

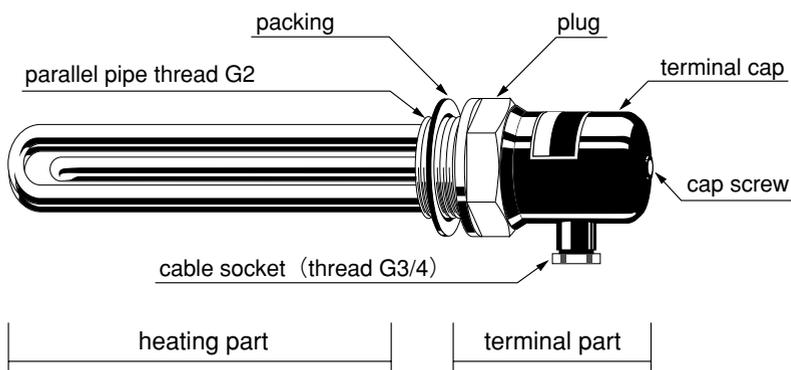
# INSTRUCTION MANUAL FOR CAUTIONS ON USES

Follow the instructions for correct use  
and safety

Please follow instructions herein for correct use.  
Hold this manual at convenient place for reminding.

## Screw-Plug Heater with drip-proof cap

[ for water ]



- Loose the cap screw and take off the cap and connect the heater with power source.
- Qualified engineers shall set up the power supply.

 **HAKKO ELECTRIC MACHINE WORKS CO., LTD.**

# WARNING

- **Switch off the heater immediately when water is insufficient.**

Keep the heating part in water. Exposure in the air may cause fire.



- **Screw up the power cable tightly with the terminal parts.**

Otherwise it may cause electric leakage and shock.



- **Connect the ground terminal with the container.**

Otherwise it may cause electric leakage or shock.



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

Sinking the terminal part may cause electric shock.



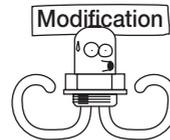
- **Do not use containers made of resin.**

Using containers made of other than metals may cause fire and electric shock.



- **Do not alter the heaters.**

Alteration and deforming the heater may cause fire and electric shock.



- **Do not use broken or leaky containers.**

Check the containers carefully before heating. Lack of water may cause fire or electric shock.



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

Check the power voltage of the country where you use. Incorrect power voltage may cause fire or electric shock.



● **Do not heat any other liquid than water.**

Heating liquids other than water may cause fire and electric shock.



● **Do not use the heater in the following condition. It may cause fire and electric shock.**

In case the heater merges into deposition in the water.  
In case foreign substances attach on the heaters.  
In case the atmosphere is flammable.  
In case of heating bath.



 **CAUTION**

● **Switch off and replace the heater.**

If you replace the heater, switch off first.  
Otherwise it may cause electric shock.



● **Use feed-water equipment.**

Switch off the heater and leave if feed water equipment is not available.



● **Keep the terminal cap from water.**

The terminal cap is drip-proofed. But do not use in the water, in the constantly wet condition, or in the corrosive liquid dropping condition. It may cause electric shock and leakage.



● **Do not touch a heater with bare hands after switching on.**

It may cause burns.  
Do not put the heater on flammable materials just after taking out, it may cause fire.



● **Do not touch the heater while heating.**

It may cause burns. Temperature of heating parts is higher than that of the water.



# CAUTION

## ● Use the cables with correct diameter.

Use correct CT-cable fitted with diameter of the cable socket. Otherwise the cable socket may not be sealed.

HEATER	Cable Socket ID
3phase 200V 2kW, 3kW	$\phi$ 12 mm (20A)
3phase 200V 5kW	$\phi$ 13 mm (20B)



## RECOMMENDATION

### ● Heater maintenance

Switch off the heater and cool to room temperature for maintenance. Wipe with neutral detergent by plastic material. Do not scrub by metal products like wire brush.



### ● Maintenance for the terminal part

Switch off the heater for maintenance of the terminal part. Vacuum the dust and rub with a dry cloth.



## AFTER-SALES SERVICE

### ● If any queries arise,

If a question has arisen, please contact our sales agent from which you brought your equipment or HAKKO CO.

#### ■ HAKKO CO.,LTD. THERMAL DEVICE SALES DIVISION

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