

## Pre-instruction Literature

### On Receipt

It is our policy to promote safe delivery of all orders. This product shipment has been thoroughly checked, packed and quality certified before leaving our factory.

### Visible Loss or Damage

If any of the goods called for on the bill of lading or express receipt are damaged or the quantity is short, do not accept them until the freight or express delivery agent makes an appropriate notation on your freight bill or receipt.

### Concealed Loss or Damage

When a shipment has been delivered to you in apparent good condition, but upon opening the packaging if any loss or damage has taken place while in transit, inform the carrier's agent / A. O. Smith representative immediately.

### About this manual

This manual is a guide to good practice for operating and periodic maintenance of the A. O. Smith SAS / SDS / SGS Water Heater. Do not operate the Water Heater before reading the user manual.

Please follow instructions in this manual to ensure personal safety and proper operation of this product. Always install, operate, inspect and maintain this product in accordance with all applicable standards. Please store this user manual carefully for any future reference.

### Disposal of this Product

(Waste Electrical and Electronic Equipment)



This marking on the product, accessories or User Manual indicates that the product and its electronic accessories (e.g. Remote, batteries and other replaceable electronic accessories) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable re-use of material resources.

Household users should contact their local government office, for details of where and how they can take these items for environmentally safe recycling. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

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## General Instructions

### Safety

Your safety and the safety of your loved ones is paramount. There are several safety related messages in this manual, which have been provided during various steps such as the installation, operation and maintenance of your SAS / SDS / SGS Water Heater. These messages point out potential hazards and also educate on how to reduce any potential risks. Please always read and follow all safety messages as provided in this user manual.

	This is the safety alert symbol. This symbol alerts you to potential hazards that can hurt you and others. All safety messages will follow the safety alert symbol and either the word "DANGER" or "WARNING".
	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.
	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.

### WARNING

Do not use this Water Heater if any part has been under water. Immediately contact an Authorised Service Technician to inspect the Water Heater and contact A. O. Smith Service personnel to replace any part of the control system which has been under water. Failure to follow this instruction can result in property damage, serious injury or death.

### IMPORTANT

These instructions have been written as a guide for the proper installation and operation of your Water Heater. A. O. Smith will not accept any liability where these instructions have not been followed. However, for your safety and to avoid damage caused by improper installation, it is recommended that Water Heater must be installed by an Authorised Service Technician.

Before proceeding with the installation instructions:

1. Inspect the Water Heater and its component parts for possible damage. Do not install or attempt to repair any damaged component parts. If you detect any damage in the Water Heater, please contact the dealer where the Water Heater was purchased or call A. O. Smith Customer Care Centre.
2. Verify that the voltage being supplied corresponds to that which is marked on the Water Heater manual.

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## Key Features



### Blue Diamond® Glass Lining

Blue Diamond® technology increases the life of the inner tank. The lining is stronger and more corrosion resistant than any other in the industry.



### Glass Coated Heating Element (for SDS and SGS)

Scale and sediment build-up on the surface of the element can lead to premature failure. A. O. Smith Glass Coating helps to prevent scale formation and extends the life of the Heating Element. SAS has efficient Incoloy Heating Element that does not accumulate calciferous deposits like copper.



### Express Heat (for SGS)

Save your time with the help of innovative Heating Element by heating your water 33%\* faster.



### Temperature Control Knob

The Temperature Control Knob allows you to set the temperature anywhere between 25°C to 75°C.



### Long-Lasting Anode Rod

A customised alloy that works in different Water Conditions, protects the tank and heating element from corrosion, has twice the lifespan compared to a regular magnesium anode.



### Multi-function Safety valve

The Multi-function Safety valve is designed to automatically relieve pressure and discharge water in case the pressure overshoots the pre-set limits.

**Note:** A. O. Smith reserves the right to amend or modify the specifications and features at any time, as and when required without any prior notification.

\*As compared to a regular 2 kW Water Heater.



