



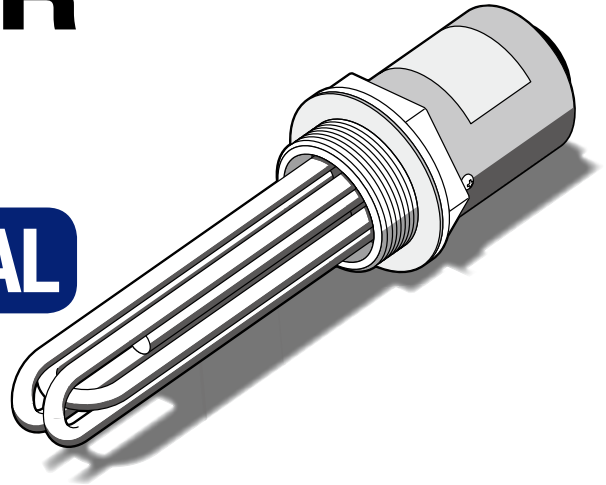
HAKKO ELECTRIC CO., LTD.

PLUG HEATER FOR WATER

INSTRUCTIONS MANUAL

Thank you for your choosing our product.

Read the instructions before use and keep
in the convenient place for future reference.



FOR SAFE USE

We use the following symbols for safety.



WARNING

Improper use may cause the danger of death or injury.



CAUTION

Improper use may cause the danger of light injury or property damage.



WARNING

- Turn off the heater immediately if water is insufficient.

Keep the heating part in water constantly. Otherwise it may cause fire.



- Do not use with any power voltage other than the indicated.

It may cause fire, electric shock or failures.



- Screw up the power cable tightly with crimping terminals.

Otherwise it may cause fire, electric shock or failures.



- Connect the ground terminal with the container.

It may cause electric leakage or shock.



- Do not use broken or leaky containers.

Check the container carefully before turning on. Insufficient water may cause fire or electric shock.



- Do not alter or deform the heater.

It may cause fire, electric shock or failures.



WARNING

- **Use containers made of metals, not of plastic material.**

It may cause fire and electric shock.



- **Do not heat any other liquids than water.**

Otherwise it may cause fire and electric shock.



- **Do not touch the heater with wet hands.**

It may cause electric shock.



- **Do not sink whole parts of the heater under the water.**

It may cause electric shock or failures.



- **Do not use the heater in the following condition. It may cause fire, electric shock or failures.**

- In case the heater merges into deposition in water
- In case foreign substances attach on the heater
- The use for heating bath
- In the place where the terminal part may have dew condensation



CAUTION

- **Use the feed-water equipment.**

If you leave the heater for hours without feed-water equipment, turn off the heater for safety.



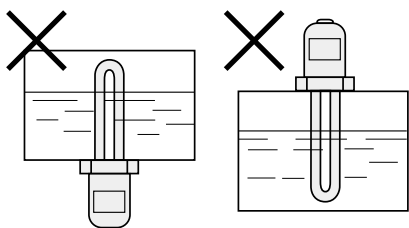
- **Turn off and replace the heater.**

If you need to replace the heater, turn off and drain water before replacement. Otherwise it may cause electric shock.



- **Do not mount the heater vertically.**

The heater must be mounted horizontally. Otherwise it may cause failures.



- **Do not touch the heater with bare hands just after turning off.**

It may cause burns.

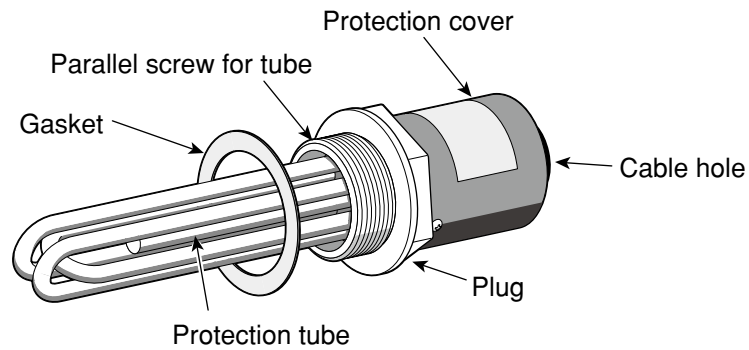


- **Do not open the protection cover while the heater on.**

It may cause electric shock.



