A.O. Smith
Innovation has a name.

Water Heater

HSE-VAS 15, 25, 35 and 50 Litres

WORLD'S NO.1

MANUFACTURER OF WATER HEATERS



7 YEARS WARRANTY ON TANK

Higher energy rating.
Longer warranties.

A.O. SMITH POWER OF 1 HOUR RESPONSE# DAY RESOLUTION TIME FIX SERVICE

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Monday to Friday: 9 am to 8 pm.
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For calls registered at A. O. Smith call centre before 4 pm only. Available only in selected cities. For more details please call our 1800-103-2468/1860-500-2468 or log on to www.aosmithindia.com

User Guide

Congratulations!

And welcome to the A. O. Smith family.

We would like to thank you for the trust you have shown in choosing an A. O. Smith water heater. You can be sure it will live up to your expectations. Thousands of delighted users all over the world trust A. O. Smith water heaters for their families. This user guide will introduce you to your water heater. Follow the instructions carefully and look forward to enjoying long years of trouble-free service.

A. O. Smith is a company known for its innovative technologies and energy-efficient solutions. Ours are the only water heaters with the Blue Diamond® Glass Lining for the inner tank. This cutting edge technology prevents sediment and scaling, fights corrosion and extends the life of your water heater.

Our customer-centric approach manifests itself in many other ways too. If you need any information or assistance with your water heater, just call us from any phone, anywhere in the country to our **Customer Care No. 1800-103-2468/1860-500-2468.**

Or

Factory Address:
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.
CIN: U31909KA2006PTC040282

About A. O. Smith

A. O. Smith India Water Products Private Limited was established in 2006. Since then, the A. O. Smith team has conducted numerous focus group studies and spent endless research hours determining what India wanted in a water heater. Backed by 75 years of proven technological advances, A. O. Smith India has created a stylish design with features demanded by the Indian consumer.

The A. O. Smith plant with manufacturing facilities spread over 76,000 sq. ft. is located on 20 acres, just outside Bengaluru, in the KIADB Industrial Area, Harohalli. The India operations is the 16th A. O. Smith manufacturing facility worldwide. In 2013, additional 150,000 sq. ft. was added in Bengaluru factory. A. O. Smith's India plant has extensive engineering and technical resources and has the latest technologies incorporated. A. O. Smith is the first manufacturer to invest in and produce glass lined water heaters in India.

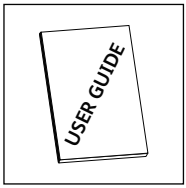
Today, A. O. Smith Corporation is one of the largest water heater manufacturers in the world and is a global leader in innovative technology and energy efficient solutions.

What's in the box?

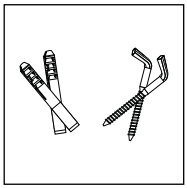
Electric
Water Heater



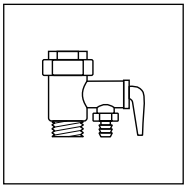
User Guide



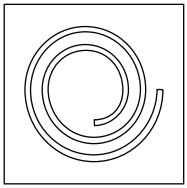
Mounting
Accessories



Multi-function
Safety Valve



Discharge Tube



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Read Before Operation

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 HSE-VAS 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.

General

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 HSE-VAS 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”.
DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.
CAUTION	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 a Qualified 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 a Qualified 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.
2. Verify that the voltage being supplied corresponds to that which is marked on the water heater manual.

Specifications

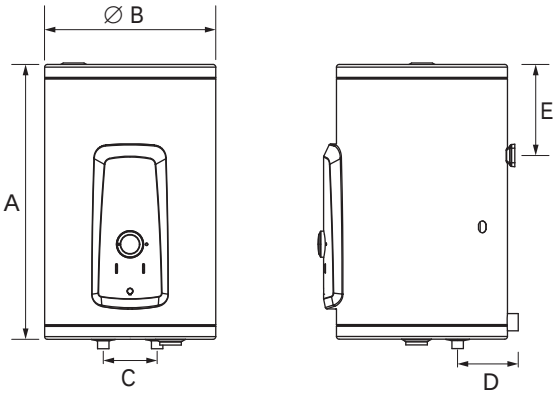
Model (Vertical Wall Mounted)		HSE-VAS-015	HSE-VAS-025	HSE-VAS-035	HSE-VAS-050
Volume [L]		15	25	35	50
Power [W]		2000			
Voltage/Frequency [V/Hz]		230~/50			
Actual Stdg. Loss [kWh/24h/45°C diff.]		0.450	0.540	0.615	0.724
Reheating Time for 35°C rise [in min.]		12	20	29	35
Temperature range [°C]		25-75*			
Rated water pressure	N/cm^2	80			
	Water head (metres)	80			
Inlet/Outlet connections [inch]		½ BSP			
Net Weight (kgs)		14	18	20	24

*The maximum set temperature(75 °C) may vary ± 5 °C.

