Radio Button **1-2-3** until the desired channel is displayed.

The display shows the Read temperature values of the selected channel.



2. Depress the **UP** or **DOWN** Scroll Key. The display switches to the set value. The temperature symbol (18) flashes.
3. Depress the **UP** or **DOWN** Scroll Key to set the desired temperature:
 - Tapping the Scroll Keys changes the Set temperature by one degree.
 - Holding down the Scroll Keys changes the Set temperature rapidly.

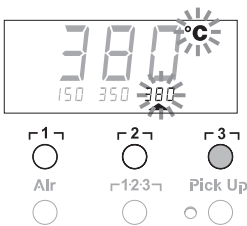
The Set value of the selected channel appears in the display for approximately 2 seconds after the Scroll Keys are released.

Setting the Pre-set Temperature on Radio Buttons $\Gamma 1 \Gamma$, $\Gamma 2 \Gamma$ or $\Gamma 3 \Gamma$

The temperature can be set for each channel separately by selecting three fixed/pre-set Radio Buttons.

1. Select a channel.

Three fixed/pre-set temperatures are shown in the display for approximately 2 seconds. The temperature can now be Set as long as the temperature symbol is flashing.
2. Adjust the temperature in the large display with the **UP** or **DOWN** Scroll Keys.
3. Depress the desired Radio Button $\Gamma 1 \Gamma$, $\Gamma 2 \Gamma$ or $\Gamma 3 \Gamma$ for 3 seconds. The temperature display for the corresponding temperature value flashes during this period. The Set value is stored after 3 seconds.
4. Release the Radio Button.



Temperature Setting using the Radio Buttons $\Gamma 1 \Gamma$, $\Gamma 2 \Gamma$ or $\Gamma 3 \Gamma$

Factory default settings:

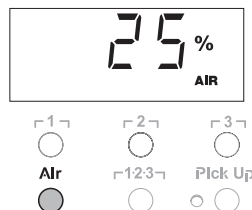
$\Gamma 1 \Gamma = 300^{\circ}\text{F}$ (150°C),

$\Gamma 2 \Gamma = 660^{\circ}\text{F}$ (350°C),

$\Gamma 3 \Gamma = 720^{\circ}\text{F}$ (380°C)

1. Select a channel.

Three fixed/pre-set temperatures are shown in the display for approximately 2 seconds. The temperature can now be Set as long as the temperature symbol is flashing.
2. The desired fixed/pre-set temperature can now be selected with Radio Buttons $\Gamma 1 \Gamma$, $\Gamma 2 \Gamma$ or $\Gamma 3 \Gamma$
3. The Set value is adopted. The Read temperature of the selected channel is displayed after 3 seconds.



6.3 Setting the Air Flow

The Air Flow can, starting from a maximum flow value of 15 l/s (HAP 200) or 10 l/s (HAP 1), be adjusted between 10% to 100%.

1. Depress the **AIR** button.

2. The current air flow in percentage is shown in the display for approximately 2 seconds.
3. Set the desired flow by Depressing the **UP** or **DOWN** Scroll Key.

6.4 Switching the Vacuum Pick-up Pump ON/OFF



- ▷ Depress the **Pick-Up** Radio Button.

The pump is switched on or off, depending on the initial state. In switched-on mode, the LED (8) next to the **Pick-Up** Radio Button lights up green.

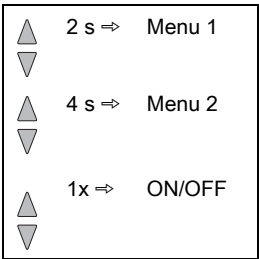
Note

The vacuum pump is not designed for continuous operation. (60 Seconds On, 30 Seconds Off). To protect itself, the pump switches off automatically after 5 minutes of continuous operation.

6.5 Soldering and Desoldering

- ▷ Perform the Soldering / Desoldering work in accordance with the operating instructions of your connected soldering tool.

