

# INSTRUCTION MANUAL

Please read this carefully before installation



**ELECTRIC INSTANT &  
STORAGE WATER HEATER**



Dear Customer,

Thank you for choosing a world-class product from Ariston Group India Private Limited. Your choice for nothing but the best is reflected by your trust placed in Ariston. Racold is registered trademark of Ariston Spa Italy.

Ariston Group India Private Limited is a fully owned subsidiary of Ariston Spa Italy, and part of the Ariston Group the leaders in water heater.

Today Ariston Group India Private Limited is the largest provider of water heating solutions in India, catering to all sectors water heating namely “Electrical, Gas, Solar and Heat Pump water heaters”.

The Racold range of products from Ariston Group India Private Limited have changed the industry standards by setting new benchmarks in quality, aesthetics and performance.

**Our many firsts in India include:**

- Water heater with rust proof polypropylene body.
- Stainless steel inner container with multi-function safety valve for high pressure operation without additional pressure reducing valve.
- PUF insulation for maximum energy saving.
- Energy labelling for any domestic electrical appliances.
- Only water heater with quality and performance certification as per IEC/EN and Indian standards (ISI mark).
- Won highest number of National Energy Conservation Award from BEE (Bureau of Energy Efficiency) for electric storage water heaters.

Retain this manual safely and in case you need any assistance you may get in touch with any of our customer care centres, the details of which are enclosed.

Kindly follow the instructions given in this manual and enjoy years of trouble-free performance.

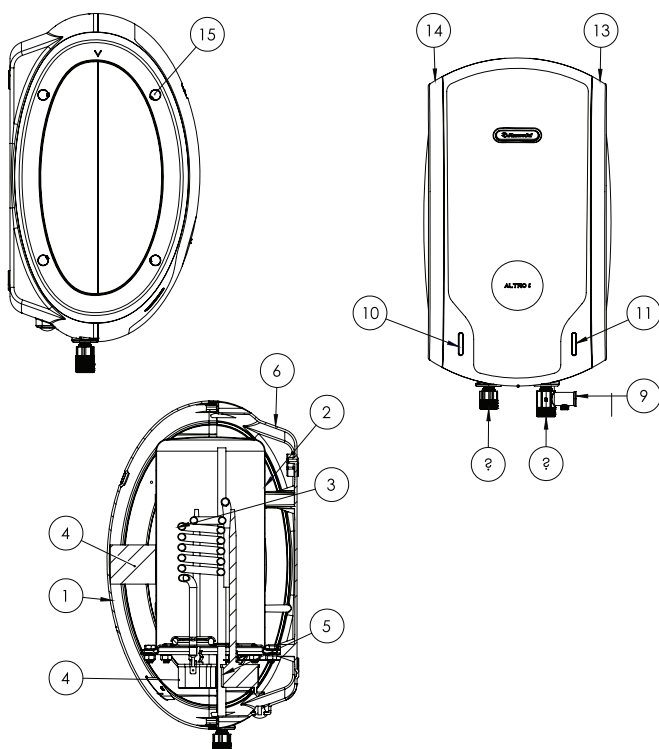
For further information including but not limited to FADs, relevant products please visit our website by scanning this QR code.



