

HYCO
Manufacturing Ltd

Microboil

Automatic Boiling Water Unit

Available in 2-16 Litre models

Instruction Manual

Version 3.0 January 2013










HYCO MICROBOIL AUTOMATIC BOILING WATER UNIT

1. INTRODUCTION

Thank you for purchasing from our Microboil range of wall mounted automatic boiling water units. Available in sizes ranging from 2 to 16 Litres, the Hyco Microboil is a great way to provide the hot drinks that will keep a busy work team happy and productive.

Please read and follow these instructions carefully to ensure that installation and operation is simple and safe.

2. IMPORTANT SAFETY POINTS

-  THIS UNIT DISPENSES NEAR-BOILING WATER. NEVER LEAVE CHILDREN OR THE INFIRM UNATTENDED NEAR THIS APPLIANCE AS BOILING WATER CAN CAUSE SEVERE INJURY.
-  THE UNIT MUST NOT BE USED UNSUPERVISED BY CHILDREN, DISABLED PERSONS, OR PERSONS WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES.
-  THIS PRODUCT IS NOT SUITABLE FOR OUTDOOR USE OR USE IN DAMP CONDITIONS.
-  PARTS OF THIS APPLIANCE – ESPECIALLY THE TAP AND THE VENT PIPE – CAN BECOME VERY HOT IN USE AND CAN ALSO GENERATE STEAM. TAKE ADEQUATE PRECAUTIONS TO AVOID INJURY OR DAMAGE TO PROPERTY.
-  THE UNIT MUST BE VENTED AND WILL MALFUNCTION IF STEAM CANNOT EASILY ESCAPE VIA THE VENT PIPE. PLEASE FOLLOW THE INSTALLATION INSTRUCTIONS.
-  ANY PLASTIC PIPEWORK OR FITTINGS CONNECTED TO THE VENT PIPE MUST BE RATED TO 100°C.
-  THIS UNIT MUST BE INSTALLED BY A SUITABLY QUALIFIED PERSON IN ACCORDANCE WITH THE LATEST EDITION OF THE IEE WIRING REGULATIONS AND THE UK WATER FITTING REGULATIONS.
-  THE SUPPLY CORD CANNOT BE REPLACED BY THE USER. IF THE CORD IS DAMAGED THE APPLIANCE SHOULD BE RETURNED TO THE MANUFACTURER OR AN AUTHORISED SERVICE AGENT FOR REPLACEMENT.
-  IT IS RECOMMENDED THAT A FILTER IS INSTALLED IN THE PIPEWORK TO PROTECT AGAINST LIME-SCALE BUILD UP, REDUCE SERVICE COSTS AND EXTEND PRODUCT LIFE. LIME SCALE DAMAGE IS NOT COVERED BY THE WARRANTY.

3. INSTALLATION

Step 1: Remove the Cover

The cover is attached to the back by means of two pins located at the top of the unit and two screws at the base of the unit.

Remove the screws first, then lift cover upwards over the tap stem (see diagram A).

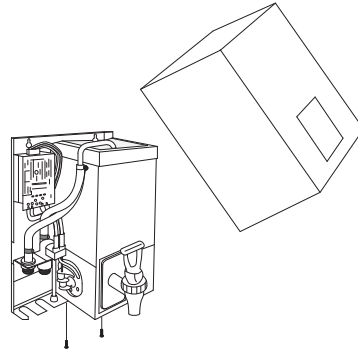


Diagram A

Step 2: Wall Mounting (Positioning)

Position the unit bearing in mind it will contain scalding water and should not be accessible to children or the infirm.

In order to remove and replace the cover of the unit you will require a minimum 40mm clearance above the unit.

Units are typically mounted above a sink or a draining board in a kitchen or similar setting. The tap height should be convenient for the operator. Consider the possibility that the user may wish to fill large pots as well as cups or mugs.

At least 40mm clearance must be left above the unit to allow later removal of the jacket for service.

