

## **AMEREC SAUNA HEATER TRIANGLE WALL MODELS: T1.7, T2.5, T5 and T7.**

**READ ALL INSTRUCTIONS CAREFULLY BEFORE  
INSTALLATION.**

**PLEASE LEAVE ALL INSTRUCTIONS AND WARRANTY WITH  
THE OWNER.**

**PLEASE FILL OUT AND RETURN YOUR WARRANTY  
CERTIFICATE PROMPTLY.**

### **SECTION 1: GENERAL**

AMEREC Sauna heaters are listed by Underwriters Laboratories. These heaters are for permanent installation and electrical connection. To determine the correct wire size, circuit protection and minimum spacing from wooden surfaces, refer to the Heater Specification Chart on the following page.

### **WARNING**

**Do not take a sauna if using alcohol, drugs or medications.**

**Pregnant women or persons with poor health should consult their physician before using any Sauna.**

**Caution fire hazard: Do not use the Sauna room for drying clothes, bathing suits, etc. Do not hang towels above heater or place any object other than the rocks supplied on the heater. If any darkening of the wall around the heater is noticed discontinue sauna use immediately.**

**Inspect Sauna regularly for required maintenance to heater, controls and benches. Replace wood surfaces which show any signs of deterioration.**

**The heater gets extremely hot during operation and should not be touched or burns may result.**

**Minors should be adequately supervised whenever near a hot or warming sauna.**

**Fire sprinkler systems used inside any sauna room should be properly rated for sauna room temperatures.**

**Do not pour chlorinated pool or spa water on heater. Excessive water use on heater may cause damage and void warranty.**



