



Marley

Engineered Products



FILE #E21069

Electric Radiant Ceiling Heat Panels



Installation & Maintenance Instructions

Dear Owner,

Congratulations! Thank you for purchasing this new heater manufactured by a division of Marley Engineered Products. You have made a wise investment selecting the highest quality product in the heating industry. Please carefully read the installation and maintenance directions shown in this manual. You should enjoy years of efficient heating comfort with this product from Marley Engineered Products . . . the industry's leader in design, manufacturing, quality, and service.

*. . . The Employees of
Marley Engineered Products*



WARNING



Read Carefully - These instructions are written to help you prevent difficulties that might arise during installation of heaters. Studying the instructions first may save you considerable time and money later. Observe the following procedures and cut your installation time to a minimum.

1. To prevent possible electrical shock, disconnect ALL power coming to heater at main service panel before wiring or servicing.
2. All wiring must be in accordance with the National and Local Electrical Codes and the heater must be grounded as a precaution against possible electrical shock.
3. Verify the power supply voltage coming to the heater matches the ratings printed on the heater nameplate before energizing.
4. This heater is NOT suitable for use in hazardous locations as described by the National Fire Protection Association (NFPA). DO NOT use in areas where gasoline, paint or other flammable liquids are used or stored. DO NOT use in wet areas or areas where corrosive agents are present, such as marine, green house, chemical storage, swimming pool, or areas of high humidity, unless special custom panels are used. Special custom panels may be available for certain environments. Contact manufacturer for details.
5. To prevent a possible injury or fire from falling panels, panels MUST be securely fastened to the building structure.

When T-bar Mounted: The T-bar grid work frame must be secured to the building to provide adequate support for the panels. Holes are provided in the sides of each panel for attachment of steel support wires for additional support of the panels where the T-bar grid work frame strength is questionable. Support wire must be steel and at least 18 gage (0.047 in. dia. / 0.119 cm. dia).

When Surface or Recess Mounted: The surface or recess mounting frame accessory kits (Models ASF . . . or ARF . . .) must be used. Kits must be sized to match heaters being used. Do not drill holes, drive nails, screws, etc., into or through panels. To do so may result in fire, electric shock, or permanent damage to heater. Surface or recess kits must be securely fastened to building structure using a minimum of four (4) 1/4 inch (.635 cm) diameter screws or bolts.

6. To prevent possible fire due to the overheating of wiring, all field wiring coming to heating panels must be rated at least 90° C when junction box is allowed to lie on top of heating panel or is enclosed between heater and ceiling above. When thermal insulation is used on top of heater, the junction box must be above the insulation.
7. Panels are intended for ceiling installation only. Do not install on walls, floor, etc. Painted (bottom) surface of panel is hot. Panels must be installed at least seven (7) feet off floor and should not be installed where panels can be easily contacted during use.

GENERAL

Marley Engineered Products Radiant Heating Panels are designed to provide comfort by warming the surfaces below the heaters just as the sun warms surfaces through radiant energy. This heating process heats objects in a room without having to bring the room air temperature up to the same level. These panels are ideal for spot heating in high heat loss areas. Panels may be installed side by side or individually above areas requiring additional heat. If used as a sole source of heat, more heat will be felt while standing directly under the panel.

Although the heater contains thermal insulation, it will operate more efficiently in well insulated rooms. Four or more inches of insulation above an exposed ceiling will increase both comfort and economy.

The heaters are intended to be controlled by a remote wall mounted thermostat. The thermostat should be located in the same room on a side wall. It should also be above five feet above the floor, but not directly under the heater.

SAVE THESE INSTRUCTIONS

NOTE: For a period of time after the panels are put into operation the owner may notice a “new smell” coming from the heaters. This is expected on new installations and will dissipate after approximately 24 hours of operation.

PAINTING

1. Heaters may be repainted. Do not remove paint from heaters. The surface must be first free of grease or oil. Use only a thin brush-on coat of high quality pure acrylic water base flat latex. An off-white will give better coverage.

Do not paint with aluminum, oil base, vinyl-latex or rubber-base latex paint.

