

Custom Solocarbon® Heater Kits



Sunlight Saunas Custom Heater Kits include:

- SoloCarbon Heaters with protective cloth (390 x 980 mm)
- Circuit Board
- Control Panel
- Control Cable (connects power board to control panel)
- Temperature Probe and Cable

6 Heaters	=	\$1199 delivered (120 cu. ft.)
8 Heaters	=	\$1699 delivered (160 cu. ft.)
10 Heaters	=	\$2099 delivered (212 cu. ft.)
12 Heaters	=	\$2399 delivered (260 cu. ft.)
14 Heaters	=	\$2599 delivered (320 cu. ft.)
16 Heaters	=	\$2699 delivered (420 cu. ft.)

Note: Your electrician should run a 240 volt line to the supplied circuit board. Wire each individual SoloCarbon heater panel in series pairs to the circuit board (240 volt to each pair).

Solocarbon Heater Kit Controller Operations

There are 4 operating modes for the keypad:

ON (or Continuous On) – run the heaters continuously until the power is turned off. This reaches the target temperature setting without a countdown timer.

NORMAL (or Countdown) – choose between 1-24 hours, and the heaters will run for that chosen amount of time and then turn off.

CYCLE – choose the amount of time (between 1-24 hours) you want the heaters to remain on and to remain off and the controller will continually repeat this cycle until the power is turned off.

RESERVATION – choose the amount of time you wish the heaters to be idle prior to turning on, then select the amount of time you wish the heaters to run.

To power up your sauna, ensure the main power is switched on at the disconnect switch or breaker so that the “On/Off” button on the red indicator light over the Control Panel is on. How to engage the four modes:

1. **ON** – Click (touch and release) the “On/Off” button. “On” will then be displayed and the temperature will read 158° (or last temperature set) briefly. The pilot light over the “On/Off” button will turn green and the temperature display will show the ambient temperature. The heaters will now run continuously until turned off. Press the temperature up/down buttons to set the desired target temperature. This is the default mode on your keypad.

To Switch between ON and NORMAL modes: While the keypad is off, hold down the “On/Off” button until the red light in the lower left hand corner of the timer display comes on and then release.

2. **NORMAL** - Click the “On/Off” button. The display will read “On” and 158°F (or last temperature set) briefly. Then it will display “24H” (or last time set) and the ambient temperature. Press the time up/down buttons to set the desired operating time between 1-24 hours. Press the temperature up/down buttons to set the desired target temperature.

3. **CYCLE** - When this mode is engaged, it is indicated by the red light to the right of the “Setup” button. Begin in NORMAL mode. Press the time up/down buttons to set the desired on time between 1-24 hours. Click (don't hold) the “Setup” button and the display will read “OFF”. Press the time up/down buttons to select the desired time between 1-24 hours that you want the heaters to be idle (off) during the desired on/off cycle. Double-click the “Setup” button to end setup and begin the CYCLE mode. The heaters will then run uninterrupted in this cycle until the power is turned off or the settings are changed.

4. **RESERVATION** - When this mode is engaged, it is indicated by a flashing red light in the lower right hand corner of the timer display middle digit. Begin in NORMAL mode. Hold the “Setup” button until the display reads “OFF”. After 3 seconds, the display panel will display a default time of “01H”. Press the time up/down buttons to select the amount of time between 1-24 you wish the heaters to remain idle(off) prior to turning on. Click the “Setup” button to display “On”, and after 3 seconds, the display will read the default time of “24H”. Press the time up/down buttons to select the amount of time between 1-24 hours you want the heaters to run when they turn on. To cancel RESERVATION mode, double click the “On/Off” button to turn the heaters off. The heaters will not remember the reservation settings once they are finished.

Additional Notes:

- To change from Fahrenheit to Celsius or vice versa, click the temperature up and down buttons at the same time (touch and release).
- In ON Mode, you cannot enter a RESERVATION. If you try to use the Setup button, you can change the pilot light from green to red but it will not enter setup or switch modes. To change modes, click off with the ON/OFF button and switch to NORMAL mode as explained above.
- To LOCK the KEYPAD, while it is on, hold down the “On/Off” button until the red light in the lower left hand corner of the timer display turns on and then release. Repeat to unlock.
- Rest Cycle: The keypad is programmed to rest the heaters every 15 minutes for one minute.

Solocarbon Heater Kit Control Wiring

The electrical wiring for the heater kit is not provided and must be specified by your electrician to accommodate your custom sauna design. The following information is provided so your electrician can understand what is needed to wire the heaters and heater controls in your particular custom sauna. Sunlight Saunas does not recommend a particular design for your custom sauna project or electrical outlet.

The Controller is composed of a Power Board and Control Panel and is designed for 240V operation for reduced amperage. The heaters, rated at 120V must only be used in series pairs. Wiring and enclosures are not provided. The heaters are provided with the heater cloth to cover them but not with heater frames or mounting hardware. It is recommended that an opening or small louver be used at the top and bottom of each heater to enhance convection heating and maintain optimal temperatures, and that there be some gap or clearance behind the heaters for air flow. The heaters will not perform well if mounted directly on a wall (would not be able to lie flat, as the leads and thermal over-limit switch are attached to the back of the heater).



The labeling on the board is as follows: The two 240V inputs on the board are labeled L1+N1 and L2+N2, with each input connected to your 240V phases Line1 and Line2 (Conventional electrical nomenclature calls out L1 and L2 as line one and line two of one 240V input). Also, L1 on the board has two lugs, one on the PC board and one on the fuse. The lug on the PC board feeds the DC electronic power supply. You will need to make an additional Y connection off one side of the 240V input to accommodate the two lugs. Lug or "blade" size is 6mm. You will need quick connectors of this size to terminate your wires for the inputs and outputs.

To summarize:

Input 1

L1 = Line 1 (ungrounded conductor phase 1, black wire)

N1 = Line 2 (ungrounded conductor phase 2, red wire)

Output 1 – First leg of heater panels (heaters connected in series pairs)

OUT1 on PC Board

OUT1 on Fuse

Input 2

L2 = Line 1 (ungrounded conductor phase 1, black wire)

N2 = Line 2 (ungrounded conductor phase 2, red wire)

Output 2 – Second leg heater panels (heaters connected in series pairs)

OUT2 on PC Board

OUT2 on Fuse



120V is not used on this circuit board, so no neutral is required. The ground is only used to ground an electrical enclosure you would provide for the H-C1 circuit board. An 8"x8" or larger wiring enclosure for the Power Board is recommended. The heater load should be divided between OUT1 and OUT2. Each of the two relays on the circuit board can handle a maximum of six pairs of heaters or twelve heaters total. You can wire a total of twelve heaters (six pairs) to OUT1 and twelve to OUT2. This gives a maximum of twelve series connected heater pairs or twenty-four heaters per Power Board.

The two leads on each heater are terminated with female "bullet" connectors which are 5 mm ID. You can terminate your wiring with the matching 5mm OD bullet connectors or remove the bullet connector and use your own wiring connector. Each pair of heaters wired in series will draw 2.5 Amps maximum, so size the heater wiring accordingly.



A 4-pin Control Cable is provided to connect the Power Board with the low voltage Control Panel. It is six feet long to provide flexibility in positioning the Control Panel relative to the Power Board. The Control Panel is the keypad/display module and is made to be surface-mounted. The Control Panel biases the temperature reading from the included temperature probe by subtracting 12 °F because it is assumed the temperature probe is mounted approximately 30 inches above the Control Panel.