

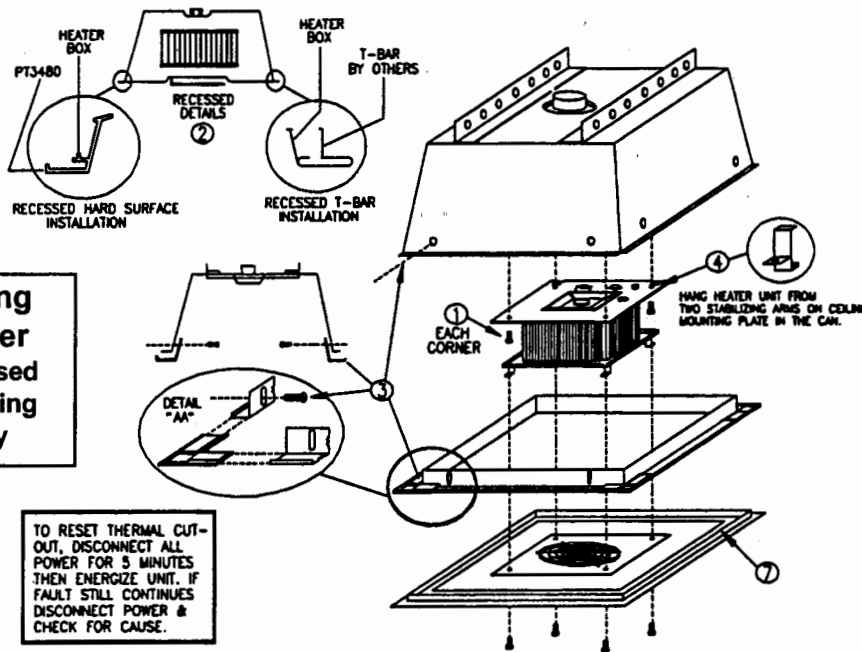
3480/RCH SERIES

INSTALLATION INSTRUCTIONS



TPI Corporation
P.O. Box 4973
Johnson City, TN
37602-4973

America's Comfort Conditioning Company



Ceiling
Heater
Recessed
Mounting
Only

TO RESET THERMAL CUT-OUT, DISCONNECT ALL POWER FOR 5 MINUTES THEN ENERGIZE UNIT. IF FAULT STILL CONTINUES DISCONNECT POWER & CHECK FOR CAUSE.

ATTENTION: Read carefully before attempting to install or operate the heater.

GENERAL INFORMATION:

Mount in horizontal position only. Do not install any closer than 12" to the nearest wall. Check to see that service voltage is the same as the heater voltage. All wiring must conform to the National Electric Code and existing Local Code requirements.

WARNING: To avoid the risk of fire, shock or personal injury; make sure that the power source is disconnected before attempting to install, service, clean or disassemble the heater or any of its components. If the power disconnect is out of the line of sight, lock in the open position and tag it to prevent the application of power.

INSTALLATION INSTRUCTIONS:

1. Detach heater unit from the ceiling mounting plate in the recessed can by disengaging the stabilizing arms on ceiling plate from the heater unit.
4 - #8 drive screws.
2. For a dropped or suspended ceiling, anchor the recessed can using either threaded rod, or wire in an approved method that is sufficient to support the heater assembly such that the bottom edge of the recessed can just rest on the T-bar frame. For plaster or similar finished ceilings, the can should be installed so the flanges (of the can) are even with the interior finish or ceiling line.
3. For plaster or other similar finish ceilings attach the PT3480 accessory plaster frame to the recessed can using 8 - #8 x 3/4 drive screws. (detail "AA")

NOTE: If plaster frame is required for installation order it as an option.

