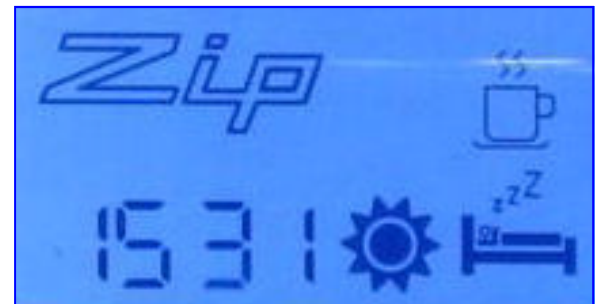




Zip HydroTap Zip Hydroboil Plus

Sleep and Timer modes

Zip HydroTap and Hydroboil Plus incorporate energy saving features that can be used to significantly reduce power consumption and running costs.

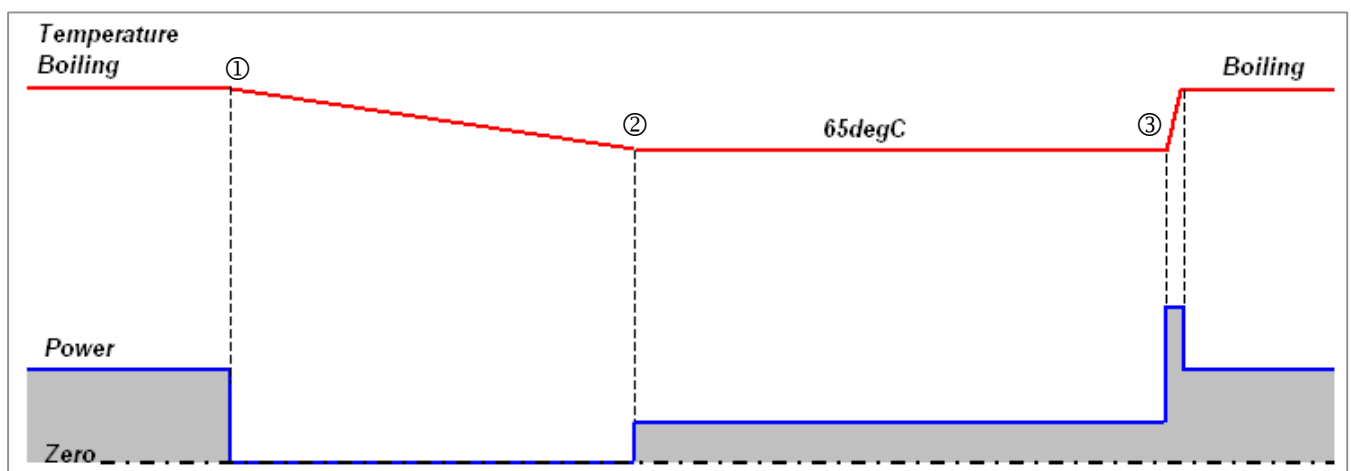


Inactivity Sleep Mode

When this mode is activated, following a period of 2 or 4 hours non-use, Zip HydroTap and Hydroboil Plus automatically enter sleep mode. The contents of the boiling tank are then maintained at 65°C until further draw-off is required to save energy.

On entering Sleep Mode ① power to the heating element is switched off and the contents are allowed to reduce in temperature to 65°C. A reduced power level is then applied ② to maintain the contents at this lower temperature.

When the next draw off occurs full power is applied for a short time ③ to resume boiling. The following diagram shows the temperature of the contents and the power levels applied during the various phases of Sleep Mode.



Low light Sleep Mode

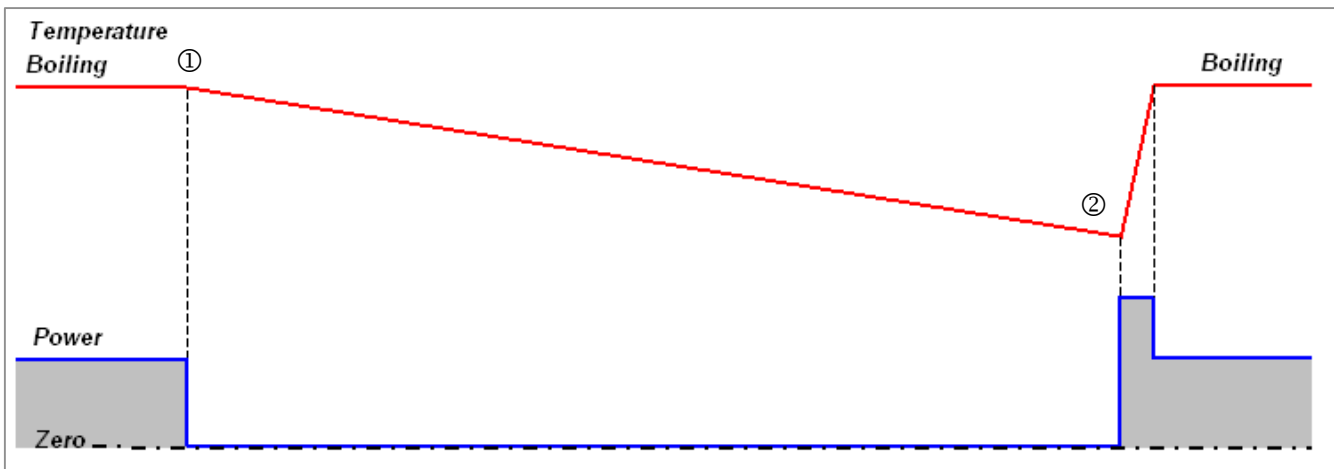
Zip Hydroboil Plus also incorporates an integral light detector that can be set to automatically activate sleep mode when the room lights are switched off. The product returns to normal operation when the tap is next operated or the lighting is switched back on.

Integral Timer

Zip HydroTap and Hydroboil Plus feature an integral 24 hour 7 day timer that enables the unit to be programmed to switch off during known periods of inactivity e.g. overnight or at weekends and return to normal operation ahead of the next expected demand.

No power is consumed after the timer switches the unit off ① and the contents are allowed to reduce in temperature. When the timer switches the unit back on full power is applied briefly ② to return the contents to boiling point.

The diagram below shows the temperature of the contents and the power levels applied to the element during the different phases of timed operation.



Energy Savings

Independent tests by Aston University have determined the savings achieved with a 5 litre Hydroboil Plus in Sleep mode and Timer mode compared to leaving the unit in continuous operation.

The tests quantified energy usage over 7 days for a typical office with 5 day working week from 9am to 5pm, Monday to Friday with no demand at weekends

Sleep Mode

With this mode activated the unit entered sleep mode 2 hours after the last draw off at 5pm and resumed normal operation at 9am from Monday to Friday. It also remained in Sleep mode throughout the weekend.

Timed Mode

With this mode activated the unit was automatically switched on at 9am and switched off at 5pm Monday to Friday. It also remained switched off throughout the weekend.

The savings achieved are documented below for the system:

In Standby - with no boiling water drawn off and

In Typical Use - operating over a typical business week with 20 litres (120 cups) of boiling water drawn off between 9am and 5pm Monday to Friday and no draw off at weekends.

Aston University Birmingham	Continuous Operation	Sleep Mode		Timed Mode	
	Power Consumption (kWh)	Power Consumption (kWh)	Energy Saving (%)	Power Consumption (kWh)	Energy Saving (%)
In Standby	7.6	5.2	32%	4.0	47%
In Typical Use	16.0	14.0	13%	12.6	21%