7 Special Functions

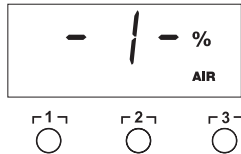


The special functions are divided into 2 menu levels:

- **Menu 1** with setting options for Standby temperature, temperature deactivation (Setback), automatic switch-off time (AUTO-OFF), temperature Offset, Window function, Degrees °F / °C conversion, switch-on time (On Time) for hot-air pencil, vacuum OFF delay (VAC OFF), vacuum ON delay (VAC ON) and Lock function.
- **Menu 2** with setting options for Station Desoldering vacuum level, ID code, Factory Control Check (FCC), and Pick-Up vacuum level (%).

Selecting Menu 1 Special Functions

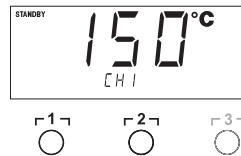
Special functions	Navigation
STANDBY	
SETBACK	
AUTO OFF	↑ 1 1
OFFSET	
WINDOW	
°F / °C	↓ 2 1
ON TIME	
VAC OFF	
VAC ON	EXIT 3 1



1. Select the desired channel **1**, **2** or **3** for entering the special functions.
2. Depress and hold down the **UP** and **DOWN** Scroll Keys simultaneously.
"- 1 -" appears in the display after 2 seconds.
3. Release the Scroll Keys.
Menu 1 is activated and the special functions can now be selected.
 - Select menu items with Radio Buttons **1** (back), or **2** (forward).
 - Exit the menu with Radio button **3** (EXIT).

Setting the Standby Temperature

When the Setback time has elapsed, the "Set" temperature is decreased automatically to the Standby value. The "Read" temperature is displayed (flashing) and "STANDBY" appears in the display. The Standby temperature can be set in the range (200 - 600°F / 100 -300°C).



1. Select the menu item STANDBY in Menu 1.
2. Set the value for the Standby Temperature with the **UP** or **DOWN** Scroll Key.
3. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

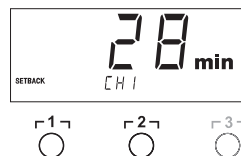
Setback Time

When the soldering tool is not in use, the temperature is reduced to the Standby temperature after the Setback Time has elapsed. The Setback is indicated by a flashing actual value, (see note) and "STANDBY" appears in the display. Depressing the **UP** or **DOWN** scroll key terminates this Setback Time. Depending on the tool, the finger switch or the switching holder resets the Setback Time.

Note: When using the HAP 1 or HAP 200, the Actual Temperature will not be displayed for these tools.

The following Setback settings are possible:

- "0 min": Setback OFF (factory setting)
- "ON": Setback ON (the system is controlled down to the Standby temperature when the soldering tool is placed in the switching holder).
- "1-99 min": Setback ON (each channel individually selectable).



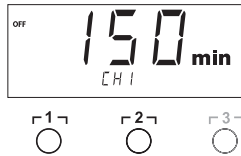
1. Select the menu item SETBACK in Menu 1.
2. Set the Setback value with the **UP** or **DOWN** Scroll Key.
3. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

Note

Assigning a low pre-set temperature to a Radio Button offers the possibility of manual temperature reduction (Setback) when the soldering / desoldering tool is not in use.

Setting the Automatic "Switch-Off" Time (AUTO-OFF)

When the soldering tool is not in use, heating of the soldering tool is switched off after the AUTO-OFF time has elapsed. The Auto-Off can be set from 0-999 minutes for each channel independently. With a setting of "0 min", the Auto Off function is disabled. Auto Off is carried out independently of the Setback function. The "Read" temperature is displayed (flashing) and may be monitored as a decreasing heat indicator; **"OFF"** appears in the display in small script above the selected channel. Below 122°F (50°C), a flashing dash appears in the center of the display.