T-BAR MOUNTING

1. The heater panels are designed for installation in T-Bar ceilings.

CAUTION



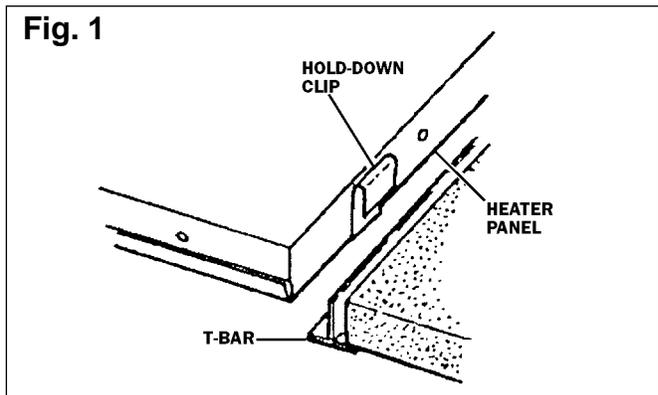
To prevent possible injury from falling panels, the T-Bar must be securely fastened to the building structure and capable of supporting the weight of the panel (30 pounds). Extra holes are provided for suspending the heater panel (see Fig. 2) on steel wires no smaller than No. 18 ga. (0.047 in. diameter / 0.119 cm diameter). These extra support wires must be used where T-Bar strength is inadequate or where vibration is anticipated.

2. Three (3) inch (7.67cm) minimum distance must be provided between the front painted surface and the ceiling above. However, installation may be difficult and six (6) inches (15.2 cm) or more clearance will improve installation of heaters and inspection or wiring. It may be necessary to remove a cross tee for installation when T-Bars are at the close distances to the ceiling.
3. Locate T-Bar hanger wires at the corners where the cross tees intersect the main tees so that they do not interfere with installation or removal of panels.
4. The heater panels are supplied with four hold-down clips. Install two hold-down clips on each short side of the heater panel (see Fig. 1). Wedge the short end of the clip behind the heating panel flange.
5. Carefully lift heater panel into place, making sure hold-down clips hook securely over T-bar.

CAUTION

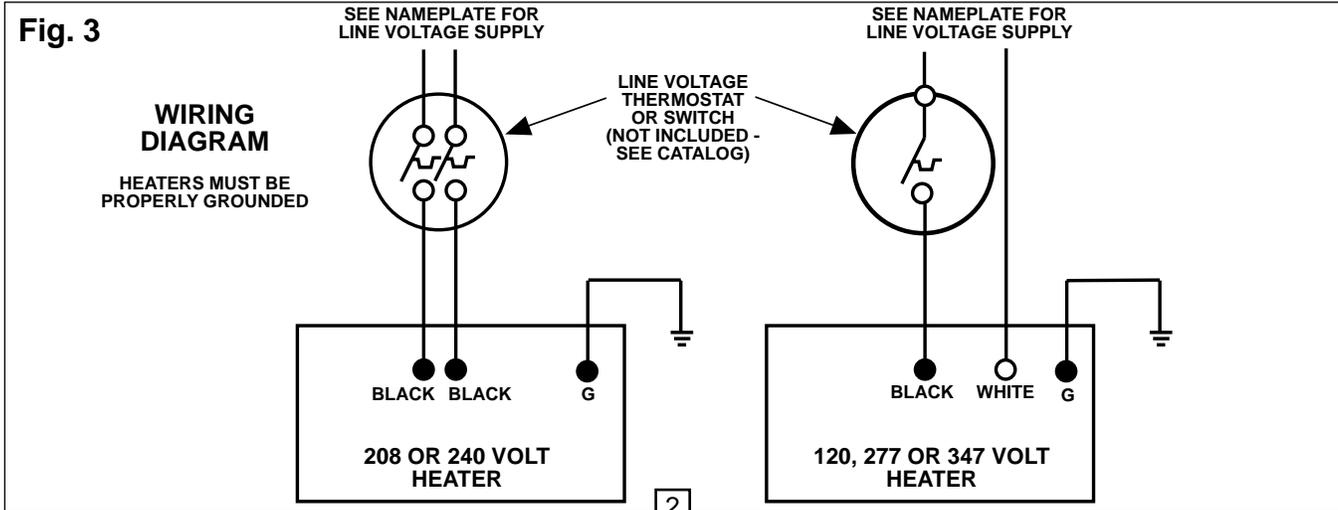
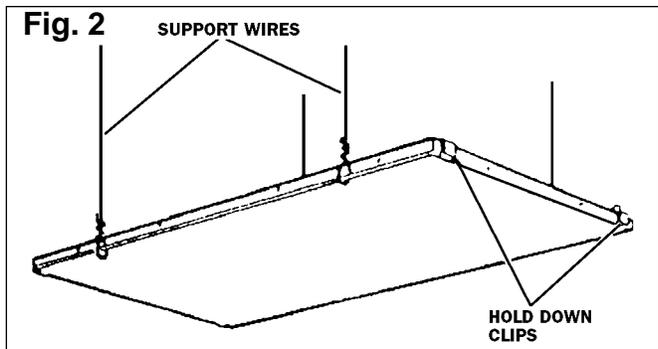


To prevent possible injury from electric shock, make sure that electricity is turned off at the main switch. All wiring must be done in accordance with national and local codes and the unit must be properly grounded as a precaution against electrical shock.