\*Product colour and image shown may vary from the actual product.  
Part No.: 335271-070\_A Date: 11-02-2020

**AC Smith**  
Innovation has a name.

**Water Heater**  
SAS / SDS / SGS  
15 and 25 Litres



**PLUS**  
SERIES



## User Manual

## Specifications

Model	SAS / SDS / SGS	
Volume [L]	15	25
Power [W]	SAS and SDS	2000
	SGS	3000
Voltage/Frequency [V/Hz]	230~/50	
Actual Stdg. Loss [kWh/24h/45°C diff.]	0.410	0.505
Reheating time for 35°C rise [in min.]	SAS and SDS	12
	SGS	7
Temperature range [°C]	25 -75*	
	Rated water pressure	80
Inlet/Outlet connections [inch]	½ BSP	
	Net Weight (kgs)	9.8

\*The maximum set temperature may vary  $\pm 5^\circ\text{C}$ .

### Dimensions

Model	15 Ltrs.	25 Ltrs.
A (mm)	373	444
B (mm)	373	444
C (mm)	100	100
D (mm)	125	125
E (mm)	130	135
F (mm)	348	383

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Figure 1

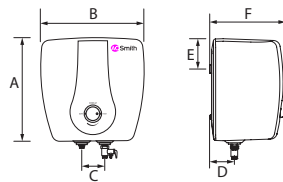
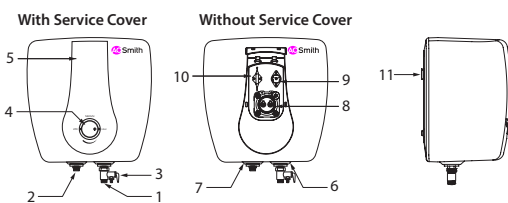


Figure 2



Part	Description	Part	Description
1	Cold water inlet	7	Red Cap
2	Hot water outlet	8	Heating Element and Anode
3	Multi-function Safety valve	9	Thermal Cut-out
4	Temperature Control Knob	10	Thermostat
5	Decorative Front Panel (Service Cover)	11	Wall Mount Slot
6	Blue Cap		

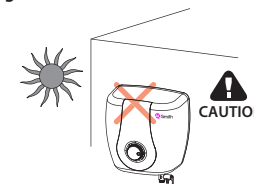
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## Safety Precautions

### During Installation

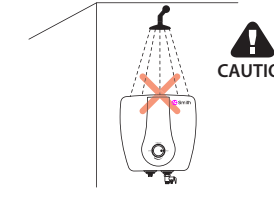
Do not install the Water Heater where there is direct sunlight or rain. It is has to be installed indoor only.

Figure 3



Do not install the Water Heater where water splashes on the Water Heater.

Figure 4



## Installation

Before installing, ensure the tools Adjustable wrench, Teflon tape, Measuring tape, Hammer, Bubble level indicator and Impact drill tool are available.

### Mounting the Water Heater

- It is recommended as per IS 302-1 to have 6 inches clearance from wall.
- Select a place to mount Water Heater vertically with water connection at the bottom.
- Water Heater must be located within 3 ft. (approx.) from a 230 V electrical outlet with proper grounding.
- Make sure that the wall can withstand at least twice the weight of the Water Heater when completely filled with water.

Figure 5

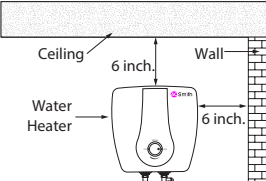
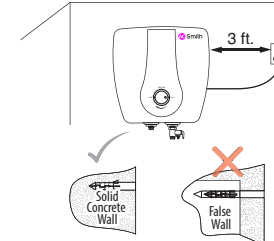


Figure 6



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## Installation (contd...)

- Use Mounting Template to mark holes (Step 1).
- Use a drill bit with diameter of 10 mm to drill 2 holes at least 60 mm deep in the wall (Step 3). The two holes should be aligned horizontally.
- Insert the Expansion Anchor into the hole (Step 1).
- Insert the Mounting screw over the Expansion Anchor and tighten the Mounting screw by rotating it till it gets fixed steadily (Step 2).

