WR 2
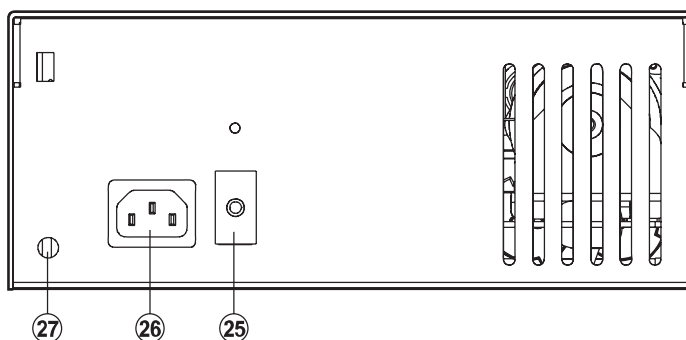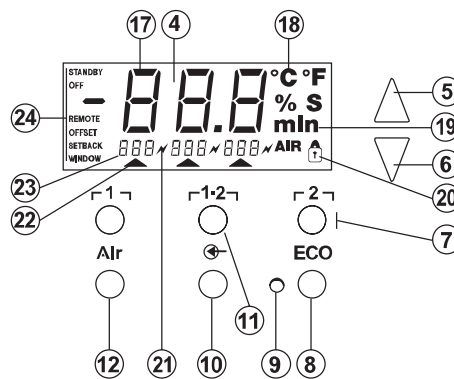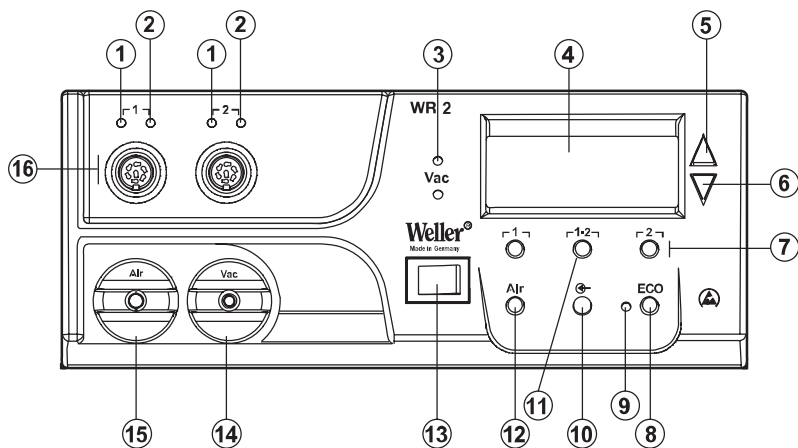
Operating Instructions
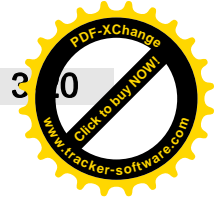
WR 2
Hardware Overview

1. Channel selection LED
2. Visual check LED
3. Vacuum LED
4. Display
5. UP button
6. DOWN button
7. Channel selection / temperature buttons ⌐1⌐, ⌐2⌐
8. ECO
9. Status display LED ECO
10. Special button
11. Temperature button ⌐1·2⌐ Channel selection
12. Hot air adjustment button (Air)
13. Power switch
14. Vacuum connection (Vac)
15. Hot air connection (Air)
16. Jacks Soldering tool channel ⌐1⌐, ⌐2⌐
17. Temperature display
18. Temperature symbol
19. Time functions
20. Interlock
21. Visual control check
22. Channel selection display
23. Fixed temperature display
24. Special functions display
25. Mains fuse
26. Mains connection
27. Equipotential bonding socket

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Contents

1 About these instructions

Thank you for buying our Weller WR 2. We appreciate your business and the confidence you have placed in us. The device has been manufactured in accordance with the most rigorous quality standards, which ensure that the device operates perfectly.

These instructions contain important information that will enable you to correctly and safely commission, operate and maintain repair station WR 2, and to rectify simple problems yourself.

▷ Read these instructions and the enclosed safety guidelines entirely before commissioning and using repair station WR 2.

▷ Keep these instructions in a safe place and so that they are easily accessible by all users.

1.1   Applied directives

The Weller microprocessor-controlled repair station WR 2 meets the specifications set out in the EC Declaration of Conformity (Directives 2004/108/EC, 2006/95/EC and 2011/65/EU (RoHS)).

1.2   Other applicable documents

– Operating instructions of repair station WR 2
– Safety information booklet accompanying these instructions
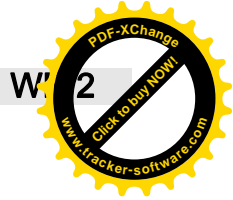
2 For your safety

Repair station WR 2 is manufactured in accordance with the current state of the art and acknowledged regulations concerning safety. There is nevertheless the risk of personal injury and damage to property if you fail to observe the safety information set out in the accompanying booklet and the warnings given in these instructions. Always give out the repair station WR 2 to third parties together with the operating instructions.

2.1 Intended use

Repair station WR 2 may only be used for the purpose specified in the operating instructions, i.e. for soldering and desoldering under the conditions specified therein. The conditions for intended use of repair station WR 2 also require that you
– adhere to these instructions,
– observe all other accompanying documents,
– comply with national accident prevention guidelines at the place of use.

The manufacturer will not be liable for unauthorised modifications to the appliance.

3 Included in delivery

– Repair station WR 2
– Power cable
– Equipotential bonding connector
– Repair station WR 2
– Safety information booklet
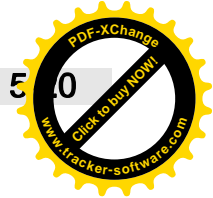
4   Device description

Weller WR 2 is a versatile repair station for professional repair work
on state-of-the-art electronic subassemblies in industrial
manufacturing, repair shops and laboratories. WR 2 has 2
independent channels for the simultaneous operation of 2 soldering
tools. Precise temperature control performance at the soldering tip is
guaranteed by the digital control electrotechnology together with
superior-quality sensor and heat-transfer technology. High-speed
measured-value acquisition provides for maximum temperature
precision and optimum dynamic temperature performance in load
situations. The temperature can be set to any value within the range
from 50 °C to 550 °C (150 °F – 999 °F) depending on which tool is
connected. Setpoint and actual values are displayed in digital form.
Three temperature buttons are used to select fixed temperatures
directly. The optical control indicator flashes ("∕ symbol in the
display and additional green LED) to indicate when the preselected
temperature has been reached.