The following AUTO-OFF time settings are possible:

- "0 min": AUTO-OFF function is switched off
 - "1-999 min": AUTO-OFF time, each channel individually selectable
1. Select the menu item OFF in Menu 1.
 2. Set the AUTO-OFF Set time with the **UP** or **DOWN** Scroll Key.
 3. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

Tool Operation with different settings of the SETBACK and AUTO OFF functions

Settings		Tool Operation without Switching Holder
SETBACK Time [1-99 min]	OFF Time [1-999 min]	
0 ON	0	Soldering tool remains at the Set soldering temperature.
0 ON	Time	Soldering tool is switched off when not in use ¹⁾ after the OFF time has elapsed.
Time	0	Soldering tool is controlled down when not in use ¹⁾ to the STANDBY temperature ²⁾ after the SETBACK time has elapsed.
Time	Time	Soldering tool is controlled down when not in use ¹⁾ to the STANDBY temperature ²⁾ after the SETBACK time has elapsed and is switched off after the OFF time has elapsed.
		Tool Operation with Switching Holder
0	0	Soldering is switched off in the holder ³⁾ .
ON	0	Soldering tool is controlled to the STANDBY temperature ²⁾ when in the holder ³⁾ .
0	Time	Soldering tool is switched off after the OFF time has elapsed when in the holder ³⁾ .
ON	Time	Soldering tool is controlled to the STANDBY temperature ²⁾ and is switched off after the OFF time has elapsed when in the holder ³⁾ .
Time	0	Soldering tool is controlled to the STANDBY temperature ²⁾ after the SETBACK time has elapsed when in the holder ³⁾ .
Time	Time	Soldering tool is controlled to the STANDBY temperature ²⁾ after the SETBACK time has elapsed and is switched off after the OFF time has elapsed when in the holder ³⁾ .

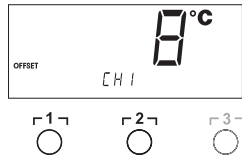
- 1) Not in use = UP/DOWN Scroll Keys not depressed and no temperature drop > 41 °F.
- 2) STANDBY temperature must be below the Set temperature, otherwise the SETBACK function is inactive.
- 3) When a switching holder is connected, the soldering tool always remains at the Set temperature outside the holder.
The holder function is activated when the soldering tool is placed in the holder for the first time.

Note Reset of STANDBY and AUTO OFF modes:

- without switching holder, by depressing the UP or DOWN Scroll Keys.
- with switching holder, by removing the soldering tool from the holder.

Setting the Temperature Offset

The Read soldering-tip temperature can be adjusted by entering a temperature offset $\pm 72^{\circ}\text{F}$ ($\pm 40^{\circ}\text{C}$).

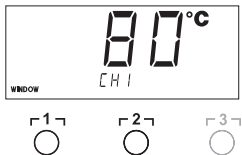


1. Select the menu item **OFFSET** in Menu 1.
2. Set the **OFFSET** temperature value with the **UP** or **DOWN** Scroll Key.
3. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

Setting the Window Function

It is possible, starting from a Set, Locked temperature, to set a temperature range of $\pm 180^{\circ}\text{F}$ ($\pm 99^{\circ}\text{C}$) with the **WINDOW** function. The temperature range (**Window**) must be Set prior to Locking the station.

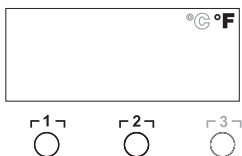
Note To be able to use the WINDOW function, make sure the Rework Station is in the Locked mode (see "Switching the lock function on/off" Page 10).



1. Select the menu item **WINDOW** in Menu 1.
2. Set the **WINDOW** temperature value with the **UP** or **DOWN** Scroll Key.
3. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

Switching the Temperature Display

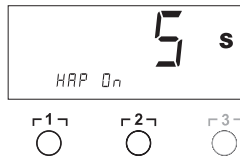
Switching the temperature display from **°F** to **°C** or vice versa.



1. Select the temperature display **°F / °C** in Menu 1.
2. Set the temperature display with the **UP** or **DOWN** Scroll Key.
4. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

Limiting the Time (HAP ON) time for Hot-Air Pencil

With the **HAP-On** time for the Hot Air Pencil, hot-air flow can be limited in increments of 1, from 0 to 60 seconds. The set time is then identical for all 3 channels. Factory setting is 0 seconds ("OFF"), i.e.

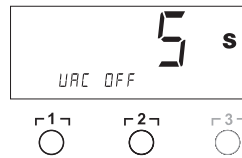


the airflow is activated as long as the push-button on the hot-air pencil is depressed.

