

**WA Economy Range Models:  
WA2N WA5N & WA10N**

Auto-Fill, Wall-mount

Catering Water Boilers

Installation And User Instructions



The Professional's Choice



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## Introduction

Dear Customer,

Congratulations on the purchase of your Instanta machine.

Your new water boiler is designed to give you years of trouble-free service provided that the instructions contained in this manual are followed.

All new series Instanta products are energy efficient, simple to operate and easy to service. Find out more about Instanta products at [www.instanta.com](http://www.instanta.com)



## Safety Information

Please read the following carefully before switching on this appliance.

A competent installation engineer should install this appliance in accordance with the installation instructions for this appliance and all relevant local and national standards including the following:

- Health and Safety at Works Act
- IEE regulations
- Local and national building regulations
- BS Codes of practice
- Water supply regulations

Your new water boiler is designed to provide a constant source of near boiling water for the preparation of hot drinks.

**Caution Safety: All personnel must be provided with sufficient and appropriate training in the safe use of this appliance.**

- In line with Health and Safety requirements we recommend that a risk assessment be carried out after the boiler has been installed.
- A warning notice displayed next to the machine is often helpful in notifying users that the appliance contains and dispenses near boiling water.
- Inform users that certain surfaces will become hot (especially the draw off tap). Care should be taken to avoid potential injury from burns and scalding whilst operating this appliance.
- The unit must be earthed
- Always disconnect the unit from the power supply before servicing
- Keep these instructions in a safe place for future reference

## Environmental Information

(Information on Disposal for Users of Waste Electrical & Electronic Equipment)

The “crossed out wheellie bin” symbol on this product means that discarded electrical and electronic products should not be mixed with general waste. Disposing of the product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. For proper treatment, recovery and recycling of end-of-life products, please contact your dealer or supplier for further information, or local authority for details of your nearest designated collection point.

## Checklist

Before starting installation, check that you have the following parts;

1. Boiler Unit
2. Tap Kit
3. Paper mounting template
4. Fitting kit (screws & wall-plugs etc.)
5. Instruction Booklet

## Technical Information

Outer casing and tank are constructed in type-304 and type-316 grade stainless steel. The tank is fully insulated with high-temperature polystyrene.

The appliance has electronic control of the main functions. This means that the heating, filling and temperature are controlled precisely within given parameters.

Model		WA2N	WA5N	WA10N
Width	mm	254	290	340
Depth	mm	187	205	247
Height	mm	428	432	480
Voltage & Supply	V	230, AC (50Hz)	230, AC (50Hz)	230, AC (50Hz)
Power Rating	kW	2.0 single-phase	3.0 single-phase	3.0 single-phase
Fill Type		Automatic	Automatic	Automatic
Rapid Draw Off	Litres	2.5	5	10
Weight (empty)	KG	6.5	7.5	9.7
Weight (full)	KG	10.5	14.7	22.7
Water Inlet Pressure	Bar	2 to 7	2 to 7 bar	2 to 7 bar

## Installation [All Models]

### a) POSITIONING THE UNIT

The heater should be positioned in a convenient place, on a wall that is capable of supporting it safely (refer to table above for weight of boiler). Use the mounting template and fitting kit provided.

Position the boiler so that the tap is approximately 400mm above a draining board. Leave sufficient space around the unit to enable access for servicing, paying particular attention to the position of the top-centre fixing screw that holds the case in place.

When mounting on wall...screw in the top two screws leaving about 6mm protruding and hang the machine using the keyhole slots provided. Once the machine is positioned, tighten the top screws and insert the bottom screw.

### b) ELECTRICAL CONNECTION

The circuit should be protected by its own 13amp double-pole connection unit with flex outlet to BS5733, alternatively the circuit should have a means of disconnection incorporated in fixed wiring, having a contact separation of at least 3mm in all poles.

Minimum cable size is 1.5mm<sup>2</sup>. The use of an ELOB is recommended.

- WARNING: This appliance must be earthed.
- Electrical installation should conform to current I.E.E. wiring regulations.
- When using fixed wiring, the bare section of earth must be sleeved to within 8mm of the end.
- Only a qualified electrician should carry out this work.

**BASE ENTRY OF CABLE:** Use the cable gland. Loosen cable-gripping nut and pass cable through gland, leaving enough free cable to connect to terminal block. Tighten cable gland grip nut.

**Alternative Rear Entry Installation (Electrical):** The fixed or flexible cable is connected direct to the terminal block – the cable gland is not utilised.

**DO NOT SWITCH ON UNTIL THE INSTALLATION IS COMPLETE AND THE CASE AND TAP ARE IN PLACE**

### c) WATER CONNECTION

NOTE: Although it will not harm the boiler, it should not be operated with the water supply turned off.

