

HEMOCRAFT MANUFACTURING CORPORATION

**DIGITAL TOUCH PAD
CONTROL OPERATING
INSTRUCTIONS**

MODELS TKE 2-2 & TKE 2-3

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1. *CAUTIONS & WARNINGS*****

1.1. ELECTRICAL PERMIT

It is unlawful to install this unit without first obtaining a permit from the local electrical inspection authority
Il est illégal d'installer cet appareil sans permis préalable des autorités locales d'inspection en électricité

1.2. ELECTRICAL WIRING ROUTING

All wiring to the sauna heater and accessories must be routed away from any direct radiation from the sauna heater

1.3. WATER SPRAY

Never subject the sauna heater or control components to direct water spray

1.4. SHOWER HEAD

Never install a shower head above the sauna heater

1.5. FREQUENT HIGH LIMIT SWITCH FAULTS

If the manually resettable temperature-limiting control trips frequently, a qualified serviceman should be contacted

1.6. FIRE PREVENTION

CAUTION: AVOID A FIRE, DO NOT PLACE COMBUSTIBLE MATERIAL ON SAUNA HEATER
ATTENTION : ÉVITEZ LES INCENDIES, NE PLACEZ AUCUNE MATIÈRE COMBUSTIBLE SUR LE

1.7. APPROVED CONTACTORS

CAUTION: USE ONLY A CONTACTOR APPROVED FOR 250 000 ENDURANCE CYCLES
ATTENTION : UTILISER UNIQUEMENT UN CONTACTEUR APPROUVÉ POUR 250 000 CYCLES DE

1.8. MAINTENANCE PROGRAM

The owner must implement a maintenance program for the sauna heater and inspect the sauna heater at the end of each day to ensure the sauna heater is turned off

2. ELECTRICAL COMPONENTS

Please note the following:

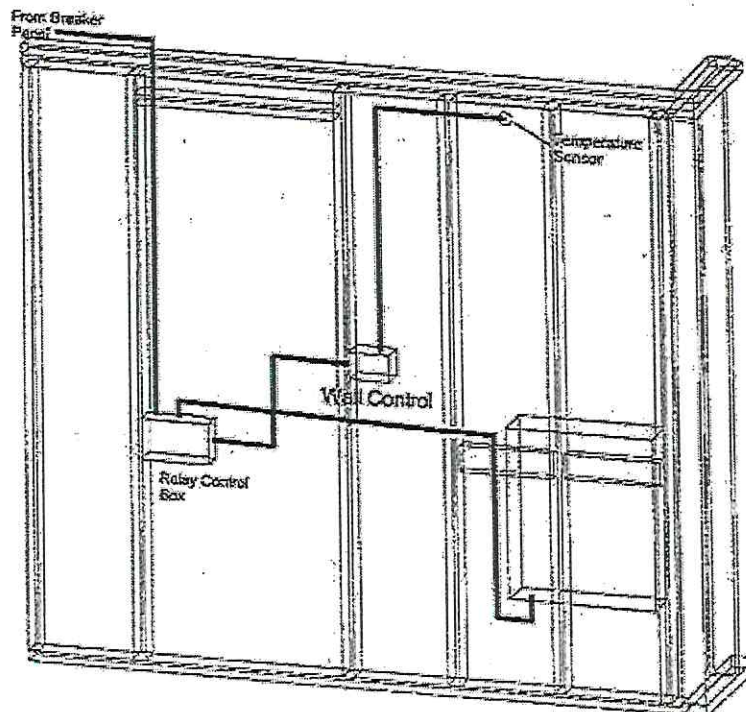
- It is unlawful to install this unit without first obtaining a permit from the local electrical inspection authority
- Electrical wiring and hook-up should only be done by a certified electrician. Electrical connection by a non-certified person voids the heater warranty.
- All wiring to the sauna heater and accessories must be routed away from any direct heat radiating from the sauna heater.

Digital Control for HEMECRAFT heaters

HEMECRAFT has supplied an Electronic Digital Wall-Mount Control Panel for your sauna heater. This electronic control is precise and offers more features than any other sauna control currently on the market. The wall control is a Class II 24 volt circuit and should not require a GFI breaker. Be sure to check with your local inspection authority.

