

**Instantaneous
Water Heater**

**IH 18 electronic basic
IH 21 electronic basic
IH 24 electronic basic**

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Important instructions for the user

General

- Installation and startup should only ever be performed by an **approved installer or authorised installation firm**.
- Before using the appliance, please **read through these instructions carefully**. The manufacturer cannot accept any liability for damage resulting from failure to follow these instructions.
- Fittings and connecting pipes **may get hot**. Therefore keep children well away.

Operating the appliance

The ELECTROLUX IH electronic instantaneous water heater heats the water as the latter continuously flows through it. When the hot water tap is opened, the appliance switches on at a flowrate of around 3 l/min. When the hot water valve is closed or if the flowrate is reduced below 2.5 l/min, the appliance switches itself off again. The appliance is suitable for household use and should only ever be used for heating of drinking water.

One or more tapping points can be supplied with hot water.

Temperature preselection

The electronic system allows continuous temperature selection in the range from 30°C to 60°C.

Recommendation for energy-saving operation:

40°C for washbasin, shower, and bath (knob tangibly engages).



55°C for kitchen sink. If this temperature is no longer needed, the appliance should be reset to the 40°C energy-saving level.

-  Wash basin
-  Shower
-  Bath basin
-  Kitchen sink

When the appliance is operated with a thermostatic mixer tap, the temperature setting on the instantaneous water heater must be around 8°C higher than on the thermostatic mixer tap.

Hot water flowrate

Up to the appliance's max. power limit, the instantaneous water heater supplies the set hot water temperature regardless of the water flowrate selected.

If the hot water temperature is not attained when the hot water valve is fully opened, more water flows than can be heated by the appliance power. In this case, the hot water tap must be slightly closed.

Because of the different inlet temperatures, the hot water output varies depending on the season.

The following outlet flowrates for bath or shower water (40°C) or washbasin/sink water (55°C) are attained at the inlet temperatures of 6°C, 10°C, and 14°C.

Cold water temperature °C	Outlet temperature 40°C			Outlet temperature 55°C		
	18 kW	21 kW	24 kW	18 kW	21 kW	24 kW
	l/min	l/min	l/min	l/min	l/min	l/min
6	7,6	8,8	10,1	5,3	6,1	7
10	8,6 (*8)	10 (*9)	11,5 (*10)	5,7	6,7	7,6
14	9,9 (*8)	11,6 (*9)	13,2 (*10)	6,3	7,3	8,4

(*) limited to this figure by the built-in flow limiter

Care and maintenance of the appliance

Clean the plastic housing as necessary with a damp cloth and dilute soap solution. Never use any abrasive, scouring, and solvent-containing detergents. The instantaneous water heater generally needs no maintenance. Regular inspection of the appliance by a trained engineer will ensure its operational reliability and prolong its service life.

Scale deposits in the outlet of fittings reduce the water flowrate. The air bubblebers of the fittings or hand shower head must therefore be cleaned from time to time.