WIRING

1. Maximum number of heaters per circuit is limited to circuit wiring and thermostat or switch capacity. See catalog for available thermostats and Warning No. 2.
2. Make wiring connections in accordance with Fig. 3 (on following page) and wiring instructions. The heater must be properly grounded as a precaution against electrical shock. Use a properly grounded junction box for connecting the heater to the power supply.
3. Always use a properly grounded junction box when splicing. See wiring diagrams for proper connections. Install only in a location where the power supply connections will be accessible. Install junction box as far above panel as possible and above building insulation, where present. Use field wiring suitable for 90 °C if junction box is allowed to lie on heater or is enclosed between heater and ceiling above. When installed in a drop ceiling, the wiring terminals should be accessible through removable ceiling sections with adequate clearance to permit access to the top of the heater.



SURFACE MOUNTING

1. The Surface Mounting Kit come in separate carton which contain two side frames, two end frames, and eight assembly screws.
2. Assemble the end frames to the side frames using the screws provided (see Fig. 4) before installing on the ceiling.

CAUTION



To prevent possible injury from falling panels, use at least four screws (1/4" or 0.635 minimum diameter) to secure each side frame. Screws must thread securely into a sturdy structural member of the ceiling, such as a ceiling joist. It may be necessary to frame-in an extra support member. Do not finish from dry-wall, plater or other finish ceiling materials.

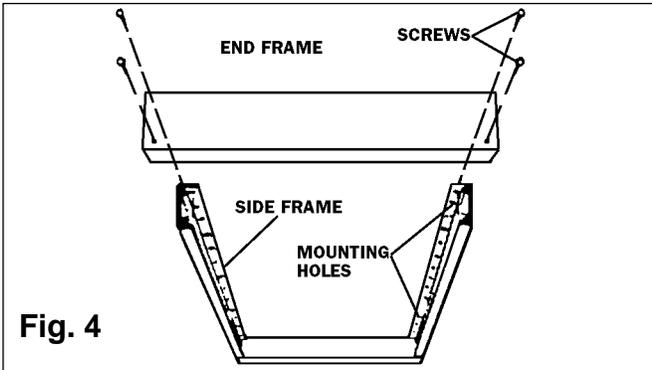


Fig. 4

3. Mounting the frame assembly to the ceiling.
4. Remove one end frame and install heater panel in side frames as shown in Fig. 5.

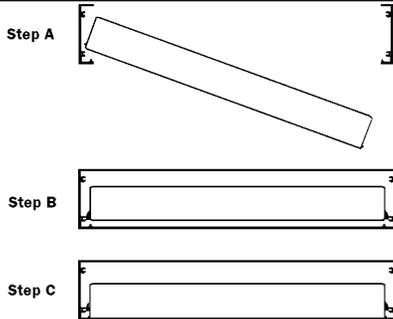
CAUTION



Be sure electricity is turned off at main switch before wiring to prevent possible injury from electric shock.

5. Connect the heater panel leads to the power supply leads (see Fig. 3 and WIRING instructions). The heater must be properly grounded as a precaution against electrical shock. Use a properly grounded junction box for connecting the heater to the power supply. The heater may be moved along side frames to facilitate wiring.
6. Re-assemble the end frame to the side frames to lock the heater panel securely in place.

Fig. 5



CAUTION



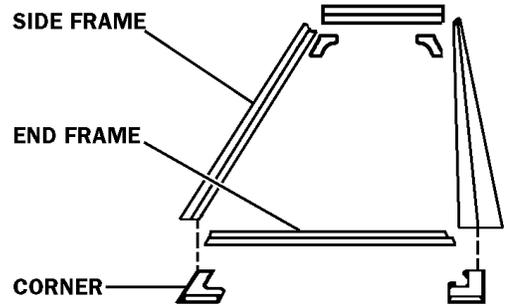
Failure to mount this kit securely may result in serious personal injury from falling heat panels.

RECESS MOUNTING

1. The Surface Mounting Kit come in separate carton which contain four frame sections and four corners (See Fig. 6).
2. Recessed heater panels require a cutaway in ceiling and a secure method of support (see Fig. 7). Use boards no

smaller than 2"x 4" (5cm x 10cm) for support. Use screws no smaller than number 10 in each hole provided in side and end frames.