Figure 7

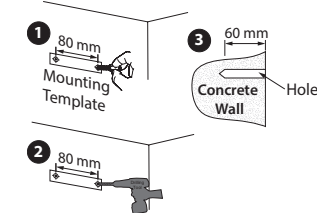
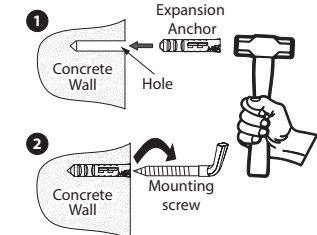
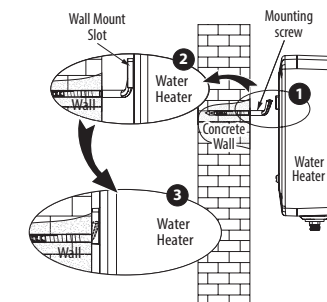


Figure 8



Mount the Water Heater on the Mounting screw through the Wall mount slot. Tug downwards on the Water Heater to ensure that the Water Heater is fixed steadily on the Wall mount bracket.

Figure 9



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## Plumbing Instructions

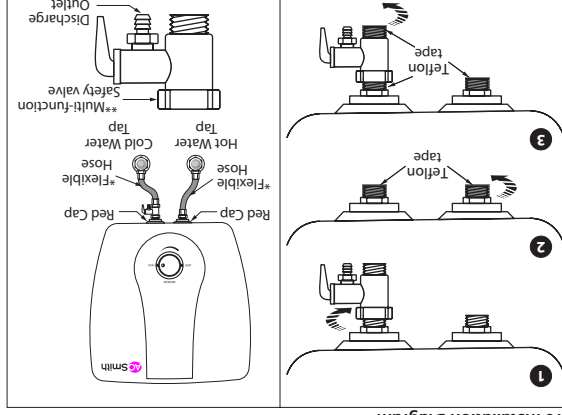


Figure 10 Installation Diagram

\*\*Flexible Hoses to be procured by the customer, not part of standard product.

- Remove MFSV from the inlet pipe by rotating it in anti-clockwise direction.
- Wrap the Teflon tape around the inlet and outlet connections of the Water Heater to prevent leakage.
- Connect MFSV to the inlet pipe by hand tightening it in clockwise direction.
- Make necessary plumbing with reference to the Installation Diagram. (Refer "Installation Diagram")

- Connect the cold water pipe to the inlet (Blue Cap).
- Connect the hot water pipe to the outlet (Red Cap).

Note: Make sure to connect Multi-function Safety valve to the Water Heater before connecting inlet to the cold water tap.

- A. O. Smith recommends Nylon/ Stainless Steel (SS) braided hoses (Flexible Hoses) having a minimum pressure rating of 8 Bar and hoses should be compatible for hot water applications.
- The Multi-function Safety valve may drip during the usage of the heater. As the water is heated, it expands and tries to flow back through the inlet pipe, but is prevented by the presence of the non-return valve (an external valve provided before cold water tap). Hence water may drip from the Multi-function Safety valve. Therefore, Discharge outlet is provided to discharge water from the Water Heater. To avoid dripping, it is recommended to install non-return valve at a distance of at least 40 feet away from the inlet of the Water Heater.

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## CAUTION

Please turn off the power supply to the Water Heater prior to draining the Water Heater.

## A. O. Smith Colour Match System\*



A. O. Smith Colour Match System\* allows your Water Heater to match the colours of your bathroom. The product of your choice comes with either white or ivory body colour, along with the coloured front panels as in the following table.

Models	SAS	SDS	SGS
Decorative front panel (Service Cover)	White or Ivory	Blue or Red	Red
Body Colour	White or Ivory	White or Ivory	White or Ivory

You have the option of changing this panel to match your bathroom decor at a nominal cost (for SAS models).

