INSTANT ELECTRIC WATER HEATERS

Instant Electric Water Heater

User Manual · Operating Instructions

Applies to: RY · GB · RYK · LZT series
220–240 V~ and 110 V~ models

SERVICE CONTACT

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Please read this manual carefully before use and keep it for future reference.
Conformity documentation for the destination market is available on request.

SECTION 1

Safety warnings

Warm tip. A few drops of water inside the heater on arrival is **normal** — every unit is run with water and power on the production line and only leaves the factory after passing final inspection.

Freeze protection. If freezing is possible, switch off and isolate the power, close the cold-water inlet, then open the outlet and drain the heater and exposed pipework. Do not switch on again until it has thawed, been refilled and checked for leaks.

1. **Qualified installation, vertical only.** Install upright by qualified personnel per your local wiring rules; the unit will not heat sideways or upside down. Indoor use only.
2. **Check the supply first.** Meter capacity, overcurrent and residual-current protection and conductor size must meet Section 2 and your local wiring rules before installation.
3. **Grounding is mandatory.** The heater must be connected to a verified protective earth. Never run it without one.
4. **Dedicated circuit protection.** Connect to a dedicated circuit with overcurrent protection and a residual-current device (RCD / GFCI) giving all-pole disconnection (contact opening ≥ 3 mm). Do not share it with other high-power appliances.
5. **Scalding risk.** Keep the outlet pointed away from the body and let the water run before use; never put your hand under a possibly hot jet. Supervise children and vulnerable persons.
6. **Keep water off the body.** Do not install where water can splash onto the unit, and avoid splashing it in use.
7. **No modification.** Do not dismantle or modify the unit; unplug before cleaning. A damaged cord must be replaced by qualified persons.

SECTION 2

Product overview

An instant electric water heater with a flow switch: where fitted, it switches the heating on with the water flow and off when the flow stops. No tank, no stored water — you only pay for the water you actually heat. A microcomputer control with fault self-test and an LED display shows the working status.

Technical parameters

Rated power	Current, 220–240 V~	Min. conductor, 220–240 V~
3.5 kW	15–16 A	1.5 mm²
4.5 kW	19–21 A	2.5 mm²
5.5 kW	23–25 A	2.5 mm²
6.0–7.0 kW	27–32 A	6.0 mm²
8.0–8.8 kW	36–40 A	6.0 mm²
11 kW	46–50 A	10 mm²

Rated voltage and frequency: as marked on the rating plate (220–240 V~ or 110 V~). **A 110 V model and a 220–240 V model are not interchangeable** — always check the rating plate first. For 110 V models the conductor size, overcurrent device and RCD must be selected by a qualified electrician from the rated current and local wiring rules.

Working water pressure: 0.1–1.2 MPa. Below 0.1 MPa the unit may not start. If the supply exceeds 1.2 MPa, fit a pressure-reducing valve upstream. The conductor sizes above are minimum values for copper conductors in a typical installation; the installer is responsible for the final selection.

Typical applications

Point-of-use shower · **kitchen sink and washbasin** · **booster** for solar water heaters, storage tanks and long pipe runs.

SECTION 3

Installation

1. **Vertical, by a qualified professional.** Tools: percussion drill (6 mm bit), adjustable spanner, cross screwdriver, electrician's knife.
2. **Verify the supply.** Meter capacity, overcurrent and residual-current protection and conductor size per Section 2; the earth must be a verified protective earth.
3. **Mount it.** Mark the two hanger holes (85 mm apart) on the wall, drill, fit the screws and hang the unit.
4. **Wire it.** Live L (brown), neutral N (blue), earth (yellow/green) to the matching terminals and tighten securely. Never power the unit through a timer or contactor that switches it on and off.
5. **Connect the water.** Tap water to the cold inlet (bottom), hot outlet (top) to the shower or tap hose. Every joint needs a sealing gasket — hand-tighten moderately, overtightening cracks the thread.

New pipeline? Flush the pipe clean of sediment before connecting the heater.

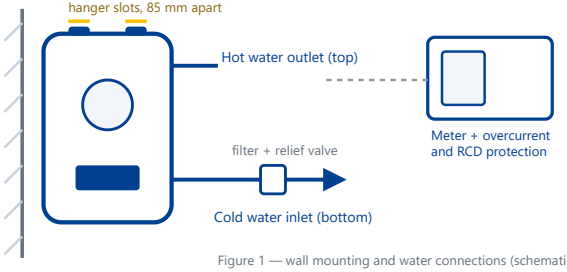


Figure 1 — wall mounting and water connections (schematic)

Note: the diagram is schematic and not necessarily identical to the unit you purchased.

