

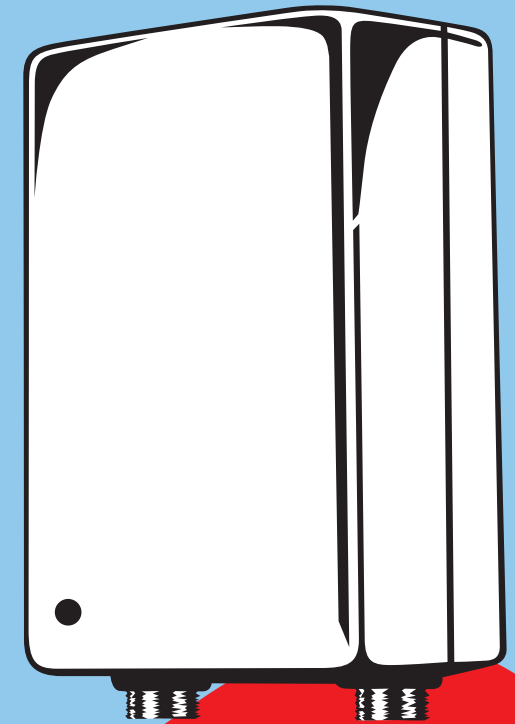
Domestic &  
Commercial  
applications

user manual



**HOTRUN 35-90**

**ELECTRIC INSTANTANEOUS WATER HEATERS**



**saving water and energy**

ref.00/200808

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**Remedy (continued)**

- Switch the electric power supply off, check if there is no power on any of the terminals and check each elements' resistance (must be between 10 and 20 Ohm each, depending on kW loading).
- Reset the maximum temperature cut-outs on the elements by pushing the little bi-metal lip back in towards the coil/elements.

**Problem**

- The water that is coming out of the Hotrun is not warm enough.

**Cause**

- The incoming water is too cold water
- The total flow is too high.

**Remedy**

- A flow restrictor should have been installed. If so, an additional ball valve in the water supply to the Hotrun to enable to reduce the flow.

On the provision that the installation instructions have been followed, Elwa gives a guarantee of one year on the Hotrun used for domestic purposes, and six months in commercial applications. The guarantee starts at the date of purchase.

If despite our extensive products control complaints arise, you should inform your supplier. Before you contact the supplier, we request you to read the directions for use. You can avoid needless discomfort and possible costs.

**Condition:**

1. The guarantee is valid only on presenting an original invoice, mentioning the date of purchase, the name of the supplier and the type of the heater.
2. Elwa may void the guarantee if the invoice is not legible.
3. If the production date is missing, the guarantee will be voided.
4. The guarantee will be voided from the moment the appliance has been tampered with or has been modified in any way.
5. Damage caused as a result of faulty use, or faulty installation are not covered by this guarantee.

This manual has been made with care.

Elwa remains the right to adjust products in the future for various reasons.

## Initiation

### Attention: Avoid overheating

Fill the unit completely with water before plugging it in or turning on the mains power supply.

For that purpose:

- Open the tap and wait until the water flows out from the spout without any air bubbles.
- Close the tap.
- Put the power-plug into the socket or switch-on the mains supply.
- Hotrun is ready to use

## Maintenance

Due to its advanced design the Hotrun does not need any maintenance.

A moist rag will do for cleaning the cover.

Scouring and dissolving agents are not suitable.

You can avoid malfunctions by removing scale from the swivel.

When malfunctions occur a qualified electrician should be consulted or the Hotrun should be returned to Elwa.

## Troubleshooting

### Check:

1. The adequate supply and pressure of the water (min. 100kPa).
2. Make sure the cold water inlet and the hot water outlet are not being reversed.
3. The main switch or circuit breaker is switched on.
4. The fuse/circuit breaker is not blown.

### Problem

- The Hotrun does not switch on when opening the tap fully.

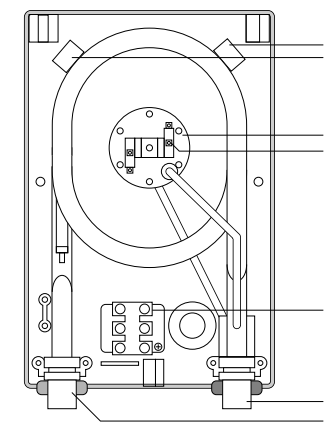
### Cause

- These kind of problems are almost always due to water supply problems. Check if the pressure on the cold water supply is too low, less than 100kPa, while the Hotrun is in use.
- Too much back pressure in outlets or shower heads after the Hotrun.
- Wrong flow restrictor installed.
- Maximum temperature cut out switches activated, due to air in the Hotrun not released before switching on the electrical supply.