\* You have the option of changing this panel to match your bathroom decor at a no cost. This option is available only one time after purchase (for SDS and SGS models). Call the A. O. Smith Customer Care Centre [1800-103-2468/1860-500-2468] or visit [www.aosmithindia.com](http://www.aosmithindia.com) to register your product within 60 days of purchase and ask for one of the Decorative Front Panel colour options.

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## CAUTION

- The Multi-function Safety valve should never be removed or blocked by any means to prevent it from dripping or releasing the excess pressure inside the heater. Failure to do so may result in damage to the Water Heater and injures to the user.
- Discharge outlet is provided to release the discharge from the Water Heater (through the Multi-function Safety valve) in case excessive pressure is developed. The contents of the discharge from the Multi-function Safety valve may be hot and may cause burns to the users and damage nearby objects. Therefore it is recommended to take pre-cautions while discharging water from the Water Heater.
- It is recommended to operate the Discharge lever in the Multi-function Safety valve on an equalizer basis to ensure that there are no blockages and also to remove any lime deposits that would have been formed inside the Water Heater.
- Ensure that the Water Heater is in power OFF condition when the Discharge Lever is being operated. Ensure that the water is filled completely in the Water Heater.
- Make sure a suitable teflon tape is used for all plumbing connections to prevent leakage.
- Use only Nylon/ Stainless Steel (SS) braided hoses (Flexible Hoses) having a minimum pressure rating of 8 Bar and hoses should be compatible for hot water applications.
- Failure to follow this instruction can result in property damage.

## Operation



Figure 11

## Filling the Water Heater Tank

- Open a nearby hot water faucet to permit air to escape.
- Open the cold water inlet valve fully.
- Close hot water faucet when water piping.
- Check all the connections to see if there is any leakage. In case of a leakage, drain the water completely, repair the leaking joint and then refill the Water Heater.

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## Connecting to Electrical Supply



Figure 12

- This Water Heater should not be operated with insufficient amount of water.
- Failure to do so may result in damage to the Water Heater and injures to the user. This will also make the warranty null and void.
- Once the Mounting, Multi-function Safety valve, Plumbing and Water filling is completed, then only the power supply should be switched ON.
- Do not splash water directly or clean with benzene, pesticides, thinner, alcohol, etc., but use a soft, dry cloth to clean the Water Heater.

## CAUTION

- Connect the Water Heater using independent sockets, do not use any adapters.
- Use multimeter to check whether the live line and neutral line are not reverse, to ensure complete safety.
- Before installing the Water Heater, confirm that the power of Water Heater matches electric meter capacity and supply wire.
- The Water Heater should be earthed reliably. It is prohibited to connect the earth wire to neutral wire or faucet water pipe.

## Temperature Control Knob

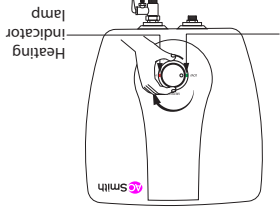


Figure 13

switch on the Water Heater's power supply. The Power indicator lamp glows.

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## Changing the Decorative Front Panel

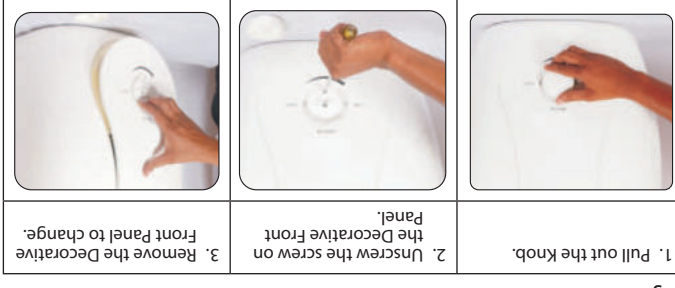


Figure 17

Please follow the instructions as shown in "Figure 17".

## CAUTION

- Please ensure to switch off the power supply while changing the Decorative Front Panel and pull out the power plug from the socket.
- An insulation layer is provided below the front panel which should not be replaced.
- While changing the front panel ensure that, none of the internal components are damaged or removed.