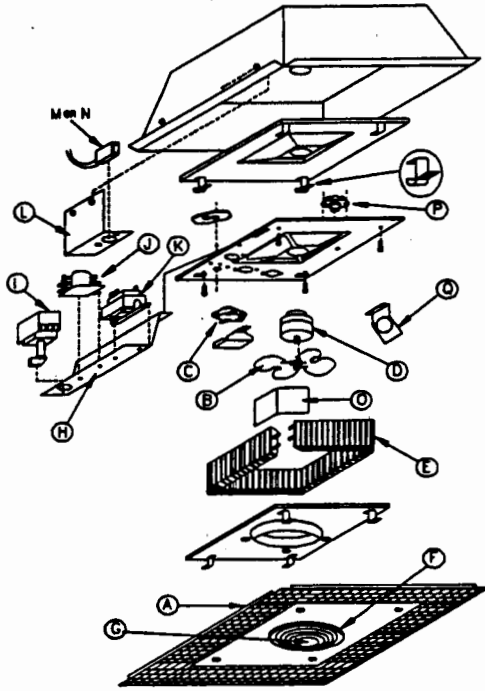
4. Hang heater unit from two stabilizing arms on the ceiling mounting plate in the can. Be sure to engage the two arms with the hooked ends on the ceiling plate with the slots in the heater plate.
5. Connect the heater leads with their corresponding supply leads in the outlet box (75°C wire must be used). The outlet box is permanently attached to the top of the can. After this is complete, install the ceiling plate access hole cover with 2 - #8 drive screws which have been provided.
6. Swing the heater unit up to the ceiling mounting plate and secure with 4 - #8 drive screws that have been provided. Do this by placing one screw in each of the four stabilizing arms on the ceiling plate.
7. Install heater exterior grille by attaching it directly to the heater unit. Make alignments so that the venturi of the heater assembly is outside the venturi of the exterior grille. Secure to the four bracket arms on the heater case with 4 - 10/32 x 3/4 button head machine screws provided.

CAUTION: To avoid the risk of fire, shock or personal injury; do not insert or allow any foreign objects or hands to enter any ventilation or exhaust openings.

Revised 9-98
Form No. 9480

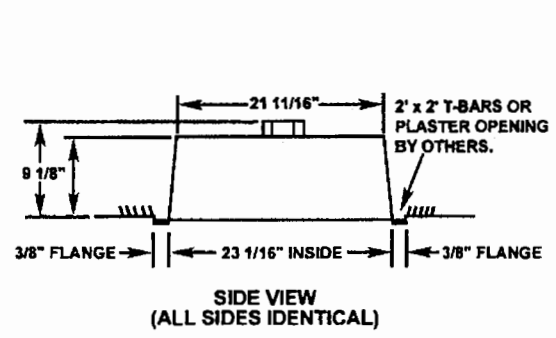
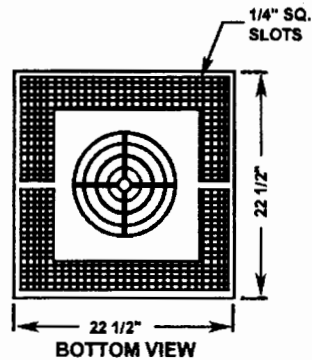
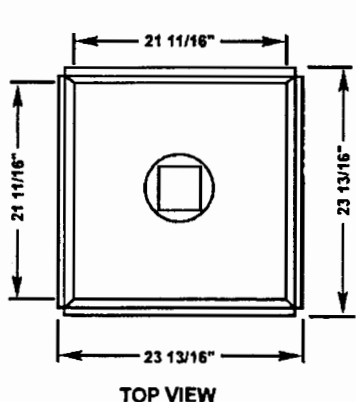
IMPORTANT: OWNER SHOULD RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