The Weller WR 2 repair station has the following additional
functions:

– Automatic tool detection and activation of corresponding control
  parameters
– Digital temperature control
– Option of inputting offset values
– Programmable temperature reduction (setback)
– Standby and lock functions
– Installed heavy-duty pump
– Antistatic device design in accordance with ESD safety
– Different equipotential bonding possibilities on the device
  (standard configuration)
– Customer-specific calibration function

4.1   Technical data of WR 2

Dimensions	L x B x H (mm): 273 x 235 x 102 L x W x H (inches): 10.75 x 9.25 x 4.02
Weight	approx. 6.7 kg
Mains supply voltage	230 V, 50 Hz (120 V, 60 Hz)
Power consumption	300 W
Safety class	I and III, housing antistatic
Fuse	Overcurrent release 1.5 A
	Soldering and desoldering tool, continuously variable from 50 °C – 550 °C (150 °F – 999 °F) Controllable temperature range is tool-dependent WP 80 / WP 120 50 °C - 450 °C (150 °F - 850 °F) WP 200 50 °C - 550 °C (150 °F - 999 °F) WSP 150 50 °C - 550 °C (150 °F - 999 °F) DSX 80 / DXV 80 50 °C - 450 °C (150 °F - 850 °F) DSX 120 100 °C – 450 °C (200 °F – 850 °F) HAP 1 50 °C - 550 °C (150 °F - 999 °F)
Temperature accuracy	± 9 °C (± 20 °F)
Temperature accuracy HAP 1	± 30 °C (± 50 °F)
Temperature stability	± 2 °C (± 5 °F)
Soldering tip leakage resistance (tip to ground)	corresponds to IPC-J-001
Soldering tip leakage current (tip to ground)	corresponds to IPC-J-001
Pump (periodic duty (30/30) s)	Max. vacuum 0.7 bar Max. delivery rate 10 l/min Hot air max. 15 l/min
Equipotential bonding	Via 3.5 mm pawl socket on back of device

Equipotential bonding

Due to the different configuration of the 3.5 mm jackplug socket (equipotential bonding socket) (27),
4 variants are possible:

– Hard earthed/grounded: without connector (delivery status)

– Centre contact.

– Floating: with connector

– Soft earthed: with connector and soldered resistor.
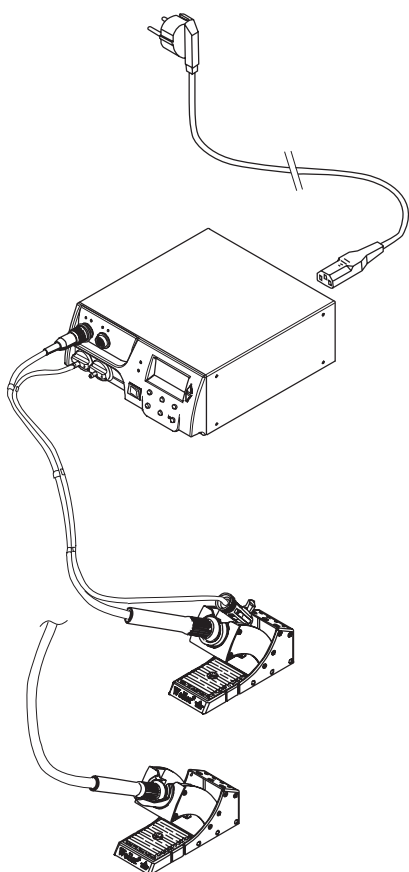   Earthing via the selected resistor

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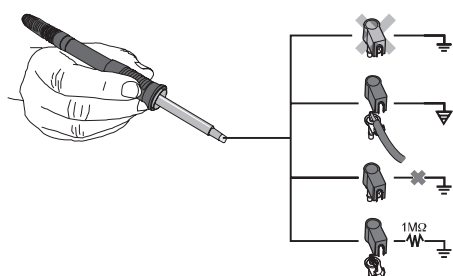
5 Starting up the device

WARNING!	**Risk of injury due to incorrectly connected vacuum hose.**
	If the vacuum hose is incorrectly connected, hot air and liquid solder can escape when the desoldering iron is actuated and cause injuries.
	▷ Never connect the vacuum hose to the "AIR nipple!

1. Carefully unpack the device.

2. Connect the soldering tools as follows:

   - Connect hot air pencil (HAP) with air hose to "AIR" nipple (15), insert with plug into socket ⌐1⌐ or ⌐2⌐ (16) on the repair station and lock by briefly twisting clockwise.

     OR

   - Connect desoldering tool with vacuum hose to "VAC" nipple (14), insert with plug into socket ⌐1⌐ or ⌐2⌐ (16) on the repair station and lock by briefly twisting clockwise.

   - Insert the soldering tool with plug into socket ⌐1⌐or ⌐2⌐ (16) on repair station and lock by briefly twisting clockwise.

3. Place the soldering tools in the safety holder.

4. Check whether the mains supply voltage matches that indicated on the rating plate and whether mains power switch (13) is off.

5. Connect the control unit to the mains supply (26).

6. Switch on the device at the mains power switch (13).

After the device has been switched on, the microprocessor carries out a self-test in which all the segments are briefly in operation. Then the electronics switches automatically to the basic temperature setting of 380 °C for all channels and 50 % for the "AIR" setting. If channels are activated, the green LED (2) lights up:

− LED lit green constantly indicates that the connected tool is being heated up.

− LED flashing green indicates that the preselected tool temperature has been reached.

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

Note The maximum output power is limited to 250 watts.

6   Operating the device

6.1   Selecting a channel, switching on or off
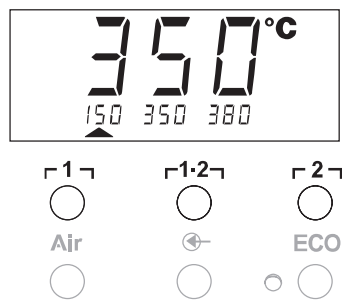
1. Press one of the ⌐ 1 ¬ buttons or ⌐ 2 ¬ (7) to select one of two channels.
   The nominal temperature of the selected channel and the hard programmed temperatures are displayed in small font.
   - Or -
   Briefly press the ⌐ 1·2 ¬ button (11) until the required channel is displayed.
   The current tool temperature then appears on the display. The status with the corresponding setpoint temperature is also displayed in the lower area.
   The selected channel is indicated by a triangle (21) in the display and by a red-lit LED (1) on the device.

2. Press the **UP** (5) and **DOWN** (6) buttons simultaneously until three dashes "- - - show up on the display.

3. Release the buttons.
   If the channel is now deactivated, "OFF appears on the display.
   If the channel is activated, the current actual temperature appears on the display.

Stored data are not lost when a channel is switched off.