## Scalding

Hot water is dangerous, especially for the young children, aged or the disabled. The Water Heater allows you to control the temperature of your hot water. Water temperatures over 52°C can cause severe burns instantly or death from scalds. Do not leave a child or an infirm person in the bath unsupervised.

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Water dripping from Multi-function Safety valve during heating.

## Troubleshooting

Problems	Possible Cause(s)	Solution
Power indicator lamp and Heating indicator lamp does not glow.	No power supply to the Water Heater. Thermal Cut-out has tripped or problem in internal wiring.	Check power supply and switch ON electrical switch. Call Customer Care Centre.
Power indicator lamp and Heating indicator lamp glow but no hot water.	Heating element breakdown or internal wiring error.	Call Customer Care Centre.
Water temperature is too high.	Impover thermostat operation.	Call Customer Care Centre.
Water heats slowly.	Low voltage at supply mains. Thermal Cut-out not operating.	Check voltage at supply mains. Call Customer Care Centre.
Water dripping from product.	Leakage in tank or other parts.	Switch OFF power immediately and Call Customer Care Centre.
Piping connection leaks.	Connection not sealed.	Re-connect piping, using Teflon tape.
Scale deposition.	Scale deposition.	Call Customer Care Centre.
Water dripping from Multi-function Safety valve during heating.	Non-return valve is installed close to the inlet of the Water Heater.	Install Non-return valve at a distance of at least 40 feet from the inlet of the Water Heater (Refer page 8), if problem still persists call Customer Care Centre.

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## Temperature Setting

Turn the Temperature control knob clockwise for the device to commence heating and change the set temperature. The Heating indicator lamp will glow. [The set temperature increases if the Temperature control knob is turned clockwise]. Temperature can be adjusted from 25°C to maximum 75°C. (Recommended to keep Temperature control knob notch position always in medium or above level.

## Modes

There are two types of modes depending on the actual water temperature inside the inner tank of the Water Heater.

## Heating mode

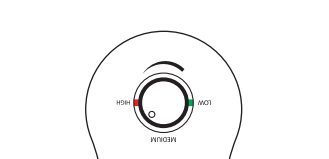


Figure 14

When the actual temperature of the Water Heater reaches set temperature, it will enter into the Standby mode.

## Standby mode

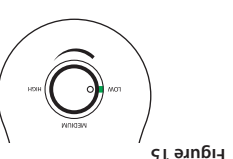


Figure 15

After the Water Heater reaches set temperature, it will enter into the Standby mode due to the thermostat cut-off and the Power indicator lamp glows as shown in "Figure 15".

When the temperature of the water drops by 5°C from the set temperature due to usage of water, the Water Heater again enters into the Heating mode.

## Draining the Water Heater Tank

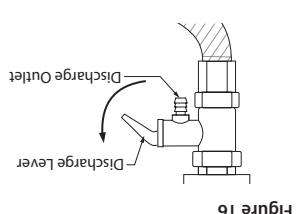


Figure 16

- Switch OFF the electric supply to the Water Heater.
- Open the hot water faucet until the water runs cool.
- Close cold water supply.
- Drain the water by lifting the Safety valve upwards. (Refer "Figure 16")

## Circuit Diagram

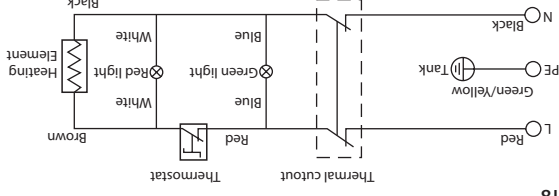


Figure 18

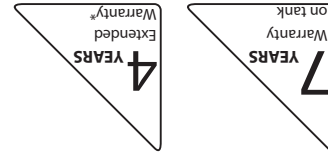
Note: Call Customer Care No. 1800-103-2468/1860-500-2468.