You will require a 2-gang electrical box to house the digital wall-mount control panel. This box should be mounted in the outside wall of the sauna. **All sauna controls and room light switches must be operated from outside the sauna.**

All wiring to the sauna heater and accessories must be routed away from any direct heat radiating from the sauna heater. **Install the control box on the outside of the sauna room in a location**



that is readily accessible for maintenance. Do not install any electrical receptacles inside the sauna room.

This control consists of the following components:

- A. A "Relay Control Box" containing a 24 volt Class II transformer and relay, or printed circuit board (depending on the control model), and a magnetic contactor that is prewired.
- B. A digital "Wall Control Panel" that mounts to a 2-gang electrical box (supplied by owner) by which you set your time and temperature
- C. A package containing wire, temperature sensor, temperature sensor cover, electrical connectors, and 4 Faceplate screws required for installation

Please refer to the enclosed wiring schematic which clearly shows the path of the wiring for each control model

3. RELAY CONTROL BOX INSTALLATION

- A. The "Relay Control Box" holding the 24 volt Class II transformer and a magnetic contactor, or printed circuit board (depending on control model), which are supplied in a metal box. The Relay Control Box can be surface mounted or flush wall mounted. This box needs to be mounted in a location that you can access should servicing be required.

Caution: Use only a contactor approved for 250,000 cycles

Attention: Utiliser uniquement un contacteur approuvé pour cycles de fonctionnement

Suggestion: If your home has a suspended ceiling you can mount the control panel on the top plate (2x4) of the wall. This way you can simply lift a ceiling panel and gain access to the Relay Control Box in the future. Another suggestion is to mount the relay Control Box in the stud space in the sauna wall and provide access through a panel on the outside wall that can be opened for possible servicing in the future.

- B. Note that 366 cm (12 feet) of 18/4 wire is supplied with this control for connecting the Relay Control Box to the Wall Control Panel so be sure to keep within this distance.
- C. Connect the 18/4 wire to the appropriate connections in the Relay Control Box
- D. If more than the supplied 18/4 wire is needed for your installation, you can order additional wire from **HEMECRAFT** or purchase 18/4 wire locally. **Do not splice onto the 12 foot length of 18/4 wire.**
- E. Be sure to connect colored wires consistently between the Relay Control Box and the Wall Control Panel as per the wiring diagram

4. TEMPERATURE SENSOR INSTALLATION

4.1. STEP 1

Attach the Temperature Sensor, with the supplied connectors, to the 366 cm (12 foot) length of 18/2 wire. If you require a longer distance between the sensor and the Wall Control Panel, buy a new continuous length of 18/2 wire and attach the sensor to it. **DO NOT splice onto the wire supplied.**

4.2. STEP 2

Be sure to run the 18/2 wire inside the insulated stud space in the sauna wall.

4.3. STEP 3

Be sure to leave a little slack in the 18/2 wire in the stud wall. Strip about 15 cm (6") from the outer casing of the 18/2 pair, leaving the protective casing on the individual leads. This will make it easier to attach the 18/2 wires to the sensor leads, and gives more flexibility when pushing any excess wire back into the wall.

4.4. STEP 4

The sensor wire should come out of the wall into the sauna room through a 5/8" diameter hole so the sensor is positioned over the heater according to the heater instructions (Vertically in line with one side of the heater and 64 mm below the ceiling).

5. SENSOR COVER INSTALLATION

5.1. STEP 1

Using the supplied #6 wood screws and a flat washer, fasten the sensor to the sauna wall over the sauna heater in the prescribed position 6.4 cm (2-1/2") below the ceiling.

5.2. STEP 2

Fasten the sensor cover to the wall using the 4 supplied #6 wood screws, covering the sensor and taking care not to nick or cut the wires leading to the sensor. Be sure to remove the protective plastic film from the stainless steel sensor cover shown in FIGURE 4. The sensor cover is designed to allow for adequate airflow. It adds a nice finished look to the sensor and also protects the sensor from tampering. Do not hide or bury the sensor behind a cover other than the one supplied with this control. Incorrect installation of the sensor will negatively impact the heater operation, cause nuisance high limit tripping (safety device in the heater), and compromise personal and fire safety