### Remedy

- Fix the water pressure problems, remove any flow restrictors in outlets.

## Components



1. Maximum temperature cut-out
2. Second max. temperature cut-out (Hotrun 4,5 kWatt and up)
3. Differential pressure switch
4. Micro-switches of dP switch
5. Terminal block
6. Blue marking = cold water inlet
7. Red marking = hot water outlet

## General information

The ELWA Hotrun electric instantaneous water-heaters are especially designed for point of use (most efficient and lowest water and energy consumption) or multipoint applications, such as a wash basin or shower (or both), in fact all places where instant hot water is required. The heating of the water is started instantly by opening a tap or valve connected to the hot water outlet.

### The hot-water drain temperature depends on the following factors:

- **How far the actual valve is opened, or the incoming flow into the unit restricted by a regulating valve or fixed flow restrictor on the inlet side**
- **The temperature of incoming cold water**
- **The mixing of hot- and cold water**

The hot water temperature rises by reducing the flow rate. By closing the hot-water tap or when the flow drops below a minimum flow rate the heating will be stopped automatically. The performance of the Hotrun depends on its kWatt rating.

At an inlet temperature of 12 °C (winter) the following capacity can be expected:

kW loading:	Hot water flow rate:	kW loading:	Hot water flow rate:
3.5	1.9 l/min	7.2	4.0 l/min
4.6	2.6 l/min	9.0	5.1 l/min
6.0	3.6 l/min		

When the inlet temp. is 25 °C the performance can be 50% more.

The service temperature will be reached normally within 10 seconds after the Hotrun has been switched on. The minimum pressure of 100kPa is required for a standard Hotrun. In this manual we explain to you how you can install your Hotrun easy and safely.

Keep this manual for future use.

The next user of the Hotrun heater might need it.

## Technical specifications

Model	35	46	60-1	72-1	72-2	90-1	90-2
Rating	3.5 kW	4.6 kW	6.0 kW	7.2 kW	7.2 kW	9.0 kW	9.0 kW
Voltage	230 V	230 V	230 V	230 V	230 V	230 V	230 V
Current	16 Amp	20 Amp	25 Amp	32 Amp	2x16 Amp	40 Amp	2x20 Amp
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Protection	IP24	IP24	IP24	IP24	IP24	IP24	IP24
Class	I	I	I	I	I	I	I
Phase	1	1	1	1	2	1	2

### Performance

Inlet temp 12 °C	1.9 l/min	2.6 l/min	3.6 l/min	4.0 l/min	4.0 l/min	5.1 l/min	5.1 l/min
Inlet temp 25 °C	4.3 l/min	5.4 l/min	7.5 l/min	8.4 l/min	8.4 l/min	10.5 l/min	10.5 l/min
Response time (sec)	10	9	8	9	9	9	9
Max.inlet temp	25 °C	25 °C	25 °C	25 °C	25 °C	25 °C	25 °C
Min pressure	100 kPa	100 kPa	100 kPa	100 kPa	100 kPa	100 kPa	100 kPa
Max.pressure	1000 kPa	1000 kPa	1000 kPa	1000 kPa	1000 kPa	1000 kPa	1000 kPa
Water connection	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP
Weight (in kg)	1.4	1.6	1.6	1.8	1.8	1.9	1.9
Sizes (mm)	220x144x80	220x144x98	220x144x98	255x190x95	255x190x95	255x190x95	255x190x95

Approvals to European and Australian standards IEC& AS/NZS 60335-5-35  
 KEMA Keur, Tüv, Australian Standards Ed.4.1 approval nr. CS/1274/S

## Safety instruction

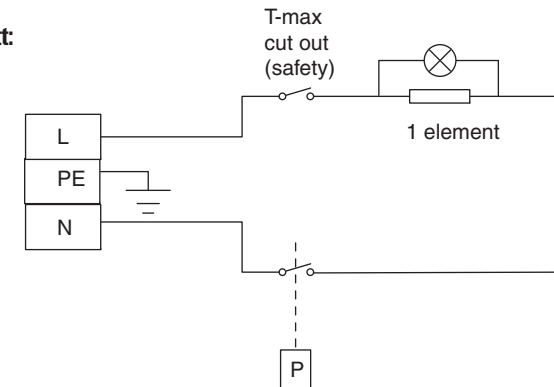
Read these instructions for safety and installation carefully **before starting** to install a Hotrun