Problems	Possible Cause(s)	Solution
Foul smell from hot water.	Presence of organic matter in input water.	Provide treated water at the input.
High electrical conductivity of water due to dissolved solids in water.	Call Customer Care Centre. A note options available for highly conductive water.	
No usage of hot water for a long time period.	If the Water Heater is not used for an extended period of time, drain the water from the Water Heater. Ensure water is filled back before use of Water Heater.	

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9. The inner tank and Heating Element need to be cleaned for any deposits/scales periodically from an Authorised Service Technician. This will ensure your Water Heater works efficiently for longer time.
  8. The customer will have no claim under this warranty in respect of any personal injury, damage of property or consequential damages, or for utilisation of the goods not in accordance with the user guide.
  7. In case of dry heating (Water Heater operated without water inside the tank), if the Water Heater or any component of the Water Heater is damaged, then it will be repaired/replaced on a chargeable basis. After any repair or part replacement in the Water Heater, the basic warranty continues as per the actual date of purchase.
  6. The Water Heater should not be operated without water inside the tank. This will make the warranty null and void.
  5. The Company's liability under the warranty will be limited to defects which occur under conditions of proper installation, normal operation and under proper use. It excludes defects occurring because of abuse, faulty care or maintenance and repair/alterations to the product or the parts by an unauthorised person.
  4. The Company or its Authorised Service Provider will be entitled to retain any defective part replaced under the warranty.
  3. Inspection and Test Report of the Company's Office/Authorised Service Provider will be treated as final and binding under the warranty for determining the defects, repair/alterations required or carried out, or certifying working of the goods thereafter.
- \* Register your product with the A. O. Smith Customer Care Centre [1800-103-2468 /1860-500-2468] within 60 days of purchase and you will get an extended warranty on the Heating Element [from 2 years to 4 years]. You can also get an additional changeable Decorative Front Panel, for details refer User Manual.

Product Warranty	2 Years
Glass-Coated Heating Element	2 + 2 Years*
Tank	7 Years



1. The customer will notify the Company promptly about defects noticed and give the Company or its Authorised Service Provider adequate opportunity to inspect, test and remedy them, for which the customer will deposit the goods, if necessary, with the Company's Office/Authorised Service Provider along with the original invoice.
2. Special warranty from the date of purchase is only applicable for the below mentioned components:

**Product Warranty**

**Warranty Terms and Conditions**

10. Anode is not included under warranty, the service life of the Anode is determined by the quality and quantity of the water flowing through. If the Anode is consumed, it needs to be replaced by an Authorised Service Technician for efficient protection of the Water Heater. The warranty on the tank will be null and void.
  11. Warranty does not cover:
    - If the Anode is removed.
    - If the Anode is not replaced as and when required.
  12. Any services related issues/replacements due to non A. O. Smith connecting hoses, procedures by Unauthorised Service Technician.
    - Damage to Water Heater at customer house during installation or serviceable (Refer User Manual).
    - Product installed in direct sunlight exposure or rain or non-serviceable areas (Refer plumbing lines).
    - Safety valve, Pressure Reducing Valve or non-recommended reducing valve in and plumbing works.
    - Damage to Water Heater or its surroundings due to non usage of Multi-function cleaning of scale deposits inside Water Heater occurring due to site conditions like electrical works.
    - Any damages to Water Heater occurring due to site conditions like electrical works.
    - Plastic parts.
- \*Refer rate card [www.aosmithindia.com](http://www.aosmithindia.com)



**Water Heater**

SDS / SGS

6, 10, 15 and 25 Litres



**PLUS**  
SERIES



**Registered Office**

A. O. Smith India Water Products Private Limited  
 (formerly known as A. O. Smith India Water Heating Private Limited)  
 Plot 300, Phase - II, KIADB Industrial Area, Harohalli, Kanakapura Taluk,  
 Ramanagara District, Karnataka – 562 112, India.  
 • Customer Care No. **1800-103-2468/1860-500-2468.**  
 • Website: [www.aosmithindia.com](http://www.aosmithindia.com)  
 CIN: U31909KA2006PTC040282

