



SmartFlow Boiler and Chiller

CH1000

Auto-Fill Catering Water Boiler with Integrated Multi-Filter

**INSTALLATION AND USER
INSTRUCTIONS**

INSTANTA LIMITED

Canning Road * Southport * Merseyside* PR9 7SN

Tel: (01704) 501114 * Fax: (01704) 50111

CONTENTS

CONTENTS & INTRODUCTION	1
SAFETY, PRE-INSTALLATION & ENVIRONMENTAL INFORMATION	2
DELIVERY CHECKLIST & TECHNICAL SPECIFICATION	3
INSTALLATION	3 - 4
OPERATION	5
DAILY USE	5
CLEANING	5
MAINTENANCE, SPARES & SERVICE INFORMATION.....	6
SERVICE WARNINGS & FAULT DIAGNOSTICS	7
GUARANTEE	8

INTRODUCTION

Dear Customer,

Thank you for purchasing this Instanta product.

Your new water boiler/chiller 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

SAFETY INFORMATION

Please read the following carefully before starting work on this equipment.

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

- Health & Safety at Work Act
- IEE Regulations
- Local & national Building Regulations
- BS Codes of practice
- Water Supply Regulations

All personnel should be provided with sufficient training in the safe use of this appliance. 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.
- In line with Health and Safety requirements we recommend a risk assessment be carried out after the boiler has been installed.
- This appliance is not intended for use by persons (Including Children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure they do not play with the appliance
- Always disconnect the unit from the power supply before servicing.
- The unit must be earthed.
- Keep these instructions in a safe place near the unit for future reference

PRE-INSTALLATION

IMPORTANT: The CH1000 contains a refrigeration system. Therefore, upon receipt, the appliance should be left standing upright for approximately 12 hours, before installing and switching on. This is because, during transportation, if the unit has not been kept totally upright, the oil inside the compressor may have leaked into the refrigeration system and will need time to settle. Failure to do this, may lead to a breakdown due to a system blockage.

ENVIRONMENTAL (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.

DELIVERY CHECKLIST

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

1. Catering Water Boiler
2. Drip-tray
3. Drip-tray fitting kit
4. White water inlet hose & filter (3/4" BSP connection)
5. User instructions

TECHNICAL SPECIFICATION

Model		
Width	mm	270
Depth	mm	503
Height	mm	579
Power Rating	kW	3.0
Weight (Empty)	kG	23.5
Weight (Full)	kG	30.5
Water Inlet Pressure:	Bar	2 to 7

INSTALLATION

The boiler must be installed on a horizontal work surface with sufficient strength to support its weight.

Locate in an area where there is adequate space to use the boiler safely (e.g. free from risk of congestion and tripping hazards).

Connection to Mains Water Supply:

Connect the WRAS approved water filling hose and filter to the mains water supply.

VERY IMPORANT: This filter then needs approx. 5 litres of water flushing through it to remove the loose carbon particles. Then connect the hose to the inlet connection point on the back of the boiler.

IMPORTANT: If micro-bore pipe is used instead of the inlet hose supplied, the size must be minimum OD 3/8" (10mm).

The water supply must have a pressure not exceeding 7bar (96psi), and no lower than 1.5bar (20psi)

NOTE: If your water pressure exceeds 7bar, fit a suitable pressure reduction valve.

We regret that Instanta cannot be held responsible for any machine malfunctions if the water pressure exceeds that stated. If in doubt, consult your water supply company

Electrical Connection:

The boiler must be Earthed.

Your machine is supplied with a standard 13amp bonded plug with a 13amp fuse.

Overflow:

The drip-tray has a limited capacity and is designed to handle small spillages and drips only. Wherever possible, we strongly recommend that it is connected to a permanent waste outlet using the fitting kit provided.

Option 1:

Free standing (where it is not possible to direct to a suitable waste – the tray is removable and must be periodically emptied by hand).

- a. Leave the two black rubber bungs in the tray as supplied.
- b. Slide drip-tray into position at the front of the machine – make sure the black collar aligns into the base
- c. Empty by hand when required

Option 2:

Rear Drain (both the drip-tray contents and the boiler overflow are directed to the rear connection point).

- a. Remove the **small** black rubber bung from the pipe at the back of the drip-tray and slide the tray into position.
- b. Through an access hole in the base of the unit, attached the flexible rubber tube (ready fitted inside the base) to the end of the drip-tray pipe making sure the tube is pulled taught
- c. Direct the drain outlet (rear of unit) to a suitable waste making sure any pipework has a continuous fall. (minimum pipe diameter 15mm with an air gap provided within one meter)

Option 3:

Front Drain (both the drip-tray contents and the boiler overflow are directed to a waste point through the bottom of the drip-tray).