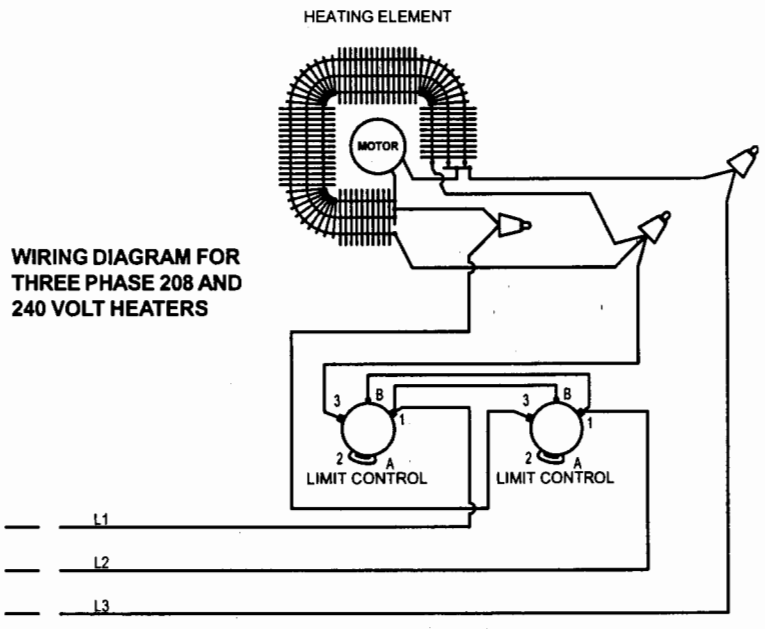
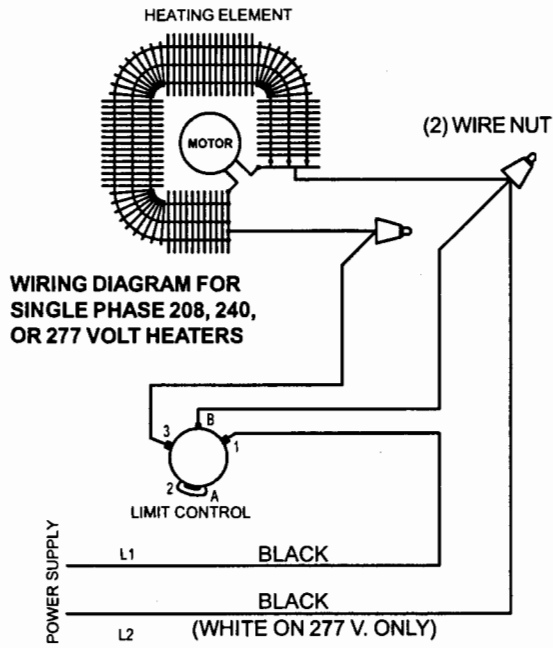
3480 / RCH SERIES CEILING HEATER REPLACEMENT PARTS



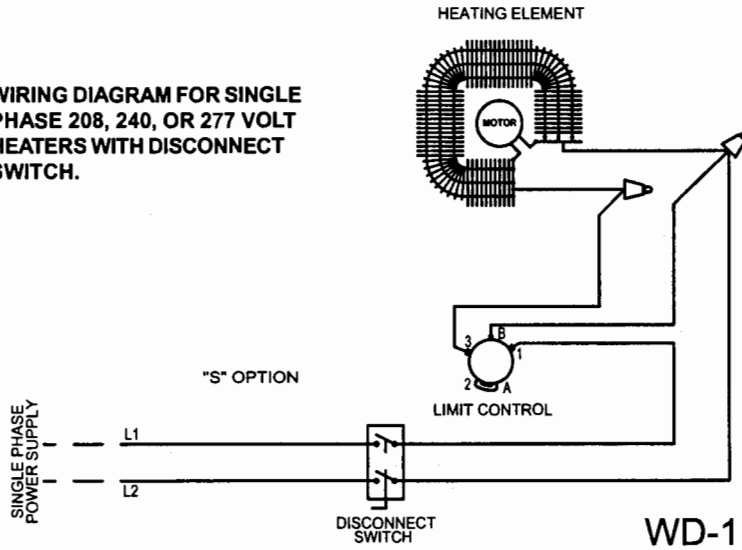
REF	DESCRIPTION	CODE / PART NO.	QTY.
A	BTTM Grille	5629001-58796WH23 (3480)	1
B	Fan Blade	56511001-A8396BLK22	1
F	Circular Louver	56561001-A4220WH23	1
G	Hole Plug	57882001-A223WH23	1
H	ACC Mtg. Bracket	54871-001	1
I	Disconnect Switch	54873-001	1
J	Control Relay	See Variations Below 41274-001 24 V COIL 28163-004 120 V COIL 28163-006 208/277 V COIL	1
K	Class 2 Transformer	60719-001 - 208 240/24 V SEC. 60719-006 - 277/24 V SEC. 60719-006 - 480/24 V SEC.	1
L	Thermostat Mtg. Bracket	54870-001	1
M	Single Pole Thermostat	60074-003	1
N	Double Pole Thermostat	56291-001	1
O	Wire Barrier	52948-001	2
P	Purge Control	435600-001	1
Q	Purge Baffle	529490-001	1