Important instructions for the installer

General

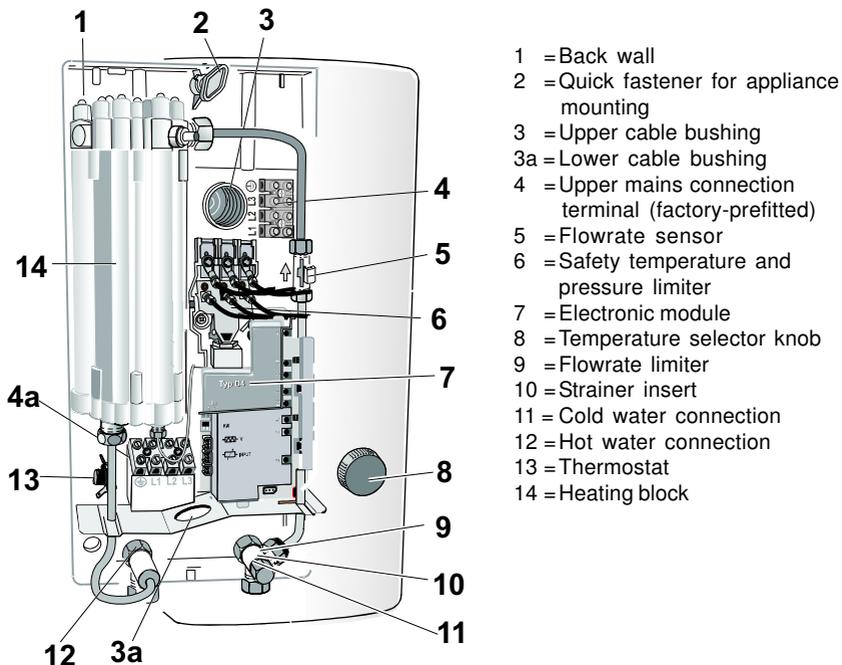
The instantaneous water heater is manufactured and tested in conformity with the valid IEC specifications and DIN standards. The appliance complies with the Appliance Safety Act. The indications given on the rating plate, the technical connection specifications of the electricity and water companies in the geographical area concerned, and VDE 0100 and DIN 1988 must be observed when the appliance is being installed.

The specific resistance of the water at the installation site should not be less than 1100 Ω cm.

This appliance complies with the following EC Directives:

- the "Low-Voltage Directive" 72/23/EEC of 19.02.1973, including
Amendment Directive 93/68/EEC
- the "Electromagnetic Compatibility" Directive 89/336/EEC of
03.05.1989 including Amendment Directive 92/31/EEC

Appliance constitution



Technical data

Model		IH E 18 basis	IH E 21basis	IH E 24 basis
Type		unvented		
Nominal capacity	l	0,4		
Dimensions	mm			
Width		226		
Height		469		
Depth		99		
Weight	kg	3,9		
Nominal overpressure	Mpa	1		
Protection class to VDE		I		
Protection type to VDE		IP 25 (splash-water protected)		
Test mark		See rating plate		
Water connection		G 1/2 A		
Electrical connection		3 / PE ~ 380 V		
Nominal output	kW	18	21	24
Spec. water resistance at 15 °C	Ohm cm	> 1100		
Switch-on flow pressure*)	Mpa	0,04	0,035	0,03
Switch-on flowrate	l/min	3		
Mains retroactive effect		Free from any mains retroactive effect to DIN EN 60555/VDE 0838 VDEW Approval		
Maximum inlet temperature	°C	25 °C		
Flowrate limitation	l/min	8	9	10

*) In addition to the flow pressures of the instantaneous water heater itself, consideration must be given to the pressure losses in the household pipework.

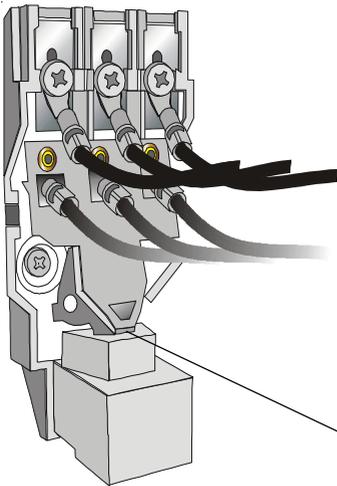
Appliance function

The fully electronically controlled ELECTROLUX IH instant water heater is a pressurised appliance for the supply of one or more tapping points and heats the water as the latter continuously flows through it. A flowrate sensor switches on the heating at a flowrate of around 3 l/min and off again at around 2,5 l/min. The microprocessor controlled electronic system automatically adapts the heating power with regard for the inlet temperature, the temperature set on the temperature selector knob, and the water flowrate. The user thus has hot water available in an energy-saving system giving the exact temperature required without any time limitation whatever.

The nominal operating pressure is 1 Mpa. If this value is exceeded, a pressure reducing valve should be provided in the household pipework. A safety valve is not necessary.

The bare wire resistance heating system has a high efficiency. Its low weight and extremely low water content also make it suitable for hard, lime-containing water qualities.