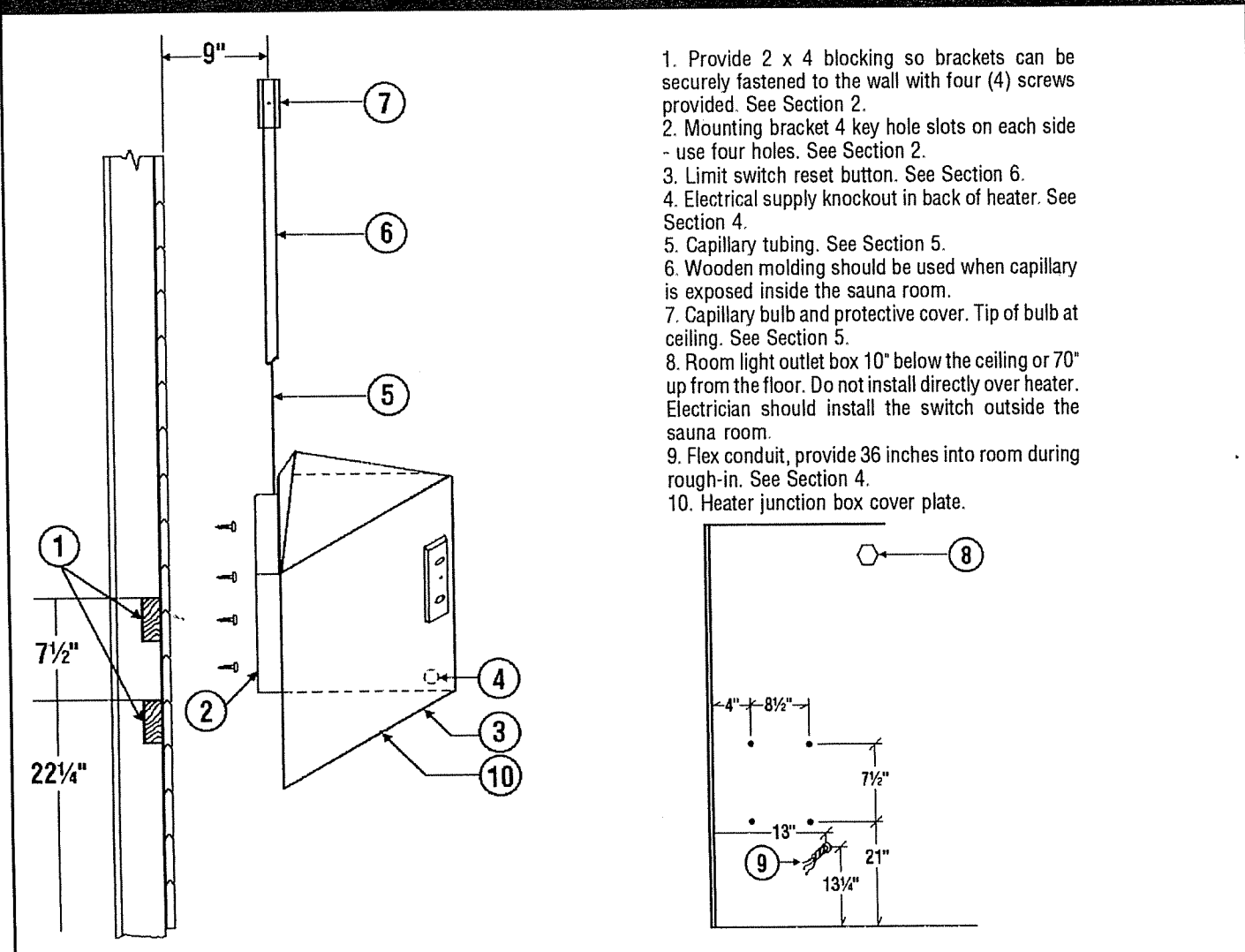
**DIAGRAM 1**

**HEATER SPECIFICATION CHART**

HEATER MODEL	VOLTAGE	PHASE	KW	AMPS	MINIMUM 90°C COPPER SUPPLY WIRE A.W.G. NO.	MINIMUM ROOM		MAXIMUM ROOM		HEATER		
						FLOOR AREA	CEILING HEIGHT	CEILING HEIGHT	VOLUME CU. FT.	MINIMUM DISTANCE FROM CEILING TO ROCK GRATE	MINIMUM DISTANCE* FROM WOOD SURFACES	MINIMUM DISTANCE UP FROM FLOOR
T1.7	120	1	1.7	14.2	12-2 W/G	12 Sq. Ft.	72"	84	80	40"	3"	12"
T2.5	120	1	2.5	20.8	10-2 W/G	12 Sq. Ft.	72"	96	115	40"	3"	12"
T5	240	1	5.0	20.8	10-2 W/G	16 Sq. Ft.	78"	96	225	46"	3"	12"
T7	240	1	6.5	27.1	8-2 W/G	16 Sq. Ft.	78"	96	300	46"	3"	12"

\*Mounting bracket attached to heater provides proper clearance from wall behind heater.

**DIAGRAM 2**



1. Provide 2 x 4 blocking so brackets can be securely fastened to the wall with four (4) screws provided. See Section 2.
2. Mounting bracket 4 key hole slots on each side - use four holes. See Section 2.
3. Limit switch reset button. See Section 6.
4. Electrical supply knockout in back of heater. See Section 4.
5. Capillary tubing. See Section 5.
6. Wooden molding should be used when capillary is exposed inside the sauna room.
7. Capillary bulb and protective cover. Tip of bulb at ceiling. See Section 5.
8. Room light outlet box 10" below the ceiling or 70" up from the floor. Do not install directly over heater. Electrician should install the switch outside the sauna room.
9. Flex conduit, provide 36 inches into room during rough-in. See Section 4.
10. Heater junction box cover plate.

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## SECTION 2: SECURING HEATER TO THE WALL

The sauna heater comes completely assembled. After removing heater from the carton, locate the templet supplied with the heater instruction packet. Place the templet on the wall with the line marked CORNER pressed tightly into the corner of the room where the heater is to be mounted. Make sure the dotted line marked BOTTOM is 12" or more up from the floor. Also make sure the top dotted line is no closer than 40" from the ceiling. Mark the four (4) mounting holes you wish to use on either side of the templet with a nail or awl. Using the four (4) 1½" x #10 wood screws

(provided). Screw them into the wall leaving 1/8" gap between the wall and the screw head. Hang the heater using the key hole slots in the back of the heater. Make sure the heater slides downward on all four screws.