RCH Model	3480 Model	Volts - Phase	Wattage	Reference Letter		
				E Element Assy. PN	D Motor PN	C Limit Control PN
81RCH2	F3482	208-1	2000	56531-011	56562-011	56439-002
21RCH2	H3482	240-1	2000	56531-010	56562-013	56439-002
71RCH2	G3482	277-1	2000	56531-012	56562-015	56439-003
81RCH2	F3483	208-1	3000	56531-009	56562-011	56439-002
21RCH3	H3483	240-1	3000	56531-008	56562-013	56439-002
71RCH3	G3483	277-1	3000	56531-007	56562-015	56439-003
81RCH3	F3484	208-1	4000	56531-006	56562-011	56439-004
21RCH4	H3484	240-1	4000	56531-005	56562-013	56439-004
71RCH4	G3484	277-1	4000	56531-004	56562-015	56439-005
81RCH4	F3485	208-1	5000	56531-003	56562-011	56439-004
21RCH5	H3485	240-1	5000	56531-002	56562-013	56439-004
71RCH5	G3485	277-1	5000	56531-001	56562-015	56439-005
83RCH4	J3484	208-3	4000	56531-013	56562-011	56439-004
23RCH4	K3484	240-3	4000	56531-015	56562-013	56439-004
83RCH5	J3485	208-3	5000	56531-014	56562-011	56439-004
23RCH5	K3485	240-3	5000	56531-016	56562-013	56439-004
41RCH2	P3482	480-1	2000	56531-021	56562-018	51139-001
41RCH3	P3483	480-1	3000	56531-022	56562-018	51139-001
41RCH3	P3484	480-1	4000	56531-023	56562-018	51139-002
41RCH5	P3485	480-1	5000	56531-024	56562-018	51139-002
43RCH4	Y3484	480-3	4000	56531-025	56562-018	51139-002
43RCH5	Y3485	480-3	5000	56531-026	56562-018	51139-002