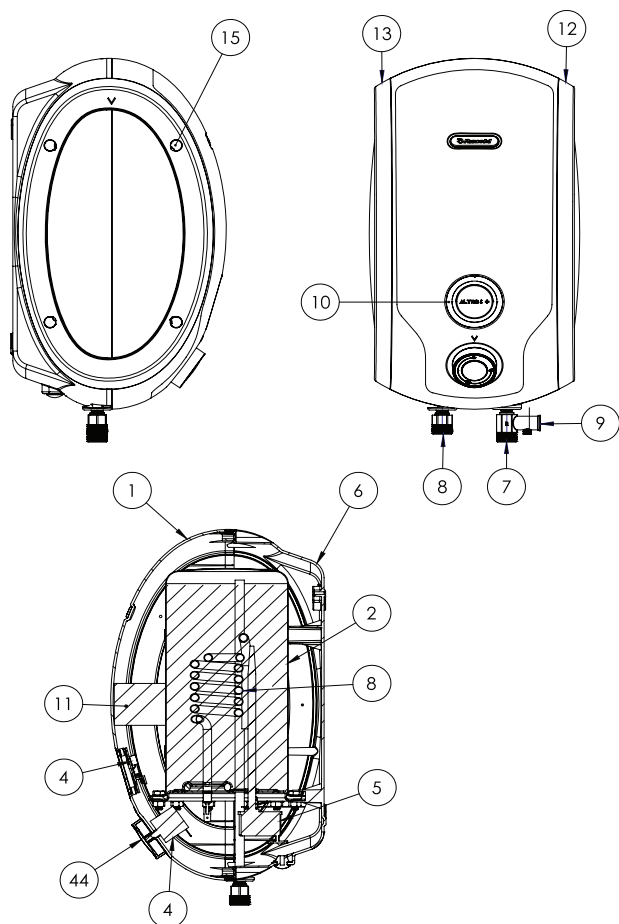
## PRODUCT FEATURES

1. **Outer Body** : Rust proof non corrosive polypropylene body.
2. **Inner Container** : Made-up of Stainless Steel which gives better corrosion resistance against hard water Material Inox (SS304L) in ALTRO i, ALTRO i RS, SVELTO models.
3. **Duronox** :A specially treated tank with duronox coating & made-up of superior grade SS 316 steel which ensures greater corrosion resistance and improved durability in ALTRO i DN 3L & ALTRO i+ 6L models. A special Aluminum Anode inside these products, further protects the tank from corrosion by forming a layer of Aluminum on the inner tank.
4. **Functional Thermostat** :  
Built-in stem type thermostat in ALTRO i, ALTRO i RS, SVELTO, ALTRO i DN models and capillary (bulb) thermostat for ALTRO i+ models ensures automatic temperature control and auto cutoff for safety.
5. **Safety Thermostat (Cut-out)** : Stem type non-self resetting Thermal cut-out for extra safety.
6. **Safety Valve** : Special Spring activated pressure relief valve to relieve any excess pressure built up within water heater tank than rated pressure.
7. **Heating Element** : Long life tubular low watt density powerful heating element as per ISI specifications.
8. **Knob for Customised Application** : Set different temperature modes for bucket bath and kitchen application with the help of knob in ALTRO i+ models.
9. **Smart LED Ring**: A smart LED ring changes colour from RED to BLUE to indicate when the hot water is ready.

## KNOW YOUR WATER HEATER



1. FRONT COVER
2. INNER CONTAINER
3. HEATING ELEMENT
4. FUNCTIONAL THERMOSTAT
5. SAFETY THERMOSTA (CUT-OUT)
6. BACK COVER
7. INLET
8. OUTLET
9. SAFETY VALVE
10. RED LAMP INDICATOR
11. BLUE LAMP INDICATOR
12. PUF
13. RH RING
14. LH RING
15. SCREW CAP



1. FRONT COVER
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5. SAFETY THERMOSTA (CUT-OUT)
6. BACK COVER
7. INLET
8. OUTLET
9. SAFETY VALVE
10. DISPLAT STICKER
11. PUF
12. LH RING
13. SCREW CAP

## IMPORTANT INSTRUCTIONS

Installation is to be done by qualified personal only, Ariston Group India Pvt Ltd. cannot be held responsible for the damages caused by wrong installation, faulty material, using substandard water or for not following instructions included in this instruction manual, particularly:

1. Installation of the water heater should be done by qualified personal only.
2. When newly installed, make sure that the water flows freely from the outlet tap (or spout) before electric supply is switched on.
3. Inlet water line should be continuously open when water heater is in use except when it is being serviced.
4. The temperature of the water can be regulated by controlling the flow through hot water stop cock.
5. When no more hot water is required the electric supply must be switched 'OFF' before the hot water Stopcock is closed.
6. Switch off water heater when not in use.
7. The Blue indicator lamp which is ON during the normal operation, turns OFF when the thermal cut out is activated Contact qualified service personal in this event.
8. Use pressure reducing valve in case operating pressure in the water heater is higher than 6.5 bar (95p.s.i.)
9. The electrical connection should be in accordance with the instruction given refer page 3.
10. The safety valve needs to be service at least once in 6 months.