Step 3: Wall Mounting (Fixing)

Mark mounting hole positions on wall, drill and locate fixing screws but leave screws protruding by approximately 4mm.

Mount unit onto screws via keyhole slots in back of case and tighten screws fully.

Step 4: Plumbing Connections (Inlet)

Please note that the inlet connections of all models will accept 15mm compression fittings (with the exception of the 2L which uses 12mm push fit connections).

Connect the cold water supply to the inlet connection below the solenoid valve. It is strongly recommended to fit a service valve close to the inlet of the unit to facilitate future maintenance such as de-scaling.

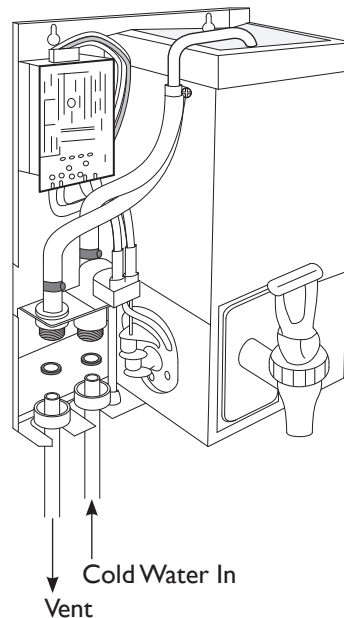


Diagram B

3. INSTALLATION (Continued)

Plumbing connections (Vent)

Connect the vent pipe to the vent connection.

Important: The vent pipe should be no longer than 400mm, fall continuously and discharge to a safe and visible place. If you wish to run a longer vent to drain this can be achieved but must incorporate an air break device such as a tun dish within 400mm of the unit to prevent dangerous pressure build up within the unit.

- The unit will malfunction if steam cannot easily escape via the vent pipe.
- Do not confuse the vent and the inlet pipes – serious damage may result.
- Any plastic pipework or fittings connected to the vent pipe must be rated to 100° C.
- The unit should only be used with the tap provided, do not attempt to change or modify in any way.

Step 5: Electrical Connection

Electrical connection should be made via a 13A switched fuse spur in accordance with the latest edition of the IEE Wiring Regulations.

- Ensure a water supply is present prior to turning on the electrics.
- This appliance **MUST BE EARTHED**.
- A 13 Amp fused spur should be used to make the electrical connection to mains.

Make the connections as:-

- Green/Yellow earth wire to terminal marked or “E”
- Brown live wire to the terminal marked “L”
- Blue neutral wire to the terminal marked “N”

Step 6: Commissioning and Operation

- Ensure water supply is on.
- Turn on power.
- The unit will now commission by first filling the tank to maximum capacity and then bringing the water to temperature.
- The unit will now switch to normal operation which will prioritise boiling over filling, so you will only ever receive near boiling water.
- Powering off and then on the unit via the switched fused spur will initiate commissioning mode again.

4. USER OPERATION

The unit can be left on permanently or controlled by any timer capable of switching I3A.

- Always switch the electrical power off if the water supply needs to be disconnected for more than a few minutes. Failure to do this can damage the solenoid valve.

Under normal use the tap will automatically return to the closed position when you let go of it, but the tap can be locked in the open position by pushing the lever towards the unit.

Once in operating mode, the unit will always dispense boiling water, even when it is re-filling after heavy use.

5. CARE AND MAINTAINANCE

- Clean with a damp cloth only – do not use abrasives.
- The unit is fitted with a resettable thermal cut-out located on the element, a reset should only be attempted when the power is off and by a competent person. If you get repeated cut-outs this indicates a problem and you should consult the manufacturer for advice.
- Periodically (at least every 6 months) remove internal lime-scale build up using a standard domestic kettle de-scaling compound. Access to the tank is via the lid at the top of the unit. You may wish to remove the unit from the wall to aid access to the unit for de-scaling. We recommend that this is done by a competent person.