- a. Remove the **large** black rubber bung from the base of the tray and fit the drain fit (supplied) to the underside of the tray.
- b. Make a hole (20mm) in the counter top for the pipe to pass through.
- c. Connect drip-tray to a suitable waste making sure any pipework has a continuous fall. (minimum pipe diameter 15mm with an air gap provided within one meter)

IMPORTANT: Whichever overflow connection is chosen, the diameter of the pipe used must be no less than 15mm.

Failure to connect the overflow-outlet to a permanent waste or drain, could lead to property damage from flooding.

If in all circumstances, it is absolutely not possible to direct the boiler overflow-outlet to a permanent waste or drain, then the mains water supply to the boiler should be isolated and the unit switched off whenever it is left unattended for long periods (e.g. overnight).

Whilst every reasonable precaution is taken to prevent an overflow, Instanta cannot be held responsible for any damage caused as a result of incorrect installation or blockage of the overflow or failure to direct the overflow to a safe outlet.

Priming the cold water side

Switch on the water connection. Open the cold water tap. The machine will take approx. 25-30 seconds to prime. When water begins to flow out the spout, close the tap. The water flow rate has been factory set, however, on-site adjustment may be necessary. To adjust, remove machine lid by inserting a flat screwdriver between the case and the lid and twist. The pressure reduction valve can be seen on the left-hand side of the unit. To adjust, pull the knob up and turn the valve until the flow is correct (an 8oz cup should take approx. 8-9 seconds the fill).

Once this is complete, switch the unit on at the mains and on the front panel. The hot water tank will then start to prime automatically.

OPERATION

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

- Switch boiler on.
The lights will flash before the power light illuminates.
- Once primed with water, the boiler will begin to heat.
- When the correct temperature has been reached, the 'ready' light will illuminate.
- The boiler will then continue in a 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" light is displayed, but on first install, wait at least 15 minutes before starting to use.

- The boiler is now ready for use.

REGULAR DAILY USE

Switch boiler on and wait for the "READY" light to illuminate. The water will then be at the correct temperature.

Dispense water via the lever tap. (CAUTION: Boiler dispenses near-boiling water).

CLEANING

Clean the external surfaces of the boiler regularly to maintain good hygiene

Empty the front drip-tray regularly

Wipe external surfaces of the boiler with a damp cloth. Do not use abrasive materials on the outer surfaces.

MAINTENANCE & SERVICE INFORMATION

Descaling (hot water side):

The boiler should be periodically checked for scale build-up...see below:

In hard water areas, the boiler should be descaled on a regular basis to maintain efficient operation, minimise energy consumption, and also retain the water quality.

To de-scale:

- Disconnect machine from power supply
- Empty the machine through the draw-off tap and allow to cool
- Lift off the outer-lid.
- Remove tank-lid (four fixing screws).
- Lift out the evaporation plates (inside of tank – Remember order of removal).
- Remove as much scale as possible by hand. Any scale which is difficult to remove can be dissolved by using a de-scaling solution.
- Wipe clean the level sensing probes.
- Flush with copious amounts of cold water to ensure all traces of de-scaler are removed before using the boiler again.
- Replace evaporation plates, tank-lid and outer lid.

Cleaning (cold water side)

- The carbon filter (in-line on the hose) should be replaced every 6 months
- The chiller side should be sanitised every 6 months (use SAN/KIT) from Instanta spares and flow instructions

Draw-off tap:

The tap spring and washer components are subject to wear & tear. It is advisable to keep a spare tap-spring and washer in case of emergencies.

Accessories & Spares (Tel: 01704 502905)

Replacement Tap Washer:	TP1001
Replacement Tap Spring:	TP007
Replacement Filter Cartridge:	AQ7
Sanitiser kit:	SAN/KIT

A full range of spares and accessories are available from our spares department.

SERVICE WARNINGS AND FAULT DIAGNOSIS

Your boiler is fitted with an intelligent fault diagnosing system and is able to detect various fault conditions. Some of these are less serious and the machine will continue to operate as normal, while others are more serious and will disable the unit.

Before calling for service, switch the machine off at the mains supply. Draw-off a small amount of water and then switch back on after 10 minutes. If the fault does not clear, call technical support for advice.

Service Warning Codes:

Number of Flashes	Meaning
1	Water level sensor has scaled up at normal level
2	Operating level sensor has been detected but not lower sensor (scaled up)
3	Overfill level sensor has been detected but others have not (scale)
4	Danger level sensor detected
5	Overheated. Thermistor or potentiometer problem
6	Boiler has failed to fill in allotted time
7	The temperature sensor disconnected or element failed
8 or 9	Fault on temperature sensor
10	Element faulty or system fault
11	Water supply has been interrupted and the level has fallen to a point at which the element could be damage
12	Machine has over boiled and the level has fallen to a point at which the element could be damage

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 right-hand side of machine). This is essential

GUARANTEE

Your boiler is guaranteed for two years 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:**

- 1 Problems caused by hard water and lime scale. We regret that we cannot be held responsible for problems caused by hard water
- 2 Dripping Taps. These components are subject to wear and tear but in the event of a tap failing within twelve 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.
- 3 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.