

# **INALSA**

---

**STORAGE  
WATER HEATER**

**PSG 10N/15N/25N  
MSG 6/10/15/25**

—+—  
Instruction Manual  
Cum  
Warranty Card  
—+—

Dear Customer,

Congratulations on the purchase of your **INALSA Storage Water Heater !**

This has been designed to include many superior features. You are now on the threshold of a whole new world.

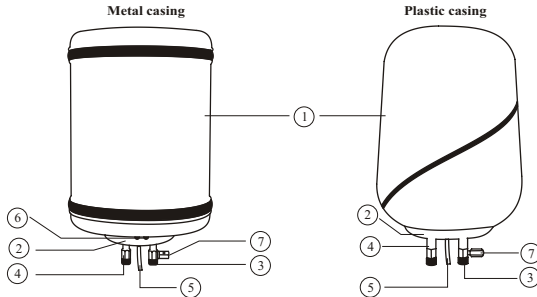
At INALSA, we have a reputation of manufacturing innovative, high quality appliances such as Food Processors, Mixer Grinders, Juicer Mixer Grinders, Cooking Ranges, Juice Extractors, Cooktops, Microwave Ovens, Oven Toaster Grillers, Hand Blenders, Electric Kettles, Rice Cookers, and Electric Chimneys. Your newly acquired **INALSA Storage Water Heater** bears the same distinctive hallmark of excellence.

It is all the result of vigorous quality consciousness in INALSA's design and development where uncompromising standards are maintained and rigid quality control measures are exercised on raw materials, components and finally, the finished product.

Your **INALSA Storage Water Heater** has a lot of thoughtful features built in to make your working convenient. Please read these instructions carefully, so that you may get the best out of the power packed features in your **INALSA Storage Water Heater**.

Welcome to the INALSA world of living pleasure!

## Parts Identification



### Part No.

### Parts Name

- |    |                             |
|----|-----------------------------|
| 1. | Outer casing                |
| 2. | Inspection cover            |
| 3. | Water inlet (Blue)          |
| 4. | Water outlet (Red)          |
| 5. | Drain pipe                  |
| 6. | Indicator lamps             |
| 7. | Pressure relief valve (PRV) |

## Technical Specifications\*

Model No.	PSG10N	PSG 15N	PSG 25N	MSG6	MSG10	MSG 15	MSG 25
Capacity (in lt.)	10	15	25	6	10	15	25
Wattage (in kW)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Star rating	NA	4 Star	4 Star	NA	NA	4 Star	4 Star
Max. pressure rating (psi)	90	100	100	90	90	100	100
Normal working pressure rating (psi)	30	30	30	30	30	30	30
Minimum hot water output temperature (°C)	40	40	40	40	40	40	40
Max. mixing factor (%)	35	40	40	35	35	40	40
Max. Reheating time for 50°C temperature (in min.)	55	70	90	45	55	70	90
Outer casing	Plastic			MS Power coated			
Power supply	230V, 50Hz, AC, Single Phase						

Indicator	Red:- Heating
	Green:- Cut-out
Water tank	Stainless Steel
Heating element	- Two U, embedded type, copper sheathed, tubular with mineral filling. (All models except MSG 6). - Single element, embedded type, copper sheathed, tubular with mineral filling ( Model MSG 6).
Thermostat	Stem-type Pre-set at 60°C
Thermal cutout	Stem type, Reset type to operate at 90°C
Fusible plug	Operate at 98°C

\* Due to continuous improvements in product, specifications are subject to change without prior notice.

## **Features**

1. Reset type automatic thermal cut-out for safety
2. Pressure relief valve for high pressure built-up
3. Siphon hole for low water pressure
4. Fusible plug for total safety
5. High grade stainless steel tank
6. Thermostatically controlled
7. Drain pipe to drain out the water when the heater is not in usage
8. Two U heating element. (All models except MSG 6)
9. Nonagonal tank protection.

## **Important Instructions**

Please read operating instructions before using the appliance to ensure safe and reliable performance.

### **Do's**

1. Before plugging in the socket ensure that the mains voltage complies with the rated one.
2. Qualified service personnel shall do periodic drainage of water from the heater. This reduces the chances of scaling of heating element and tank.
3. Switch Off the power supply and drain out the remaining water in the tank. This prevents scaling of both element and tank.
4. The gate valve at the inlet shall be kept open.
5. Servicing should be done at least once a year.
6. Make sure that no other appliance(s) is (are) plugged into the same circuit with heater, as this may overload the circuit.

- If the main cord of the heater is damaged, authorized service personnel must only replace it.

### **Don'ts**

- Do not switch ON the heater till it is completely filled with water.
- Do not install a pressure reducer valve at the inlet.
- Safety devices are pre-set and are sensitive. Do not temper with them. This could be hazardous.
- Do not use outdoors. This product is for household use only.
- In case of any abnormality during operation, immediately switch OFF the main power supply and contact the nearest service center.