Note   The display changes automatically to the channel to which a new tool has been connected, or if the finger switch has been pressed or if the tool has been taken out of the switching holder.
This function can be deactivated in Special functions - Menu 2 (see "Deactivating / activating automatic channel changing", page 17).
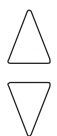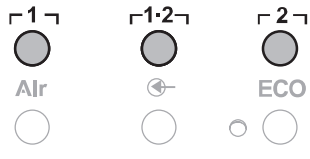
6.2   Setting the temperature

Setting the temperature individually
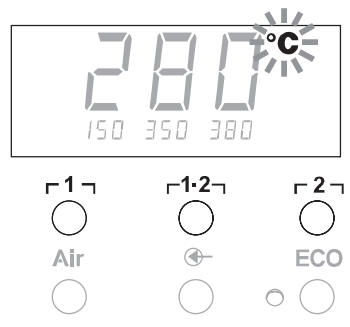
1. Select the required channel by pressing either of the ⌐ 1 ¬ or ⌐ 2 ¬ buttons.

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

2. Press the **UP** or **DOWN** button.

   The display changes over to the set setpoint value.
   The temperature symbol (18) flashes.

3. Press the **UP** or **DOWN** button to set the desired setpoint temperature:

   - Brief touching alters the setpoint value by one degree.

   - Permanent pressing alters the setpoint value in rapid pass mode.

   The actual value of the selected channel appears on the display again approx. 2 seconds after the setting buttons are released.

Setting the temperature with the ⌐1⌐, ⌐1·2⌐ and ⌐2⌐ temperature buttons

The setpoint temperature value can be set for each channel separately by selecting three preset temperature values (fixed temperatures).

Factory settings:

⌐1⌐ = 150 °C (300 °F),
⌐1·2⌐ = 350 °C (660 °F) ,
⌐2⌐ = 380 °C (720 °F)

1. Select a channel.

   Three fixed temperatures are shown on the display for approx. 2 seconds.
   A temperature value can be entered as long as the temperature symbol (18) is flashing.

2. Set the setpoint temperature value with the **UP** or **DOWN** button.

3. Press the required temperature button ⌐1·⌐, ⌐1·2⌐ or ⌐2⌐ 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 temperature button again.

Note Assigning a low "Setback temperature to a temperature button offers the possibility of manual temperature reduction when the soldering bit is not in use.

Selecting the temperature with the ⌐1⌐, ⌐1·2⌐ and ⌐2⌐ temperature buttons

1. Select a channel.

2. Three fixed temperatures are shown on the display for approx. 2 seconds.
   As long as the temperature symbol is flashing, the required temperature can be selected with the ⌐1⌐, ⌐1·2⌐ or ⌐2⌐ buttons.

6.3   Setting the air flow

The air flow rate can be adjusted to any value within the range from 10 % to 100 % based on a max. flow rate of 10 l/s (HAP 1).

1. Press the AIR (12) button.

   The current air flow rate is displayed in percent for approx. 2 seconds.

2. Set the required flow rate by pressing the **UP** or **DOWN** button.

   The set value is adopted. The actual temperature of the selected channel is displayed after 3 seconds.
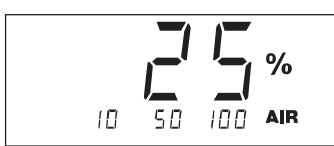
Note As with the 3 fixed temperatures, 3 fixed air flow rates can be set and selected.
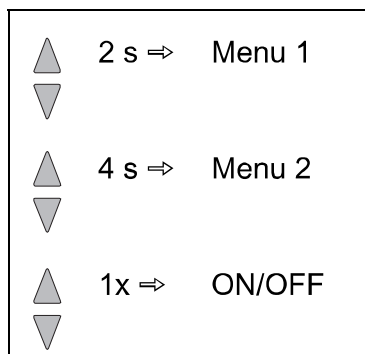Factory settings:

⌐1⌐ = 10 %, ⌐1·2⌐ = 50 %, ⌐2⌐ = 100 %

6.4   Soldering and desoldering

▷ Carry out soldering work as directed in the operating instructions of your connected soldering tool.

7   Special functions

```
△   2 s ⇒   Menu 1
▽

△   4 s ⇒   Menu 2
▽

△   1x ⇒    ON/OFF
▽
```

The special functions are divided into 2 menu levels:

– Menu 1 with setting options for Standby temperature, temperature switch-off (Setback), automatic switch-off time (Auto-OFF), temperature offset, window function, temperature units, switch-on time (On Time) for hot air pencil, vacuum switch-off delay (VAC OFF), vacuum switch-on delay (VAC ON) and locking function.

– Menu 2 with adjustments for pressure gauge level, ID Code, calibration function (FCC), autom. channel switching ON / OFF, Special Button ON/OFF, ECO function ON/OFF, keylock ON / OFF and control characteristic HI / LO.

7.1   Selecting special functions of Menu 1

Special functions	Navigation
STANDBY	
SETBACK	
AUTO OFF	↑ ⌐ 1 ⌐
OFFSET	
WINDOW	↓ ⌐1·2⌐
°C/°F	
ON TIME	EXIT ⌐ 2 ⌐
VAC OFF	
VAC ON	CH changing AIR
🔒	
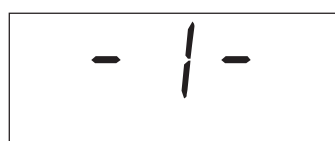
1. Select the required channel ⌐ 1 ⌐ or ⌐ 2 ⌐ for the entry of special functions.

2. Press and hold down the **UP** and **DOWN** buttons simultaneously.
    "– 1 – appears on the display after 2 s.

3. Release the buttons.
    Selection of the special functions of Menu 1 is activated.
   The settings can now be made.
    - Select menu items using the ⌐ 1 ⌐ and ⌐1·2⌐ buttons.
    - Exit the menu again with button ⌐ 2 ⌐ (EXIT).
    - Change channel using the **AIR** (12) button.

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Resetting the special functions to the factory settings

1. Press and hold down button ⌐2⌐.
2. Then press the **UP** and **DOWN** buttons simultaneously.

   "FSE" appears on the display.
   The repair station is now reset to the factory settings.
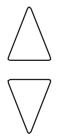
Setting the standby temperature

The standby temperature is automatically set after a temperature deactivation. The actual temperature flashes in the display. "STANDBY appears on the display.

1. Select the menu item STANDBY in Menu 1.
2. Set the setpoint value for the standby temperature with the **UP** or **DOWN** button.
3. Change to the next menu option using the ⌐1⌐ (back) or ⌐1·2⌐ (forwards) button.
4. Change channel using the **AIR** (12) button.