SECTION 4

Operating instructions

First start: correct order

1. **Mount the unit**
   Upright, water and wiring connected (steps 1–5).
2. **Turn the water on**
   Open the cold-water valve and the outlet, let the air out.
3. **Check for leaks**
   Every joint — no drips. If it leaks: shut the water off, tighten the gasket, repeat.
4. **Shut the water off**
   Valve closed.
   The unit stays full of water
   — do not drain it.
5. **Power up and switch on**
   Breaker and RCD, then the power key: the display shows the set point.
6. **Set the temperature, turn the water on again**
   30–55 °C, open the outlet — heating starts by itself.

Running with no water does no harm. With an empty body the heating simply will not start — the flow sensor blocks it, so a brief power-up without water does not damage the unit. Still fill the body before the first start: that pushes the air out of the system, and heating then begins as soon as flow is detected. Earth continuity and RCD tripping are checked by a qualified electrician.

Day-to-day operation

1. **Display.** Off in standby; shows the outlet temperature while running and flashes while heating.
2. **Keys and temperature.** A short press on the power key cycles on / standby (some models: hold 2 s). Up / Down change the set point by 1 °C per press (continuous on hold) within 30–55 °C; the value is kept after power-off. The power-level key, where fitted, raises the level by one. Key layout varies by model.
3. **Models with a pump.** The display goes off about 10 s after the last operation and wakes on any key press or water flow.

SECTION 5

Fault analysis & handling

Display codes

Code	Meaning	What to do
E0 **E1**	NTC sensor: short or open circuit	Heating stops. Power down and contact service — the sensor circuit must be checked.
E2	Excessive water flow	Reduce the flow at the valve; the code clears itself. If it stays, isolate and contact service.
Er	Wrong installation direction	Re-install the unit vertically.

Fault	What to do
Water leakage	Re-tighten the joint or replace the gasket. If it leaks internally, stop using it and contact service.
Keys do not respond	Switch off and isolate the power. Do not use it while the panel or enclosure is wet; let it dry and contact service if the fault remains. Do not open the enclosure.
Water too hot	Stop using the outlet; open the valve wider or lower the setpoint, then clean the inlet filter and shower head. If it stays, isolate and contact service.
Not hot enough	Reduce the flow or raise the setpoint; have the supply voltage checked. Clean only the inlet filter and shower head — do not open the enclosure.
Temperature fluctuates	Slight variation with unstable voltage or pressure is normal. If severe or persistent under stable conditions, stop using it and contact service.
Flow getting smaller	Remove and clean the inlet filter and the shower head.
RCD trips	Switch off, isolate and stop using the unit. Do not reset it repeatedly or bypass it — a qualified electrician must clear the fault.
Display does not light	Check the supply. If the dry-fire or overheat protection has tripped, contact service.

SECTION 6

Environment & warranty

End-of-life disposal. Do not dispose of this appliance with unsorted household waste — hand it in at an official e-waste collection point or return it to your distributor, following the collection and recycling rules of your country. Restricted-substance and conformity documentation for the destination market is available on request.

Warranty

1. **Warranty:** one year for household use, six months for commercial use, from the date of sale shown on the purchase document. This warranty does not limit any mandatory rights you have under applicable law. For export orders the scope, service route and costs are as agreed in the purchase contract.
2. **Not covered:** damage from improper installation, use, maintenance or storage; repair or disassembly by non-designated parties; missing purchase proof; force majeure; expired warranty.

Factory quality record

Model:	_____	Serial No.:	_____
Production date:	_____	Inspected by:	_____

SECTION 7

Service record & maintenance

Installation & warranty record

Model:	_____	Serial No.:	_____
Installed:	_____	Installer:	_____

Fill in at installation and keep it with your proof of purchase — both are needed for warranty claims.

Care and maintenance

1. **Before any work on the unit.** Switch off and isolate the power and let it cool. Never spray water onto the enclosure.
2. **Enclosure.** Wipe with a soft cloth and mild detergent. No solvents, thinners or abrasive powders.
3. **Inlet filter.** Rinse it every 3–6 months, more often with hard or sandy water — a blocked filter cuts the flow and drives the temperature up.
4. **Shower head.** De-scale the spray plate regularly; blocked holes cause the same symptoms.
5. **Long shutdown or frost risk.** Isolate the power, close the inlet valve and drain the unit (Section 1). Never open the enclosure — repairs and electrical parts must be handled by a qualified person.

Service route

Contact the distributor who supplied the heater first — they hold your purchase record and arrange local service. Factory support: **sales@jastarltd.com** · **https://jastarltd.com**. Warranty terms: Section 6.

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