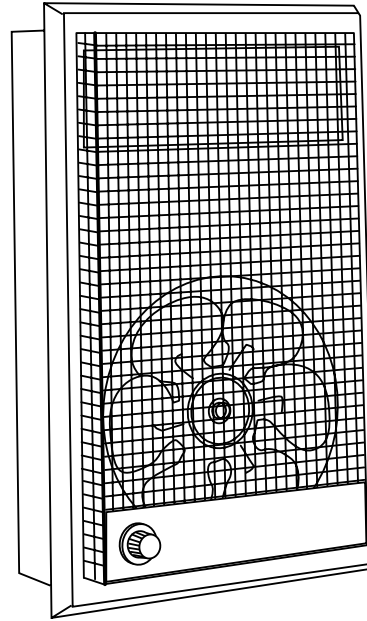




Marley

Engineered Products



1235, 2435 Series Fan Driven Wall Heaters



File #E21609

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 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 electric shock.
3. Verify the power supply voltage coming to heater matches the ratings printed on the heater nameplate before energizing.
4. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces.
5. Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock, fire, or damage to the heater.
6. To prevent a possible fire, do not block air intakes or exhaust in any manner. Keep combustible materials, such as crates, drapes, etc., away from heater. Do not install behind doors, furniture, towels, or boxes.
7. A heater has hot and arcing (sparking) parts inside. Do not use it in areas where gasoline, paint, or flammable liquids are stored.
8. 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.
9. This heater is not approved for use in corrosive atmospheres, such as marine, green house, or chemical storage areas.

SAVE THESE INSTRUCTIONS

IMPORTANT



WARNING



DO NOT BLOCK HEATER IN ANY MANNER!

CAUTION



TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT USE THIS HEATER WITH ANY SOLID STATE SPEED CONTROL DEVICE.

UNPACKING

Unpack carefully. Inspect for loose, missing or damaged parts. In the event of missing components or hidden damage immediately contact your distributor or the delivering carrier concerning discrepancies. The motor / fan assembly has been carefully factory balanced. Care should be taken when handling to avoid damage resulting in unnecessary vibration and noise.

GENERAL

The wall heaters provide fast supplemental room heat. The fan draws cool air in through the round opening in the grille frame and directs it across the nickel chromium elements for discharge through the rectangular top opening. An over-heat protective device automatically shuts the heater OFF if the discharge is blocked or an unsafe temperature rise is encountered for any reason. Heaters are equipped with manual reset thermal over-heat protectors. On some models, the manual reset is backed-up with a thermal fuse. The grille is "finger-proof" and can be removed for cleaning. The face-plate under the knob has a "finger-proof" clear Mylar covering which can be removed for a shiny appearance.

SPECIFICATIONS

MODEL	VOLTS	HZ	TOTAL AMPS	WATTS	BTU/H
1235	120	60	12.5	1500	5120
2435	240	60	6.3	1500	5120
	208	60	5.4	1125	3843

DIMENSIONS OVERALL • Height - 15 5/8" • Width - 10"
• Depth - 3 3/4"

INSTALLATION

NOTE: Unit may be installed vertically or horizontally in the wall stud space. This unit is for wall mounting only. A 14 1/2 x 9" wall opening is required. If recess mounting is impractical, use 414 surface mounted housing (not furnished).

Bottom of heater should be a minimum of 18 inches above finished floor.

- HORIZONTAL MOUNTING: (See Figure 1B)
 - MAKE SURE THAT OUTLET CORNER IS AT THE TOP RIGHT HAND CORNER. In new construction place rough-in box between studs at desired height, and using wood screws, secure it to studs, making sure that outer edges will be flush with finished wall. Bring in service lead through proper knock-out hole and attach ground lead to screw provided.
 - For installation in existing walls, select desired location, ascertain location of studs and cut away wall using rough-in box as a pattern for hole size. Bring in service lead through proper knock-out hole and attach ground lead to screw provided. THEN, secure rough-in box to studs keeping outer edges flush with wall surface.
- VERTICAL MOUNTING (See Fig. 1C)
 - MAKE SURE THAT OUTLET CORNER IS AT THE BOTTOM RIGHT HAND CORNER. Toe-nail two 2 x 4" headers, 14-3/8 inches apart at desired height (see Fig. 2).
 - Proceed as outlined in step 1a or 1b above.

- Connect service leads to heater (see Figure 4 or 5). Make sure all wiring conforms to National Electrical Code as well as all applicable local codes.
- Assemble heater into rough-in box using the four screws supplied (see Figure 3).

SURFACE MOUNTING

If surface mounting adapter 414 is used to mount this heater, follow mounting instructions packed with the adapter in conjunction with these instructions.