Safety temperature and pressure limiter



In the event of a fault, the inbuilt safety temperature limiter isolates the appliance from the mains supply on all contacts.

Before the appliance is switched back on, a trained engineer must ascertain and eliminate the cause of the fault (see page 17). Then **carefully** press in the contact rocker with a screwdriver until it audibly engages.

Important: Don't block up the contact rocker!

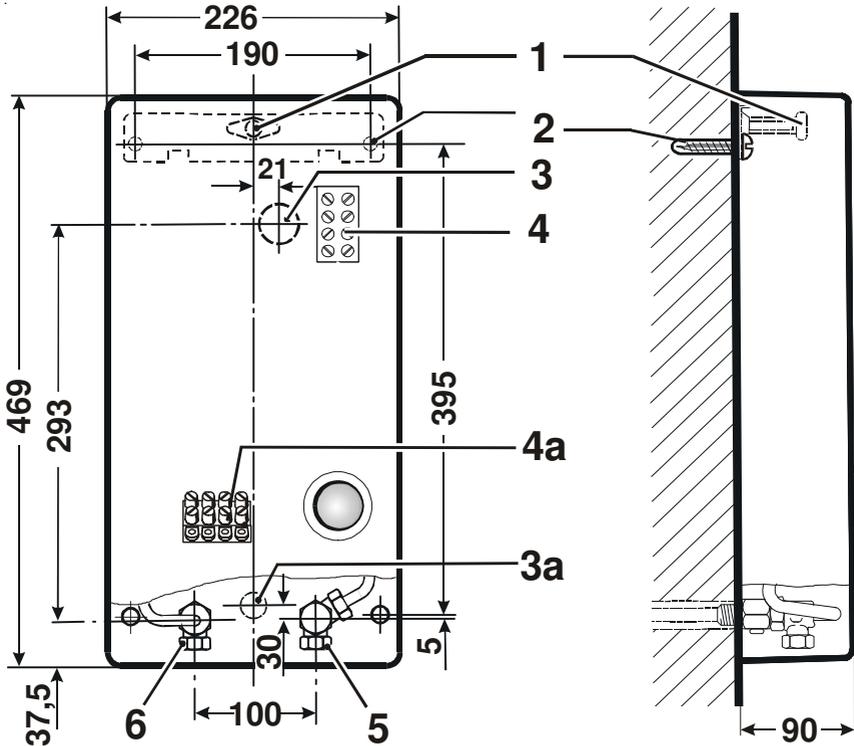
Pressurepoint
for screwdriver

Important! The safety temperature and pressure limiter should never be adapted or modified in any way!

Installing the appliance

The appliance should only ever be installed or stored in frost-free premises.

Dimensioned diagram

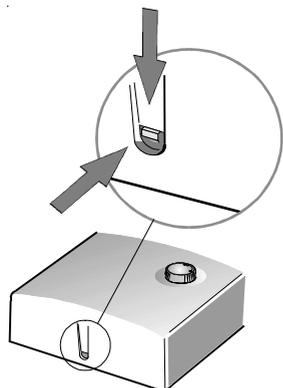


- 1 = Quick fastener for appliance mounting
- 2 = Wall mounting
- 3 = Upper connection terminal (factory-set)
- 3a = Lower connection terminal for electrical connection
- 4 = Upper cable bushing
- 4a = Lower cable bushing for electrical connection
- 5 = Cold water connection with strainer insert
- 6 = Hot water outlet

Appliance installation

Carefully unpack and take out the enclosed pack.
Prepare the appliance for assembly.