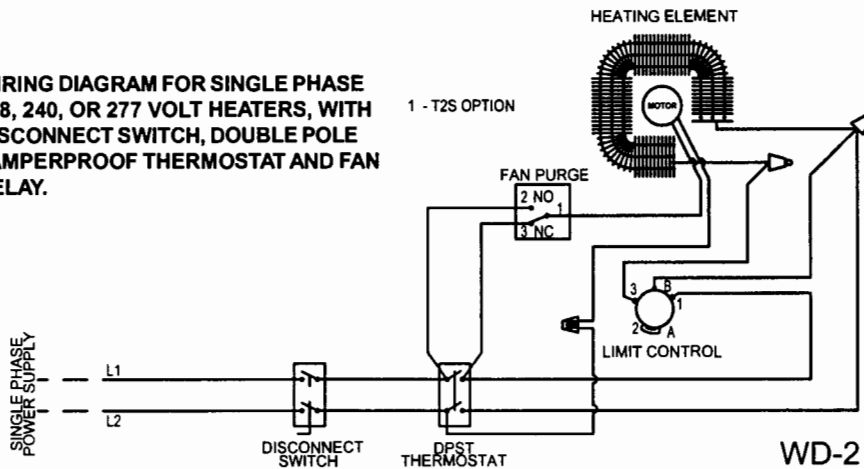


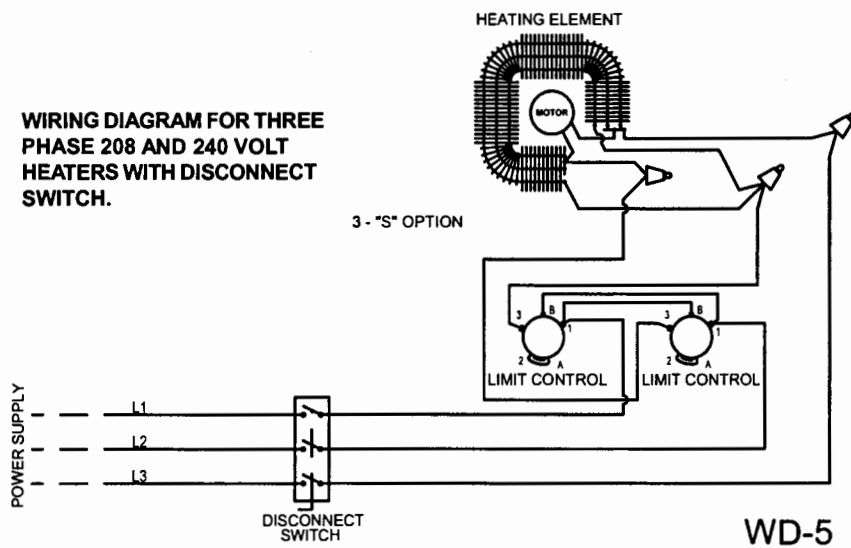
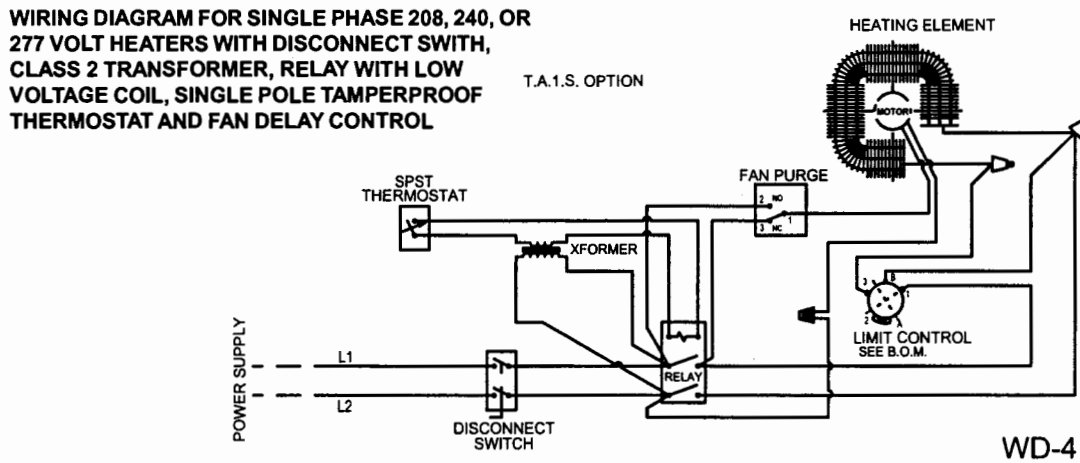
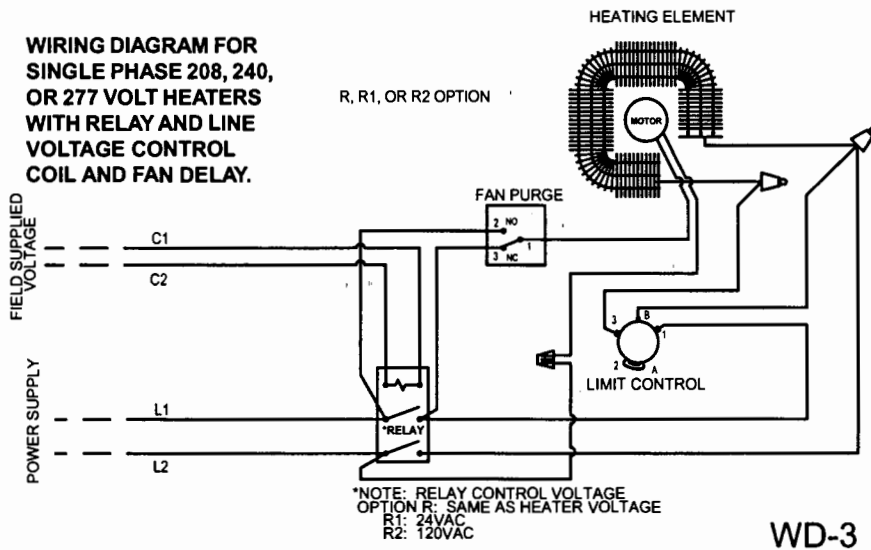


WIRING DIAGRAM FOR SINGLE PHASE 208, 240, OR 277 VOLT HEATERS WITH DISCONNECT SWITCH.

