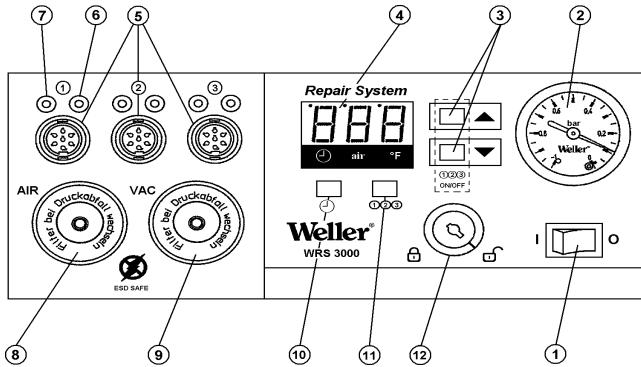


WRS3000 REWORK STATION

FEATURES



ITEM #	DESCRIPTION
1	On/Off Switch
2	Vacuum Gauge
3	Up/Down Buttons
4	Digital Display
5	Tool Connectors
6	Heater Function LED
7	Tool Selected LED
8	Air Filter/Connector
9	Vacuum Filter/Connector
10	Timer Button
11	Tool Selector Button
12	Key Lock

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.

OPERATING INSTRUCTIONS

The Weller® Rework System WRS3000 is designed to operate three tools simultaneously. The microprocessor control circuit automatically recognizes each tool connected to the system and activates the operating parameters accordingly.

Tool temperature is controlled with a digital system which can be set at any temperature within the allowable range. For hot air the range is between 150 - 1022°F (65 - 550°C), for soldering and desoldering the range is automatically limited to between 150 - 850°F (65 - 454°C). A pulsing green LED above the tool's connector indicates that the tool is at the selected temperature.

The microprocessor controls all tool functions. The digital display is used to set tool temperatures, air flow (for Hot Air Pencil), air flow time, temperature off-set, and temperature set-back (for soldering or desoldering tools).

Air flow for the Hot Air Pencil and vacuum for desoldering tools are generated by an internal pump which is activated by either a micro finger switch on the hand tool (tool may be connected to any connector) or by an optional foot switch (tool connected to either connector 1 or 3 located on the rear of the unit).

CAUTION: When using a desoldering tool be sure to connect the vacuum line to the vacuum connector, connecting to the air connection could cause molten solder to spurt out of the desoldering tiplet!

The WRS3000 comes with a vacuum gauge which is used to monitor the flow of air through the desoldering tool. A higher than normal vacuum reading indicates that the tiplet is clogged and a lower than normal reading indicates that the air filter is clogging and needs to be changed.

The WRS3000 meets all the current government specifications including ESD requirements.

SPECIFICATIONS FOR WRS3000

Dimensions:	95." x 10.6" x 4.1" (L x D x H)
Line Voltage:	120 Vac, 60 Hz
Power Input:	300 watts
Circuit Breaker:	3.0 Amp, 120V
Temperature Stability:	±10°F
Temperature Accuracy:	
Soldering or Desoldering	±16°F
Hot Air	±50°F
Air Flow (maximum):	
Hot Air Pencil	10 l/min.
Desoldering	20 l/min.
Vacuum (maximum):	0.7 Bar (20.7 in hg)

PACKING LIST

0053302299 WRS3000 Control Unit
Power Cord 120VAC
Instruction Manual

SET-UP

The WRS3000 has been designed to operate Weller soldering and desoldering tools. The microprocessor automatically recognizes any combination of three tools. Any tool can be connected to any connector, the station will correctly adjust the operating parameters.

Place the selected tools in their appropriate tool holders, plug the tools into the tool connectors, attach the air and/or vacuum hoses to the proper connector. Connect the power cord to the receptacle in the rear of the system housing and then into a 120VAC power receptacle.

CAUTION: When using a desoldering tool be sure to connect the vacuum line to the vacuum connector, connecting the air connection could cause molten solder to spurt out of the desoldering tiplet!

Turn the power switch on, the display will illuminate after approximately two seconds, then the microprocessor will light all the display segments for a short period of time while initiating system checks.

As received from the factory the tool temperatures are set to default settings of 700°F and the air flow for the Hot Air Pencil is set at 50% of the maximum flow rate. The display will be switched to the number 1 tool connector. The temperature will be displayed in degrees Fahrenheit as indicated by the "°F" symbol in the display.

TOOL SELECTION

Select a tool by pressing the tool selector button (11) until the red LED (7) above the selected tool connector comes on. Each activation of the button will switch the lighted red LED to the next tool connector, the third activation of the button will activate the air flow adjustment and the word "AIR" will be illuminated in the display.