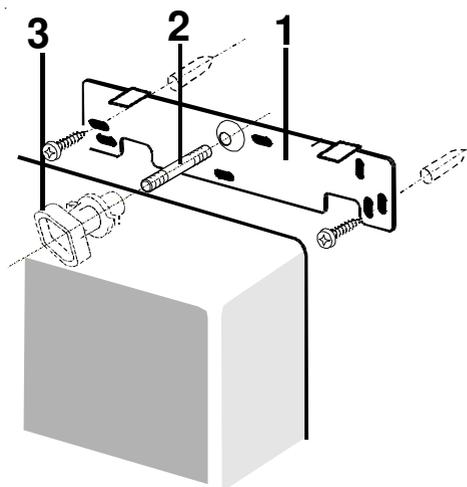
Hood dismantling



Press in the engagement lug on the underside of the appliance from above or from the front with a screwdriver and take off the hood. Pull out the connection lead of the temperature set-point pickup on the electronic system.

The rotational range of the temperature selector knob can be limited (see page 15).

Wall mounting



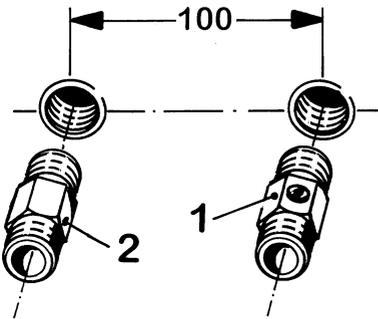
Mark out wall-plug holes with the mounting template supplied, insert wall-plugs, and screw on fixing rail (1). Take out threaded pin (2) from the enclosed pack and screw in. Then prepare water connections, mount appliance on threaded pin and retaining rail, and fix by turning the quick fastener (3) one quarter revolution.

Water connection

The water inlet temperature on the cold water connection should be max. 25°C.

If plastic pipe systems are used as installation material, the pipe manufacturer must expressly and unreservedly confirm the applicability and quality of his pipes for this application.

Concealed installation

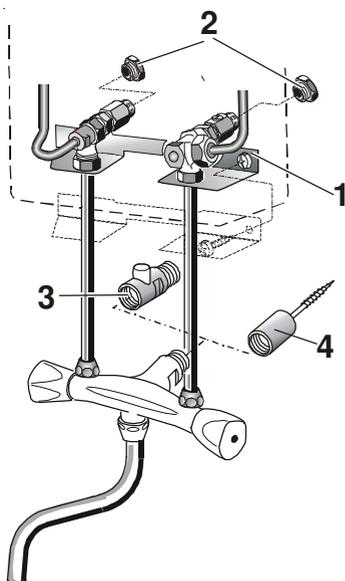


Insert connector with shutoff spindle (1) in cold water connection and double-nipple (2) in hot water outlet using hemp packing. The shutoff spindle must point downwards and the screw slot aligned in the flow direction of the water. **The shutoff unit must not be used for throttling.**

The ELECTROLUX IH electronic can be operated with all pressure fittings suitable for instantaneous water heater.

Installation versions

For fittings directly on the appliance, the bushing openings pre-embossed in the appliance hood must be cut out for the extension pipes of the fitting. The supporting sheet (1) enclosed with the fitting fixes the extension pipes in position and seals the housing openings. To ensure **moisture protection**, the supporting sheet **must** be fitted.



Fitting must be vertically seated and centrally under the appliance. Seal appliance connection to the wall, where necessary, with G 1/2 A blind plugs (2) (fitting accessory).

If a cold water supply is made to the appliance, the shutoff adapter (3) should be replaced by an adapter with a wood screw (4) for fixing the fitting in place.

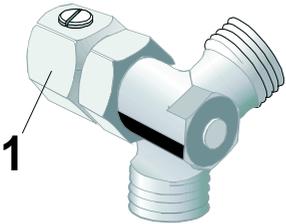
The following tapping fittings are suitable:

- D 169 - Special mixer tap with swivelling outlet
- D 159 - Special shower mixer tap
- D 149 - Special bath mixer tap with change-over tub/shower

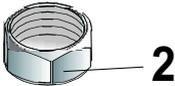
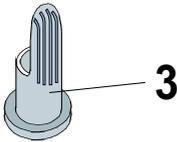
Important! After completion of the water installation, the appliance should be thoroughly flushed with cold water (open the hot water valve). The strainer insert may possibly need cleaning afterwards.