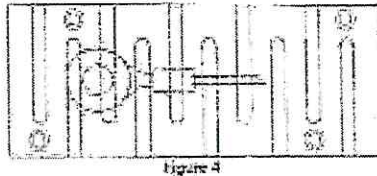
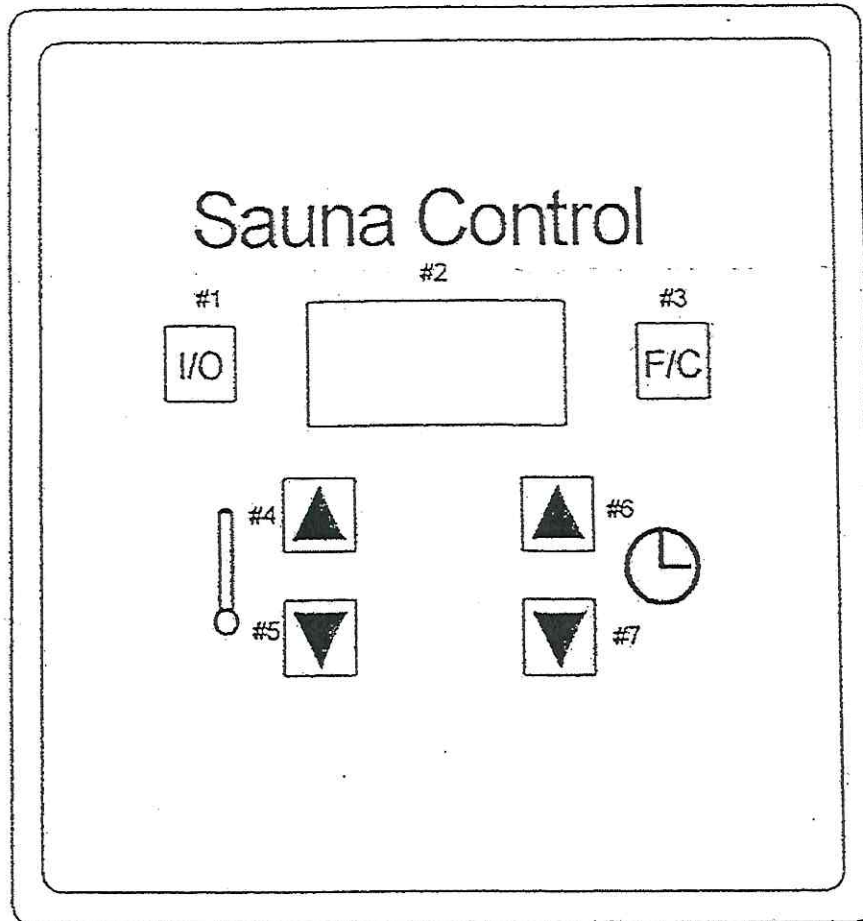


Figure 4

6. OPERATING INSTRUCTIONS

Refer to the diagram below when following the Operating Directions.



6.1. "OFF" DISPLAY

When the sauna is turned off the display (#2) will show "OFF"

6.2. TURN ON THE SAUNA

Press the I/O switch (#1) on the Digital Touchpad to turn on the sauna

6.3. SELECT FAHRENHEIT OR CELSIUS

Press the "F/C" switch (#3) on the Digital Touchpad to select either Fahrenheit or Celsius

6.4. DEFAULT SETTINGS

The default setting when the sauna is first turned on is 80° C (176°F) for the temperature, and 50 minutes for the timer

6.5. CHANGE THE TEMPERATURE

To change the temperature, press and hold for 3 seconds either the up/ increase switch (#4) or the down/ decrease switch (#5), and then release. This will then allow you to scroll to the desired temperature using either of these switches again. The temperature setting limits are 25°C to 90°C

6.6. CHANGE THE TIMER

To change the timer press and hold for 3 seconds the up/ increase switch (#6) or the down/ decrease switch (#7), and then release. This will then allow you to scroll to the desired time using either of these switches again. The maximum timer setting is 60 minutes.

6.7. DEFAULT DISPLAY

When sauna is turned on and the temperature and timer are not being adjusted, the LED display returns to the default display which shows the actual room temperature.

6.8. DISPLAY THE SET TEMPERATURE

To display the currently "set" temperature, momentarily press and release either temperature setting switch (#4 or #5). The "set" temperature will display for 3 seconds and then the LED display will default back to the current room temperature.