1. THE NAMES OF PARTS



2. HOW TO USE

- ① Mount the heater horizontally with the container.



If you need to mount the heater vertically with the container, the equipment must be highly designed for safety to control water supply, temperature, and the position of sensors.

- ② Connect the heater with the controller and the sensors of proper capacity.
- ③ Put water into the container mounted with the heater.



Confirm the whole heating part is under water.



Confirm the container and the connecting part of the heater have no leakage.

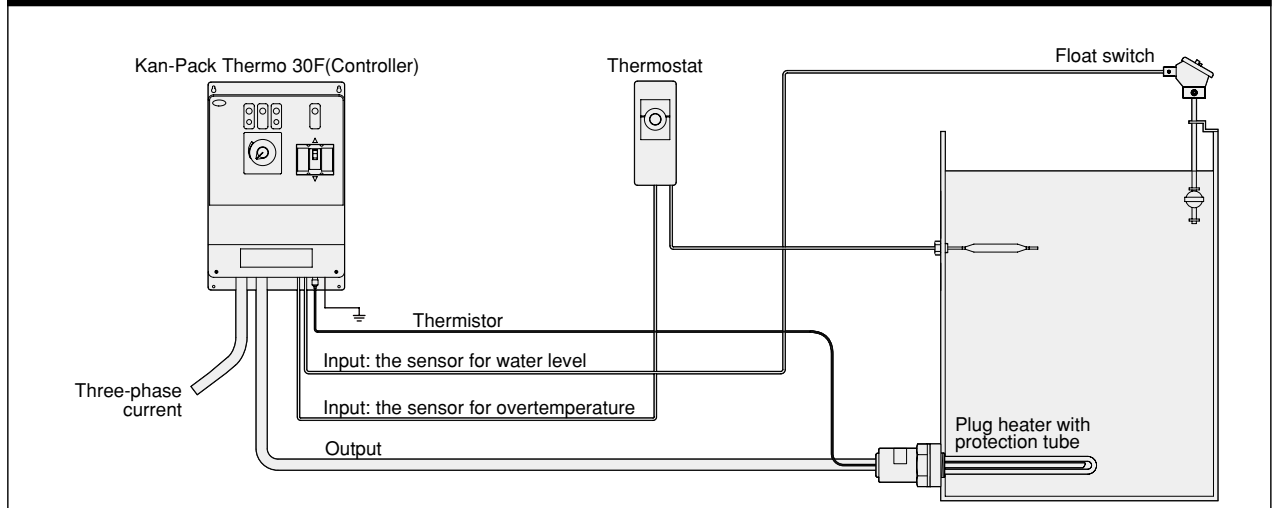
- ④ Screw up the power cable tightly with crimping terminals.



Do not use plastic cables.

- ⑤ Adjust the dial of the controller to set temperature.
- ⑥ Turn on the circuit breaker and start heating.
- ⑦ Turn off the circuit breaker after finishing heating.

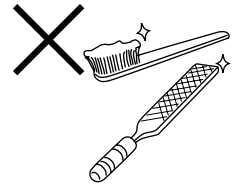
A sample of the connection using the controller "Kan-Pack Thermo 30F" of HAKKO.



3. MAINTENANCE

● Maintenance for the heating part

- Turn off the heater and cool to room temperature for maintenance.
- Use neutral detergent if you wipe the attached on the heating part.
- Wipe the heating part with plastic material. Do not scrub by metal products like wire brush.



● Maintenance for the terminal part

- Turn off the heater for maintenance of the terminal part.
- Use the vacuum cleaner to remove dust.
- Wipe with a dry cloth for cleaning. Do not use water or neutral detergent.



AFTER-SALE SERVICE

● If you have any questions,

If you have any questions about our products, contact with your distributors, or the Sales Head Office of HAKKO ELECTRIC CO., LTD. The addresses and phone numbers are as follows.

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