### **How to Install**

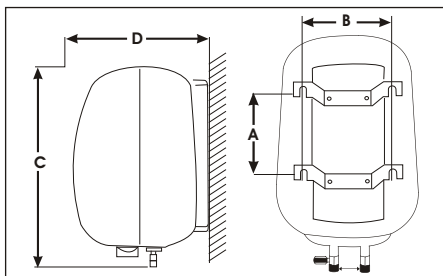
- Installation should be done by a qualified plumber / electrician.
- There should be enough space around the heater for easy installation and servicing.
- Make sure that the supporting walls or fixtures are strong enough to carry the weight of the heater when it is completely filled with water.
- Fix the water heater in perfectly straight position at a suitable height from the floor.
- There should be a minimum space of 50 cm between the heater unit and roof. This is to ensure that heater can be removed easily when required.
- The heater should be saved from being damaged by splashing water. For this keep a minimum distance of 1.8 M between the floor and bottom of the heater.
- During installation and plumbing (generally by flexible metal pipes) connect the plumbing by bending the flexible pipes or elbow.

### **Installation Positions**

#### **Mounting Dimensions (in mm)**

Model	A	B	C	D	Approx. Weight of water Heater with Water (in kg)	Pipe connection (in mm)
PSG10N	175	185	475	310	15.0	12mm (½")
PSG15N	228	215	550	365	24.0	12 mm (½")
PSG25N	235	250	605	435	36.0	12 mm (½")
MSG 6	160	200	400	265	11.0	12 mm (½")
MSG10	270	195	490	270	17.0	12mm (½")
MSG15	222	307	505	340	25.0	12 mm (½")
MSG25	288	307	640	370	37.0	12 mm (½")

### Mounting diagram



### Water supply

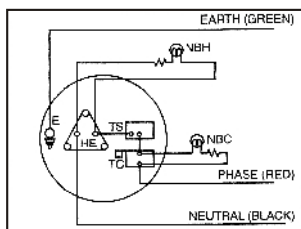
1. You can connect the water heater directly to the overhead water supply tank. Do not connect the water heater directly to water lifting pumps.
2. The water should not be too low. The minimum height between the heater and water supply should be at least 2M.

### Water connections

1. Do not connect the cold and hot water pipelines directly to the heater. Instead connect them using flexible copper pipes. Never use plastic tubes especially at the outlet, as it cannot withstand heat over extended usage. In case of direct pipe connections, tightening of couplings using wrench can damage the heater unit. Always use control / gate valves at the inlet and outlet. Ensure that the valve at the inlet is always open.

### Electrical wiring

Make sure that connections in the plug & socket are secure and proper earthing is provided to the unit.



Wiring diagram

## **How to Use**

1. Do not switch ON the power supply before filling the heater with water.
2. Leave the hot water outlet open and open the inlet valve to allow the heater unit to be filled with water. When the heater is full the water will start flowing out from the outlet.
3. Now close the gate valve at the outlet. Always keep the inlet valve open.
4. Switch ON the power supply. Red neon lamps will glow 'ON' to indicate that water is getting heated.
5. When the water is heated to the pre-fixed temperature, red lamp will get OFF. This indicates that the thermostat has operated. You can now take the hot water out through the outlet.
6. It is advisable to switch OFF the power supply when the unit is not in use.

**Note:** In case green light glow ON, this indicates that thermostat has failed and needs to be replaced.

## **Safety Devices**

### **Thermostat**

An adjustable ISI marked bimetallic stem type snap action thermostat with temperature range between 25 °C to 75 °C, generally set at 60 °C cuts the electric power supply as soon as the water temperature rises above the set temperature and restarts automatically when the temperature goes low.

### **Reset type thermal cutout**

It is bimetallic type snap action devices set to operate at 90 °C. In abnormal conditions, if the water temperature inside the tank exceeds 90 °C or if the water heater is switched on with water the thermal cut the power supply and protects the system.

### **Fusible Plug**

Accidentally if the thermostat and the thermal cutout fails to operate, the fusible plug melts at around 98 °C reducing the water steam pressure inside the tank.

### **Pressure relief valve**

The PRV is set at 3.5 Kg/cm<sup>2</sup> (50PSI). It prevents the pressure built up inside the tank by bleeding out the water through the PRV when the incoming pressure exceeds the set pressure of 3.5 Kg/cm<sup>2</sup>

### **Non- Return Device**

There is a siphon hole on the inlet pipe inside the inner tank of water heater. At low pressure, the siphon prevents back flow of the water. It acts as a non-return device upto a certain level of low pressure and prevents vacuum formation that can lead to tank collapse and thus leakage.

### **Cleaning and maintenance**

#### **Routine Inspection/Maintenance Chart**

<b>S.No.</b>	<b>Inspection item</b>	<b>Frequency</b>	<b>Remarks</b>
1.	Pressure relief valve (PRV)	Every 3 months/1 yr. of seasonal use	If the water quality is bad because of hardness & suspended impurities.
2.	Fusible plug	Every 3 months/1 yr. of seasonal use	
3.	Heating element	18 months/6 yrs. of seasonal use	In case of bad water quality, inspect after every 6 months of continuous use or every 2 yrs. of seasonal use.