6.9. DISPLAY THE TIME

To display the time remaining on the timer setting, momentarily press and release either timer setting switch (#6 or #7). The time remaining on the timer will be displayed for 3 seconds and then the LED display will default back to the current room temperature.

7. TEMPERATURE SENSOR

Attach the temperature sensor with the supplied marrettes connectors to the length of 18/ 2 wire which is supplied with the control. If you require a longer distance between the sensor and wall control panel, buy a new continuous length of 18/2 wire and attach the sensor to the new wire. **DO NOT** splice onto the supplied length of 18/ 2 wire.

Be sure to run the 18/2 wire inside the insulated stud space in the sauna wall. Be sure to leave a little slack in the wire in the stud wall. Strip about 6" from the outer casing of the 18/2 pair, leaving the protective casing on the individual leads. This will make it easier to attach the 18/2 wires to the sensor leads, and gives more flexibility when pushing any excess back into the wall. The sensor wire should come out of the wall into the sauna room through an 5/8" diameter hole so the sensor is positioned over the heater, vertically in line with the side of the heater, and 64 mm (2-1/2") below the ceiling. See heater instructions for proper positioning of the sensor.

Do not hide or bury the sensor behind a cover other than the one supplied with this control. Incorrect installation of the sensor will negatively impact the heater operation causing nuisance tripping of the High Limit Switch, and will compromise person and fire safety.

7.1. SENSOR COVER

Using the supplied #6 wood screw, fasten the temperature sensor to the sauna wall over the sauna heater in the prescribed position 64 mm (2-1/2") below the ceiling. Be sure to remove the plastic protective film from the stainless steel sensor cover. Next, fasten the sensor cover to the wall using qty 4 supplied #6 wood screws, covering the sensor and taking care not to nick or cut the wires leading to the sensor. The sensor cover is designed to allow for adequate airflow around the sensor and protect the sensor from tampering (FIGURE 3).

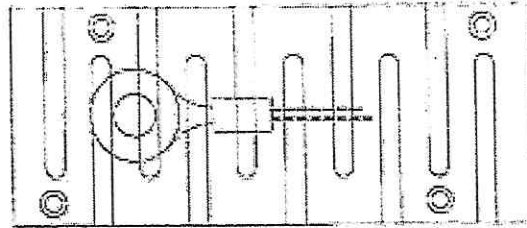


Figure 3

8. **NOTE ON INSTALLATION IN A PUBLIC SAUNA*****

Some facilities have experienced vandalism of the control sensor. The **HEMECRAFT** Sensor Cover is designed to give maximum security against vandalism. If the sensor needs to be replaced, it may be necessary to "fish" the 18/2 wire back through the hole. This is why we suggest leaving at least 15 cm (6") of lead wire on the 18/2 wire. Be sure when mounting the 18/2 wire in the sauna wall that the cable will not fall down and away from the hole and that there is enough slack to pull the leads through. In the event the sensor is vandalized, the safety feature of the control will disable the heater from operation.

CAUTION: In a public sauna, the sensor should be visually inspected every day to ensure that there are no obstructions and that air flows freely around the sensor.

9. HEMECRAFT HEATER GUARANTEE

Every **HEMECRAFT** sauna heater has been carefully inspected and packaged prior to shipping and we guarantee to correct or replace, at our discretion, any defect caused by faulty material or workmanship. This guarantee applies as follows:

RESIDENTIAL installations of sauna heaters:

LIFETIME limited warranty against manufacturers' defects Controls: warranted for one year from date of purchase.

Note: heating elements and high-limit switch are regarded as "consumable" items and are excluded from this warranty.

COMMERCIAL installations:

Sauna heater and controls: one year from the date of purchase.

Note: heating elements and high-limit switch are regarded as "consumable" items and are excluded from this warranty.

SAUNA ACCESSORIES

Accessories manufactured by **HEMECRAFT** are covered for 1 year from the date of purchase.

This guarantee does not cover faults or defects caused by misuse, negligence, improper installation, installation in high corrosion areas, alterations, careless handling, damage in shipping, acts of God, or other circumstances beyond the control of **HEMECRAFT** Manufacturing Corporation or its authorized agents.

No reimbursement by **HEMECRAFT** will be allowed for costs incurred to diagnose, remedy, or replace parts without prior written agreement.