Fig. 6



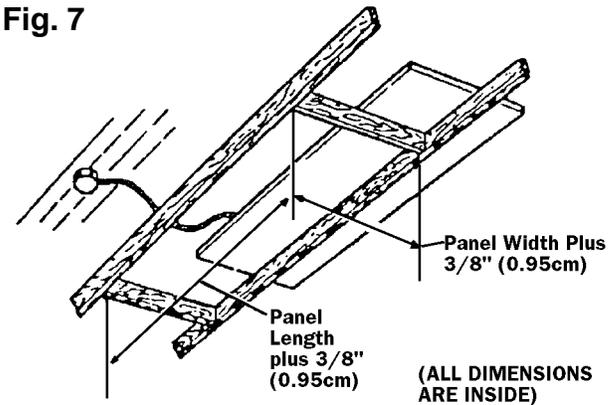
3. Insert the heater panel through the opening (see Fig. 7) and make wiring connections (see Fig. 3 and WIRING instructions). The heater must be properly grounded as a precaution against electrical shock. Use a properly grounded junction box for connecting the heater to the power supply.

CAUTION



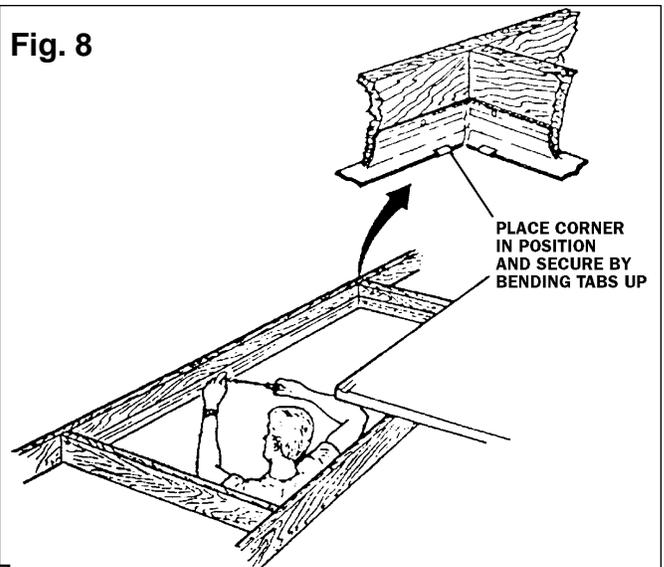
Be sure electricity is turned off at main switch before wiring to prevent possible injury from electric shock.

Fig. 7



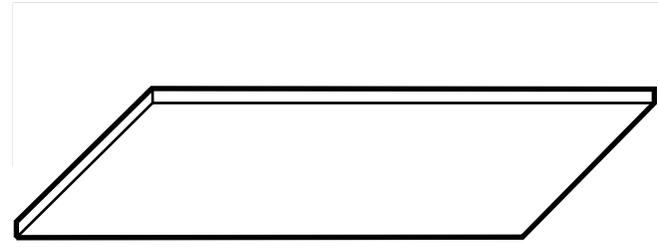
4. Loosely screw side and end frames to ceiling opening, then attach corners in place (see Fig. 8).
5. After attaching corners, tighten screws securely.
6. Carefully lower heater panel in place on frames.

Fig. 8



SPECIFICATIONS: STANDARD SIZE							
Model Number	Catalog Number	Catalog Number	Volts	Watts	BUT/HR	DIM (IN.)	DIM (CM.)
ATL24241A	CP2501	CP251	120	250	853		
ATL24242A	CP2502	CP252	240	250	853		
ATL24248A	CP2508	CP258	208	250	853		
ATL24247A	CP2507	CP257	277	250	853		
ATL24243A	CP2503	CP253	347	250	853	24	61
ATM24241A	CP3101	CP311	120	310	1058	X	X
ATM24242A	CP3102	CP312	240	310	1058		
ATM24248A	CP3108	CP318	208	310	1058	24	122
ATM24247A	CP3107	CP317	277	310	1058		
ATM24243A	CP2103	CP313	347	310	1058	X	X
ATH24241A	CP3751	CP371	120	375	1280	1	2.5
ATH24242A	CP3752	CP372	240	375	1280		
ATH24248A	CP3758	CP378	208	375	1280		
ATH24247A	CP3757	CP377	277	375	1280		
ATH24243A	CP3753	CP373	347	375	1280		
ATL24481A	CP5001	CP501	120	500	1706		
ATL24482A	CP5002	CP502	240	500	1706		
ATL24488A	CP5008	CP508	208	500	1706		
ATL24487A	CP5007	CP507	277	500	1706	24	61
ATL24483A	CP5003	CP503	347	500	1706		
ATM24481A	CP6251	CP621	120	625	2133	X	X
ATM24482A	CP6252	CP622	240	625	2133	48	122
ATM24488A	CP6258	CP628	208	625	2133		
ATM24487A	CP6257	CP627	277	625	2133	X	X
ATM24483A	CP6253	CP623	347	625	2133	1	2.5
ATH24481A	CP7501	CP751	120	750	2560		
ATH24482A	CP7502	CP752	240	750	2560		
ATH24488A	CP7508	CP758	208	750	2560		
ATH24487A	CP7507	CP757	277	750	2560		
ATH24483A	CP7503	CP753	347	750	2560		