Cleaning the strainer insert

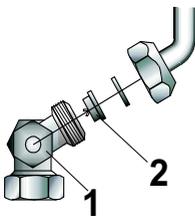
If the water flowrate is reduced by dirt from the cold water line, the strainer-insert should be cleaned as follows:



- Shut off cold water on shutoff unit (1)
- Loosen cap nut (2) using a spanner
- Take out and clean strainer (3)
- Re-assemble in reverse sequence
- Open cold water on shutoff unit (1); check tightness



Flow rate limiter



The flow rate limiter (2) is installed in the cold water connector (1) to allow a constant outlet temperature at high flow pressures of approx. 40° C, suitable for showering.
(See table page 4 and 6)

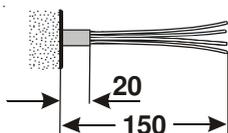
Electrical connection

The electrical connection should only ever be made after the water is connected! The appliance is only suitable for a fixed connection of 380 V 3 ~ (three-phase current) .

The appliance must be connected to the protective conductor.

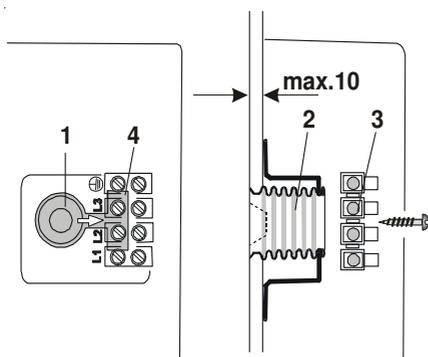
Important note: The wiring must be arranged so that the appliance can be de-energised (disconnected from the electricity supply) before any intervention involving the fuses being unscrewed, the automatic safety devices being switched off, or similar measures being taken (isolating gap width of at least 3 mm).

Mains connection lead



The connection cable must project from the wall over an insulated length of at least 20 mm.

Mains connection on top

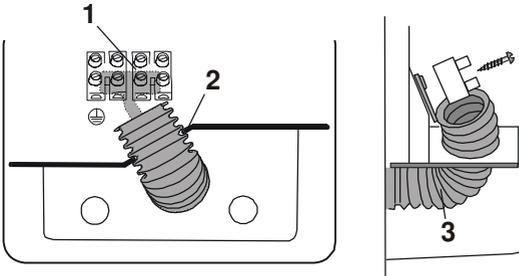


Electrical connection terminal (3) factory-prefitted.

Cut out cable inlet opening (1).

Slide flexible inlet bush (2) over connection cable, insert it through the back wall opening, and screw fixing strap under connection terminal (4).

Mains connection underneath (alternative)



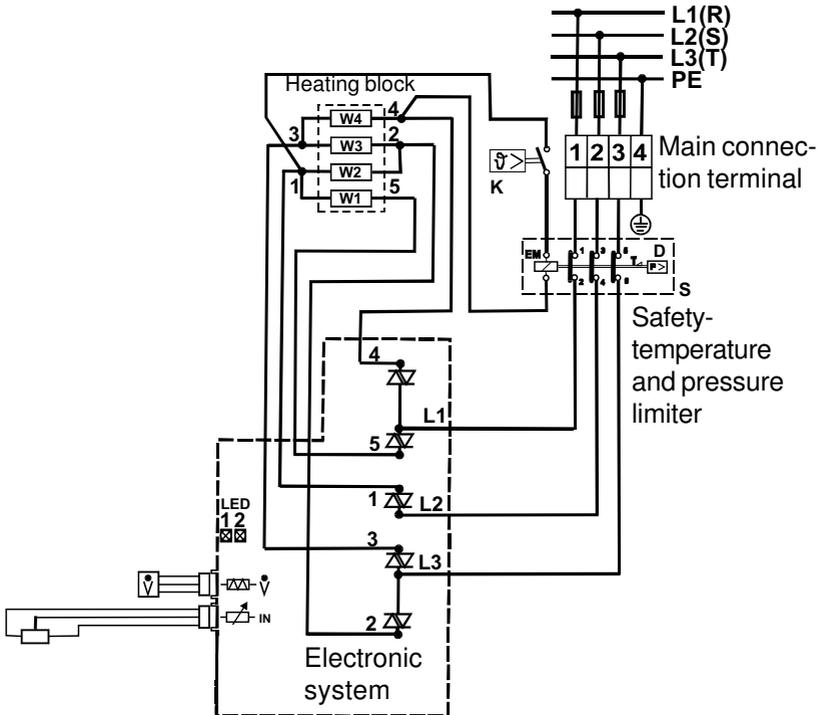
For this connection version, transpose the mains connection terminal (1) from top to bottom.