Electrical wiring and hook-up should only be done by a certified electrician. All equipment must be installed according to our heater installation instructions observing the required clearances of the sauna heater and the proper position of the temperature sensor probe. Our electrical connection instructions are a guide only and local electrical codes will supersede our instructions. Electrical connection by a non-certified person voids the sauna heater and control guarantee. We reserve the right to decline responsibility where repairs or replacements have been attempted by others.

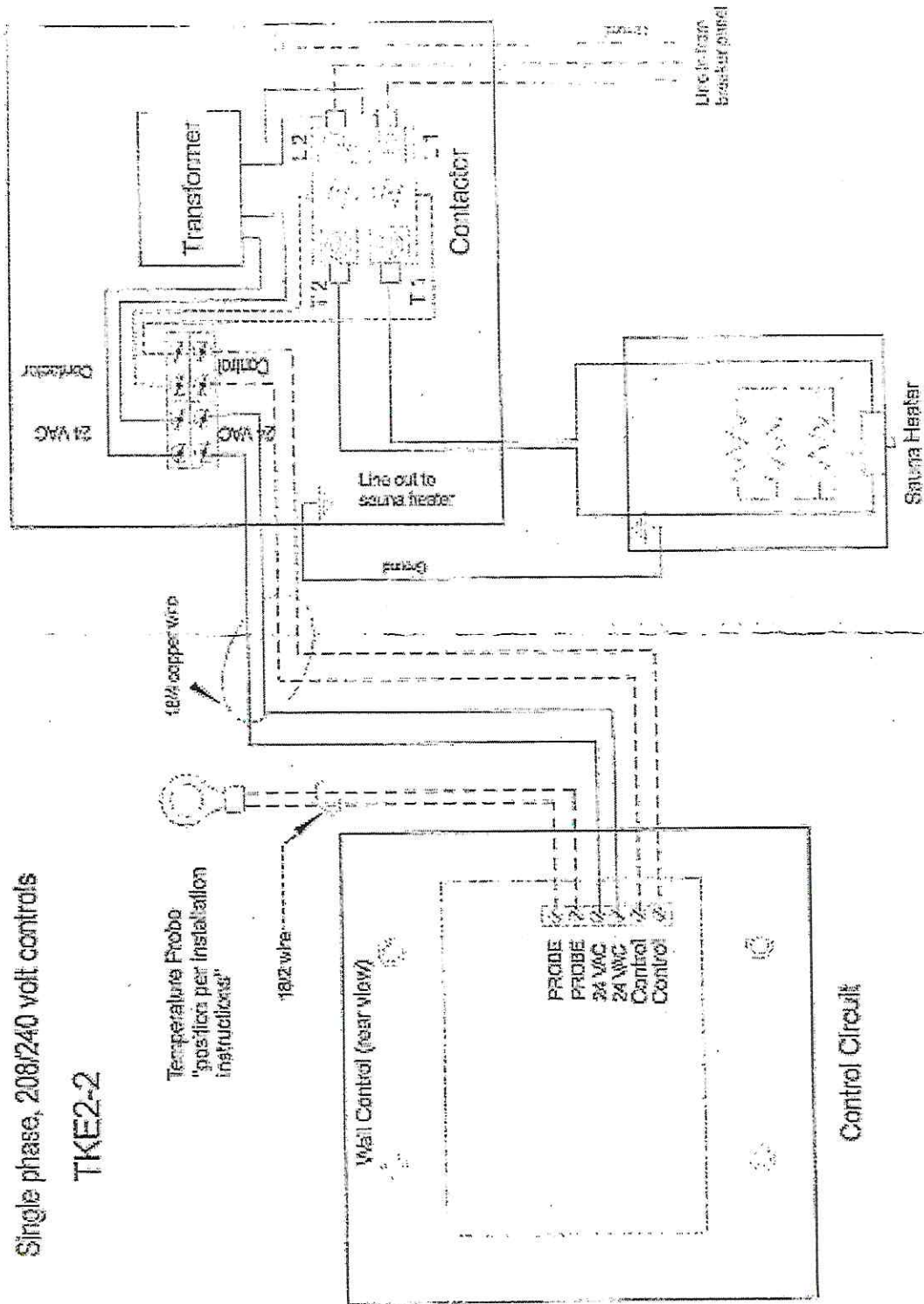
The complete sauna unit must be returned to one of our Factory Service branches or to our factory with transportation charges prepaid. A return authorization must be obtained from **HEMECRAFT** Manufacturing before returning any product.