**Note:**

If templet is lost or destroyed see Diagram #2 for locating mounting screws. It may be necessary to use the diagram to verify hole location if corner trim prevents accurate use of the templet.

## SECTION 3: SAUNA ROCKS

This heater must not be operated unless the rock compartment in the top of the heater is filled with the igneous rocks that are furnished with the heater. They should be put on the heater so that the air is free to travel around them. Do not pack too tightly.

During the first operation, the rocks should be heated for two hours at maximum temperature with no one in the sauna room. This will allow any concealed moisture to be evaporated. If not, the moisture could cause the rocks to crack and possibly project fragments.

## SECTION 4: ELECTRICAL WIRING

All wiring must be accomplished by a licensed electrical contractor. Refer to the Heater Specification Chart to determine the wire size and circuit protection required. The complete sauna system should be properly grounded as per NEC or as

required by local codes. A grounding terminal is provided in the wiring compartment of each heater. Complete the wiring according to the appropriate wiring diagram 4, 5, 6 or 7. See diagram #2 for conduit location.

## SECTION 5: CAPILLARY TUBE

After the sauna heater has been secured to the wall, carefully uncoil the heat sensing capillary tubing that has been temporarily taped to the back of the heater for shipping purposes. Secure the bulb with the tip of the bulb at the ceiling,

using the aluminum capillary protective cover furnished. Cover capillary tube with wooden molding (supplied with complete rooms only) as shown in diagram #2.

## SECTION 6: RESET BUTTON

This heater is equipped with an overheat safety device. In the event of an abnormal heating condition, the heater will automatically shut off and the heater cannot be turned on again until the heater cools. The reset button on the heater is at the bottom. In order to reset, push the button marked reset after the heater has cooled. If the

reset button continues to trip, your factory service person should be notified. See diagram #2 for reset location.

**Note:**

Packing the rocks too tightly may cause the heater limit switch to trip.

## WARNING

Do not locate benches over heater. Minimum height of ceiling above heater is 40" for 120V and 46" for 240V.

Do not construct sauna room so as to restrict air flow through the bottom of the heater.

Minimum clearance from heater to wooden surfaces (benches, side walls, heater fence etc.) 3 inches. Mounting brackets attached provides proper clearance from wall behind heater.

Packing the rocks too tightly may cause the heater limit switch to trip.

Rock preheat required. Although the rocks are specially selected for use with this sauna heater, concealed moisture could cause the rock to crack and project fragments causing potential injury hazard when the rocks are heated.

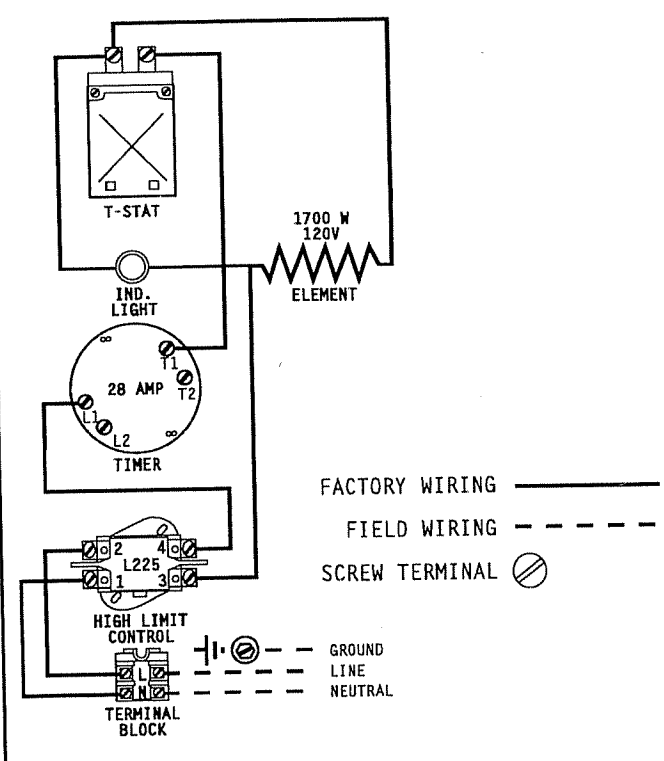
The rocks must be preheated on the sauna heater for two hours at maximum temperature with no one in the sauna room.