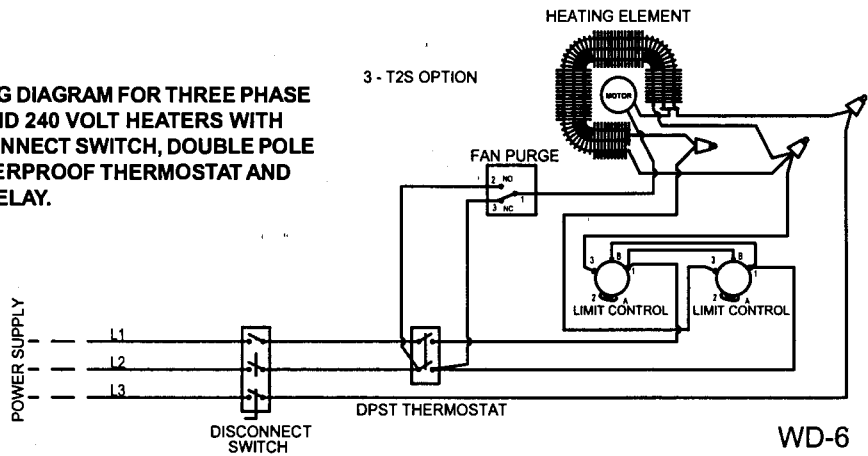


WIRING DIAGRAM FOR SINGLE PHASE 208, 240, OR 277 VOLT HEATERS, WITH DISCONNECT SWITCH, DOUBLE POLE TAMPERPROOF THERMOSTAT AND FAN DELAY.

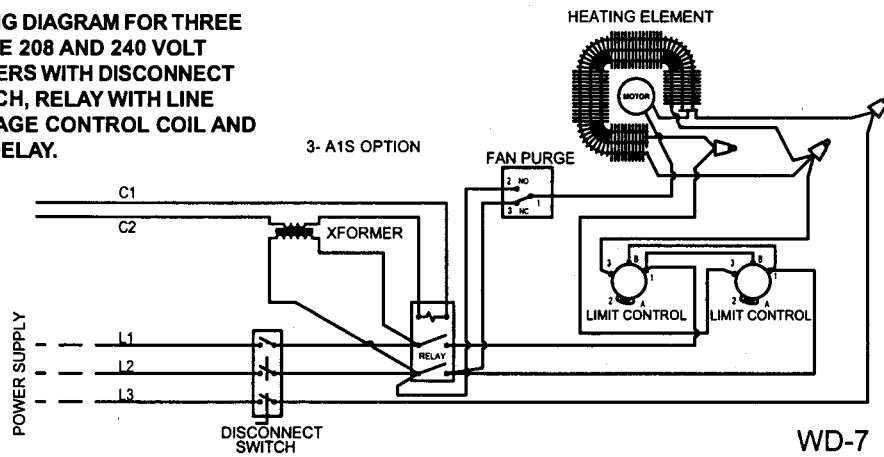




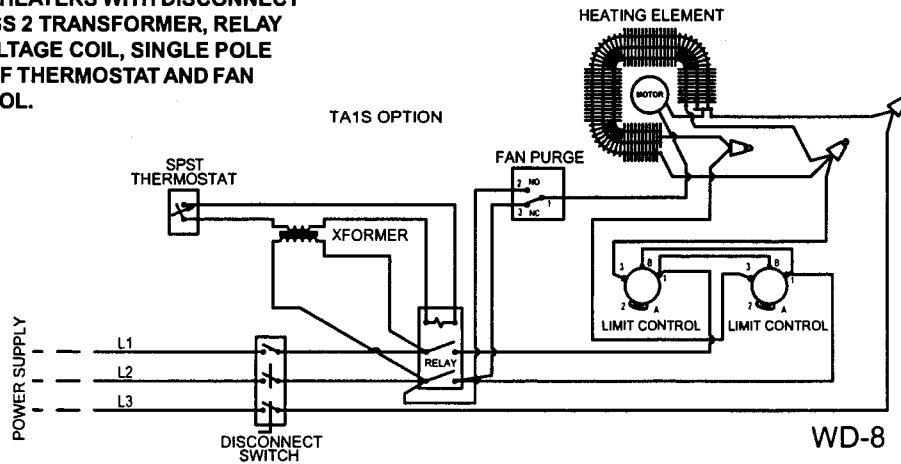
WIRING DIAGRAM FOR THREE PHASE 208 AND 240 VOLT HEATERS WITH DISCONNECT SWITCH, DOUBLE POLE TAMPERPROOF THERMOSTAT AND FAN DELAY.



WIRING DIAGRAM FOR THREE PHASE 208 AND 240 VOLT HEATERS WITH DISCONNECT SWITCH, RELAY WITH LINE VOLTAGE CONTROL COIL AND FAN DELAY.