1. Select the menu item **HAP-On** in Menu 1.
2. Set the time value with the **UP** or **DOWN** Scroll Key.
3. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

Setting the Vacuum OFF delay (VAC OFF)

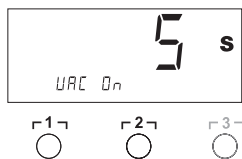
To prevent the Desoldering tip from becoming clogged, it is possible to set a vacuum OFF delay of 0 to 5 seconds (factory setting 2 seconds).



1. Select the menu item **VAC OFF** in Menu 1.
2. Set the time value (**VAC OFF**) with the **UP** or **DOWN** Scroll Key.
3. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

Setting the Vacuum ON delay (VAC ON)

In order to prevent the pump from starting before the solder has melted. Or to create a defined soldering-joint preheat time, it is possible to set an ON delay of 0 to 9 seconds (factory setting 0 seconds: Off).



1. Select the menu item **VAC ON** in Menu 1.
2. Set the time value (**VAC ON**) with the **UP** or **DOWN** Scroll Key.
3. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

Switching the Lock Function (On/Off)

When the Lock has been switched on, only the Radio Buttons **1**, **2** and **3** on the Rework Station can still be operated. All other settings are disabled until the Rework Station is unlocked again.

To LOCK the Rework Station:

1. Select the menu item LOCK in Menu 1.
"OFF" appears in the display. The padlock symbol flashes.

Note

Depressing the Radio buttons **1 or **2** while "OFF" is displayed results in the menu item being exited without a stored lock code.**

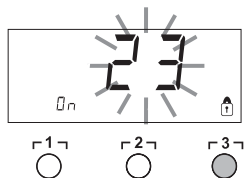
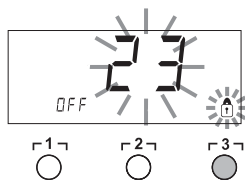
2. Set a 1, 2, or 3-digit Lock code with the **UP** or **DOWN** Scroll Key.
Note: The code must be retained to Unlock the station.

3. Depress Radio Button **3** for 5 seconds.
The code is stored. The padlock symbol is displayed. The Station is now locked.

4. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

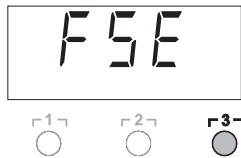
To unlock the Rework Station:

1. Select the menu item LOCK in Menu 1.
"ON" appears in the display. The padlock symbol is displayed.



2. Enter the 1, 2, or 3-digit LOCK code with the **UP** or **DOWN** Scroll Key.
3. Depress Radio Button **1** **2** **3**. The Station is now unlocked.

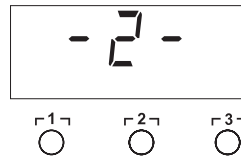
Resetting the Special Functions to Factory Default Settings



1. Select the Special Functions **Menu 1**.
2. Depress and hold down Radio Button **1** **2** **3**.
3. Then Depress the **UP** and **DOWN** Scroll Keys simultaneously.
"FSE", Factory Setting Enabled appears in the display.
The Rework Station is now reset to the factory default settings.
4. Exit the menu with Radio Button **1** **2** **3** (EXIT).

7.1 Selecting Menu 2 Special Functions

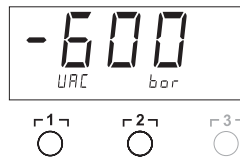
Special Functions	Navigation
LEVEL	↑ 1 2 3
ID	↓ 1 2 3
FCC	EXIT 1 2 3
PICK-UP	



1. Select the desired channel **1** **2** **3** for entering the special functions.
2. Depress and hold down the **UP** and **DOWN** Scroll Keys simultaneously.
"- 2 -" appears in the display after 4 seconds.
3. Release the Scroll Keys.
Selection of the special functions of Menu 2 is activated.
The settings can now be made.
 - Select menu items with Radio Buttons **1** **2** **3** and **1** **2** **3**.
 - Exit the menu with Radio Button **1** **2** **3** (EXIT).