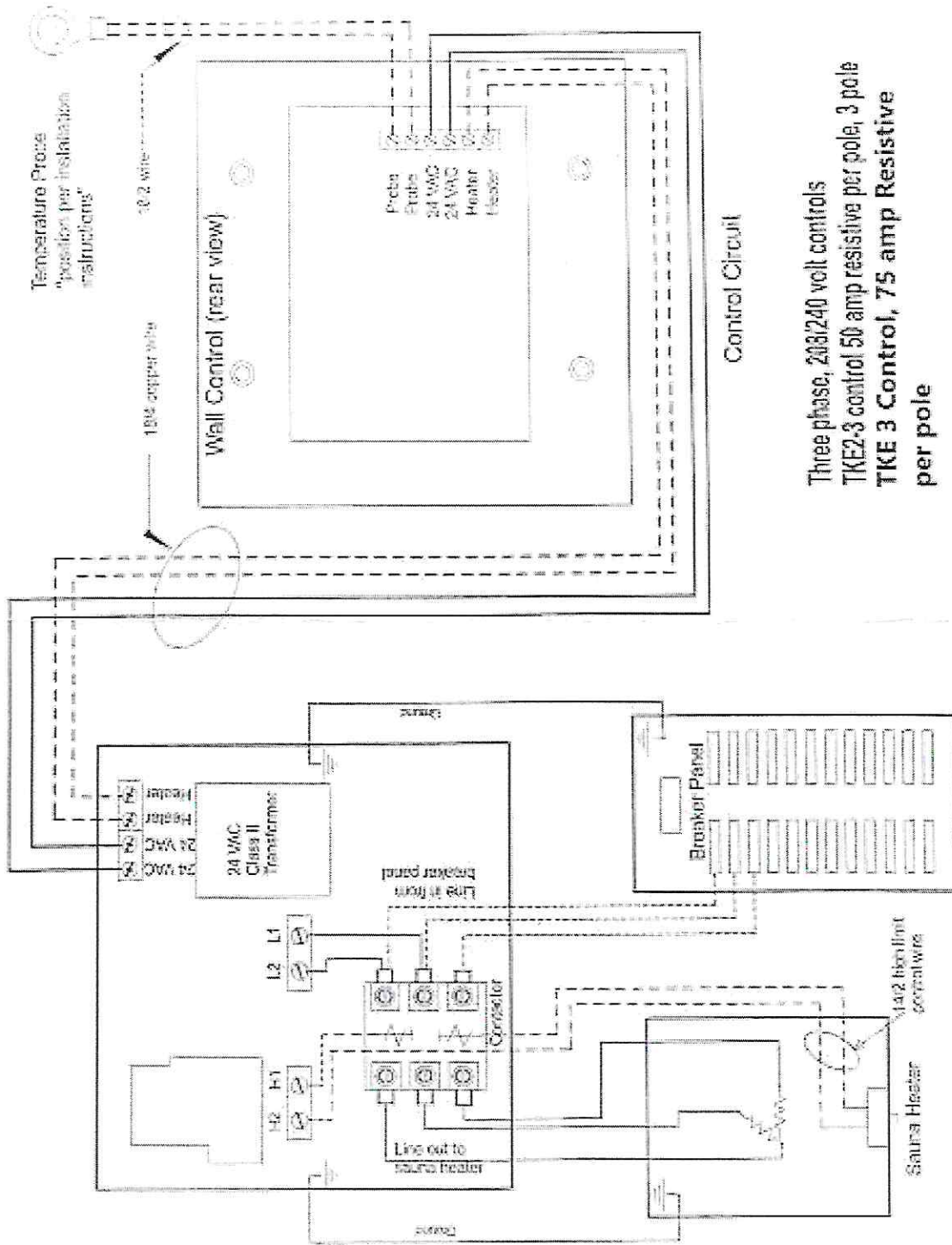
(Please call us before returning any product, we can often trouble-shoot difficulties over the phone.)

No other verbal or written guarantee is applicable to our products.

End of Instructions

10. WIRING DIAGRAMS





Three phase, 208/240 volt controls
 TKE2-3 control 50 amp resistive per pole, 3 pole
 TKE 3 Control, 75 amp Resistive
 per pole