Dimensions

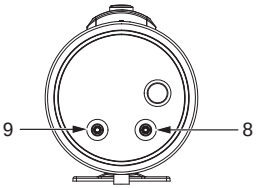
Model	HSE-VAS-015	HSE-VAS-025	HSE-VAS-035	HSE-VAS-050
A [mm]	510	516	665	870
B [mm]	339	395	395	395
C [mm]	100	100	100	100
D [mm]	134	155	155	155
E [mm]	181	187	187	187

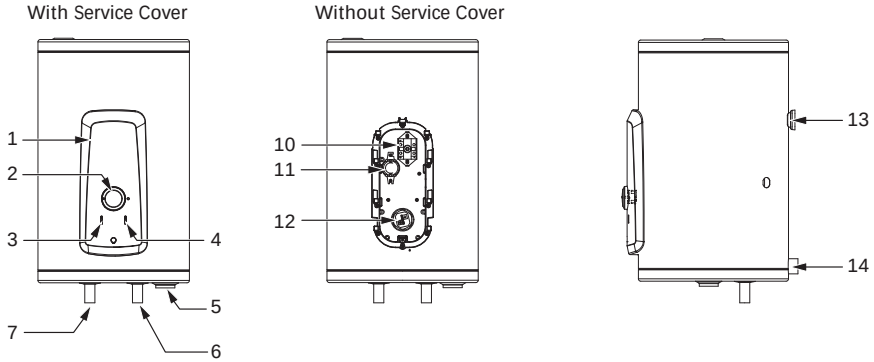
Figure 1



Note: Image may vary from the actual product.

Figure 2





Part	Description
1	Service Cover
2	Temperature Control Knob
3	Power indicator lamp
4	Heating indicator lamp
5	Anode
6	Cold water inlet pipe with diffuser
7	Hot water outlet pipe
8	Blue Cap
9	Red Cap
10	Thermal Cut-out
11	Thermostat
12	Heating Element
13	Wall Mount Bracket
14	Support

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

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.



Anode Rod

The tank has an anode rod which has stainless steel core that is designed to protect the tank from corrosive elements. The anode rod uses a special cathodic action to fight these elements and thus prolong the life of the water heater.



Temperature Control Knob

The temperature control knob allows you to set the temperature anywhere between 25ºC to 75ºC.



Thermal Cutout

If the water temperature exceeds the highest preset level, the thermal cut-out cuts off the power supply to assure safety.



Multi-function Safety Valve

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

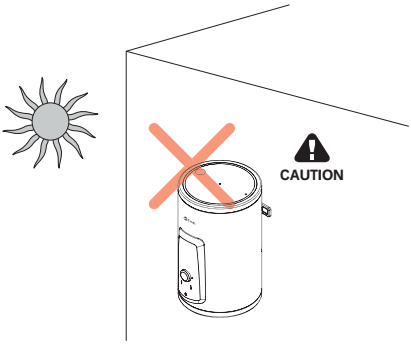
Note: A. O. Smith reserves the right to amend or modify the specifications and features at any time, as and when required without any prior notification.

Safety Precautions

During Installation

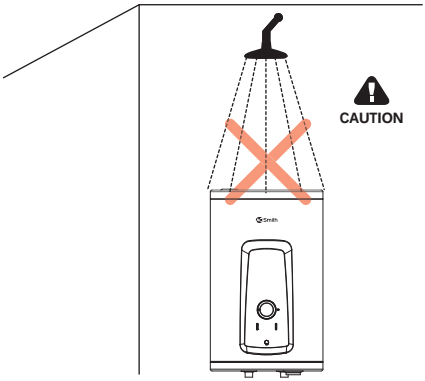
Do not install the water heater where there is direct sunlight or rain. It is has to be installed indoor only.