   Special Button ON/OFF

   ECO function ON/OFF

## Setting temperature deactivation (SETBACK)

When the soldering tool is not in use, the temperature is reduced to the standby temperature after the set setback time has elapsed. The setback state is indicated by a flashing actual value and "STANDBY appears on the display. Pressing the **UP** or **DOWN** button terminates this setback state. Depending on the tool, the finger switch or the switching holder deactivates the setback state.

The following setback settings are possible:
– "0 min: setback OFF (factory setting)
– "ON: setback ON (the system is controlled down to standby temperature with the switching holder after the soldering bit is stowed)
– "1-99 min: setback ON (individually settable setback time)
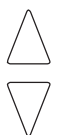
1. Select the menu item SETBACK in Menu 1.
2. Set the setback value with the **UP** or **DOWN** button.
3. Change to the next menu option using the ⌐1⌐ (back) or ⌐1·2⌐ (forwards) button.
4. Special Button ON/OFF

   ECO function ON/OFF

## 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.

Temperature deactivation is performed independently of the set setback function. The actual temperature flashes in the display and serves as residual-heat indicator. "OFF appears on the display. A flashing dash appears on the display below 50 °C (120 °F).
The following AUTO-OFF time settings are possible:

The following AUTO-OFF time settings are possible:
– "0 min: AUTO-OFF function is switched off
– "1-999 min: AUTO-OFF time, individually settable
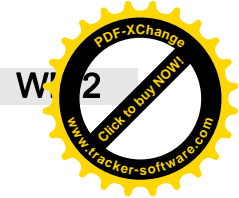
1. Select the menu item OFF in Menu 1.
2. Set the AUTO-OFF setpoint time value with the **UP** or **DOWN** button.
3. Change to the next menu option using the ⌐ 1 ⌐ (back) or ⌐1·2⌐ (forwards) button.
4. Special Button ON/OFF
   ECO function ON/OFF

Temperature performance with different settings of the SETBACK and AUTO OFF functions

Settings		Temperature performance 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	When the soldering tool is not in use[1] the temperature is reduced to the STANDBY temperature[2] after the SETBACK time has elapsed.
Time	Time	When the soldering tool is not in use[1] the temperature is reduced to the STANDBY temperature[2] after the SETBACK time has elapsed and the tool is switched off after the OFF time has elapsed.
		Temperature performance with switching holder
0	0	Soldering is switched off in the holder[3].
ON	0	Soldering tool is controlled down in the holder[3] to the STANDBY temperature[2].
0	Time	Soldering tool is switched off in the holder[3] after the OFF time has elapsed.
ON	Time	The temperature of the soldering tool in the holder[3] is reduced to the STANDBY temperature[2] and the tool is switched off after the OFF time has elapsed.
Time	0	The temperature of the soldering tool in the holder[3] is reduced to the STANDBY temperature[2] after the SETBACK time has elapsed.
Time	Time	The temperature of the soldering tool in the holder[3] is reduced to the STANDBY temperature[2] after the SETBACK time has elapsed and the tool is switched off after the OFF time has elapsed.

[1] Not in use = UP/DOWN buttons not pressed and no temperature drop > 5 °C.

[2] STANDBY temperature must be below the set setpoint temperature, otherwise the SETBACK function is inactive.

[3] When a switching holder is connected, the soldering tool always remains at the set setpoint temperature outside the holder. The holder function is not activated until the soldering tool has been placed in the holder for the first time.

Note   Reset of STANDBY and OFF modes:
– without switching holder by pressing the **UP** or **DOWN** button.
– with switching holder by removing the soldering tool from the holder.

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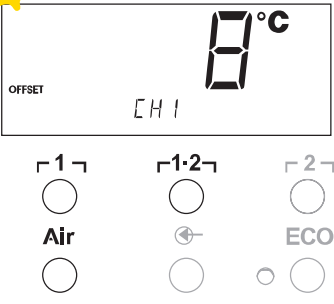
Setting the temperature offset

The real soldering-tip temperature can be adapted by entering a temperature offset around ± 40 °C (± 70 °F).

1. Select the menu item OFFSET in Menu 1.
2. Set the OFFSET temperature value with the **UP** or **DOWN** button.
3. Change to the next menu option using the ⌐1¬ (back) or ⌐1·2¬ (forwards) button.
4. Special Button ON/OFF

   ECO function ON/OFF

Setting the window function

It is possible, starting from a set, locked temperature, to set a temperature window of ± 99 °C (± 180 °F) with the aid of the WINDOW function.

Note To be able to use the WINDOW function, ensure that the repair station is in the locked state (see "Switching the lock function on/off", page 14).
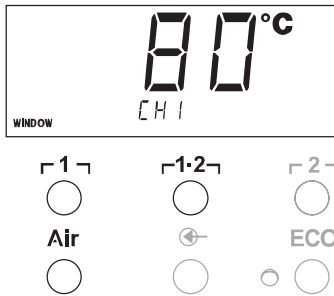
1. Select the menu item WINDOW in Menu 1.
2. Set the WINDOW temperature value with the **UP** or **DOWN** button.
3. Change to the next menu option using the ⌐1¬ (back) or ⌐1·2¬ (forwards) button.
4. Special Button ON/OFF

   ECO function ON/OFF

Switching the temperature unit

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

1. Select the menu item °C / °F in Menu 1.
2. Set the temperature unit with the **UP** or **DOWN** button.
3. Change to the next menu option using the ⌐1¬ (back) or ⌐1·2¬ (forwards) button.

## Limiting the switch-on time (ON TIME) for hot-air pencil (HAP)

The switch-on time for the HAP hot-air flow can be limited in increments of 1 from 0 to 60 s. The set time is then identical for all 3 channels. The factory setting is 0 s ("OFF), i.e. the air flow is activated as long as the button on the hot air tool or the optional foot pedal is pressed.
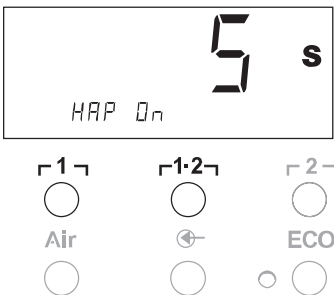
1. Select the menu item HAP-ON in Menu 1.
2. Set the time value with the **UP** or **DOWN** button.
3. Change to the next menu option using the ⌐1¬ (back) or ⌐1·2¬ (forwards) button.

