



Installation Instructions and RENEWAL PARTS IDENTIFICATION

“F” Series Ceiling Mounted Fan-Forced Heater

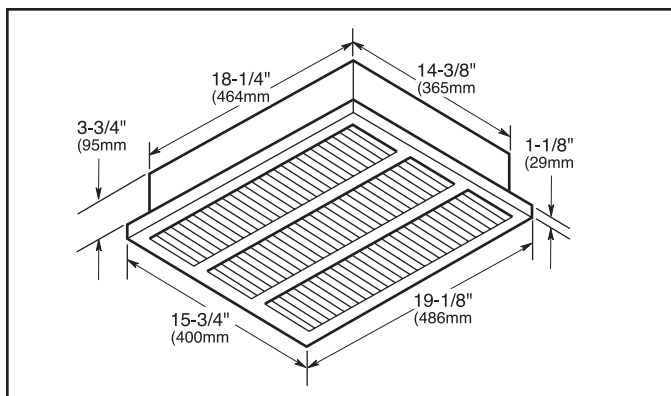
CONTRACTOR
PLEASE READ AND FOLLOW THESE INSTRUCTIONS. LEAVE INSTALLATION INSTRUCTIONS FOR USER TO READ.

Specifications

Cat. No.	Volts	Watts	BTU/Hr.	Amps
F-1500	120	1500	51,195	12.5
F-2008	208	2000	6826	9.8
F-2004	240/208	2000/1500	6826/5120	8.3/7.2
F-2007	277/240	2000/1500	6826/5120	7.2/8.2
F-1507	277	1500	5120	5.4
F-4008	208	4000	13,652	19.2
F-4004	240/208	4000/3000	13,652/10,239	16.7/14.4
F-4007	277/240	4000/3000	13,652/10,239	14.4/12.5
F-3007	277	3000	10,239	10.8
F-4804	240/208	4800/3600	16,382/12,287	20.0/17.3
F-4807	277/240	4800/3600	16,382/12,287	17.3/15.0



FILE #E21609



Accessories

Cat. No.	Description
F-PE	Pneumatic/Electric Switch. Factory set at 10 psig (69 kPa) to “make” on pressure drop. May be field wired to “break” on pressure drop. Pressure set point adjustable to 30 psig (207 kPa).
F-R2 (24V) F-R12 (120V)	Time Delay Relay. 45-60 seconds to close when energized. Uses 120V or 24V power supply from remote source.
F-TBF	T-Bar Frame Kit.
FF-SM	Surface Mounting Frame for surface installations. Painted White.
F-T1	Single pole built-in thermostat kit.
FF-T2	Double pole built-in thermostat kit.
F-TR4	208/240V Primary Transformer/24V Sec. and 24V Holding Coil Control Relay.
F-TR7	277V Primary Transformer/24V Sec. and 24V Holding Coil Control Relay.

FAN DELAY NOTE: A fan delay is standard on all units. In order to have the fan delay operate correctly, separate wiring is required between the heater and the wall thermostat. See warning, page 2.

WARNING

THIS INSTRUCTION SHEET CONTAINS VITAL INFORMATION FOR THE PROPER INSTALLATION, USE, AND EFFICIENT OPERATION OF THE HEATER. CAREFULLY READ THE MANUAL BEFORE INSTALLATION, OPERATION, OR CLEANING OF THE HEATER. FAILURE TO ADHERE TO THE INSTRUCTIONS COULD RESULT IN FIRE, ELECTRICAL SHOCK, DEATH, SERIOUS PERSONAL INJURY OR PROPERTY DAMAGE. SAVE THESE INSTRUCTIONS AND REVIEW FREQUENTLY FOR CONTINUING SAFE OPERATION AND INSTRUCTING FUTURE USERS.

1. To prevent a 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. Do not install the heater closer than 12 inches (305mm) to any wall.
5. Do not operate heater without front cover installed.
6. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces.
7. Do not insert or allow foreign objects to enter any ventilation or exhaust openings as this may cause an electric shock, fire, or damage to the heater.
8. To prevent a possible fire, do not block air intakes or exhaust in any manner. Keep combustible materials, such as boxes, crates, etc., away from heater.
9. A heater has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint or flammable liquids are used or stored.
10. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
11. This heater is not approved for use in corrosive atmospheres such as marine, green house or chemical storage areas.