ELECTRIC RADIANT HEATING PANELS



SPECIFICATIONS: CUSTOM SIZE			Watts Per Panel										
Model Number	Catalog Number	Catalog Number	Panel Width	Watt Density	Normal Panel Length								
					24"-35"	36"-47"	48"-59"	60"-71"	72"-83"	84"-95"	96"		
AT+**@@#@	BT+**@@#@	QT+**@@#@											
+ = Watt Density (H=High; M=Medium; L=Low) ** = Width of heater @@ = Length of panel # = AC Voltage designation (1=120; 2=240; 3=347; 7=277; 8=208) ^ = Max. Panel Length = 60 inches ^^ = Max. Panel Length = 72 inches			10"-13"	High	155	235	315	390 [^]	N/A	N/A	N/A	N/A	
			Med.	130	195	260	325 [^]	N/A	N/A	N/A			
			Low	105	155	210	260 [^]	N/A	N/A	N/A			
			14"-17"	High	235	350	470	585 [^]	N/A	N/A	N/A		
			Med.	195	295	390	490 [^]	N/A	N/A	N/A			
			Low	155	235	315	390 [^]	N/A	N/A	N/A			
			18"-21"	High	315	470	625	780	940 ^{^^}	N/A	N/A		
			Med.	260	390	520	650	780 ^{^^}	N/A	N/A			
			Low	210	315	415	520	625 ^{^^}	N/A	N/A			
			22"-28"	High	375	565	750	940	1125	1315	1500		
			Med.	310	470	625	785	940	1095	1250			
			Low	250	375	500	625	750	875	1000			

LIMITED WARRANTY

All products manufactured by Marley Engineered Products are warranted against defects in workmanship and materials for one year from date of installation, except heating elements which are warranted against defects in workmanship and materials for five years from date of installation. This warranty does not apply to damage from accident, misuse, or alteration; nor where the connected voltage is more than 5% above the nameplate voltage; nor to equipment improperly installed or wired or maintained in violation of the product's installation instructions. All claims for warranty work must be accompanied by proof of the date of installation.

The customer shall be responsible for all costs incurred in the removal or reinstallation of products, including labor costs, and shipping costs incurred to return products to Marley Engineered Products Service Center. Within the limitations of this warranty, inoperative units should be returned to the nearest Marley authorized service center or the Marley Engineered Products Center, and we will repair or replace, at our option, at no charge to you with return freight paid by Marley. It is agreed that such repair or replacement is the exclusive remedy available from Marley Engineered Products.

THE ABOVE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE AFORESAID EXPRESSED WARRANTIES ARE HEREBY DISCLAIMED AND EXCLUDED FROM THIS AGREEMENT. MARLEY ENGINEERED PRODUCTS SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES ARISING WITH RESPECT TO THE PRODUCT, WHETHER BASED UPON NEGLIGENCE, TORT, STRICT LIABILITY, OR CONTRACT.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For the address of your nearest authorized service center, contact Marley Engineered Products in Bennettsville, SC, at 1-800-642-4328. Merchandise returned to the factory must be accompanied by a return authorization and service identification tag, both available from Marley Engineered Products. When requesting return authorization, include all catalog numbers shown on the products.

HOW TO ORDER REPAIR PARTS

In order to obtain any needed repair or replacement parts, warranty service or technical information, please contact Marley Engineered Products Service Center toll-free by calling 1-800-642-HEAT.

When ordering repair parts, always give the information listed as follows:

1. The Part Number
3. The Part Description
2. The Model Number
4. Date of Manufacture

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Marley

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