Figure 3



Do not install the water heater where water splashes on the water heater.

Figure 4

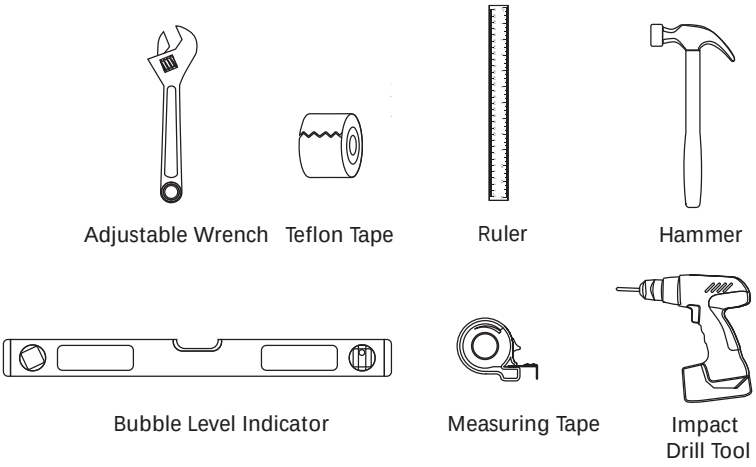


Installation

Before installing, ensure that the following tools are available:

Tools Required

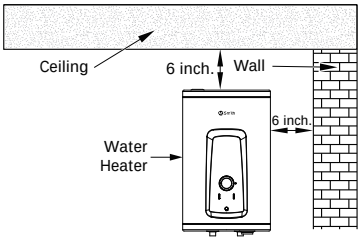
Figure 5



Mounting the Water Heater

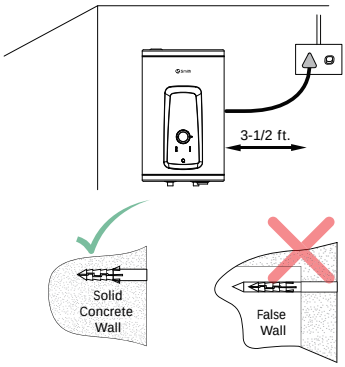
- It is recommended as per IS302-1 to have 6inches clearance from wall.
- Select a place to mount water heater vertically with water connection at the bottom.

Figure 6



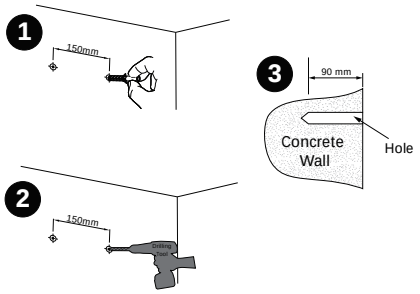
- Water heater must be located within 3-1/2ft. (approx.) from a 230V electrical outlet with proper grounding.
- Make sure that the wall can withstand at least twice the weight of the water heater when completely filled with water.

Figure 7



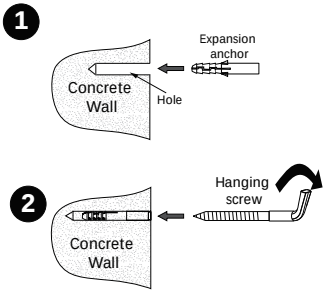
- Use a drill bit with diameter of 12mm to drill 2 holes at least 90mm deep in the wall (Fig. 8 : Step 3). The two holes should be aligned horizontally. The horizontal distance between the 2 holes should be 150mm (Fig. 8 : Step 2).

Figure 8



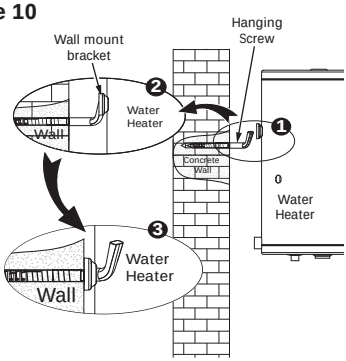
- Insert the Expansion anchor into the hole (Fig. 9 : Step 1).
- Place the Hanging screw over the Expansion anchor and tighten the Hanging screw by rotating it till it gets fixed steadily (Fig. 9 : Step 2).