FIG. 1 MOUNTING ROUGH-IN BOX

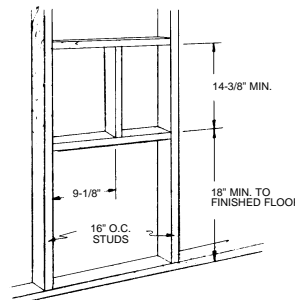
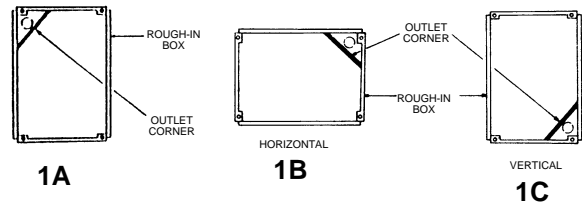


FIG. 2 - HEADER LOCATION

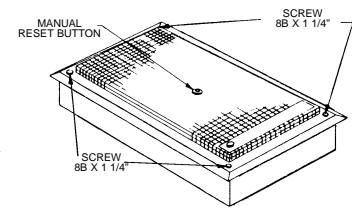


FIG. 3 - SECURING HEATER

OPERATION

- Set the thermostat to its fully clockwise position.
- When room reaches comfort level, turn thermostat knob counter-clockwise until the heater cuts off. Heater will cycle automatically around this present temperature. To increase temperature, turn knob clockwise. To decrease, turn counter-clockwise.
- This unit is equipped with a manual-reset, high temperature limit switch. If no heat is delivered with thermostat fully clockwise, check reset button in center of grille. Push red reset button in with a toothpick or similar piece of wood. If reset kicks back out immediately or will not stay in, have heater checked by a qualified electrician.

LIMIT SWITCH

- This unit is equipped with a manual-reset, high temperature limit switch. If no heat is delivered with the thermostat set fully clockwise, turn thermostat fully counterclockwise, and check red reset button in center of front plate.
- In order for the heater to operate, the limit switch must be reset. Using a toothpick or similar piece of wood, push button IN where it should remain.
- Turn thermostat fully clockwise and repeat above steps when heater resumes normal operation.
- If heater still does not function, or if after a 10-20 minute cool-down period the button will not reset (remain IN), have the heater checked by a qualified electrician.

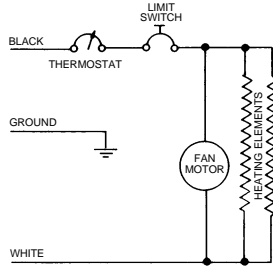
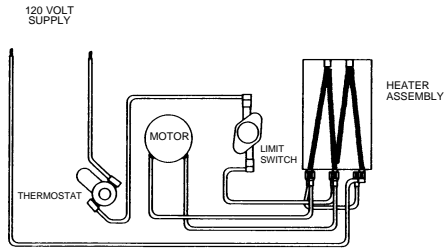
NOTE: Due to the sensitivity of the limit switch, it may have tripped from vibration during shipment. It may be necessary to reset switch prior to initial start-up of the heater.

MAINTENANCE — Six Months

WARNING: Open circuit breaker for circuit supplying heater before attempting any maintenance or repairs. Lock or tag circuit breaker panel door. Failure to do so could result in serious electrical shock, burns or possibly death.

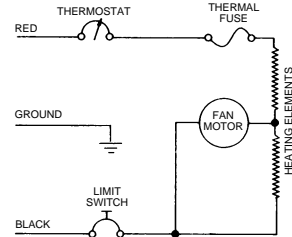
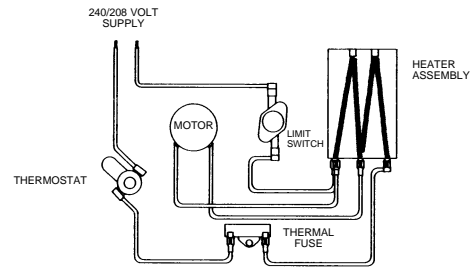
- Loosen screws securing heater assembly to housing and remove heater assembly.
- Vacuum or wipe dust from inside of heater. Take caution not to bend or otherwise damage heater fan, blade or other components
- Reassemble heater.