## Setting the vacuum OFF delay (VAC OFF)

To prevent the desoldering bit from becoming clogged, it is possible to set a vacuum OFF delay of 0 to 5 s (factory setting 2 s).
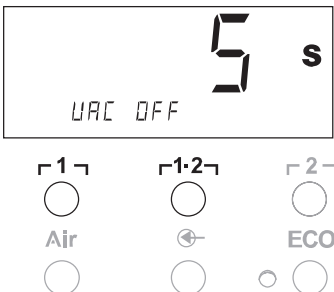
1. Select the menu item VAC OFF in Menu 1.
2. Set the time value (VAC OFF) with the **UP** or **DOWN** button.
3. Change to the next menu option using the ⌐1¬ (back) or ⌐1·2¬ (forwards) button.

Setting the vacuum ON delay (VAC ON)

To prevent premature starting of the pump or to ensure that the soldered joint is preheated for a defined period, a switch-on delay from 0 to 9 s can be set (factory setting 0 s: OFF).
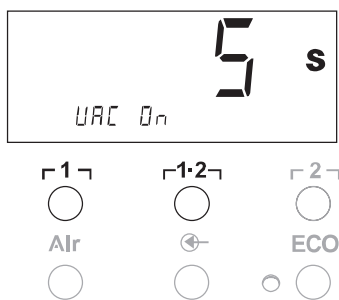
1. Select the menu item VAC ON in Menu 1.
2. Set the time value (VAC ON) with the **UP** or **DOWN** button.
3. Change to the next menu option using the ⌐1¬ (back) or ⌐1·2¬ (forwards) button.

Switching the lock function on/off

After activating the lock, the ⌐1¬, ⌐1·2¬, ⌐2¬, **ECO** (8) and **AIR** (12) temperature buttons can still be operated. All other settings are disabled until the repair station is unlocked again.

To lock the repair station:

1. Select the menu item LOCK in Menu 1.
   "OFF appears on the display. The key symbol (20) flashes.
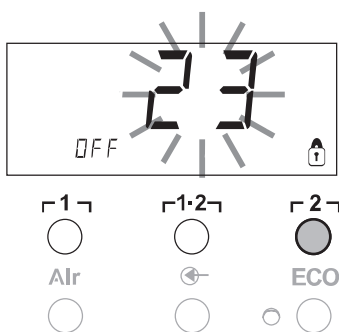
Note Pressing the ⌐1¬ or ⌐1·2¬ button while "OFF is displayed exits the menu option without saving the lock code.

2. Set a lock code between 1 and 999 with the **UP** or **DOWN** button.
3. Press button ⌐2¬ for 5 seconds.
   The code is stored. The key symbol (20) is displayed. The station is now locked. The display switches to the main menu.

To unlock the repair station:

1. Select the menu item LOCK in Menu 1.
   "ON appears on the display. The key symbol (20) is displayed.
2. Enter the 3-digit lock code with the **UP** or **DOWN** button.
3. Press button ⌐2¬.
   The station is now unlocked. The display switches to the main menu.
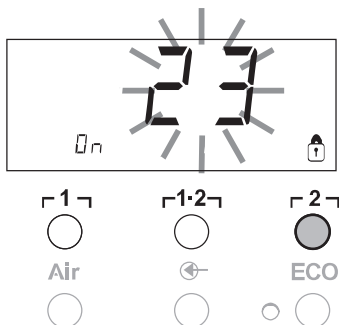
7.2   Selecting special functions of Menu 2

Special functions	Navigation	
LEVEL		
ID	↑	⌐1¬
FCC		
AUTO CHANNEL	↓	⌐1·2¬
SP BUTTON		
ECO	EXIT	⌐2¬
HAP LOCK		
HI / LO CONTROL	CH changing	AIR
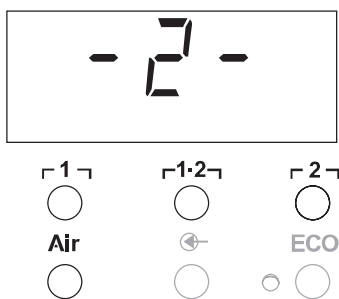
1. Select the required channel ⌐1¬, ⌐1·2¬ or ⌐2¬ for entering the special functions.
2. Press and hold down the **UP** and **DOWN** buttons simultaneously.
   "– 2 – appears on the display after 4 s.
3. Release the buttons.
   Selection of the special functions of Menu 2 is activated.
   The settings can now be made.

Select menu items using the ⌐1¬ and ⌐1·2¬ buttons.
Exit the menu again with button ⌐2¬ (EXIT).

Defining the pressure-gauge threshold

– This function can be used to define the maintenance interval of the desoldering tool. Here the value in mbar at which the electric pressure gauge issues a warning signal when the intake system is contaminated (LED (3) of the vacuum pump switches from green to red) is defined. The set value is dependent on the suction nozzles used.

– Factory setting: -600 mbar
  Adjustable: -400 mbar to -800 mbar

1. The system (tips and filter) must be free
2. Select the menu item LEVEL in Menu 2.
3. Set the LEVEL pressure value with the **UP** or **DOWN** button.
   The check LED switches back and forth between red and green. Use the **UP** button to increase the vacuum by 50 to 80 mbar, to compress the vacuum hose and to check whether the indicator lamp switches from green to red.
4. Change to the next menu option using the ⌐1¬ (back) or ⌐1·2¬ (forwards) button.

Setting the station identification (ID code)

An ID code can be assigned to each station so it can be clearly identified.

1. Select the menu item REMOTE ID in Menu 2.
2. Enter an ID with the **UP** or **DOWN** button.
   (possible values 0 – 999).
3. Change to the next menu option using the ⌐1¬ (back) or ⌐1·2¬ (forwards) button.

Note Press button ⌐2¬ to exit the menu item without changes (EXIT).

Executing the calibration function (Factory Calibration Check)

With the FCC function you can check the temperature precision of the repair station and even out possible deviations. For this purpose, the soldering-tip temperature must be measured with an external temperature meter and a temperature measuring tip assigned to the soldering tool. The corresponding channel must be selected prior to calibration.

Changing calibration at 100 °C / 210 °F
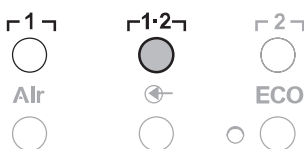
1. Insert the temperature sensor (0.5 mm) of the external temperature meter into the temperature measuring tip.
2. Select the menu item FCC in Menu 2.
3. Press the **DOWN** button.
   Calibration point 100 °C / 210 °F is selected.
   The soldering tip is now heated to 100 °C / 210 °F.
   The control indicator flashes 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** button to set the difference between the value indicated on the external meter and the value indicated on the repair station.
   Maximum possible temperature adjustment ± 40 °C (± 70 °F).
   Example:
   Display 100 °C, external meter 98 °C: setting ▲ 2
   Display 100 °C, external meter 102 °C: setting ▼ 2

Note Press button ⌐2⌐ to exit the menu item without changes (EXIT).