Defining the Maintenance Level of the Vacuum System (VAC and bar)

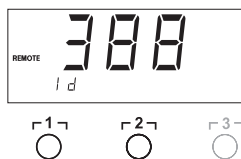
- The value is shown in mbar at which the electric vacuum gauge issues a vacuum level warning signal. The LED (3) of the vacuum pump switches from green to red. The set value is dependent on the desoldering tiptets used.
- Factory setting: -600 mbar
Settable: -400 mbar to -800 mbar



1. Select the menu item LEVEL in Menu 2.
2. Set the vacuum value LEVEL with the **UP** or **DOWN** Scroll Key.
3. Proceed to the next menu item with the Radio Button **1** **2** **3** (back) or **1** **2** **3** (forward) or exit the menu with Radio button **1** **2** **3** (EXIT).

Setting the Station Identification (REMOTE ID code)

When the optional USB port is used, several WR 3M Rework Stations can be activated and remote-controlled. Each Station



requires a Station Identification (ID code) so that it can clearly be identified.

1. Select the menu item **REMOTE ID** in Menu 2.
2. Enter an ID with the **UP** or **DOWN** Scroll Keys (possible values 0 – 999).
3. Proceed to the next menu item with the Radio Button **1** (back) or **2** (forward) or exit the menu with Radio button **3** (EXIT).

Note

Depress Radio Button **3** to exit the menu item without saving any changes (EXIT).

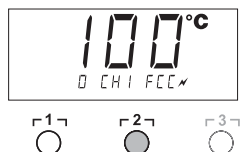
Factory Control Check (FCC)

This function checks temperature accuracy of the Rework Station and allows modifications if necessary. To perform the "FCC" function, the soldering tip temperature must be measured using an external temperature measuring instrument, (WA2000) and appropriate type "K" temperature measuring tip. (See Accessories List on page 18)

Control Check at 212 °F / 100 °C



1. Connect the type "K" thermocouple, into the external temperature measuring instrument, (WA2000).
2. Select the menu item FCC in Menu 2.
3. Depress the **DOWN** Scroll Key. Control point 212 °F / 100 °C is selected.
The soldering tip is now heated to 212 °F / 100 °C.
The Heater Control Indicator flashes (✓) (21) as soon as the temperature is constant.



4. Compare the temperatures indicated by the meter with the indications in the display.
5. Use the **UP** or **DOWN** Scroll Key to set the difference between the value indicated on the external meter and the value indicated on the Rework Station, (shown in small script in lower part of the display). Maximum temperature adjustment: ± 72 °F (± 40 °C).

Example:

Display 212 °F, external meter 210 °F: setting ▲ 2

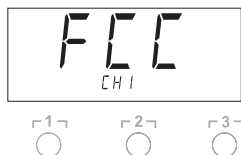
Display 212 °F, external meter 214 °F: setting ▼ 2

Note

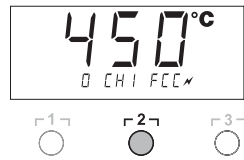
Depress Radio Button **3** to exit the menu item without saving changes (EXIT).

6. Depress Radio Button **2** (Set) to confirm the value.
The temperature deviation is now reset to 0. Factory Control Check at 212 °F / 100 °C is now complete.
7. Exit Menu 2 by depressing Radio Button **3** twice.

Control Check at 842 °F / 450 °C



1. Connect the type "K" thermocouple, into the external temperature measuring instrument, (WA2000).



Note



2. Select the menu item FCC in Menu 2.
3. Depress the **UP** Scroll Key. Control point 842 °F / 450 °C is selected.
The soldering tip is now heated to 842 °F / 450 °C.
The Heater Control Indicator flashes (M) (21) as soon as the temperature is constant.
4. Compare the temperatures indicated by the meter with the indications in the display.
5. Use the **UP** or **DOWN** Scroll Key to set the difference between the value indicated on the external meter and the value indicated on the Rework Station, (shown in small script in lower part of the display). Maximum temperature adjustment: ± 72 °F (± 40 °C).