Any tool can be turned off if it is not in use by selecting it with the tool selector button (11) and then depressing both the up and down buttons at the same time. Temperature settings will be retained in memory while the tool is off. Conversely, a tool that is off can be turned on by selecting that tool and depressing both the up and down buttons at the same time. If a tool connector is empty the display will show three bars.

TEMPERATURE/AIR FLOW

To change the set temperature of the tool selected, press the up or down buttons (3) once to enter the set mode and again to change the setting by one digit, holding a button depressed will rapidly increase or decrease the set temperature of the selected tool.

To adjust the air flow for the Hot Air pencil, select the "AIR" function with the tool selector button (11). Depress the up or down buttons (3). Air flow will be adjusted as a percentage of the maximum 10 l/minute. The hot air will be free of any static charge. Should the Hot Air Pencil be connected to the vacuum fitting by mistake, a safety valve will prevent reverse hot air flow from damaging the pencil.

The air flow can be activated from the micro switch in the handle of the pencil or from an optional foot switch (FS1). The optional foot switch can be used to operate either the HAP1 or a desoldering tool. The foot switch connectors are located on the rear panel of the WRS3000 and will control tools attached to connector 1 or connector 3. Tools with a micro switch in the handle can be operated from any connector.

DISPLAY SET/READ

Normally the display will be in the read mode and will show the actual tip temperature of the selected tool and the "°F" symbol will flash and show the set temperature, the display will switch back to the read mode after 4 seconds unless an up or down button is depressed. Since the air flow setting does not have a read mode the "AIR" symbol will not flash and every depression of the up and down keys (after the first) will change the setting.

Please note that when using the Hot Air Pencil only the set temperature of the hot air is displayed.

timer functions

SOLDERING OR DESOLDERING TIP TEMPERATURE SET-BACK

The WRS3000 can automatically reduce (set-back) soldering or desoldering tip temperatures with an adjustable timing function. The timer function is used to set a delay time before tip temperature set-back is activated. The delay time starts after the last soldering or desoldering operation. This feature will set-back the tip temperature to 150°F for all soldering or desoldering tools connected to the system. Tools cannot be set-back individually, but the set back function can be turned off.

The set-back time is adjustable in 5 minute intervals from 5-60 minutes or the feature can be turned off for one tool by selecting that tool with the selector button and then depressing both the up and down buttons at the same time.

HOT AIR PENCIL - AIR FLOW "ON" TIME

The length of hot air "on" time during hot air operations can be set between 1 and 60 seconds for the Hot Air Pencil with the WRS3000's timer function. The finger switch must remain depressed during the operation for the timer to function properly. Turning the time "off" for the Hot Air Pencil allows continuous hot air flow for as long as the finger switch is depressed.

TIMER ADJUSTMENTS

SET-BACK TIME FOR SOLDERING OR DESOLDERING TOOLS

Select a soldering or desoldering tool with the tool selector button. The timer function is activated by depressing the timer button (10). The clock symbol will light in the display indicating the timer function is active. If the display reads "OFF", depress both the up and the down buttons at the same time to turn the set-back timer on. Set the delay time for tip temperature set-back in 5 minute steps using the up and down buttons. The display will switch back to the read mode after 4 seconds and the set-back time delay will be stored in memory for all soldering or desoldering tools connected to the system.

HOT AIR PENCIL

To set the air flow "on" time for the Hot Air Pencil, select the tool position connected to the HAP1 with the tool selector button. Depress the timer button (10), the clock symbol will light indicating that the timer function is active. If the display reads "OFF", depress both the up and down buttons at the same time to turn the air flow timer on.

Set the "on" time for the HAP1 in 1 second steps using the up and down buttons. The display will switch back to the read mode after 4 seconds and the air flow "on" time will be stored in memory for the HAP1.

RELEASING TOOLS FROM SET-BACK

After the time delay has switched the tool into set-back a small LED will flash in the upper left hand corner of the display digit which corresponds to the position of the tool or tools that are in set-back. Example: If a soldering iron and a desoldering iron were connected to connectors 1 and 3 and the tools were in set-back the small LED on digit 1 (100's) and digit 3 (1's) would be flashing.

To release the tools from setback, depress either the up, down, or timer buttons once. The tools will start to recover to their set temperatures and the display will return to the read mode after 4 seconds. The timing function will start counting again unless turned off. If the key lock is in the locked position, depressing the up, down, or timer buttons will release all tools in set-back.

CHECKING SET TEMPERATURE

To check the set value for temperature, select the tool to check with the tool selector button. Press the up or down button once to check set temperature. The "°F" symbol will flash for 4 seconds indicating that the timer is ready to change the set temperature. After 4 seconds the display will return to the temperature read mode.