## SAFETY DEVICES

### A. Safety Valve

In - built safety (pressure relief valve) is set to operate between 6.5 bar (95p.s.i.) and 7.5 bar (109 p.s.i.) Service the safety valve at least once in 6 months Racold service persons. Close inlet water supply. Remove dirt/scales from the water connection side. Push rubber disk gently to ensure it is not stuck. Do not tamper with the sealed screw otherwise pressure setting will get disturbed. Fix back after replacing old fibre washer. Check for any leakage before switching on electric supply

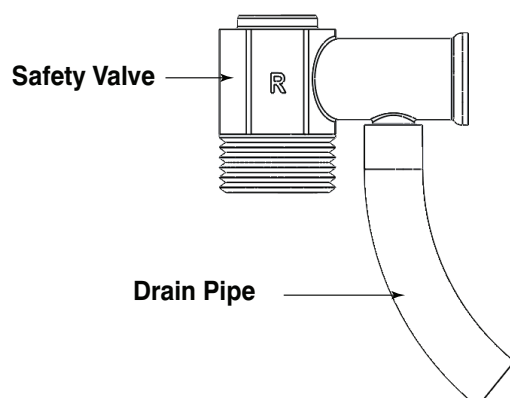
### B. Thermal Cut-Out

Stem type non self-resetting Thermal Cut out set to operate at temperature below 96 °C and disconnects electrical supply for extra safety. Please contact only authorized service Personnel in such an event.

### C. Thermostat

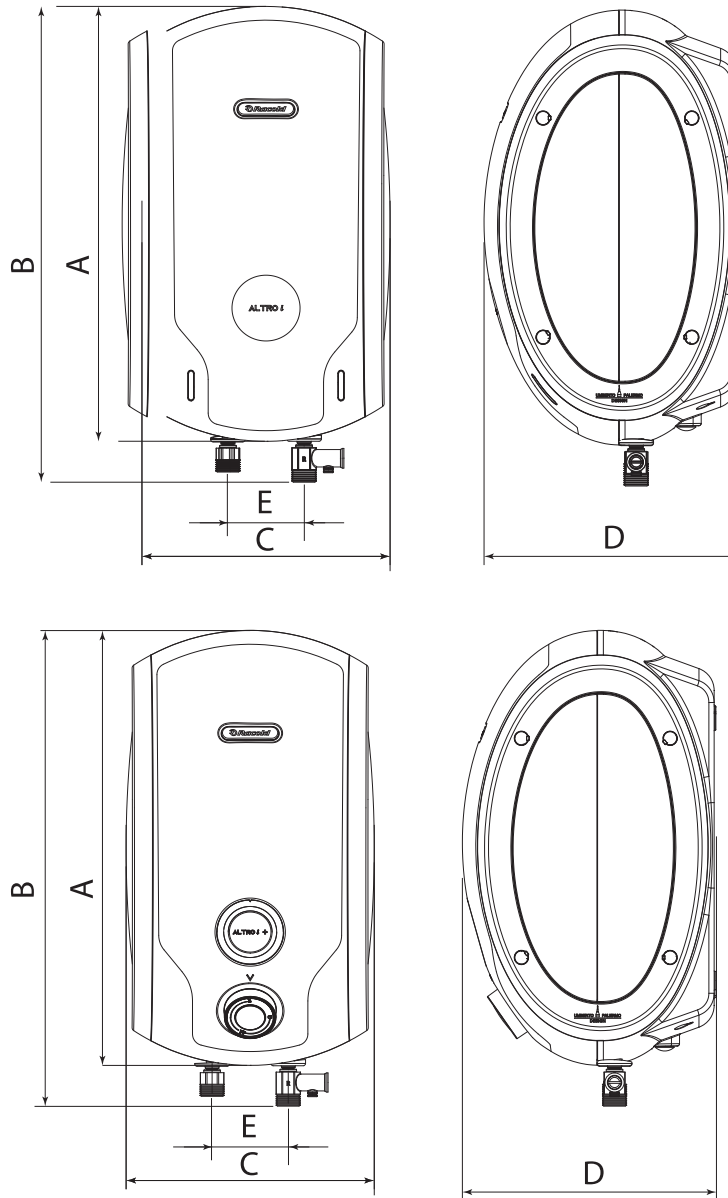
Stem type self-resetting; Automatic Resetting type, ON/OFF indication by red lamp.