- Electrical connections have to be made by a qualified electrician.
- Install the Hotrun as close as possible to the tap(s) in a frost-free space.
- Make sure the power supply is shut off at all times while working on it.
- Fit a service valve before in the water supply to the Hotrun enabling the water temperature to be adjusted by flow-restriction and for service purposes.
- Do not operate a Hotrun in a "dry state", the electrical power should remain switched off until the Hotrun is completely filled with water.
- The maximum inlet water temperature may not rise above 25 °C to keep the outlet temperature below 50 °C.

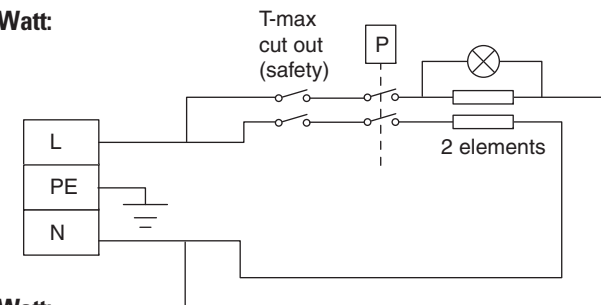
## Electric connection

- Local wiring rules and guidelines regulations of the local energy supply company are to be observed. Follow the guidelines of your local electricity company. In most countries the installation of a 2-phase supply will be required for the Hotrun 72 and 90, to avoid voltage drop on a single phase supply/connection.
- It is recommended to provide a separate circuit from the switchboard to each Hotrun.
- The Hotrun has to be connected according to the applicable wiring diagram.
- Check insulation resistance and proper earth continuity, fill the unit with water, and only then switch the power on.

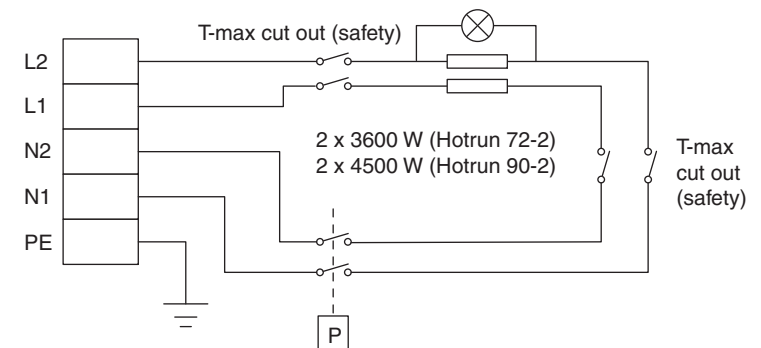
### Hotrun up to 3.5 kWatt: (single phase)



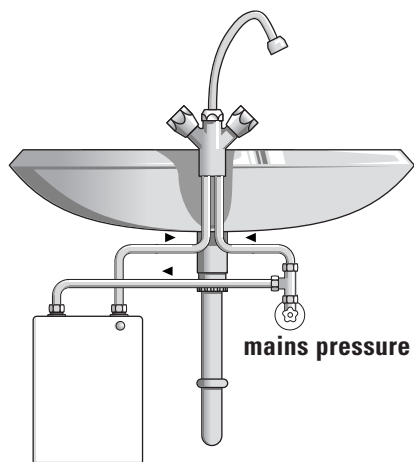
### Hotrun 4.6 - 7.2 kWatt: (single phase)



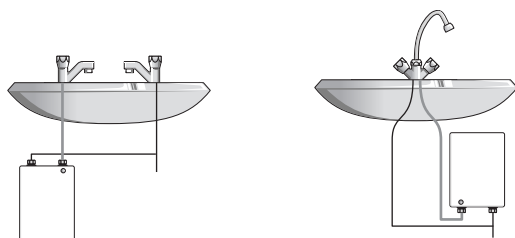
### Hotrun 7.2 - 9.0 kWatt: (two phase)