Example:

Display 842 °F, external meter 840 °F: setting ▲ 2

Display 842 °F, external meter 844 °F: setting ▼ 2

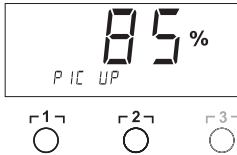
Depress Radio Button 1 3 1 to exit the menu item without saving changes (EXIT).

6. Depress Radio Button 1 2 1 (Set) to confirm the value.
The temperature deviation is now reset to 0. Factory Control Check at 842 °F / 450 °C is now complete.
7. Exit Menu 2 by depressing Radio Button 1 3 1 twice.

Setting the Pick-Up Vacuum Level

This function can be used to set the vacuum level of the vacuum pick-up pump operation:

- Factory setting: 85 %
- Variable: 50 % – 100 %



1. Select the menu item LEVEL in Menu 2. "PIC UP" appears in the display
2. Set the Pick-up level with the **UP** or **DOWN** scroll keys.
3. Proceed to the next menu item with the button 1 1 1 (back) or 1 2 1 (forward) or exit the menu with Radio button 1 3 1 (EXIT).

Note: The "FCC" Offset values can be reset to the Factory Setting in the Special Functions Menu 2 without affecting other settings of the Rework Station. (See "Resetting the Special Functions to Factory Default Settings" on page 14 of 21.)

* For Details concerning "FCC" Default Settings, please contact Weller Technical Services.

8 Maintaining and Servicing the WR 3M

8.1 Changing the Filter

Regularly check the main filters for "VACUUM" and "AIR" and replace if necessary.

WARNING! Vacuum pump will be destroyed if operated without the filter.

▷ Check to ensure the filters are in place before operating unit.

Replacing the filter

1. Turn the cover cap for "Vac" (14) or "Air" (15) 45° counterclockwise and remove.
2. Pull out the contaminated filter and dispose of properly.
3. Insert an original WELLER filter cartridge.
Make sure that the cover seal is correctly seated.
4. Insert pressure spring.
5. Align the cover cap with slight pressure and turn 45° clockwise.

9 Fault Indications and Correction

Indication/symptom	Possible cause	Corrective Action
Display: "- - -"	- Tool has not been detected - Tool defective	- Check connection of tool to device - Check connected tool
HAP 200 does not function	HAP 200 not connected to channel 1	Connect HAP 200 to channel 1
Display: "tip"	Soldering tip of WMRP Microtool or WMRT Micro-Tweezer not correctly inserted or defective	- Insert soldering tip or Tweezer Cartridge again - Replace defective soldering tip or Tweezer Cartridge
Pick-up does not function correctly	- Vacuum is not fully built up - Hose defective or kinked	- Check vacuum at pick-up connection - Replace/straighten hose
No air at HAP	Air hose not or incorrectly connected	Connect air hose to AIR port
No vacuum on Desoldering tool	- Vacuum hose not or incorrectly connected - Desoldering Tipset clogged - Desoldering Filter clogged	- Connect vacuum hose to Vac port - Clean Desoldering Tipset with cleaning tool - Replace Desoldering Tool Filter
Status indication of Vac LED's incorrect	Vacuum level not correctly set	Set vacuum level in special menu 2
No display function (display off)	No power supply voltage	- Turn on power switch - Check power supply voltage - Check device fuse
VAC LED red	Vacuum system clogged	- Clean suction nozzle or replace Desoldering Tipset - Check filter (13); replace if clogged

		– Clean desoldering tool – replace filter – Check vacuum hose
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10 Accessories