**Warning: Do not switch on if there is a possibility that the water in the heater is frozen.**



**Note:** This rated pressure is developed inside the tank after heating at outlet pipe. it is recommended to maintain approximately 1.5 bar pressure at inlet pipe.

## ALTRO i/ALTRO i/ALTRO i RS/SVELTO/ALTRO i DN



#	Capacity	A	B	C	D	E
ALTRO i/ALTRO i RS	1L	302	334	172	177	66
ALTRO i/ALTRO i DN/ALTRO i RS	3L	377	412	215	220	66
SVELTO	3L	377	412	215	220	220
ALTRO i +	3L	377	412	215	220	220
ALTRO i +	6L	471	510	269	274	274

### NOTE:

1. All dimensions are in mm.
2. ALTRO i+ model is available in 3L (3.0 & 4.5 KW) & 6L (3KW) capacities.
3. SVELTO model is available in 3L (3.0 & 4.5 KW) capacity.

## SPECIFICATIONS

FEATURES	ALTRO i, ALTRO i DN, ALTRO i RS, SVELTO		ALTRO i+	ALTRO i+
Product type	Instantaneous water heater			Storage water heater
Capacity (Ltrs)	1L	3L	3L	6L
Power supply	230V, 50Hz, Single Phase			
Wattage (KW)	3.0 / 4.5		3.0 / 4.5	3.0
Indicator lamps	Red colour: Heating ON & Blue colour: Shower ready			
Function Thermostat setting (°C)	55 °C (+/-3)		57 °C (+/-3)	67 °C (+/-3)
Safety Thermostat setting (°C)	90 °C (+/-5)			
Pressure rating (Bar)	6.5 (+/-5)			
Reheating time (mins) for 50°C temp rise (max)	Not Applicable			10
Mean hot water output temp °C (min)				50
Mixing factor (max%)				20

## INSTALLATION

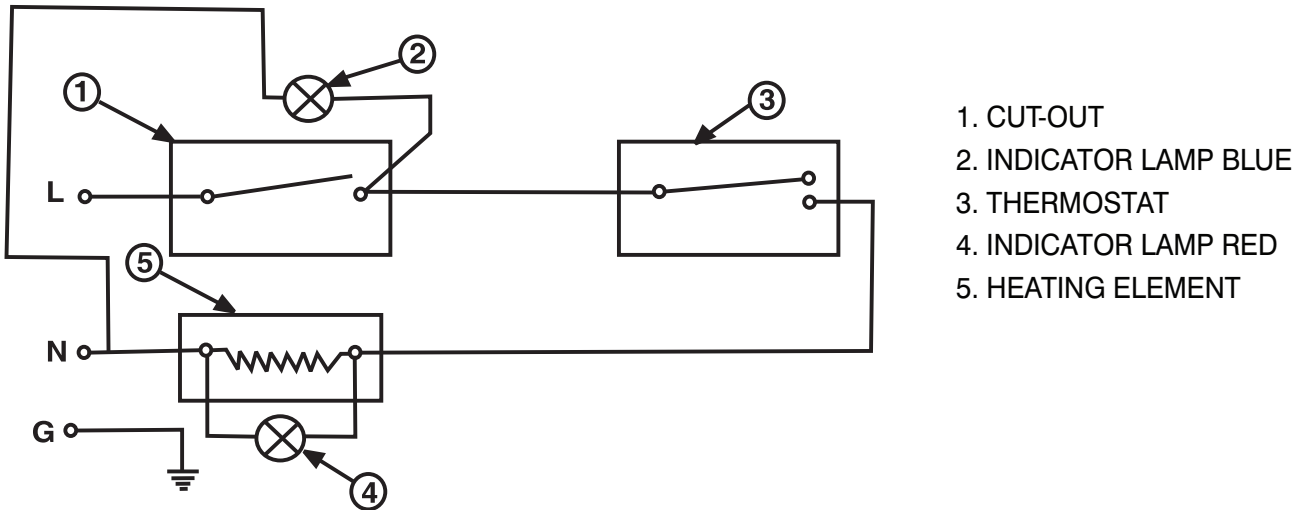
The appliance must be installed in compliance with current local regulations.

Mount the water heater vertically on the wall by fixing the bolts (1/4"X2).