Installation of Recessed Mounted Heater in Plaster Ceiling

WARNING

RISK OF FIRE - DO NOT INSTALL HEATER CLOSER THAN 12 INCHES (305mm) FROM ANY WALL.

RISK OF FALLING - THE HEATER BACK BOX MUST BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND THE BUILDING STRUCTURE MUST BE CAPABLE OF SUPPORTING THE HEATER WITH ALL ACCESSORIES. THE HEATER WEIGHT IS AT LEAST 20 POUNDS (9 kg).

1. Determine the desired mounting location of the heater.
2. Cut a 14-1/2 inch (368mm) by 18-3/8 inch (467mm) hole in the ceiling for the recessed back box, maintain 12 inch (305mm) minimum distance between edge of hole and adjacent wall.

3. Bring the power supply cable to the heater location providing at least 12 inches (305mm) of cable for wiring.

4. Remove front cover and heater assembly from carton.

NOTE: Screws to mount the front cover are packed separately in an envelope. The kit contains four standard cross recess screws and four spanner head screws in case tamper resistance is required.

5. Remove the heater assembly and disconnect switch assembly from the back box.

6. Remove the desired knockout from the back box in the area behind the disconnect switch, install cable clamp and bring power supply cable into box leaving at least six inches of cable in box for wiring.

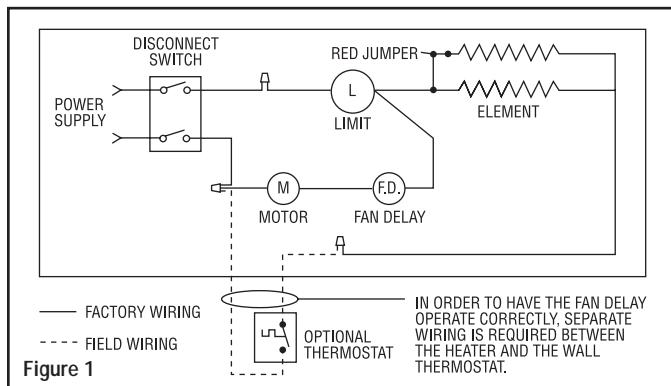
7. Fit heater back box into hole in ceiling and secure in position using mounting holes in side of back box with four fasteners (not provided). See WARNING at beginning of this section.

8. If there are any accessories to be installed with this heater, these should be installed at this time. Refer to the instructions provided with the accessories.

9. Remove the wiring compartment cover from heater assembly by removing two screws. Mount the heater to the back box using four screws previously removed in step 5.

10. Attach the supply ground conductor to the green colored screw in the heater back box.

11. Connect the power supply lead wires to the blue colored lead wires on the disconnect switch using appropriately sized wire connectors. See Wiring Diagram, Figure 1.



WARNING

TO REDUCE RISK OF FIRE OR PERMANENT DAMAGE TO HEATER, THERMOSTAT MUST NOT CUT POWER TO FAN. THERMOSTAT MUST BE WIRED AS SHOWN IN WIRING DIAGRAM SO THAT IT CYCLES HEATING ELEMENTS ONLY.

12. Feed the heater (or accessory if provided) lead wires through the smooth hole in the disconnect switch bracket and connect these leads to the black colored lead wires from the disconnect switch using appropriately sized wire connectors.

13. Carefully bundle lead wires under disconnect switch bracket and secure bracket to back box using two screws removed in step 5.

14. Install the wiring compartment cover removed in step 9. Push the disconnect switch to the "ON" position.

15. Install the front cover using the four standard cross recess or the spanner tamper resistant screws provided with the heater.

Installation of Heater Using the Cat. No. F-SM Surface Mounting Frame

WARNING

RISK OF FIRE - DO NOT INSTALL HEATER CLOSER THAN 12 INCHES (305mm) FROM ANY WALL.

RISK OF FALLING - THE HEATER BACK BOX MUST BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND THE BUILDING STRUCTURE MUST BE CAPABLE OF SUPPORTING THE HEATER WITH ALL ACCESSORIES. THE HEATER WEIGHT IS AT LEAST 20 POUNDS (9 kg).