Note the terminal designation on the back wall, and do not cross the connection leads to the safety temperature limiter.

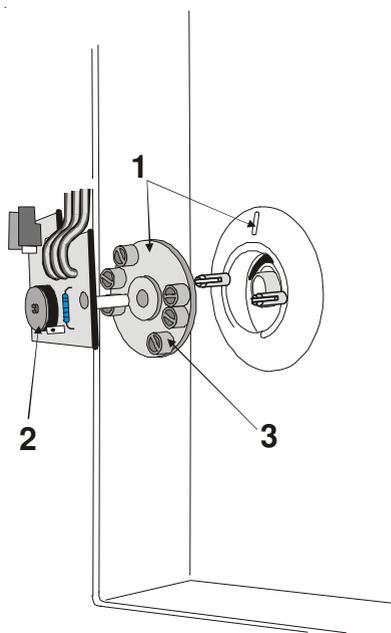
Carry out cable inlet opening (2), inlet bush (3), and bush fixing under the mains connection terminal as described above for mains connection.

Important! Moisture protection is only guaranteed with the inlet bush fitted in position.

Circuit diagram



Temperature selector range limitation

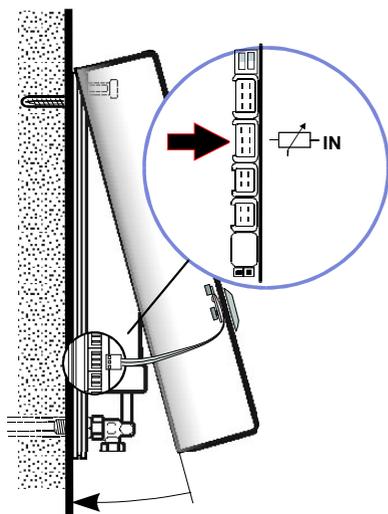


The maximum temperature able to be set can be limited to 40°C or 45°C.

Important! Before dismantling, set the knob to the minimum temperature of 30°C.

Detach the temperature set-point pickup (2) in the appliance hood. Turn the setting dial (3) so that the printed set-point coincides with the hood mark (1). **Do not twist the selector axis and plate of the temperature set-point pickup when reassembling!**

Hood dismantling



Plug the connection lead of the temperature set-point pickup into the electronic system, suspend the appliance hood in the upper edge of the back wall, and swivel it downwards until it audibly engages.

If necessary, the hood can be additionally fixed with a screw next to the engagement lug.

Using the appliance for the first time and checking

The unit must be installed and started up by an approved firm of installers which accepts liability for safety and proper function.

Before the appliance is energised (connected to the electricity supply), it should be thoroughly flushed with cold water and the tightness of the screwed joints checked.

After the instantaneous water heater is energised (connected to the electricity supply), it should be inspected by a trained engineer to ensure that it is in proper working order. For protection of the heating systems, the system is arranged for a switch-on delay of 5 - 25 s at initial startup and after the appliance has not been live for any length of time.

Important: After any work carried out on the water supply unit, the appliance should also be thoroughly flushed with cold water (vented) before being switched on again. Only then should the appliance be reconnected to the electricity supply.

After initial startup, the user should be familiarised with operation of the appliance and the instructions for installation and use handed over for safekeeping.

Fault-finding (important instructions for the trained engineer)

In the event of any fault, a check should first be made to ascertain whether the fuse and line protection switch have tripped.