The water supply must have a pressure not exceeding 7 bar and no lower than 2 bar. **If the mains water pressure is below 2 bar a fault situation could arise.**

If the water pressure exceeds 7 bar a suitable water pressure reducing valve will need to be fitted to the water supply to bring it to a level that the machine can cope with. **Failure to do so could result in the boiler overflowing.**

*THE MANUFACTURERS CANNOT BE HELD RESPONSIBLE FOR ANY MACHINE MALFUNCTION IF THE WATER PRESSURE IS NOT WITHIN THE RANGE STATED. IF IN DOUBT, CONSULT YOUR WATER SUPPLY COMPANY.*

- Connect to a suitable cold water drinking supply using 15mm copper pipe and using "T" piece supplied.
- Push the "T" piece firmly onto the water inlet solenoid pipe with the brass plug facing forward (Note: the "T" has been blanked off using a brass plug – leave the plug in-place).
- Push the 15mm cold water supply firmly into the bottom of the fitting.

**Alternative Rear Entry Installation (Water Connection):** Remove the brass plug from "T" piece and re-fit into the bottom of the "T" piece instead. Push firmly onto the inlet solenoid pipe with the "T" facing the wall. Push the 15mm cold water supply firmly into the "T" fitting.

NOTE: To avoid damage to the appliance, do not use any solder connections whilst pipes are connected to the boiler.

- A 15mm stop valve must be fitted between the water supply and the boiler so that it can be isolated.
- Water purification filters are available from Instanta to ensure fresh tasting water. In hard water areas, scale can cause problems. Fitting a scale reducer will help minimise scale but will not eliminate scale completely.

*WE REGRET THAT INSTANTA CANNOT BE HELD RESPONSIBLE FOR SCALE RELATED PROBLEMS IF A SCALE REDUCER HAS BEEN INSTALLED*

### d) OVERFLOW/DRAIN

The fitting kit includes a 15mm, straight push-fit coupling with a small piece of 15mm copper pipe pushed into it. **This connector must be pushed onto the corresponding brass overflow connection on the services-bracket (along side the solenoid).**

If the overflow is to be extended, remove the copper pipe (supplied) and replace with 15mm pipe of your chosen length. The pipe must have a continuous fall and should not be longer than 300mm (if a longer run is required, use 22mm pipe to avoid airlocks. The overflow pipe should have no more than four right angle bends and should discharge to a safe, visible position.

*Alternative Rear Entry Installation (Overflow/Drain):* If rear entry has been chosen, the straight push-on coupling must be replaced with a 15mm push-fit elbow (available from plumber's merchants). Push the elbow onto the brass overflow connection on the services-bracket (alongside the solenoid). As described above, the pipe must have a continuous fall etc.

**Under certain conditions the overflow pipe could vent steam, hot water or cold water and the manufacturers cannot be held responsible should damage occur from such discharge if the overflow pipe has not been directed to a suitable position where overflowing water can run away safely.**

### VENT PIPE:

A small silicone rubber tube connects the tank-lid to the back panel. Ensure this is connected (and hasn't come off in transit) and that the outlet fitting in the back-panel is not obstructed.

### e) FITTING CASE

- Attach the Earth wire connection to bottom of stainless steel boiler-case using M4 screw & washer supplied.
- Offer up the case to the wall-mounted boiler and plug-in communications-lead (from circuit board to the LED light display) located on inside of boiler-case.
- With the communications lead and Earth wire connected, locate the boiler case onto the wall-mounted boiler assembly. Secure case in position using M4 screw (supplied) at top and bottom of the case.
- Ensure yellow rubber sealing washer is in place then carefully screw in the tap assembly (use a 28mm open-ended spanner to tighten). Do not use grips that are likely to scratch the chrome.
- Push the grey tap collar firmly into place and twist to snugly fit against the plastic front panel.

## Operation

First use (once water and electrical connections have been made);

- Switch the power and water supply on. The L.E.D. lights will flash to indicate start-up sequence. The FILLING indicator will then illuminate (white) and the boiler will begin to fill with water.
- Once primed with water, the boiler will begin to heat (HEATING indicator will illuminate to show the water is being heated to the correct temperature).
- When the correct temperature has been reached, the HEATING lamp will go off and the green READY indicator will illuminate.
- The boiler will then continue to heat/fill cycle until the tank is at full capacity (during the heat/fill cycle, small amounts of water are added to ensure the water at the tap is always at the correct temperature).

**IMPORTANT NOTE:** In normal daily use, the boiler may be used as soon as the READY indicator comes on, but on first install, wait 15 minutes before starting to use.

## Regular Daily Use

- 1) Switch on and wait for the green READY lamp to illuminate. The boiler will then be at the correct temperature and ready to use
- 2) Dispense water using the lever tap on the front of the appliance (**Safety Caution: Use with caution as the boiler dispenses near-boiling water**)

## Cleaning

The external surfaces of the machine can be kept clean by wiping with a damp cloth.

A good quality stainless steel cleaner will keep the machine in its original condition.

The plastic front fascia may also be cleaned with a damp cloth. Do not use abrasive material on the outer surface of the machine.

## Maintenance & Service Information

**NOTE: After initial commissioning or subsequent re-commissioning (service-repair), check that the water supply has been established prior to switching on the boiler.**

The appliance should be periodically checked for scale build-up.