1. Determine the desired location for the heater.

2. Follow steps 3, 4, 5, and 6 of the "Installation of Recessed Mounted Heater in Plaster Ceiling" instructions.

NOTE: The power supply cable must be routed between the heater back box and the surface mounting frame.

3. Mount the back box to the ceiling using mounting holes in the back of the back box and four fasteners (not provided). See WARNING above.

4. Fit the Cat. No. F-SM Surface Mounting Frame over the back box and secure in place with the two screws provided in kit.

5. Complete the installation by following steps 8 through 15 of the "Installation of Recessed Mounted Heater in Plaster Ceiling" instructions.

WARNING

RISK OF FIRE - DO NOT INSTALL HEATER CLOSER THAN 12 INCHES (305mm) FROM ANY WALL.

RISK OF FALLING - THE HEATER BACK BOX MUST BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND THE BUILDING STRUCTURE MUST BE CAPABLE OF SUPPORTING THE HEATER WITH ALL ACCESSORIES. THE HEATER WEIGHT IS AT LEAST 20 POUNDS (9 kg).

Installation of Heater in T-Bar Ceiling Using the Cat. No. F-TBF Kit

1. Determine the desired location for the heater.

2. Remove heater from carton, remove front cover, heater assembly and disconnect switch from back box as described in steps 4 and 5 of the "Installation of Recessed Mounted Heater in Plaster Ceiling" instructions.

3. Mount the heater back box to the F-TBF kit frame using the four screws provided with kit. See Figure 2.

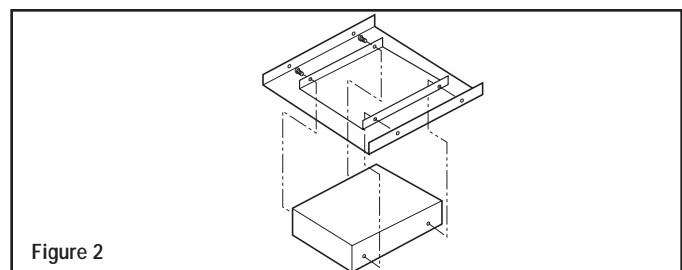


Figure 2

4. Place the F-TBF frame with heater back box installed in ceiling framing and secure in position. Secure the frame to the building structure as necessary using appropriate wire to prevent the heater and frame from falling.

5. Bring power supply cable to heater location, remove the desired knockout in back box and install cable using an appropriate cable clamp, leaving at least six inches (150mm) of wire in box for connections.

NOTE: Power supply cable must enter back box in location behind the disconnect switch assembly.

6. Complete the installation by following steps 8 through 15 of the "Installation of Recessed Mounted Heater in Plaster Ceiling" instructions.

Heater Check-Out and Operation

1. Turn the thermostat that is provided to control the heater to the full counter-clockwise direction (LO or OFF setting).
2. Turn power to heater ON at main service panel.
3. Check heater to confirm it is not operating.
4. Turn thermostat to the full clockwise position (HI setting). This should energize the heater. In a short time, the fan should come on and warm air should flow from the heater.

NOTE: This heater is provided with a fan delay control that allows the heating element to warm prior to the fan coming on. This delay will also allow the fan to operate for a short period after the heating element has been turned off to remove the residual heat from the heater.

5. After the room has reached the desired temperature, adjust the thermostat back to the desired temperature setting. In a short time, the fan should turn off.

NOTE: For the best results, the heater should be left "ON" constantly during the heating season as the thermostat, when properly set, will maintain the desired temperature.