Figure 9



Place the water heater on the Hanging screw through wall mount bracket. (Fig. 10)
Tug downwards on the water heater to ensure that the water heater is fixed steadily.

Figure 10



⚠ WARNING



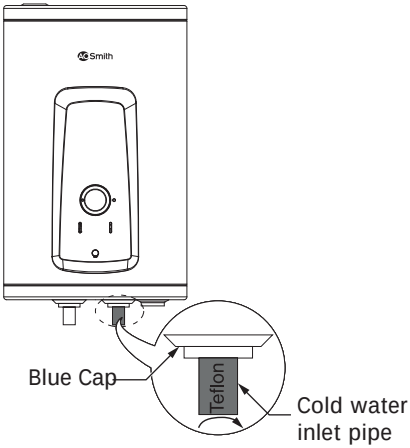
Scalding

Hot water is dangerous, especially for 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.

Connecting Multi-function Safety Valve

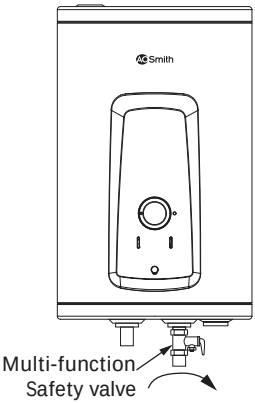
Wrap the threaded part of the cold water inlet pipe with Teflon tape in clockwise direction.

Figure 11



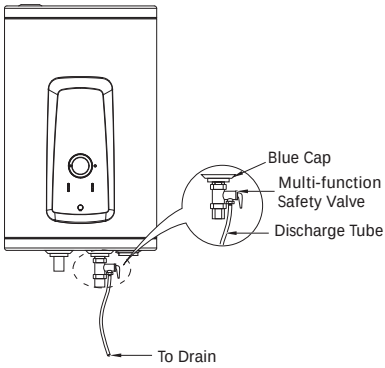
Connect the Multi-function Safety valve to cold water inlet pipe and rotate it in clockwise direction till it get fixed.

Figure 12



Connect one end of the discharge tube to the Multi-function Safety valve and connect the other end to the drain.

Figure 13



Note: The Multi-function Safety valve may drip during the usage of the heater. As the water is heated, it expands and tries to flowback through the inlet pipe but is prevented by the presence of the non-return valve. Hence water may drip from the Multi-function Safety valve. Therefore a Discharge tube is given from the valve tip to a nearby drain. To avoid dripping, it is recommended to install non-return valve at a distance of atleast 40 feet away from the inlet of the water heater.

⚠ 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 injuries to the user. This will also make the warranty null and void.
- Discharge tube should be installed downwards without any loops, folds or knots. Ensure that the free end of the Discharge tube is placed over a suitable drain and away from the users.
- Discharge tube 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 if not properly routed to a drain.
- It is recommended to operate the Discharge lever in the Multi-function Safety valve on a regular 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 before switching it ON.
- Ensure that the insulation of Multi-function Safety valve is not damged while tightening.

Connecting to Water Supply

- Make necessary plumbing with reference to the Installation Diagram. (Fig. 14)
- 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.
- Connect the cold water pipe to the inlet [Blue Cap].
- Connect the hot water pipe to the outlet [Red Cap].
- Attach the discharge tube to Multi-function Safety valve as shown in Installation Diagram. (Fig. 14)

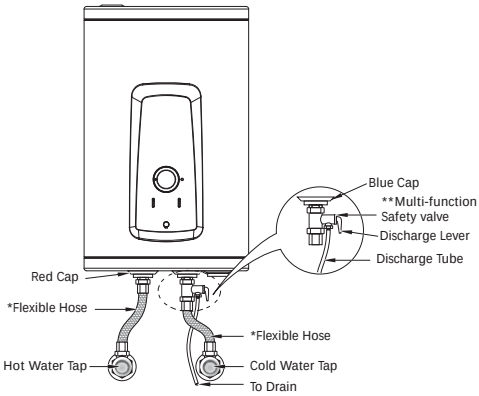


Figure 14 Installation Diagram

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

**** Multi-function Safety valve comes included with the Water Heater.**

⚠ CAUTION

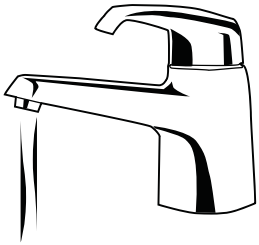
- Make sure a suitable Teflon tape is used for all plumbing connections to prevent leakage.
- Use only Nylon/ Stainless Steel (SS) braided hoses (Flexible Hoses) having a minimum pressure rating of 8 Bar and hoses should be compatible for hot water applications.
- Failure to follow this instruction can result in property damage.