CHECKING AIR FLOW "ON" TIME

To check the air flow "on" time, select the HAP1 tool with the tool selector button. Press the clock button once, the display will show the current "on" time. The display will illuminate the clock symbol for 4 seconds indicating that the timer is ready to change the "on" set-time. After 4 seconds the display will return to the temperature read mode.

KEY LOCK

To prevent unauthorized changes to any of the operating parameters turn the key lock to the locked position and remove the key to a safe place. All settings are locked and can not be changed without unlocking the system with the key.

RESET FUNCTION

The WRS3000 has a reset mode available to return the unit to the factory settings. To activate this mode place the key lock in the unlocked position and turn the power switch off. Wait ten seconds. Hold the timer button (10) and the 123 button (11) depressed and then while still holding the buttons depressed turn the power switch on. After the display reads "zeros", release the buttons. The set temperatures will be back to 700°F, the air flow setting will be at 50%, and all offsets will be at zero.

CALIBRATION

The WRS3000 has been factory calibrated to within $\pm 16^{\circ}\text{F}$ for an average tip shape/length for soldering and desoldering tips and $\pm 50^{\circ}\text{F}$ for the HAP1. When closer tolerances are required each tool can be calibrated on the system as follows:

Measure the actual tip temperature with an accurate measurement device using a welded thermocouple on the tip. We strongly recommend the Weller WA2000 temperature measurement instrument.

Depress the time button (10) and hold, then depress the tool selector button (11). Hold both depressed; this will activate the tip temperature offset feature for the tool selected by the tool selection button. The display will change to all zero's (000) or it will display the previously entered offset, for example -004. While holding both buttons depressed, enter the offset temperature with the up or down buttons to correct the display reading to match the external measuring device. Holding a key depress will not continuously increase the offset, repeated key strokes are necessary. A total offset of $\pm 50^{\circ}\text{F}$ is possible. Releasing the buttons will return the display to the temperature read mode.

When using the HAP1:

Be sure to examine the filter cartridge at least once per week, as a clogged filter will reduce air flow drastically.

When using a desoldering tool:

Care in handling the desoldering head will prevent damage to the protective coating. Be sure to use the desoldering iron holder provided. Be sure to check the main filter in the unit weekly.

The desoldering head requires regular maintenance. Emptying the solder collection tube and checking the seals is mandatory after every hour of operation.

The filter in the main housing is used to remove flux vapor from the air stream and must be checked on a weekly basis. A clogged filter will result in reduced air flow and a lower than normal vacuum gauge reading. To remove the filter, unscrew the filter cap and remove the clogged filter. Replace with a new Weller filter cartridge. Check the position of the cap sealing ring and spring before tightening the screw cap.

CAUTION: Operating the pump without the filter in place will damage the vacuum pump!

Different size desoldering triplets are required for the many different lead sizes encountered on the PC board. The triplets can easily be changed with the nut driver provided. The correct selection of the triplet is important for trouble free desoldering. Select a triplet with the smallest inside diameter that easily fits over the lead being desoldered, some clearance is necessary for proper solder removal. Also verify the OD of the tip is no larger than the PCB pad being desoldered so the hot tip does not contact the board substrate. At the start of the desoldering operation, a small amount of flux cored wire solder should be melted between the triplet and the solder connection. This will assure tool heat transfer and improve the flow and removal of the solder from the connection.

REPAIR/REPLACEMENT PARTS FOR WRS3000

PART NUMBER	DESCRIPTION
58711700	Filter, Main (Air Or Vacuum)
51344400	Gasket, Main Filter
58739707	Pump, Repair
58721112	Fuse, 5.0 A, 120V

ACCESSORIES

Part Number	Description
WSP80	80W Soldering Iron
WSP80AP	80W Soldering Iron w/Stand
EC1201A	40W Soldering Iron
EC1201AP	40W Soldering Iron w/Stand
EC1302B	25W Soldering Iron
EC1302AP	20W Soldering Iron w/Stand
EC1503B	42W Soldering Iron
EC1503AP	42W Soldering Iron w/Stand
0051319199	DS80 Desoldering Iron
0053312199	DS80 Desoldering Iron w/Stand
0051319499	DSV80 Desoldering Iron
0053312999	DSV80 Desoldering Iron w/Stand
0052702899	WHP80 Pre-Heat Plate 80W
0051310799	WTA50 Thermal Tweezer 50W
0053313399	WTA50 Thermal Tweezer w/Stand 50W
WST20	Thermal Stripper (No Blades)
WCB1	Calibration Reference Unit

EXPLODED VIEW