Use only copper wire of the size and type indicated in the wiring diagrams and the temperature rating indicated on the heater junction box.

All heaters, controls and contactors must be grounded per NEC to prevent electrical shock in case of unit failure.

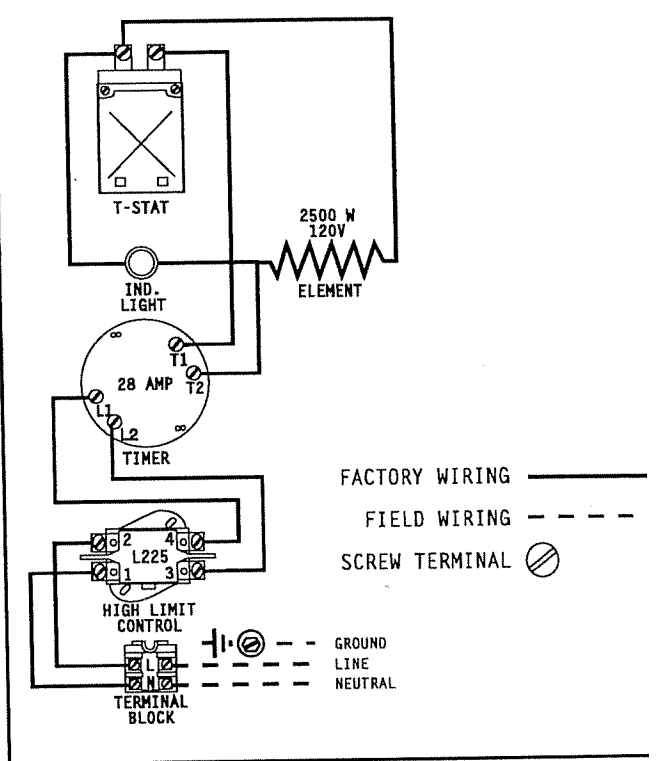
**DIAGRAM 4**

WIRING DIAGRAM MODEL T1.7



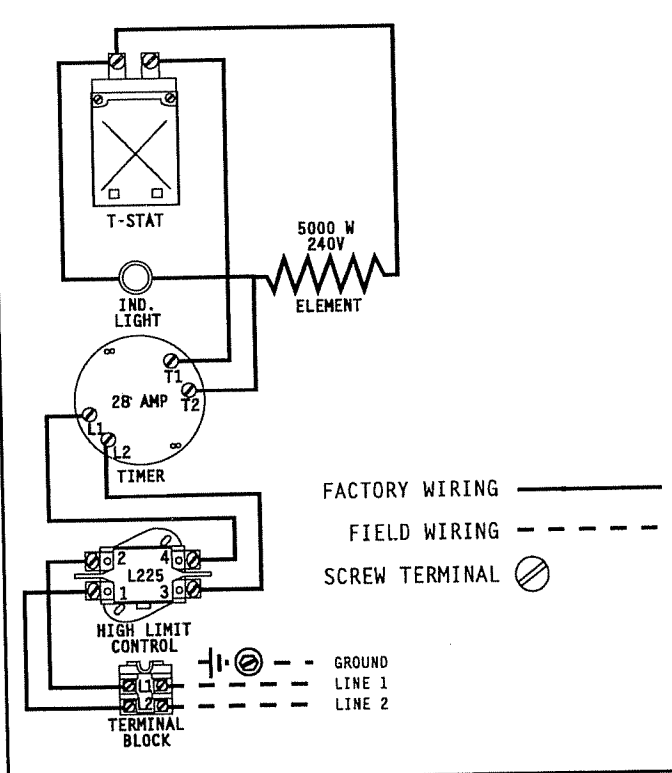
**DIAGRAM 5**

WIRING DIAGRAM MODEL T2.5



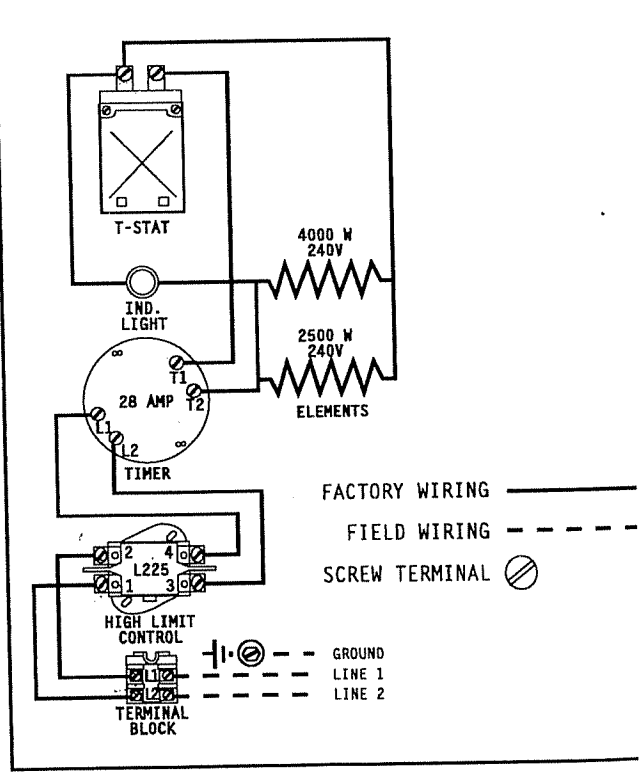
**DIAGRAM 6**

WIRING DIAGRAM MODEL T5



**DIAGRAM 7**

WIRING DIAGRAM MODEL T7



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**SECTION 7: ELECTRICAL OUTLETS OR RECEPTACLES**

**Caution:**  
**Electrical receptacle or outlets must not be installed in a sauna room.**

If an intercom speaker is to be installed in a sauna room, it should be of the outdoor metal type and should be installed away from the sauna heater and as low to the floor as possible. The sauna

room light should be a wall bracket type and the rough-in box should be flush with the inside finish material. The recommended height is 10" below ceiling or 70" up from the floor. If a ceiling light is to be used, it should be an approved type with a junction box that is remote to the fixture itself. Use only a fixture that utilizes A.F. or fixture type internal wiring.

**SECTION 8: ROOM CONSTRUCTION (Architectural Recommendation)**

Refer to the chart in section #1 to ascertain that the room size and the heater model are as indicated in the chart.