Operation

Filling the Water Heater Tank

1. Open a nearby hot water faucet to permit air to escape.
2. Open the cold water inlet valve fully, filling the water heater and the piping.
3. Close hot water faucet when water flows.
4. 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.

Figure 15



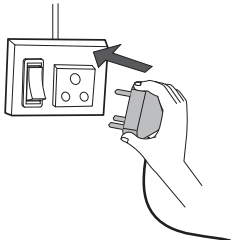
⚠ CAUTION

- 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 injuries 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.

Connecting to Electrical Supply

The power cord and plug are connected with this water heater. Find a separate socket for power plug and make sure the socket is in firm contact with the plug. Ensure that reliable earthing has been done.

Figure 16



⚠ 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.

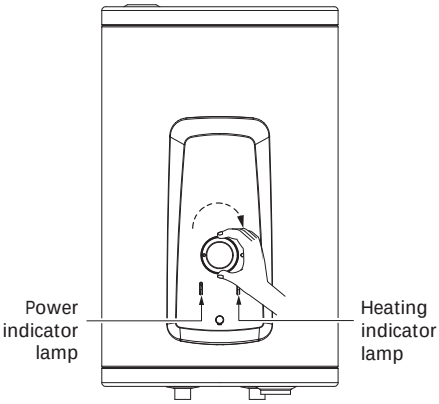
Temperaute Conrol Knob

Switch on the water heater's power supply. The Power indicator lamp glows.

Temperature setting

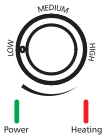
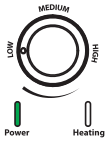
Turn the Temperature control knob clockwise for the device to commence heating and change the set temperature. The Heating indicator lamp will glow. [The set temperature increases if the Temperature control knob is turned clockwise]. Temperature can be adjusted from 25°C to maximum 75°C. Recommended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

Figure 17



Modes

There are two types of modes depending on the actual water temperature inside the inner tank of the water heater:

Heating mode	Standby mode
When the actual temperature of the water is less than the set temperature, it enters into Heating mode. The Heating indicator lamp glows as shown in (Fig. 18)	After the water heater reaches set temperature, it will enter into the Standby mode due to thermostat cut-off and the Power indicator lamp glows and Heating indicator lamp switch off as shown in (Fig. 19)
Figure 18 	**Figure 19** 

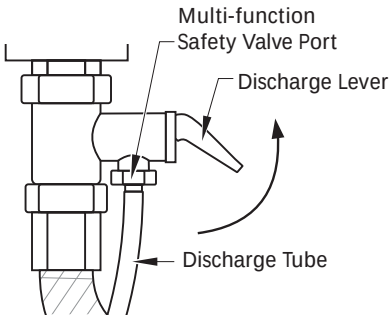
When the temperature of the water drops by 5°C from the set temperature due to usage of water, the water heater again enters into heating mode.

Draining the Water Heater Tank

Whenever the water heater is not used for an extended period, unplug the unit and drain. If it is below freezing temperature, you will need to unplug the unit and drain it.

- 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 Discharge Lever of the Multi-function Safety valve upwards. (Fig. 20)

Figure 20



⚠ CAUTION

Please turn off the power supply to the water heater prior to draining the water heater.