Maintenance and Cleaning

Maintenance

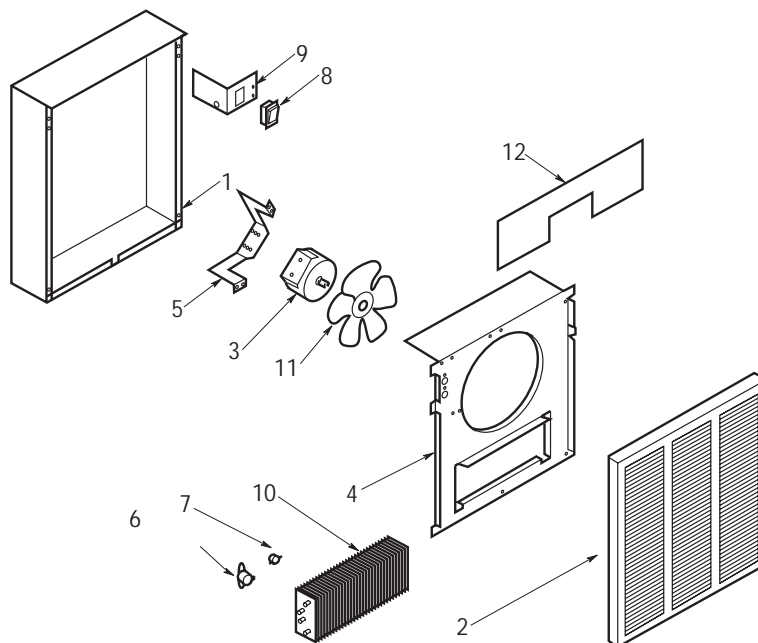
Your heater is designed for years of trouble-free operation and requires no special maintenance other than occasional cleaning. The motor is permanently lubricated.

Cleaning

Once each year, the heater should be cleaned to remove dust and other foreign material which has collected during the heating season, as follows:

1. Turn power off at main switch.
2. Remove grille by removing four screws and turn disconnect switch to the "OFF" position.
3. Use vacuum cleaner with brush attachment to remove dust and dirt that has accumulated in heater (especially around heating element and fan blade). Do not use water or any cleaners to clean heater components.
4. After cleaning, turn disconnect switch to the "ON" position.
5. Replace grille.
6. Wipe grille clean with a damp cloth. DO NOT use waxes or any cleaners that leave a residue since these may discolor during heater operation.
7. Turn the main line switch on at the switch panel to restore power to heater. The heater is now ready for another season of operation.

Renewal Part Identification



Ref. No.	Description	Part Number
1	Back Box	1203-2015-000
2	Front Cover	1402-2149-000
3	Motor, 208V	3900-2010-000
3	Motor, 240/277V	3900-2010-001
3	Motor, 120V	3900-2010-003
4	Fan Panel	4513-2042-000
5	Motor Mount	310914002
6	High Limit	410169001
7	Fan Delay	410074000
8	Disconnect Switch	410170001
9	Disconnect Switch Bracket	1215-2058-000
10	Element-1500W, 120V	302012827

Ref. No.	Description	Part Number
10	Element-1500W, 277V	302015006
10	Element- 2000W, 208V	302015001
10	Element- 2000W, 240V	302015002
10	Element- 2000W, 277V	302015003
10	Element- 3000W, 277V	302012006
10	Element- 4000W, 208V	302012007
10	Element- 4000W, 240V	302012008
10	Element- 4000W, 277V	302012009
10	Element- 4800W, 240V	302012010
10	Element- 4800W, 277V	302012011
11	Fan Blade	490030103
12	Wire Compartment Cover	4513-2037-000

NOTE: Always order by "Part Number", never by "Ref. No."

LIMITED WARRANTY

All products covered by this instruction sheet are warranted against defects in workmanship and materials for one year from date of installation, except heating elements which are warranted against defect in workmanship and material 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 this instruction sheet. 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 a 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 Service 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, 470 Beauty Spot Road East, Bennettsville, South Carolina 29512 USA. Merchandise returned to the factory must be accompanied by a return authorization and service identification tag, both available from the above location. When requesting return authorization, include all catalog numbers shown on the products.

HOW TO OBTAIN WARRANTY SERVICE AND WARRANTY PARTS PLUS GENERAL INFORMATION

- | | |
|--------------------------------|---|
| 1. Warranty Service or Parts | 1-800-642-4328 |
| 2. Purchase Replacement Parts | 1-800-654-3545 |
| 3. General Product Information | www.marleymep.com |

Note: When obtaining service always have the following:

1. Model number of the product
2. Date of manufacture
3. Part number or description



Marley
Engineered Products

An **SPX** Company
470 Beauty Spot Rd. East
Bennettsville, SC 29512 USA