Fault	Cause	Remedy
- Heating system does not switch on	- Appliance is not live	Check the voltage
- Hot water flowrate too low	- Strainer insert is clogged - Soiling or scaling of bubblers and shower heads - Defective heating system	Clean strainer insert (see page 12) Dismantle and clean the bubblers and shower heads Inspection and repair only by the trained engineer
- Safety temperature and pressure limiter has tripped	- Inadmissibly high cold water inlet temperature (over 25 °C) - Inadmissibly high outlet temperature (over 70 °C)	Appliance should not be operated with preheated water. Inspection and repair only by the trained engineer
- Active fault indicator (LED)	- System fault (see table on page 18)	Inspection and repair only by the trained engineer

Fault indications

Fault pattern	Indicator		Possible faults
	LED 1	LED 2	
1	No display Appliance does not work No display Setpoint temperature not reached		- Flowrate sensor not plugged / defective - L1 or L3 phase missing - L2 phase missing
2	FLASHES long	FLASHES long	- Setpoint generator not fitted
	Constant warm water temp. 37°C		
3	FLASHES long	FLASHES short	- Electronics defective
	No heat output		
4	FLASHES long	ON	- Supply temperature over 25°C
	No heat output		
5	OFF	ON	- Water flow over 20l/min
	No heat output		

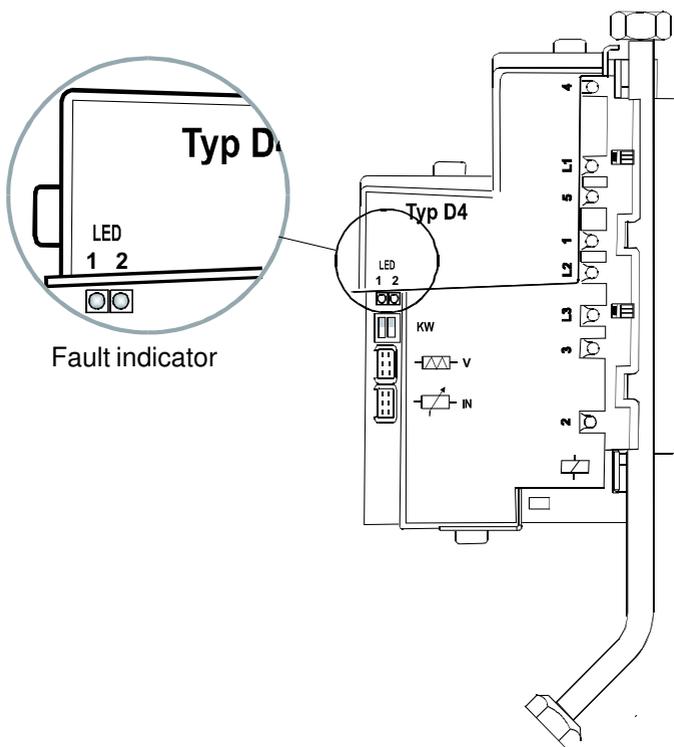
*) The individual fault are indicated every 5 sec. The indication mode starts afresh every 40 sec.

Important! If the fault has been rectified, the fault memory goes automatically in Reset - Function.(Sometimes with cold water flow phase ca.15 sec.)

Important for the expert

The electronic controls the safety-function of the appliance. When a fault is noticed, the fault indicator (LED) blinks and the heating element is switched off.

After the fault has been recitified, fault memory will be automatically cancelled
Instructions for the fault finding see in "Instructions for installation and use" page 17and 18.



Customer service

If your appliance has a fault, please contact your customer service centre for advice.



Electric appliances should only ever be repaired by a trained electrician, since the user may be seriously endangered by improper repairs.

A list of the addresses of customer service centres is attached.
If your appliance requires service, you will need to quote these numbers indicated on the rating plate. □.□.□.□

<u>Prod.-No.</u>	<u>Serial No.</u>
□.□.□.□	□.□.□.□

To save enquiries, copy the data from the rating plate and keep them handy.