In hard water areas, the boiler should be descaled on a regular basis to maintain efficient operation, minimise energy consumption, and also retain water quality. The frequency depends upon hardness of the local mains water supply and whether or not it is being treated by an effective scale reducer (**strongly recommended – see below**).

**PREVENTION IS BETTER:** Rather than frequently de-scaling the machine it may be preferable to install an effective scale reducer or WRAS approved water softener to the mains water supply. This will reduce the frequency of de-scaling but may not remove scale completely in some areas.

Multi-Filters (AQ35), spare parts and accessories are available from Instanta Limited – Tel: 01704 501114 and ask for spares

### Descaling:

To de-scale the machine;

1. **Safety Caution: First disconnect machine from the power supply**
2. Drain all water off using the tap.
3. Remove tap
4. Remove the boiler-case (2 screws)
5. Drain the remaining water through the drain plug in the bottom of the tank
6. Remove the tank-lid by unscrewing the fixing screws. The tank is now accessible. Lift out the baffle plates on the inside of the tank (taking note of the position of the plates).
7. Remove as much loose scale as possible by hand.
8. Dissolve any scale that is difficult to remove using a suitable de-scaling solution. Remember to replace the drain plug before using the de-scaler.
9. Clean the level sensing probes and their white insulators completely, using a non-metallic scourer.

10. Ensure all traces of de-scaler are removed by flushing with copious amounts of fresh water, before using the boiler again.

11. It is preferable to install an effective scale reducer or water softener. This will reduce the frequency of de-scaling but will not remove scale completely in some areas.

### Draw-off Tap:

The draw-off tap components are subject to wear & tear. We strongly recommend that the tap is inspected periodically (at least once a year as part of a general maintenance routine). It is advisable to keep a spare tap spring and tap washer in case of emergencies.

Tap Spring	-	TP1007/N
Tap Washer	-	TP1001/L
Tap Bonnet	-	HSTP100
Upper Tap Assembly	-	XTP1050/A

## Service/Technical Support

Tel: 01704 502911

To ensure your service enquiry is handled as efficiently as possible, please have the following information available;

- Brief description of problem
- Product Type (model)
- Serial Number (label on under-side of boiler-case). This is essential.

## Guarantee

Your boiler is guaranteed for 12 months from date of installation.

Our guarantee includes on site labour and parts for problems caused by fault of manufacture and component failure with the following exclusions:

- Problems caused by hard water and lime scale. We regret we cannot be held responsible for problems caused by hard water

## Service Warning & Fault Diagnostics:

The boiler is fitted with an intelligent fault diagnosing system and can detect certain fault conditions as follows:

**FILLING (Flashing):** The white FILLING lamp flashes to indicate water starvation - can be caused by either:

1) The boiler has not sensed a drop in temperature after opening the cold water valve a number of times. Most common cause is an interruption to the water supply – check the stop valve and make sure there are no kinks in the water supply hose. This can also be caused by low mains water pressure. Shortly after the water supply returns to normal, the message will cease.

2) (Usually following initial commissioning or subsequent re-commissioning after service/repair). If once the boiler has been switched on, the circuit has not sensed water on the bottom level sensor within 6 minutes. Check that there is a water supply to the boiler and make sure there are no kinks in the hose or debris in the water inlet.

**DE SCALE:** The white DE-SCALE lamp will illuminate to indicate that the lower sensing probe has become scaled up. The boiler will continue to operate working on the upper level sensor. De-scale as soon as possible as described below.

**RESET:** The red RESET lamp will illuminate to indicate that one of the two safety cut-outs have activated:

### Safety Controls:

The majority of possible faults have been covered above. However, in certain circumstances, one of two different safety controls within the boiler may have activated;

- 1) Over-boil safety cut-out – activates if boiler produces excess steam. This can be due to;
  - lime-scale within the tank,
  - a temporary interruption in the water supply.
  - a faulty temperature sensor or internal component (triac).
- 2) The Boil-dry safety cut-out – activates if the boiler has been boiled dry, for example, due to lime-scale build-up or water starvation.

To reset boiler safety controls;

**Safety Caution: Isolate boiler from power supply before proceeding:**

- Isolate from mains electrical power supply and open tap to drain boiler down.
- Remove draw-off tap (28mm spanner) and outer case (2 screws top & bottom).
- **Over-Boil Safety:** Push the small reset button in the centre of the safety cut-out switch (located next to the water inlet valve).
- **Boil-dry Safety:** Push the small reset button in the centre of the heating element (located left-side of tank).

In any of these events the indicator lamp will flash red or green or red and green. If the problem reoccurs contact the Instanta Service Department – **01704 502911**

- Dripping Taps. These components are subject to wear & tear but in the event of a tap failing within 12 months of installation, we will be pleased to replace the tap assembly by post. Fitting is very simple and requires no tools. An engineer call out is not necessary.
- Accidental damage, misuse or use not in accordance with these instructions and damage caused by incorrect installation.

The manufacturer disclaims any liability for incidental, or consequential damages.

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