

The Calorique RCH System is intended to be installed on the underside of the ceiling joists as a primary or supplementary heating system. The installation of the system must be completed before the installation of gypsum board or the ceiling finish. The thin-film heating elements are available in 3 standard widths for 12", 16", or 24" joist spacing. The heating panels are easily installed by stapling the unheated edges of the panels along the bottom edge of the ceiling joist.

RCH SYSTEM DESIGN

1. A heat loss calculation must be completed for each room or area in which the RCH system is the primary heat source. The completed heat loss calculation will give a result that is the minimum required amount of heat that should be installed within the area.

NOTE

To ensure rapid heat recovery in the event of open doors or windows or a rapid temperature drop add a heat recovery factor of 20% to the heat requirement. Installing more panels will not increase the homeowners energy consumption and will increase the comfort level because more of the ceiling surface area will be covered.

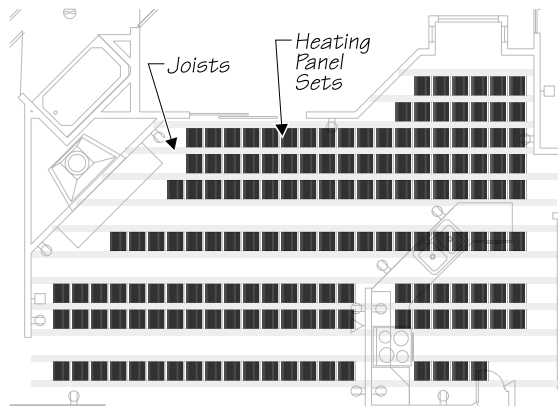
2. A scale drawing or diagram should be made that shows the location of joists or furring strips and walls within the area.
3. Determine the joist or furring strip spacing in each area and refer to the following table to determine the heat output per panel (Watts per panel) for the heating panels to be used.

Joist Spacing	Watts / Panel	208 Vac	240 Vac
12" (30 cm)	13 watts	RCH13P13W208V	RCH13P13W240V
16" (40 cm)	17 watts	RCH17P17W208V	RCH17P17W240V
24" (60 cm)	25 watts	RCH25P25W208V	RCH25P25W240V

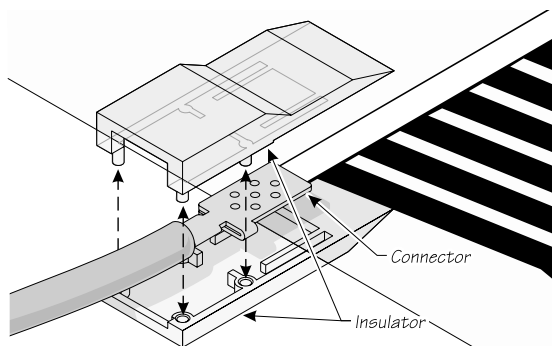
4. To find the number of heating panels that are required divide the total heat required (as determined by the heat loss calculation) by the heat output per panel. This is the minimum amount of RCH panels that should be installed.
5. Determine the length of the joist bays available for installation of heating panels. Subtract 12" (300 mm) from the length of each joist bay (to allow space for connections) to determine the available length for each joist cavity (mark this on

your drawing). Divide this number by the length of a heating panel (12.6 inches, 320 mm) to determine the number of panels that can be installed continuously along each joist cavity. A number of heating panels which run in one joist cavity and in one piece are referred to as a heating panel set.

6. The total sum of the heating panels that can be installed in all of the available joist bays must exceed the total number of panels that are required — if the number required can not be installed then the Calorique RCH System can not be used as the sole means of primary heating in the room.
7. On the drawing, layout the position of the sets of heating panels. Heating panels should first be placed along outside walls and in front of windows where the heat loss is the greatest. Other heating panel sets should be distributed evenly around the room. Retain this drawing for reference during installation.



8. Each separate set of heating panels will require 2 connectors and 2 insulators.

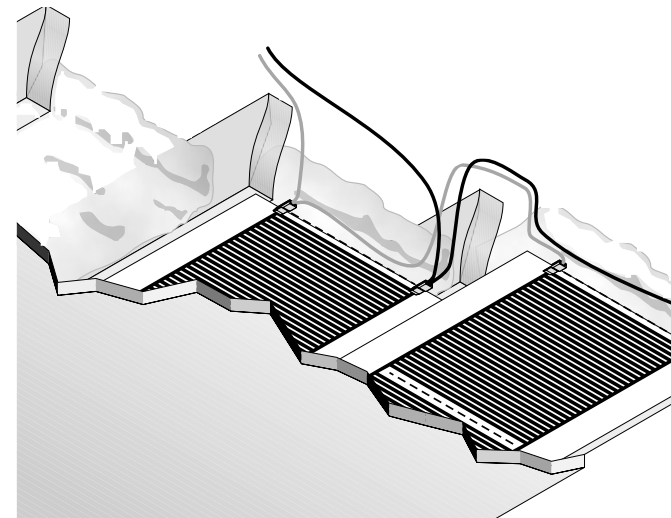


Please use this information to complete the form on the back. This form must be used to order your materials.

CALORIQUE

RADIANT CEILING HEATING SYSTEM

Planning Guide



Complete installation instructions are included with each order.

Use this guide as an aid to design your Radiant Ceiling Heating System.

If standard joist or furring strip spacings are not available, an alternative installation method may be applicable. For complete information about these alternatives, request an installation manual from Calorique or your local Calorique dealer.

Please complete the table inside this guide and fax or mail to Calorique or your Calorique distributor. This information is required by Calorique to ensure that the system has been properly designed.

RCH System Project Design Summary / Order Form

Name of Installer _____

Installation Contact Telephone Number _____

Name of Homeowner _____

Homeowner Telephone number _____

Street Address of Installation _____

Ship System To _____

Heat Loss Calculated By _____

Purchase Order Number _____

Rooms / Areas Where Radiant Ceiling Heating Panels Will Be Installed

	A Calculated Heat Loss (Step 1)	B Heat Loss Plus 20 Percent (step 1)	C Joist Spacing (step 3)	D Number of RCH Panels (step 6)	E Total Number of Watts (D times watts from table in step 3)	F Number of Thermostats (1 per room per 16 amps)	G Number of Connectors & Insulators (step 8)	H Nominal Voltage	I Number of Amperes (Total Watts divided by Nominal Voltage)
Living Room									
Dining Room									
Entrance									
Kitchen									
Family Room									
Bedroom 1									
Bedroom 2									
Bedroom 3									
Bathroom 1									
Bathroom 2									
Den									
Other									
TOTAL									

Is a correctly calibrated FCT-104 crimping tool available? Yes No If no, number of crimping tools required _____.

Wire for non-heating leads (to make connections between heating panel sets) must be Type UF #12 AWG single conductor.

The Calorique Radiant Ceiling Heating System *must only be installed by qualified personnel in accordance with the manufacturer's installation instructions.*

RCH System Project Order Form Completed by _____

Name (please print)

Signature

Date



Send Completed Form To: Calorique, Ltd. • 2380 Cranberry Hwy. • W. Wareham MA 02576 USA • (800) 922-9276

Or Fax To: (508) 291-2299

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