

SSHC, INC.



ENERJOY RADIANT PEOPLEHEATER®

INSTALLATION INSTRUCTIONS

MAXIMUM COMFORT AND CONTROL IN HEATING

Radiant Panel Installation Options

ENERJOY® Model RP RADIANT PEOPLEHEATERS® are designed for surface mounting or installation in a t-bar grid. Model RPD module is designed for installation on surfaces such as concrete where end junction in wire mold is desired.

PEOPLEHEATERS are ideal as total or auxiliary heat in new or retrofit applications. RP modules installed on surface may be enhanced by decorative molding or painted using whatever water or acrylic base paint color is desired.

ENERJOY® MODULE SPECIFICATIONS

*Watts per kilowatt hour **British Thermal Units produced per hour

All models available in 208 volt (RP-3) and 277 volt (RP-1).						
Model No.	Voltage	Watts	BTUH	Amperage	Size	Weight(lbs.)
Under Desk Heaters						
12UDH-4	120	100	341	0.8	11¾" x 23¾" x 1"	3
22UDH-4	120	200	683	1.7	24¾" x 23¾" x 1"	3
Radiant Ceiling Panels NOTE: All Panel Frames have mounting holes except T-BAR						
22RP-2	240	200	682	0.8	24¾" x 23¾" x 1"	3
22RP-4	120	200	682	1.7	24¾" x 23¾" x 1"	3
22RP-2or4TBar	120or240	200	682	0.8 or 1.7	23¾" x 23¾" x 1"	3
23RP-2	240	300	1024	1.3	24¾" x 35¾" x 1"	5
23RP-4	120	300	1024	2.5	24¾" x 35¾" x 1"	5
24RP-2	240	400	1365	1.7	24¾" x 47¾" x 1"	6
24RP-4	120	400	1365	3.3	24¾" x 47¾" x 1"	6
24RP-2or4TBar	120or240	400	1365	1.7 or 3.3	23¾" x 47¾" x 1"	6
24RPH-2 or -4	120or240	500	1706	2.1 or 4.2	24¾" x 47¾" x 1"	6
25RP-2	240	500	1706	2.1	24¾" x 59¾" x 1"	8
25RP-4	120	500	1706	4.2	24¾" x 59¾" x 1"	8
26RP-2	240	600	2047	2.5	24¾" x 68¾" x 1"	10
26RPH-2	240	750	2560	3.1	24¾" x 68¾" x 1"	10
26RP-4	120	600	2047	5.0	24¾" x 68¾" x 1"	10
27RP-2	240	700	2388	2.9	24¾" x 83¾" x 1"	12
27RP-4	120	700	2388	5.8	24¾" x 83¾" x 1"	12
28RP-2	240	800	2730	3.3	24¾" x 95¾" x 1"	13
28RPH-2	240	1000	3413	4.2	24¾" x 95¾" x 1"	17
28RP-4	120	800	2730	6.7	24¾" x 95¾" x 1"	13
Bathroom Fan/light/nightlight package - complete: includes Decora switch/cover & thermostat						
22RPFL-2or4	240or120	200	682	.8/1.7	24¾" x 34¾" x 1"	5+25
23RPFL-2or4	240or120	300	1024	1.2/2.5	24¾" x 46¾" x 1"	6+25
24RPFL-2or4	240or120	400	1365	1.7/3.3	24¾" x 58¾" x 1"	8+25
25RPFL-2 or 4	240 or 120	500	1720	2.1/4.2	24¾" x 69¾" x 1"	
26RPFL-2 or 4	240 or 120	600	2082	2.5 or 5.0	24¾" x 82¾" x 1"	
ENERJOY THERMOSTATS						
TSSHC-1	ALL	Line Volt/Bimetal	White	2¾" x 4½ x 1¾"	1	
TSSHC-1P	120or240	LV-Prog. - 7-day/24hr	Beige	2¾" x 4½ x 1¾"	1	
TSSHC-1LV	24	Low volt non-mercury	Beige	2¾" x 4½ x 1¾"	1	
TSSHC-12S	ALL	2 Circuit, 2 Stage line v.	Beige	2 1/3" x 4½ x 1¾"	1	
TSSHC-2H	ALL	Hydraulic Line Voltage	Beige	2¾" x 4½ x 1¾"	1	
TSSHC-2D (1)	ALL	Air Diaphragm Line V.	White	2¾" x 4½ x 1¾"	1	
TSSHC-3D	120or240	Digital Line Voltage	Ivory	3¼" x 6¾" x 2¾"	1	
TSSHC-3DP (2)	120 + 240	LV Digital Programmable	Ivory	5" x 5" x 1¾"	1	
TSSHC-3DP	240	LV Digital Programmable	Ivory	3" x 5" x 1¾"	1	
TSSHC-3DPRS (4)	240	LV Digital Programmable	Ivory	2¾" x 4½ x 1¾"	1	
TSSHC-3ILAS (3)	120or240	LV Electronic	White	3¼" x 4½" x 1¾"	1	
TSSHC-3ILRS (3,4)	120or240	LV Electronic	White	3¼" x 4½" x 1¾"	1	