WIRING DIAGRAM FOR THREE PHASE 208 AND 240 VOLT HEATERS WITH DISCONNECT SWITCH, CLASS 2 TRANSFORMER, RELAY WITH LOW VOLTAGE COIL, SINGLE POLE TAMPERPROOF THERMOSTAT AND FAN DELAY CONTROL.



CEH / 3380 SERIES CEILING HEATER

INSTALLATION INSTRUCTIONS



TPI Corporation
P.O. Box 4973
Johnson City, TN
37602-4973

America's Comfort Conditioning Company

Location of Heater:

Heaters are designed for surface, recessed or "T-bar" ceiling mounting. Heaters must be mounted to provide a minimum clearance of 8" from the intake or exhaust end or from the sides of the heater to the nearest wall or obstruction. For T-Bar installation (Fig. 3), use the optional T-Bar frame CEH-TBF / TB3380. Select a 2' x 2' section of framework in such a location that the minimum 8" spacing is maintained. Follow the installation wiring diagram carefully. A green ground lead is provided. Insure that supply voltage matches voltage rating on the label of the heater. Disconnect power supply at breaker box before installation.

Mounting Instructions:

1. Disassemble heater as shown in Fig. 1 & Fig. 2.
2. Flush Mounting (Fig. 2). Provide opening in ceiling 14 1/4" wide by 19 5/16" long. Note that the direction of air flow is parallel to the 19 5/16" side of the opening. Depth must be a minimum of 4" from the finished ceiling surface. Install rough-in box into the opening so that the flanges are flush with finished ceiling surface. Secure rough-in box with nails, screws or appropriate fasteners. Wiring may be brought into the box from either end using the knockouts provided.
3. Surface Mounting (Fig. 1). Insert rough-in box into surface adapter CEHA /3380EX33. Secure rough-in box into ceiling through holes provided in the back. Be sure that rough-in box is centered in the surface adapter. Bring wiring in through air outlet end knockouts only.
4. Remove all construction dirt and debris from inside the heater.
5. Place heater assembly inside the rough-in box and secure with six screws.

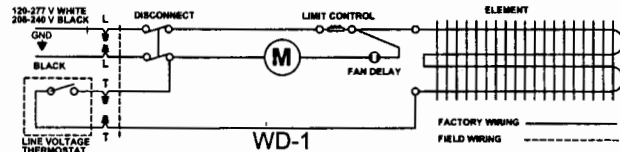
Wiring Instructions:

6. All wiring must conform to National and local electrical codes.

With Disconnect Ref. WD-1

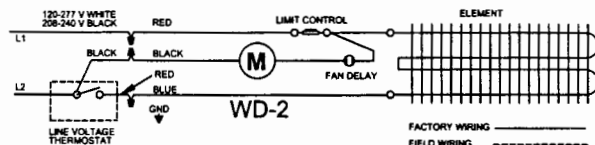
- A. Attach service leads to two black leads (L1 & L2) on 208-240 volt models and to white (L1) and black (L2) on 120-277 volt models, with approved connectors. Connect ground lead to green ground wire with approved connectors.

- B. Run service leads from remote thermostat and connect to lead wire T1 & T2 with approved connectors. Replace wiring compartment cover.



Without Disconnect Ref. WD-2

For proper fan operation, three conductor wires and a ground wire must be used between the thermostat and the heater. For 277 and 120 volt applications use a white, black, red and ground combination. For 208 and 240 volt applications use a black, black, red and ground combination. The wiring diagram is color coded in this manner.



For 120 and 200 Volt Operation:

Connect the white (neutral) supply lead to the red pigtail lead, the black supply lead (L2) to the black pigtail lead, and the red supply lead (L2) to the blue pigtail lead. The ground wire should be connected to the green pigtail lead.

For 208 and 240 Volt Operation:

Connect the black supply lead (L1) to the red pigtail lead, the black supply (L2) to the black pigtail lead, and the red supply lead (L2) to the blue pigtail lead. The ground wire should be connected to the green pigtail lead. Replace wiring compartment cover.

7. Attach front grille with four screws.

Note: The wall thermostat cycles the heating element only. Direct runs of supply service leads L1 & L2 supplies continuous power to the fan motor, and the heater should be considered live at all times. Move the disconnect switch to off position or disconnect power at main distribution box before any maintenance work. Turning the thermostat to off position will not disconnect the heater.