6. Press the ⌐1·2⌐ (Set) button to confirm the value.
   The temperature deviation is now reset to 0. Calibration at 100 °C / 210 °F is now concluded.
7. Exit Menu 2 with button ⌐2⌐.

Changing calibration at 450 °C / 840 °F

1. Insert the temperature sensor (0.5 mm) of the external temperature meter into the temperature measuring tip.
2. Select the menu item FCC in Menu 2.
3. Press the **UP** button.
   Calibration point 450 °C / 840 °F is selected.
   The soldering tip is now heated to 450 °C / 840 °F.
   The control indicator (21) flashes 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** button to set the difference between the value indicated on the external meter and the value indicated on the repair station.
   Maximum possible temperature adjustment ± 40 °C (± 70 °F).
   Example:
   Display 450 °C, external meter 448 °C: setting ▲ 2
   Display 450 °C, external meter 452 °C: setting ▼ 2

Note Press button ⌐2⌐ to exit the menu item without changes (EXIT).

6. Press the ⌐1·2⌐ (Set) button to confirm the value.
   The temperature deviation is now reset to 0. Calibration at 450 °C / 840 °F is now concluded.
7. Exit Menu 2 with button ⌐2⌐.

EN

Resetting calibration to factory settings

1. Select the menu item FCC in Menu 2.
2. Press and hold down button ⌐2⌐.
3. Then press the **UP** and **DOWN** buttons simultaneously.
   "FSE (Factory Setting Enabled) appears on the display.
   The repair station is now reset to the factory calibration.
4. Change to the next menu option using the ⌐1⌐ (back) or ⌐1·2⌐ (forwards) button.
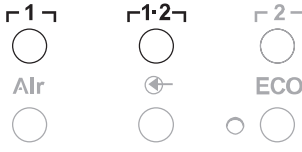
Deactivating / activating automatic channel changing

This function can be used to deactivate automatic channel changing (activated at the factory):

1. Select the menu item AUTO CHANNEL in Menu 2.
2. Set the status with the **UP** or **DOWN** button.
   (ON = activate / OFF = deactivate)
3. Change to the next menu option using the ⌐1⌐ (back) or ⌐1·2⌐ (forwards) button.

Activating / deactivating the special button (10)

The special button (10) (deactivated at the factory) can be activated using the SP Button function:

1. Select the menu item SP BUTTON in Menu 2.
2. Set the status with the **UP** or **DOWN** button
   (ON = activate / OFF = deactivate).
3. Change to the next menu option using the ⌐1⌐ (back) or ⌐1·2⌐ (forwards) button.

After activating the special button (10), it can be used as a shortcut back to Menu 1. The function previously selected is saved when the menu is exited with the special button (10).

Activating / deactivating the ECO button (8)

The ECO button (deactivated at the factory) can be activated using the ECO function:

1. Select the menu item ECO in Menu 2.
2. Set the status with the **UP** or **DOWN** button
   (ON = activate / OFF = deactivate).
3. Change to the next menu option using the ⌐1⌐ (back) or ⌐1·2⌐ (forwards) button.

After activating the ECO button (8), it can be used to set all 2 channels to Standby mode. The green LED (9) lights up and the channels are set to the set standby temperature.
If a switching holder is in use, the function is reset when the tool is removed from the holder.

Activating / deactivating button lock HAP

This function can be used to change the factory-default button response of the HAP iron. When the lock is enabled, the HAP is activated on the first press of the button and deactivated on the next press of the button.

1. Select the menu item HAP LOCK in Menu 2.
2. Set the status with the **UP** or **DOWN** button.
   (ON = activate / OFF = deactivate)
3. Change to the next menu option using the ⌐1⌐ (back) or ⌐1·2⌐ (forwards) button.

Note To protect itself, the pump switches off automatically after 20 minutes of continuous operation.
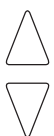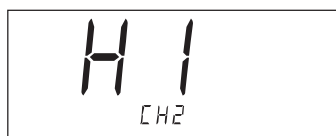
Setting the control characteristic for WP 120

The HI / LO CONTROL function can be used to set the control characteristic for WP 120 (set to HI at the factory):

1. Select menu option HI / LO in Menu 2.
2. Set the status with the **UP** (HI) or **DOWN** (LO) button.

HI: aggressive control response for maximum output - temperature overshoots are possible

LO: sensitive control response for heat-sensitive components

8 Resetting to factory settings

Resetting the special functions

This function is described under "7.1 Selecting special functions of Menu 1"Resetting the special functions to the factory settings" on page 10.

Resetting calibration to factory settings

This function is described under "7.2 Selecting special functions of Menu 2"Calibrating to factory settings" on page 14.

9 Care and maintenance of WR 2

9.1 Servicing the filter

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

WARNING! **Working without a filter can result in irreparable damage to the vacuum pump.**

▷ Check before starting soldering whether a main filter is inserted.

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 properly seated.
4. Insert pressure spring.
5. Abdeckkappe unter leichtem Druck wieder aufsetzen und um turn clockwise 45°.

10 Error messages and error clearance

Message/symptom	Possible cause	Remedial measures
Display: "- - -	– Tool has not been detected – Tool defective – DSX 80 Desoldering iron and HAP 1 hot air tool are connected simultaneously	– Check connection of tool to device – Check connected tool – Disconnect one of the tools
No air at HAP	– Air hose not or incorrectly connected	– Connect air hose to AIR nipple
No vacuum at desoldering tool	– Vacuum hose not or incorrectly connected – Desoldering nozzle clogged	– Connect vacuum hose to VAC nipple – Maintain desoldering nozzle with cleaning tool
Incorrect status indication by VAC LEDs	– Pressure-gauge level not correctly set	– Set pressure gauge level in Special menu 2
No display function (display OFF)	– No mains supply voltage	– Turn on mains power switch – Check mains supply voltage – Check device fuse
VAC LED red	– Vacuum system clogged	– Clean suction nozzle – Check filter (13) if yellow, then replace – Clean desoldering tool – replace filter – Check vacuum hose
"Err" display	– VAC filter clogged – Desoldering iron connected to VAC – Hot air tool connected to Vac	– Replace VAC filter – Disconnect desoldering iron hose – Connect hot air tool to AIR channel – Acknowledge error with ⌐2⌐ button
Display "OFF"	– Total power output of connected tools more than 250 W – Deactivate channel	– Change tool selection and activate channel – Activate channel by briefly pressing UP and DOWN buttons simultaneously