1. Connect the inlet in the cold water of the mains by means of a 1/2" BSP female pipe fitting.
2. If the operating pressure in the water heater is above 6.5 bar (95 p.s.i.) fit a pressure reducing valve.
3. connect the outlet pipe of the appliance to the hot water supply system by means of a 1/2" BSP pipe fitting.
4. Care to be taken to avoid damage caused by applying excessive force while connecting.
5. Inlet water line should not have pressure more than 1.5 bar else there will be water droppage from pressure relief valve it is recommended to fit pressure reducing valve at the inlet specifically in multi-storey building.
6. In case of water dripping from safety valve, please put drain pipe (as shown in Picture), Product must be installed in a such a way that it should be easily accessible for servicing.

## ELECTRICAL CONNECTIONS:

1. Refer wiring diagram to check electrical connections. Ensure proper earthing at 3 pin supply point.

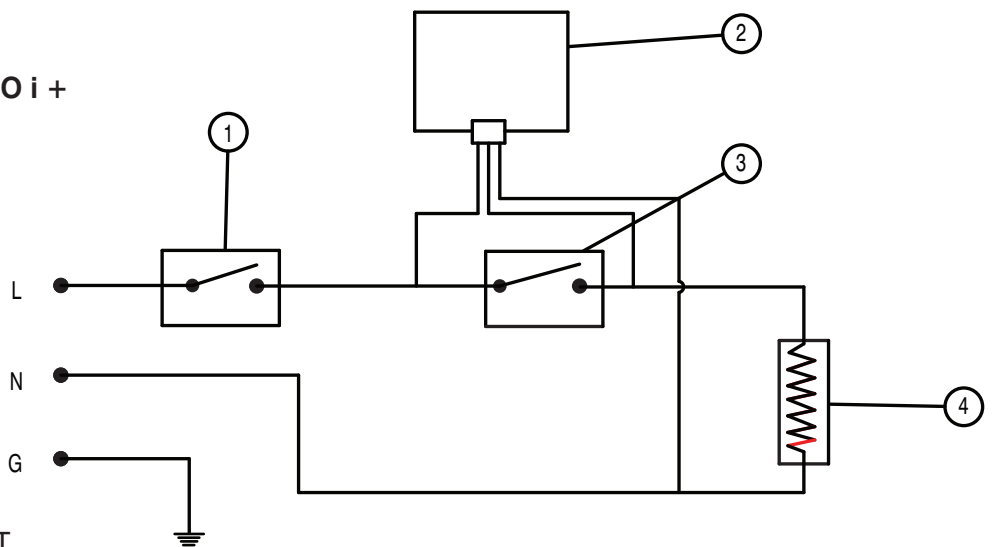


**Note:** Main's cord or any other electrical component must be repaired/replaced by authorized service personnel only. Minimum contact separation of 3mm is required in all poles for disconnection mains Cord: 48/0.2 (1.5 mm<sup>2</sup>) for 3kW heating element configuration in ALTRO i+, ALTRO i, ALTRO i DN, ALTRO i RS, SVELTO and 80/0.2 (2.5mm<sup>2</sup>) for 4.5kW heating element configuration in ALTRO i+, ALTRO i, ALTRO i RS, SVELTO

### WIRING DIAGRAM FOR ALTRO i +

POWER SUPPLY 230V,  
50Hz AC

1. SAFETY THERMOSTAT (CUTOFF)
2. PCB
3. FUNCTIONAL THERMOSTAT
4. HEATING ELEMENT



**Note:** In Display PCB, Red Ring Indicates Heating ON & Blue ring indicates Shower Ready)

**Warning:** Do not switch ON the water heater if there is a possibility that water in the heater is frozen.

1. Check that the electric data shown on the date plate corresponds to those of the electric supply available.
2. Minimum contact separation of circuit breaker 3mm.