FIG. 4 WIRING DIAGRAM FOR MODEL 1235



1500 WATTS - 120V - 60Hz

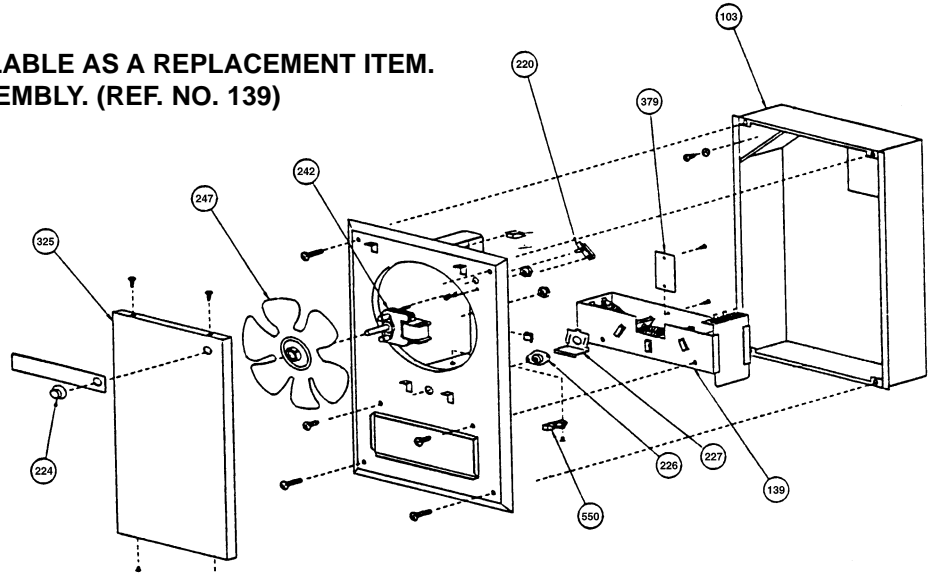
FIG. 5 WIRING DIAGRAM FOR MODELS 2435



1500/2000 WATTS - 240/208V - 60Hz

***ITEMS NOT LISTED ARE NOT AVAILABLE AS A REPLACEMENT ITEM.
REPLACE COMPLETE HEATER ASSEMBLY. (REF. NO. 139)**

**PARTS LIST MODELS
1235 & 2435**



REF. NO.	DESCRIPTION	QTY.	MODEL USED ON
103	Rough-In Box	1	ALL
139	Element Assembly,	1	ALL
220	Thermostat Assembly w/Lead		ALL
224	Knob, Black	1	ALL
226	Limit Switch, Manual Reset 175F	1	ALL
227	Reset Bracket	1	ALL
242	Motor Assy w/Terminals	1	ALL
247	Fan Blade	1	ALL
325	Grille, Aluminum	1	1235, 2435
	Grille Almond	1	1235, 2435
550	Thermal Fuse 109 C, 15 AMPS	1	2435, 2435P

TROUBLE-SHOOTING CHART

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Heater does not come on.	<ol style="list-style-type: none"> 1. Thermostat set too low, (too far counter-clockwise). 2. Circuit breaker in distribution panel not closed. 3. Circuit breaker in distribution panel does not stay closed. 4. Resettable temperature limit switch in heater not closed. 5. Open in wiring in heater. 6. Thermostat 7. Thermal Fuse (Applicable units only) 	<ol style="list-style-type: none"> 1. Turn the thermostat knob clockwise until heater operates. 2. Close circuit breaker. * 3. A short circuit exists in the heater wiring. 4. Manual close limit switch (See Operation Section - Step 3.) *If limit switch will not stay in, have heater checked. * 5. Open main circuit breaker. Check wiring continuity. * 6. Open main circuit breaker to heater, jumper across thermostat terminals. Close main circuit breaker. If heater operates, thermostat should be replaced. Remove jumper after opening main circuit breaker. * 7. Open main supply circuit to heater. Check thermal fuse. If blown, determine cause and correct. Replace thermal fuse.
Fan blade does not turn.	<ol style="list-style-type: none"> 1. Jammed fan blade. 2. Leads not connected to fan motor. 3. Winding in fan motor open. 4. Locked motor bearing. 	<ol style="list-style-type: none"> 1. Remove fan blade obstruction. * 2. Connect fan motor leads. * 3. Replace fan motor. 4. Oil motor bearings; if bearings do not unlock, replace motor.
Heater discharges smoke.	<ol style="list-style-type: none"> 1. Dust, dirt and lint accumulate inside of heater. 	<ol style="list-style-type: none"> 1. Clean heater. See Six Month Maintenance Section for cleaning instructions.
Heater fan operating, but does not discharge warm air.	<ol style="list-style-type: none"> 1. Open heater element. 2. Wire loose from element assembly. 3. Heater connected to wrong electrical service voltage. 	<ol style="list-style-type: none"> 1. Replace heating unit assembly. * 2. Replace wire. * 3. Check supply voltage.

* WARNING: MUST BE PERFORMED BY QUALIFIED ELECTRICAL SERVICE PERSONNEL ONLY. CONTACT MANUFACTURER FOR INSTRUCTIONS ON RETURNING UNIT TO AN AUTHORIZED SERVICE CENTER.

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



Marley
Engineered Products

SPX Corporation
470 Beauty Spot Rd. East
Bennettsville, SC 29512 USA

ECR 35194

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Part No. 5200-2538-001