**Wall Framing:** Masonry or concrete walls must be stripped with 2x4 dry framing material on 16 inch centers to provide nailing for wall paneling. Frame walls to be standard stud walls. If interior cedar is to be mounted vertically, then horizontal furring strips are required. Provide 2x4 backing for heater mounting bracket. See diagram #2.

**Insulation:** Full thick foil faced fiber glass blanket with a minimum "R" factor of 11 in both walls and ceiling. Aluminum foil facing into room.

**Ceiling Frame:** Ceiling height 84" preferred, 72" minimum for 120V heater, 78" minimum for 240V. Ceiling joist 2x4, 2x6 or 2x8 dry fir on 16 inch centers.

**Plasterboard:** (When required by code.) 5/8" gypsum wallboard, one hour fire rated. Apply on wall and ceiling framing before interior finish.

**Interior Finish:** 1x4 V-joint T&G vertical grain KD Cedar. All boards full length. Blind nail with 5d galvanized finish nails or equivalent power stapling.

**Benches:** 1x4 or 2x4 clear VG Cedar with 1x4 or 2x6 face and framing members. Use galvanized nails and fastenings, concealed where possible.

**Heater Guard Rail:** Clear VG KD Cedar. See section 8 and diagram #8 and #9.

**Sauna Door:** Amerec pre-hung model G2P of solid fir complete with clear tempered, hermetically sealed glass, wooden pulls and self-closing hinge. Sauna door must open out and not lock.