11 Accessories

T005 29 200 99 WP 200 Soldering set with holder WDH 31, 200 W
T005 29 194 99 WP 120 Soldering set with holder WDH 10T, 120 W
T005 29 181 99 WP 80 Soldering iron set, 80 W
T005 29 161 99 WSP 80 Soldering iron set, 80 W
T005 33 155 99 WMP Soldering iron set, 65 W
T005 29 187 99 LR 21 Soldering iron set, 50 W
T005 26 152 99 LR 82 Soldering iron set, 80 W
T005 33 133 99 WTA 50 Desoldering tweezer set, 50 W
T005 29 170 99 WSP 150 Soldering iron set, 150 W
T005 25 032 99 WST 82 KIT1 Thermal insulation stripper set, 80 W
T005 25 031 99 WST 82 KIT2 Thermal insulation stripper set, 80 W
T005 27 040 99 WSB 80 Solder bath, 80 W
T005 27 028 99 WHP 80 Pre-heating plate, 80 W
T005 13 182 99 DXV 80 Inline desoldering iron set, 80 W
T005 13 183 99 DSX 80 Desoldering iron set, 80 W
T005 13 198 99 DSX 120 Desoldering iron, 120 W
T005 33 114 99 HAP 1 Hot air tool set, 100 W
T005 15 152 99 WDH 30 Holder for DSX 80
T005 15 153 99 WDH 40 Holder for DXV 80
T005 15 121 99 WDH 10 Safety rest WP 80/WSP 80
T005 15 162 99 WDH 20T Switching holder for WMP
T005 13 120 99 Foot pedal
T005 87 388 50 Foot pedal adaptor
T005 15 125 99 WDC 2 Dry cleaning cartridge
T005 13 841 99 Metal wool for WDC
T005 87 597 28 Reset plug °C
T005 87 597 27 Reset-Stecker °F

For details of further accessories, please refer to the operating instructions for the individual soldering iron sets.
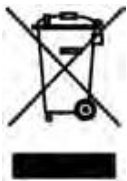
12 Disposal

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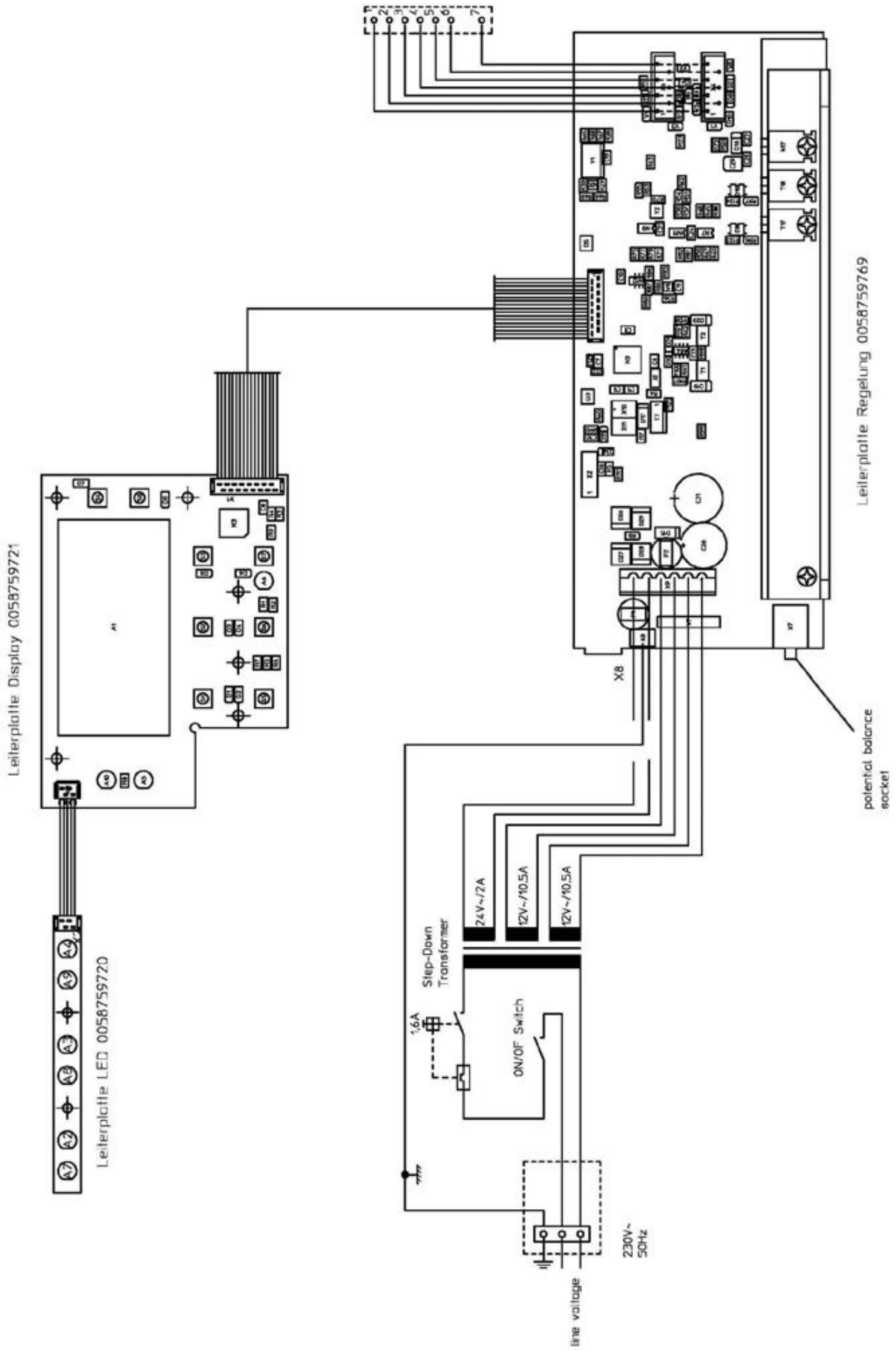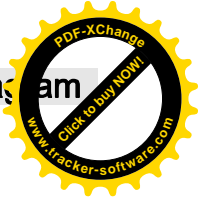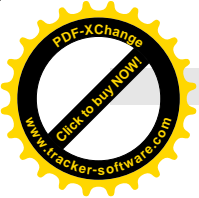
13 Warranty

Buyer's claims for defective goods expire one year from receipt of the goods. This does not apply to claims by the buyer for indemnification pursuant to §§ 478 and 479 of the German Civil Code (BGB).