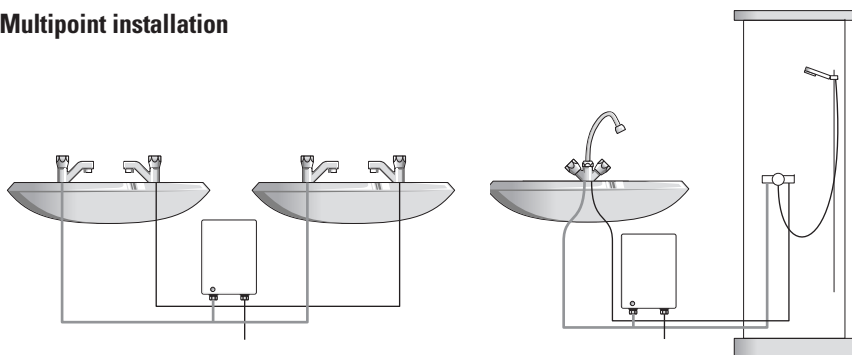
**Point of use installation**



**Point of use installation**



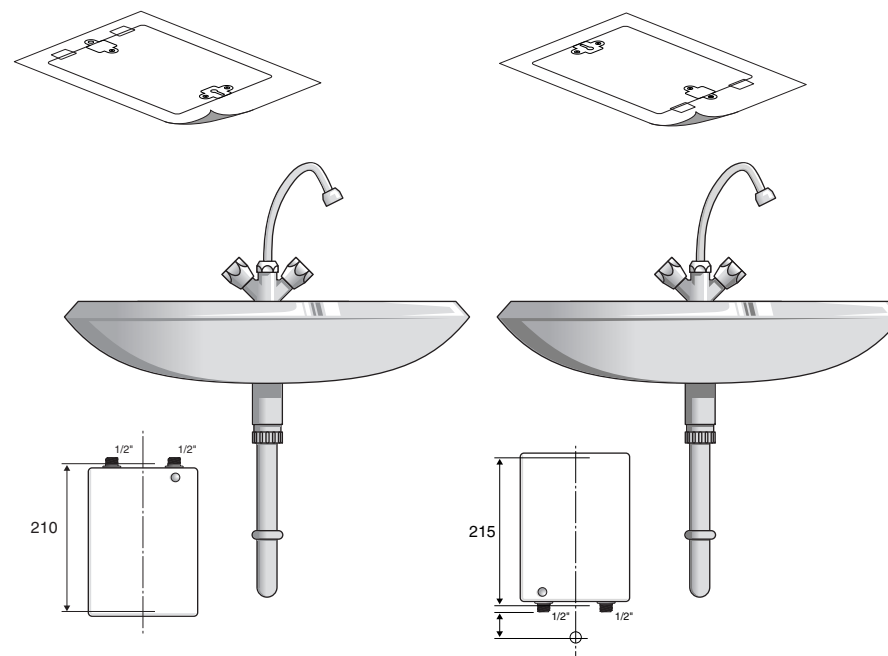
**Multipoint installation**



The screws and plugs are supplied with the unit.

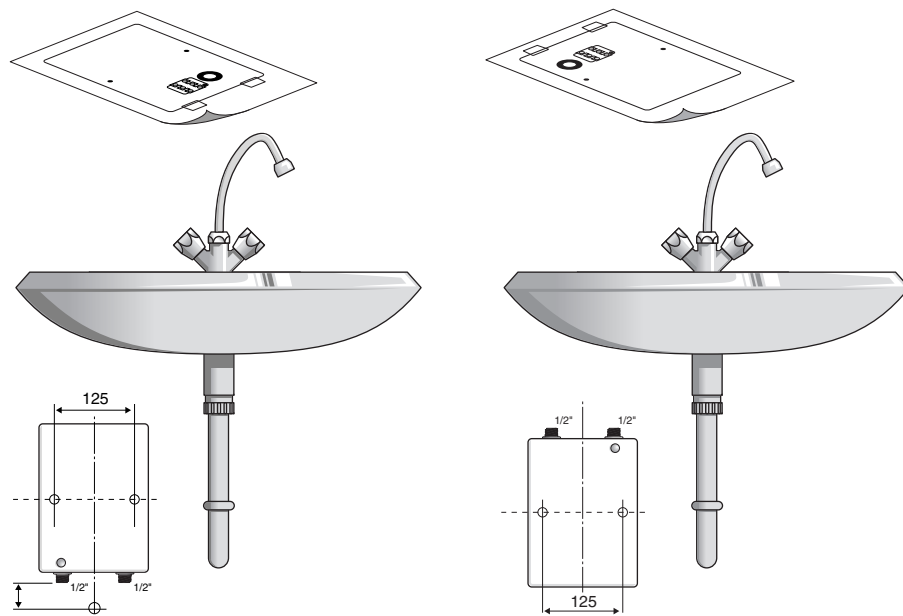
1. Mark the position of the plugs according to the positional template, allowing enough space on the top to put the screws back in after closing the front cover.
2. Drill the holes with a 7 mm drill and insert the plugs in the wall.
3. Open the front cover removing the 3 screws.
4. Take the cover off the device device (except models with pre-fixed cord).
5. Mount the unit using 2 screws.
6. Fill the unit with water by opening the tap and let the water run for at least 1 minute, releasing all air from the system.