#### Specifications:

For 3 kW models – min. 15A, 230V

For 4.5 kW models- min. 20 A. 230V



**WARRANTY CARD**

**PLEASE COMPLETE THE FOLLOWING DETAILS:** (To be filled by authorized dealer only)

**Product:** ELECTRIC INSTANT WATER HEATER

**Model No:** \_\_\_\_\_ **Serial No:** \_\_\_\_\_

**PURCHASER'S NAME & ADDRESS:** \_\_\_\_\_

**DEALER'S NAME & ADDRESS:** \_\_\_\_\_

**DEALER'S SIGNATURE:** \_\_\_\_\_

**CASH MEMO NO:** \_\_\_\_\_

**DATE OF PURCHASE:** \_\_\_\_\_

The Racold Water Heater comes with a warranty period of 2 years from the date of purchase against electrical / mechanical breakdown and/or mechanical failure caused through defective material and workmanship. The inner container of the water heater has a warranty period of 5 years and the heating element has a warranty period of 2 years. In event of failure covered by this warranty, you are requested to contact our customer care & obtain the complaint number. Our trained technicians will repair the product at our discretion. No further liability for the consequential or damage is accepted or implied. We will not be responsible for any human injury, property damages, consequential damages caused due to improper use. All disputes will be subject to Pune Jurisdiction only. The warranty on the inner container includes only the inner container and does not include any other part/s inside or outside of the inner container.

**Warranty on the tank and heating element applies only if:**

- 1) Annual check of anode is done mandatorily & its replacement done in case of consumption rod diameter less than 7mm. (Applicable only for Altro i+ 6L, Altro i DN 3L.)
- 2) Warranty will be no more valid in case the maintenance of anode is not done as per point no 1 (applicable for Altro i+ 6L, Altro i DN 3L. model, Refer important notes)

**Following things shall not be covered under warranty:**

- 1) Any plumbing and/or Electrical related problems.
- 2) Any defects arising due to wrong and/or non recommended installation procedure.
- 3) Dry heating of water heater.
- 4) Consumables such as anode. (Applicable only for Altro i+ 6L, Altro i DN 3L.)
- 5) Any human injury, property damages and consequential damages caused due to improper use.
- 6) Tank Cleaning and De-Scaling of the product is chargeable.

It is recommended to install the product through authorized service center only.

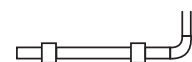
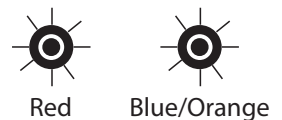
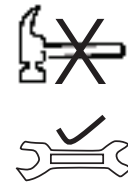
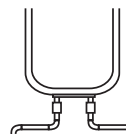
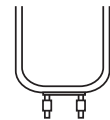
**Additional Note:** To prevent issues related to CPVC/UPVC, please ensure to verify the suitability of CPVC/UPVC

plumbing for water heater installation. Use only if deemed appropriate after confirming compatibility.



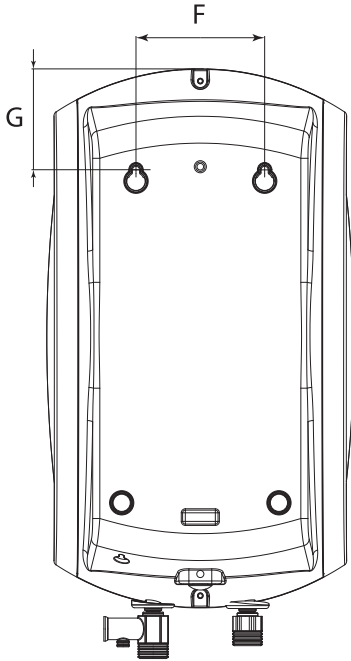
# ELECTRIC WATER HEATER INSTALLATION GUIDELINE FOR PLUMBERS

- Read Instruction Manual carefully and follow installation instructions.
- Safety valve are pre-set for certain working pressure. Under any circumstances do not tamper/over-tighten the safety valve.
- Continuous water dripping from Safety valve is an indication of excessive pressure at inlet of water heater compared to rated pressure. In that case install pressure reducing valve at the inlet.
- Check for leakage after installation, Plumbing & before switching ON the power supply.
- Ensure flow of water from outlet before connecting electric power supply to the appliance.
- Do not use excessive force while tightening inlet and outlet Couplings. This may cause serious damage to the water heater. Use Cross spanner for tightening
- Check supply voltage at the place of installation 230V.
- Ensure proper earthing of electrical connection.
- No extension cords to be used.
- Use only ISI marked electrical accessories of proper rating e.g. 3 pin Plug, Connection Boxes, Wires etc.
- In water heaters, check whether both blue and red lamps are glowing when the water heater is switched on.
- Ensure all couplings/Joints are leak proof.
- Check the water Heater operation for one complete cycle e.g one cycle of Thermostat operation. i.e. Cut off and Cut-in.