(1) Range stops, Locking cover, Thermometer, All Thermostats fit single gang Electrical Box
 (2) Proportional Control Feature
 (3) Range stops and Indicator Light
 (4) Remote Sensor

PEOPLEHEATER Placement

Module should be placed in the area between the center of the room and to within approximately 2 feet of the outside wall, or above area(s) of high heat loss (i.e. window, door). Peopleheater may also be placed over a specific area for "spot heating," or centered symmetrically in small rooms (bathroom, den, bedroom).

Insulation

NOTE: Keep module connection box visible when insulating a ceiling. Model Energy Code insulation specifications are R19 wall; R-38 ceiling, with R-15 system value over unheated areas; basement, crawl space, etc. (use ENERJOY reflective insulation and obtain a vapor, infiltration, radon, and infestation barrier also).

Components and Wiring Instructions

Module is normally supplied with two red 8" wire leads (#14 AWG, 105°C), to standard #12 power supply for wire nut connection with junction box. Refer to appropriate diagram for wiring. Hole plugs are provided to close module mounting entry holes.

Caution: TURN BREAKER OFF BEFORE INSTALLING MODULE. Conform to local and national codes. Total wattage of modules per circuit is limited to 80% of circuit capacity. Use GFCI, ground fault circuit interrupter, circuits in bathrooms and other high humidity areas; use appliance white, uncoated panels in high humidity areas. Measure voltage, and branch circuit amperage to determine wattage and module circuit load. **DO NOT** use wall switch; use 24 Volt or line voltage thermostat. **DO NOT** wire to higher voltage than label voltage. Wiring to lower voltage is permitted, but module will operate at reduced wattage. **DO NOT** puncture, nail, or screw into module; use frame holes for mounting. **DO NOT** cover module face with any material. Do not retard heat distribution or cause over-heating. Module may be over-sprayed or painted with a good quality, water base flat paint or solid aggregate material. **DO NOT** use oil paint, as it retards heat transfer and may discolor.

MODULE INSTALLATION

Surface Mounting(Fig. 1)-(check for bag of hole plugs)

1. Insure adequate clearance hole in center for module connection box.
2. Install connection box to back of module using the prepositioned screws.
3. Connect the power supply conductors to the module leads in the connection box.
4. Position on ceiling, holding module in place.
5. Punch or drill holes into the ceiling to provide a hole for the screw/anchor assembly, or mark holes for drill. The frame mounting holes are designed to accept #6 -1 3/4" Pan head screws.
6. Insert installer provided screw/anchor assembly into the ceiling, and tighten into place. Insert plastic caps to close frame screw holes.