**Ventilation Openings:** Amerec heaters do not require ventilation openings. Rooms may or may not be provided with ventilation openings. If ventilation openings are desired, it is recommended that the openings meet the requirements of UL Specification 875, paragraph 41.7A as follows:

41.7A Inlet ventilation opening shall be located at the bottom of the wall, as close to the floor level as possible. The minimum size of the ventilation openings for a room shall be determined using one of the following formulas:

$$\text{For } R < 31: V \geq 9.3, \\ \text{for } R \geq 31: V \geq 0.3R,$$

In which:

**R** is the floor area of the room in square feet, and

**V** is the minimum area of ventilation openings in square inches.

For the SI system of units, the equations are:

$$\text{For } R < 2.9: V \geq 60, \\ \text{for } R \geq 2.9: V \geq 20.8 R,$$

In which:

**R** is the floor area of the room in square meters, and

**V** is the minimum area of ventilation openings in square centimeters.

Outlet ventilation openings shall be located at the top of the wall, as close to the ceiling as possible, and shall meet the same minimum size requirements as for inlet ventilation openings.

**WARNING**

**For safety purposes sauna door must open out and not lock.**

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DIAGRAM 8

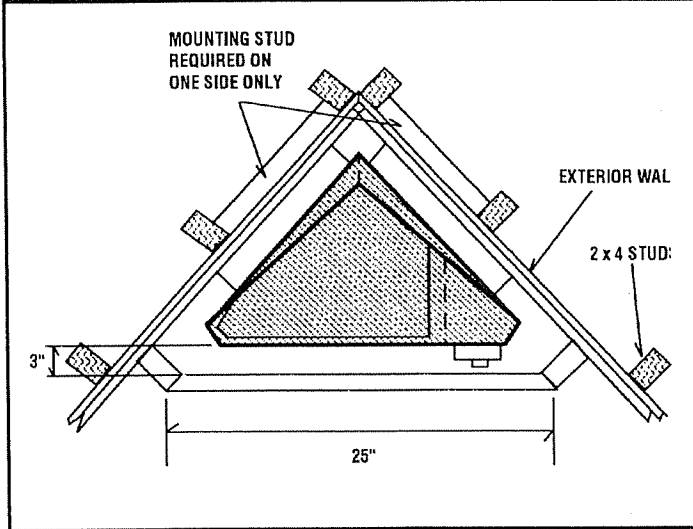
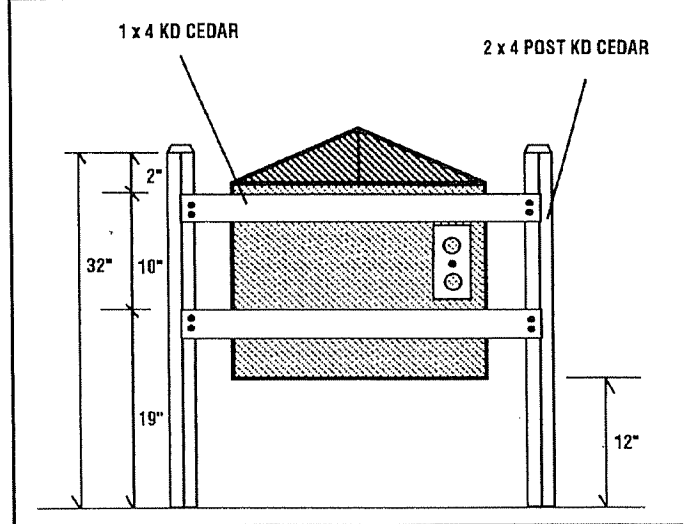


DIAGRAM 9



**SECTION 8: HEATER FENCE**

It is required that a guard or fence be constructed around the sauna heater to prevent the bather from making physical contact with the heating

unit. The fence should not be closer than 3" to the exterior walls of the heater. Diagrams #8 and #9 shows how the fence should be constructed.

**SECTION 9: PLACARD**

Two metal placards are included in the Installation Instruction envelope packaged with every Amerec sauna heater. The **CAUTION** placard **must** be attached to the interior wall of the sauna room directly above the heater where it is visible to the bather. The **WARNING** placard **must** be

attached to the door of the sauna room. The clear acrylic placard printed "SAUNA BATHER INSTRUCTIONS" should be mounted outside the sauna room, next to the door, at eye level. Nails for attaching the placard are furnished.