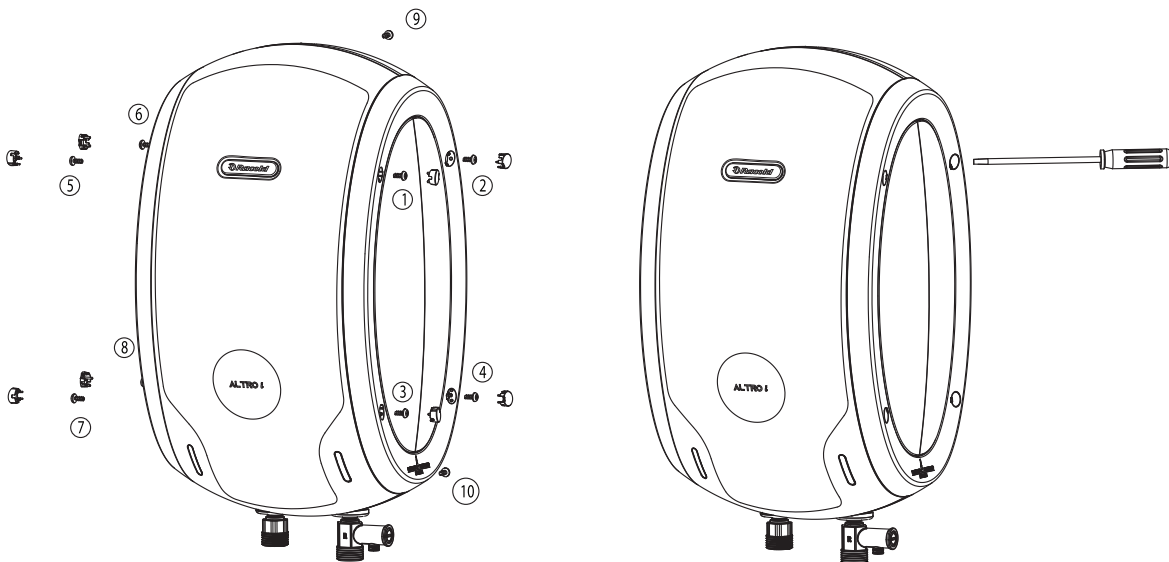


## INSTALLATION GUIDE / DISASSEMBLY OF PRODUCT

### ALTRO i+/ALTRO i/ALTRO i RS/SVELTO/ALTRO i DN



#	Capacity	F	G
ALTRO i/ALTRO i RS	1L	80	58
ALTRO i/ALTRO i RS	3L	90	71
SVELTO/ALTRO i DN	3L	90	71
ALTRO i+	3L	90	71
ALTRO i+	6L	55	138
All dimensions are in mm.			



#### Disassembly of Product:

1. Remove cap with Screw driver at slot provided in ring/cap.
2. Unscrew 4 screw of LH & RH ring each side.
3. Remove rings from body.
4. Unscrew 2 screws of Front & Back cover.
5. Take out Front cover & remove lamp holder/harness (For ALTRO i model) and Remove plastic connector from PCB & Harness fasten from Capillary Thermostat (For ALTRO i+ model) for servicing of inner tank related items.

# HOT WATER COMFORT, JUST THE WAY YOU LIKE IT.



## QUICK START :

1. Connect the safety valve at the inlet of water heater if supplied separately. Don't install water heater without safety valve.
2. Hook the water heater on wall with the help of mounting brackets. Take Necessary dimensions for making holes for mounting brackets.
3. Connect the inlet & outlet piping as marked on water heater.
4. Start water flow inside Water heater & fill it completely till water comes out from outlet connection.
5. Connect the electrical cord to power point.
6. Switch on the water heater's main supply, red indicator lamp comes on.
7. The red indicator lamp switches off indicates water inside the water heater reached to the set temperature
8. Run a complete cycle of Thermostat ON to Thermostat cut OFF, in presence of service provider / Installation technician / plumber.

# **Racold** Your comfort your way



Winner of  
Good Design  
Award

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