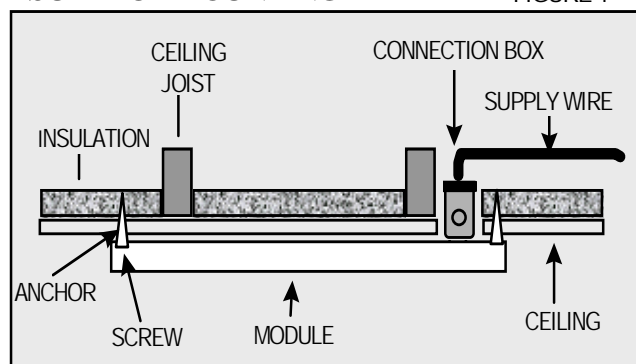
T-Bar Mounting (Fig. 2)

1. Install connection box to back of module using the two prepositioned screws.
2. Lay the module carefully onto the T-Bar grid and secure with installer provided hold-down clips if necessary.
3. Connect the power supply conductors to the module leads in the module connection box.

Note: Junction box is located 1" from panel edge and centered left to right on one of the narrow ends.

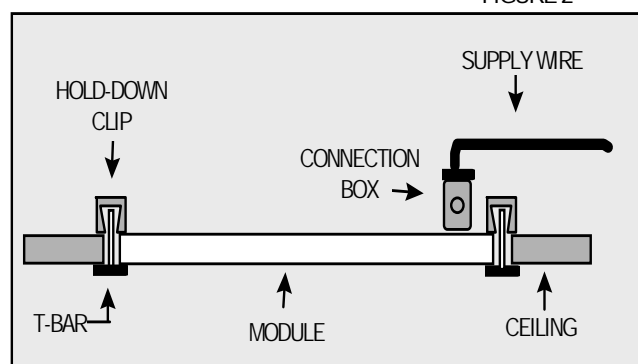
SURFACE MOUNTING

FIGURE 1

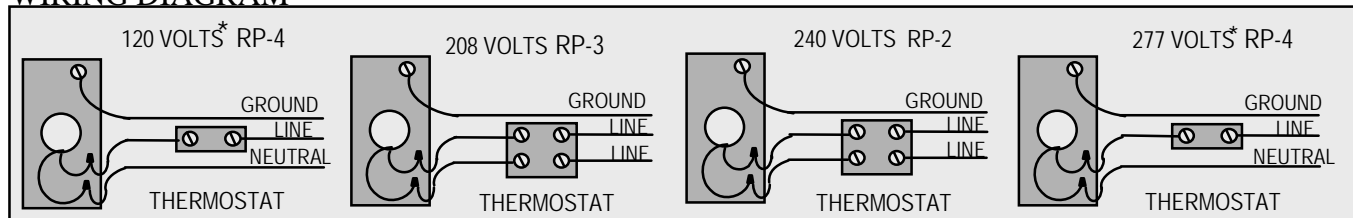


T-BAR MOUNTING

FIGURE 2



WIRING DIAGRAM



* DOUBLE LINE BREAK THERMOSTAT MAY BE USED WHERE POSITIVE OFF IS DESIRED BY CONNECTING LINE AND NEUTRAL.

PEOPLEHEATER® OPERATION TEST

Each panel has been individually checked at the factory. However each panel should be field checked by measuring cold resistance for confirmation with label wattage.

After panel installation, the entire circuit should be tested, to check the on-sight electrical work. Two methods of testing will be discussed in the following paragraphs.

Full Power Available - Apply rated voltage to the heater load circuit. Branch loads are to be read with a suitable amp meter. The amp meter value should be the same as that calculated for the heating load and, if the values agree, all panels are operating. If the values do not agree, installation should be re-checked. For physical check without a meter, it is only necessary to feel the panels. If they are warm but can only be touched for a few seconds, they are working.

Without Power Available - This check of the panel installation requires the use and knowledge of an ohmmeter. A resistance measurement is taken at the load circuit, with all other circuits isolated. This will give the total resistance of the heater load. Knowing the total heater load of the panel in watts and the heater rated voltage, a simple calculation will give the same values as that read on the ohm meter. (The same test procedure applies to test of an individual panel) Example: For a branch circuit of 1500 watts and panel rated voltage of 240, the resistance will be 38.4 ohms:

$$\text{Formula: } \frac{\text{voltage} \times \text{voltage}}{\text{wattage}} = \text{Resistance in ohms} \quad \Bigg/ \quad \frac{240 \times 240}{1500} = 38.4 \text{ ohms}$$