**SECTION 10: THERMOMETER/HUMIDITY GAUGE**

(Not furnished with heater. Available from your AMEREC dealer.) Locate 6" down from ceiling on

wall so that gauge can be observed from outside sauna room through door window.

**SECTION 11: BUCKET & DIPPER**

(Not furnished with heater. Available from your AMEREC dealer.) Do not put chlorinated pool or spa water on heater. Excessive water on heater

may cause damage and void warranty. Dippers have long wooden handles to help keep from exposing hand to steam.

**SECTION 12: OPERATING INSTRUCTIONS**

Congratulations and thank you for choosing AMEREC. Your new AMEREC Sauna Heater and Controls have been designed and constructed to give you the most in performance, economy and comfort. The following information is presented as a guide to help you get the most pleasure from your new sauna room.

**To Heat the Sauna Room:** The circuit breaker in the house panel that provides power to the sauna heater should be left in the ON position. This breaker should be turned OFF if the Sauna is not to be used for some time or if the Sauna is to be serviced.

**Caution:**  
When turning on your sauna for the first time follow steps 1 and 2 through two cycles and let the heater run with no one in the sauna room a full 120 minutes. This will allow excess oil to burn off the heating elements without causing any discomfort to the bather.

**Step 1:** Turn the temperature control knob clockwise to its highest setting, 10.

**Step 2:** Turn the timer knob clockwise to the time you wish the heater to remain ON (maximum time is 60 minutes).

**Step 3:** Observe the wall thermometer (heat indicator) in the Sauna room and when it shows a temperature that feels satisfactory to you (160° to 180° F is normal) slowly rotate the temperature knob from 10 back towards the OFF position until you hear a click and the red indicating light goes out. At this setting the heat will cycle ON and OFF and maintain approximately the temperature now appearing on the wall thermometer.

After you have used the Sauna a few times, you should be able to determine the number on the rotating dial that will give you the temperature that you prefer for your Sauna bath.

**Step 4:** After you have finished your Sauna bath turn the switches OFF. The timer switch may be advanced at any time during your Sauna, or it will automatically shut the heater off when time has expired.

**WARNING**

The "Caution" and "Warning" placards must be mounted in accordance with Section 9.

**WARNING**

Dry baths (saunas) expose the user to elevated temperatures. If used improperly or by inappropriate persons, exposure to heat can be harmful to health, causing overheating, hyperthermia and even death. The following guidelines must be followed:

- \* Leave sauna immediately if uncomfortable, dizzy, or sleepy.
- \* Staying too long in a sauna can cause overheating and even death.
- \* Especially at risk are children under 10, the elderly, and those taking alcohol, drugs and medicines.
- \* Check with a doctor before using a sauna if pregnant, or under medical care.

**CAUTION TO AVOID A FIRE DO NOT PLACE ANY COMBUSTIBLE MATERIAL ON HEATER AT ANY TIME.**

**SECTION 13: MAINTENANCE**

The Sauna, like a bathroom, should be kept clean and odor free.

Towels or mats should always be used on benches and floor as perspiration otherwise penetrates the soft wood.

To clean and remove perspiration stains, use soap or detergent in warm water, best applied with a scrub brush. Badly soiled surfaces may require sanding. Sandpaper wrapped around a wooden block works well.

Air out the Sauna often by keeping the door and vents open when the Sauna is not in use. Saunas that are in daily use should be washed down at least once a week to keep them clean and the air

fresh. Duckboard should be removed from the Sauna, the Sauna floor mopped and dried in a conventional manner, and the duckboard thoroughly scrubbed and dried before returning to the Sauna room. The Sauna heater should be wiped down occasionally with a damp cloth to remove lint and dust. The rocks should be removed once a year for cleaning and small or crumbled rocks replaced. Rocks must be supplied by manufacturer. Contact local dealer for replacement rocks.

Benches and supporting structure must be inspected annually for potential deterioration due to age, dry rot or abuse. Any boards with signs of deterioration should be replaced immediately to avoid possible injury.