**EXPERT SERVICE**

☎ **1800-103-2468/1860-500-2468**

☎ **+91 99410 32468** (Whats App) or

✉ **aosmithcs@aosmithindia.com**

**Monday to Friday: 9 a.m. to 8 p.m.**

**Saturday & Sunday: 9 a.m. to 6 p.m.**

# For calls registered at A. O. Smith call centre before 4 p.m. only. Available only in selected cities. For more details, please call our Customer Care Centre or log on to [www.aosmithindia.com](http://www.aosmithindia.com)

**Warranty Card**

**General Terms of Warranty**

1. The "goods" shall mean the goods described in the purchase agreement.
2. "The customer" shall mean the original purchaser under the purchase agreement.
3. "The Company" shall mean A. O. Smith India Water Products Private Limited.
4. The "Purchase Agreement" shall mean the General Terms and Conditions of Sale agreed upon by the customer and the Company as printed on the Invoice.
5. "Invoice" shall mean the Invoice issued for the Unit by the Company or Authorised Dealer to the customer describing the goods and indicating, inter alia, the total purchase price thereof, the name of the customer and the place where the goods are to be installed.
6. "User Guide" shall mean the instructions for installation leaflet published by the Company and delivered to the customer.

**Note:** Follow any one for registration of the Extended Warranty.

- Call our dedicated Customer Care No. **1800-103-2468/1860-500-2468**.
- To register for the warranty details of your Water Heater, visit [www.aosmithindia.com](http://www.aosmithindia.com).

**Post Warranty**

1. The customer may be offered a yearly Service Contract at the prevailing Company rates and terms.
2. In case the customer does not wish to enter the Service Contract, he has an option to call our Customer Care Centre and get A. O. Smith Water Heater unit serviced on an actual basis, i.e. by paying the Labour Cost and Spares needed to attend to that Service or Complaint Call at the prevailing Company rates. Such service will be rendered by the Company in towns or places where the Company has its Authorised Service Providers.
3. In case of product repair after warranty by Authorised Service Provider, all expenses of transporting the goods to and from the Authorised Service Provider shall be borne by the customer directly.
4. If, during such service, it is necessary for the Company or Authorised Service Provider to replace or repair defective components or parts, the customer shall be required to pay for the same as per the Company's prevailing price list.

**Warranty Card**

**Customer Copy to be retained by the Customer**

Invoice Number: \_\_\_\_\_ Dated: \_\_\_\_\_

Unit Serial Number: \_\_\_\_\_

Model: \_\_\_\_\_ Capacity: \_\_\_\_\_

Customer's Name and Address: \_\_\_\_\_

\_\_\_\_\_

Ph: \_\_\_\_\_ Mobile: \_\_\_\_\_ E-mail: \_\_\_\_\_

Dealer's Stamp and Signature

**Jurisdiction**

The courts of competent jurisdiction at Kanakapura, Karnataka shall have exclusive jurisdiction over all matters arising out of any disputes in relation to the product.

**Expert Company Service - Power of 1**

1. Different models have different service delivery levels.
2. Service level mentioned for particular models are applicable for metros and 'A' Class cities, e.g. Delhi and NCR, Bengaluru, Hyderabad, Kolkata, Pune, Goa, Cochin, Chennai, Chandigarh and Ahmedabad.
3. Service level deliverables are valid up to city municipal limit only.
4. Service level may differ in case of public holidays and unavoidable conditions due to natural calamities, any political and regional regulations.
5. Power of 1 valid service is applicable for calls registered at A. O. Smith Call Centre before 4 p.m. only.



**Warranty Card**

**Company Copy to be sent back to the Company**

Invoice Number: \_\_\_\_\_ Dated: \_\_\_\_\_

Unit Serial Number: \_\_\_\_\_

Model: \_\_\_\_\_ Capacity: \_\_\_\_\_

Customer's Name and Address: \_\_\_\_\_

\_\_\_\_\_

Ph: \_\_\_\_\_ Mobile: \_\_\_\_\_ E-mail: \_\_\_\_\_

Dealer's Stamp and Signature