We only accept claims under warranty for the quality or durability of goods if we have expressly stated in writing that such a warranty has been granted by us.
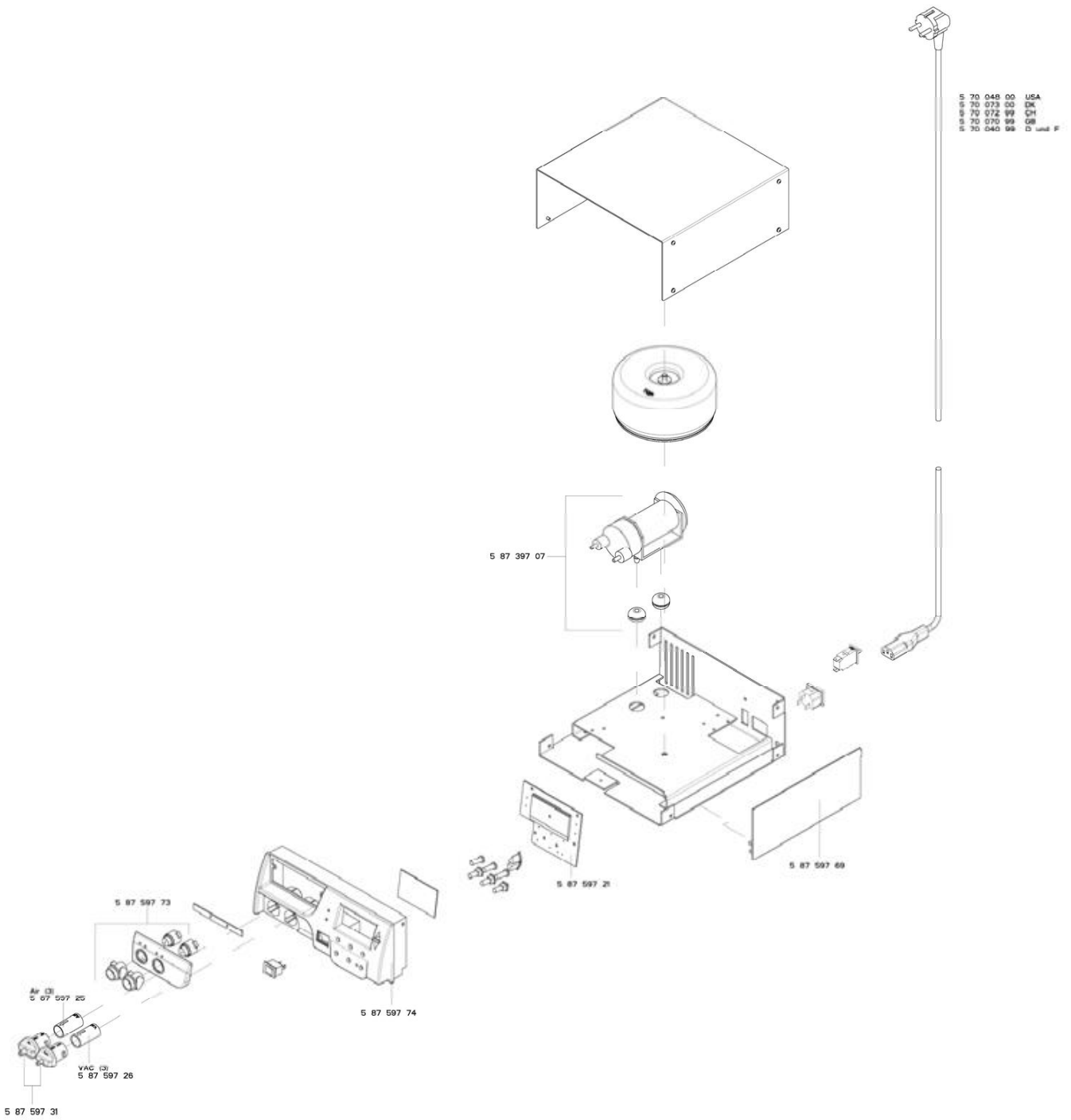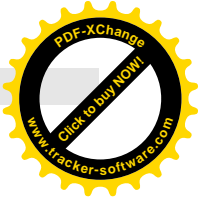
Subject to technical alterations and amendments.
See the updated operating instructions at www.weller-tools.com.

4D9R1007/1

Leiterplatte Regelung 0058759769
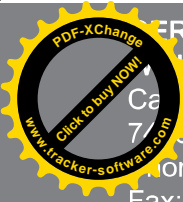
Leiterplatte Display 0058759721

Leiterplatte LED 0058759720

potential balance
socket

X8

24V~/2A

12V~/0,5A

12V~/0,5A

Step-Down
Transformer

1,6A

ON/OF Switch

230V~
50Hz

line voltage

5 70 048 00   USA
5 70 073 00   DK
5 70 072 99   CH
5 70 070 99   GB
5 70 040 99   D und F

5 87 397 07

5 87 597 69

5 87 597 21

5 87 597 73

5 87 597 74

Air Oil
5 87 597 25

VAC (3)
5 87 597 26

5 87 597 31

GERMANY
Weller Tools GmbH
Carl-Benz-Str. 2
74354 Besigheim
Phone: +49 (0) 7143 580-0
Fax: +49 (0) 7143 580-108

GREAT BRITAIN
Apex Tool Group
(UK Limited) Ltd
4th Floor Pennine House
Washington, Tyne & Wear
NE37 1LY
Phone: +44 (0) 191 419 7700
Fax: +44 (0) 191 417 9421

FRANCE
Apex Tool France S.N.C.
25 Av. Maurice Chevalier BP 46
77832 Ozoir-la-Ferrière Cedex
Phone: +33 (0) 164.43.22.00
Fax: +33 (0) 164.43.21.62

ITALY
Apex Tool S.r.l.
Viale Europa 80
20090 Cusago (MI)
Phone: +39 (02) 9033101
Fax: +39 (02) 90394231

SWITZERLAND
Apex Tool Switzerland Sárl
Rue de la Roselière 12
1400 Yverdon-les-Bains
Phone: +41 (0) 24 426 12 06
Fax: +41 (0) 24 425 09 77

AUSTRALIA
Apex Tools
P.O. Box 366
519 Nurigong Street
Albury, N. S. W. 2640
Phone: +61 (2) 6058-0300

CANADA
Apex Tool - Canada
164 Innisfil
Barrie Ontario
Canada L4N 3E7
Phone: +1 (905) 455 5200

CHINA
Apex Tool Group
A-8 building, No. 38 Dongsheng Road,
Heqing Industrial Park, Pudong
Shanghai PRC 201201 China
Phone: +86 (21) 60880288

USA
Apex Tool Group, LLC
14600 York Rd. Suite A
Sparks, MD 21152
Phone: +1 (800) 688-8949
Fax: +1 (800) 234-0472

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