0052918399	WMRP Micro Soldering-tip set, 40 W; WDH 30T Stand, RT3 tip.
0051514599	WMRH Micro Soldering Tool Switching Holder
0051317399	WMRT Micro Desoldering-tweezer set, 80 W
005xxxxxxRTWX	Tip set ???
0051514699	WMRTH Micro Desoldering-tweezer Switching Holder
0052918199	WP 80 Soldering-tip set, 80 W; WDH 10 Stand
0052916199	WSP 80 Soldering-tip set, 80 W; WDH 10 Stand
0053315999	WMP Soldering-tip set, 65 W; WDH 20T Stand
0052917999	WMP Soldering-tip set, 65 W; WDH 20 Stand
0053313399	WTA 50 Desoldering-tweezer set, 50 W; AK 51 Stand
0053313599	WSP 150 Soldering-tip set, 150 W; WDH 30 Stand
0053312199	MPR 80 Soldering pencil set, 80 W; KH 25P Stand
0052704099	WSB 80 Soldering bath, 80 W
0052704299	WSB 150 Soldering bath, 150 W
0052702899	WHP 80 Preheating plate, 80 W
005xxxxxxWHP	150 Preheating Plate, 150W
0051318299	DXV 80 Inline Desoldering-tip set, 80 W; WDH 40 Stand
0051318199	DXV 80 Inline Desoldering-tip set, 80 W; AKV 80 Stand
0053313899	DSX 80 Desoldering Iron and Service Kit, 80 W; WDH 30 Stand
0051319099	DSX 80 Desoldering Iron, 80 W; DX 113HM Nozzle
0051315000	DX 113HM Nozzle with Improved Thermal Transfer
0051350099	Service Kit, DSX / DXV
0053311499	HAP 1 Hot-air pencil set, 100 W; WDH 30 Stand
0051515499	Support for WRK Chip Removal Kit
0051515599	WRK Chip Removal Kit
0052918499	WVP Vacuum Pipette
0052711699	HAP 200 Hot-air pencil, 200 W
0052711799	HAP 200 Hot-air set, 200 W; WDH 30 Stand
0051515299	WDH 30 Holder for HAP 200 / DSX 80; HAP1 / WSP150
0058761728	Adapter for HAP200 Hot Air Pencil
0051515399	WDH 40 Holder for DXV 80
0051516199	WDH 10T Switching holder WSP 80/WP 80
0051516299	WDH 20T Switching holder for WMP
0058761730	Desoldering set 33x33/24x24 with pick-up
0058761731	Desoldering set 27x27/20x20 with pick-up

0058761732	Desoldering set 18/15.5/12.5/10 with pick-up
0051512499	WDC Weller Dry Tip Cleaner
0051512599	WDC 2 Dry Tip Cleaner for WDH Stands
0051303199	Lead Free Tip Tinner / Activator
0051350099	Cleaning Tool for Desoldering Pencils
0051312499	Spare Filters for DSX 80 Desoldering Pencil
0058741815	Spare Filter Cartridges for DXV 80 Desoldering Pencil 5/Pack
0052241999	Replacement Sponge, 5/Pack
0051515699	WDH 50 Safety Rest
0051503399	KH 25P Safety Rest
WA2000	Soldering Tool Analyzer
K181	Thermocoupled Tip for WSP80
K191	Thermocoupled Tip for WMP
K1111	Thermocoupled Tip for WP80
K1101	Thermocoupled Tip for WMRP
WPB1	Tip Polishing Bar

11 Disposal

Dispose of replaced equipment parts, filters or old devices in accordance with the rules and regulations applicable in your country.

12 Warranty

Cooper Hand Tools warrants to the original purchaser and any subsequent owner ("Buyer") that Weller soldering and desoldering products will be free from defects in material and workmanship for a period of **one year** from date of purchase, provided that no warranty is made with respect to products which have been altered, subjected to abuse or improperly used, installed or repaired. Use of non-Cooper Hand Tools components will void this warranty if a non-Cooper Hand Tools component is defective (or is the source of the defect). Cooper Hand Tools will repair or replace products found to be defective not caused by a part, component or accessory manufactured by another company, during the warranty period. Contact Cooper Hand Tools with dated proof of purchase and return to Cooper Hand Tools, 1000 Lufkin Road, Apex, NC 27539. All costs of transportation and reinstallation shall be borne by Buyers.

IN NO EVENT SHALL COOPER HAND TOOLS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. COOPER HAND TOOLS LIABILITY FOR ANY CLAIMS ARISING OUT OF THIS WARRANTY SHALL NOT EXCEED THE PURCHASE PRICE OF THE PRODUCT.

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