6. TECHNICAL SPECIFICATION

Model	MBP2	MBS3 (MBP3)	MBS6 (MBP6)	MBS8 (MBP8)	MBS16 (MBP16)
Power	2.4 kW	2.4 kW	2.4 kW	2.4 kW	2.4 kW
Initial draw off (Cups)	12	20	38	50	100
Recovery rate (Cups/hr)	150	150	150	150	150
Voltage	230V ~	230V ~	230V ~	230V ~	230V ~
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Min working pressure	0.2 bar	0.2 bar	0.2 bar	0.2 bar	0.2 bar
Max working pressure	10 bar	10 bar	10 bar	10 bar	10 bar
Protection	IPX1	IPX1	IPX1	IPX1	IPX1
Dimensions (HxWxD)	298 x 230 x 138 mm	370 x 269 x 153 mm	420 x 312 x 171 mm	510 x 312 x 171 mm	545 x 364 x 218 mm
Weight (Full)	6.5 KG	8.6 KG	14.8 KG	17.2 KG	28.8 KG

7. TROUBLESHOOTING

Symptom	Possible Cause	Solution
Unit fills but takes a long time to heat up from first installation, or does not heat at all	This could be normal – it can take up to 15 minutes to boil from cold.	Allow sufficient time – water should get progressively warmer.
	Thermal cut out tripped.	Reset thermal cut-out by pressing button located on element.
	Element has failed.	Verify 230V mains power present at element and that element resistance is approximately 20 Ohms. Replace if faulty.
	Electronic controller fault.	Replace.
Unit boils constantly, or produces excess steam at vent	Temperature setting is too high.	The temperature can be adjusted by turning the potentiometer on the circuit board with a small screwdriver.
Water is too cold	Temperature setting is too low.	The temperature can be adjusted by turning the potentiometer on the circuit board with a small screwdriver.
Tap drips	Seal failure.	Empty tank and allow to cool. Unscrew plastic rim of tap, remove and reseal / replace silicone seal.
Constant flow of tepid or cold water from vent pipe	Solenoid valve seized in the open position. This symptom will persist even with the power off.	Replace solenoid valve.
	Water level sensor does not recognize when the tank is full, or the circuit board is faulty. This fault will only occur with the power on.	Check for limescale on probe, and that electrical connection to circuit board is sound.
Unit does not fill	Water supply is off (solenoid LED will be on).	Switch on water supply.
	Power is off (All LEDs will be off).	Switch on power.
	Level sensor fault.	Remove connection from circuit board to level probe. If the unit now fills, ensure there is no short circuit between the level probe and the tank.
	Circuit board fault.	Replace circuit board.
	Solenoid valve faulty.	Verify Solenoid LED is on, and that 24V DC is supplied to the valve. If so, replace solenoid.
Water splutters under pressure from tap, or water flow is erratic	Vent pipe is restricted, causing a partial vacuum or positive pressure in the tank.	Temporarily disconnect vent. If unit now works correctly, fix the vent pipe so there are no restrictions. If necessary, fit a tundish (air break device).

8. INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT IN ACCORDANCE WITH THE EUROPEAN DIRECTIVE 2002/96/E



At the end of its working life this equipment must not be disposed of as household waste. It must be taken to a local authority waste collection centre or to a dealer providing this service. Disposing of electrical and electronic equipment separately enables its components to be recovered and recycled to obtain significant savings in energy and resources. In order to underline the duty to dispose of this equipment separately, the product is marked with a crossed out dustbin.

9. GUARANTEE AND SERVICE POLICY

Our Microboil standard boiling water unit comes with a one year on-site warranty and the premier range has a three year on-site warranty. We will arrange for a service engineer to rectify any manufacturing defect.

Incorrect installation, frost damage, and the consequences of lime scale deposits are excluded. Consequential costs such as labour charges or damage to fittings and surroundings are expressly excluded.

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■ SPACE HEATING

■ HAND DRYERS