Troubleshooting

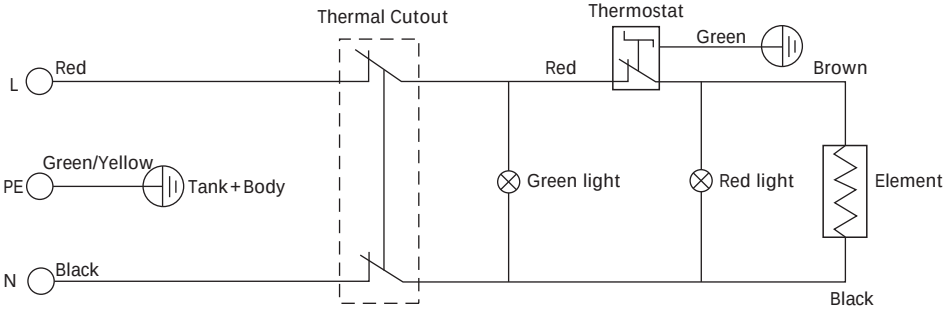
The water heater may not operate as desired if used incorrectly or there is a minor cause, even though the product has no fault. In these cases, check the following issues to solve simple problems without the help from the Customer care centre. If the problem does not solve after checking the following issues, call Customer care centre.

Problems	Possible Cause(s)	Solution
Power indicator lamp and Heating indicator lamp does not glow.	No power supply to the water heater.	Turn ON electrical switch.
Thermostat does not shut OFF.	Thermostat is not functioning.	Call Customer care centre.
	Improper thermostat calibration.	Call Customer care centre.
No hot water.	Thermal Cut-out switch open.	Call Customer care centre.
	No power supply to the heater.	Check the power socket.
	Control circuit or internal wiring error.	Call Customer care centre.
Water temperature is too high.	Improper thermostat calibration.	Call Customer care centre.
	Thermal Cut-out trips.	Call Customer care centre.
Water heats slowly.	Heating Element is not functioning.	Call Customer care centre.
Piping connection leaks.	Connection not sealed.	Re-connect piping, using Teflon tape.
Water leakage from product.	Leakage in tank or other parts.	Switch off power immediately and 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 atleast 40 feet from the inlet of the water heater or connect a Discharge tube from Multi-function Safety valve to nearby drain. (Refer page 8)
Foul smell from hot water	Presence of organic matter in input water.	Provide treated water at the input.
	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.
	High electrical conductivity of water due to dissolved substances in input water.	Call Customer care centre. Anode options available for highly conductive water.

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

Circuit Diagram

Figure 21



Warranty

Product Warranty

Your A. O. Smith water heater is warranted against defects arising from faulty design, workmanship and materials for a period of 24 months from the date of the invoice, subject to the following conditions:





* 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.
** 2 years extended warranty applicable only for 35 & 50 Ltrs. 1 year extended warranty applicable for 15 & 25 Ltrs.

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 subject to the following conditions:
   - Tank - 7 Years
   - Heating Element - 2 + Upto 2 Years Extended Warranty*
   - Rest of the parts - 2 Years
3. Inspection and Test Report of the Company's Office / Authorised service provider will be treated as final & binding under the warranty for determining the defects, repairs / alterations required or carried out, or certifying working of the goods thereafter.
4. The Company or its Authorised service provider will be entitled to retain any defective part replaced under the warranty.
5. The Company's liability under the warranty will be limited only 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 repairs / alterations to product or the parts by unauthorised person.
6. The water heater should not be operated without water inside the tank. This will make the warranty null and void.
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 / changed 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.
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.
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.
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,
    - If the Anode is removed.
    - If the Anode is not replaced as and when required.
11. Warranty does not cover:
    - Plastic parts.
    - Cleaning of scale deposits inside Water Heater tank as a general service.
    - Any damages to Water Heater occurring due to site conditions like electrical works and plumbing works.
    - Damage to Water Heater or its suroundings due to non usage of Multi Function Safety Valve, Pressure Reducing Valve or non recommended reducing valve in plumbing lines.
    - Product installed in direct sunlight exposure or rain or non servicable areas (Refer Page 6).
    - Damage to Water Heater at customer house during installation or serviceable procedures by unauthorised service technician.
    - Any service related issues / replacements due to non A. O. Smith connecting hoses.

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***.

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 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.

Jurisdiction

The courts of competent jurisdiction at Bengaluru, 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 has 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 climate, 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

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

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

Service and Maintenance

For Service needs:

Please contact our A. O. Smith
Customer Care No. : 1800-103-2468/1860-500-2468.
SMS us : +91 99410 32468
E-mail us : aosmithcs@aosmithindia.com

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
  CIN: U31909KA2006PTC040282

Part No.:333278-000_R1 Date: 12-09-2016



Manufactured by A. O. Smith India Water Products Private Limited

(*formerly known as A. O. Smith India Water Heating Private Limited*)

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