**Models with pre-fixed cord**

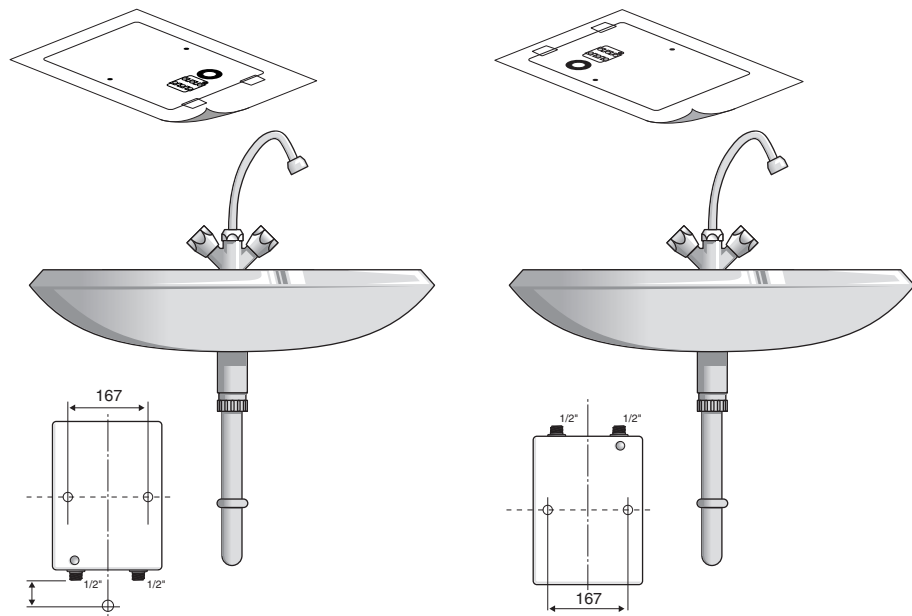


Metal brackets on the backside of the unit to mount in all positions can rotate 180° to suit position

**Models 4.0 - 6.4 kWatt**



**Models 7.2 - 9.0 kWatt**



1. The Hotrun has a pre-set minimal cold water supply operating pressure of 100 kPa. The 100 kPa pressure needs to remain when the Hotrun is in use. Connecting to a low pressure tank/rainwater system without pressure pump is likely to fail. A larger pipe size on the cold water supply side might help.
2. Remove any flow restrictors in shower heads installed after the Hotrun, and clean out the aerators on tap outlets, being > 5 l/min, to enable the Hotrun to switch on and off. The outlet back-pressure needs to be less than the inlet supply pressure, as the Hotrun switches on by a pressure differential switch.
3. If the minimal supply pressure is not secured at all times, the Hotrun can fail to switch on. Ask our advice in this situation.
4. Connect to the water pipework with the flexible hoses and the specific flow-restrictor that is supplied with each Hotrun. All Hotrun fittings and flexible hoses have a flat seal connection, so if a different connection is to be used, always use a flat seal connection.
5. The model-specific flow restrictor intends to give a save outlet temperature of the water, between 40 °C and 50 °C depending on the supply temperature.
6. Avoid any tension on the Hotruns' fittings by using a nut and fiber washer in case the flexi's are not used.
7. It is to be noted that the in- and outlet connections for cold and hot water should not be mixed up. The fitting with the blue marking is for the cold water inlet and the one with the red marking is for the hot water drain.
8. Our advice: place a 1/2" ball valve in line with the flow restrictor in the cold water supply to the Hotrun to be able to adjust the flow/temperature and for service purposes. When the mains pressure is high, the flow might be more, causing a low outlet temperature. Restrict the pressure or the flow by using an additional ball valve.
9. Important: After installation open the water tap to flush the device to release all air from the coil and check all connections. Failing to do so shortens the live-span of the electric elements.