IMPORTANT: OWNER SHOULD RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

OPERATION INSTRUCTIONS:

External Thermostat

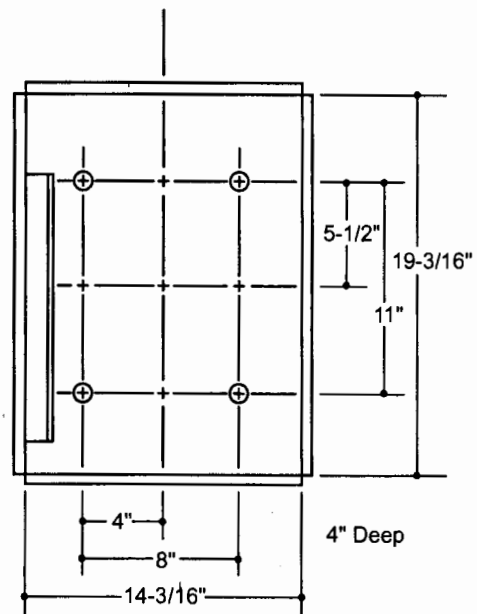
The thermostat should be mounted at the level of the desired comfort zone, but not in the direct path of the heated discharge air. A single pole thermostat with anticipator is recommended. Be sure that the ratings of the thermostat are sufficient to carry the heater load.

Fan Operation

This heater is equipped with a fan delay control. When the thermostat calls for heat, the fan control delays the fan operation until the element is fully hot. Then the fan will energize and operate. After the thermostat is satisfied, the element will de-energize and the fan will continue to run until the element has cooled down. If the fan does not function in this manner, check all wiring connections against the wiring diagram.

MAINTENANCE INSTRUCTIONS:

Once a year, disconnect electrical power at source. Remove front grille and clean dust from heater and grille. Lubricate the motor with SAE No. 10 oil. Two oil spouts are located on front and back of motor. Once finished turn power back on to heater.



Rough-In Box
Dimensions

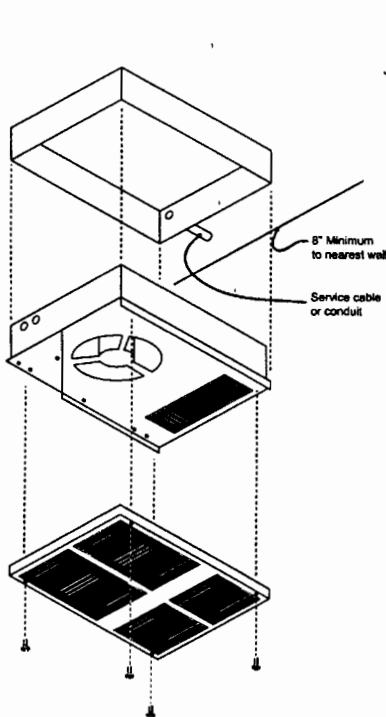


Fig. 1
Surface Mounting

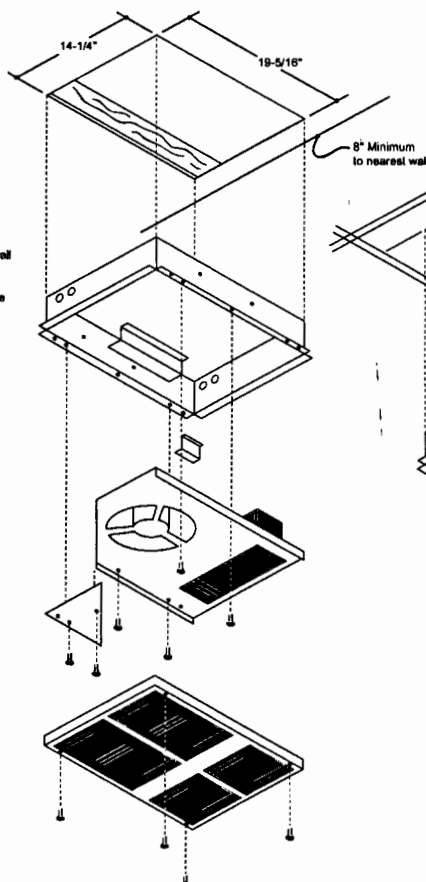


Fig. 2
Flush Mounting

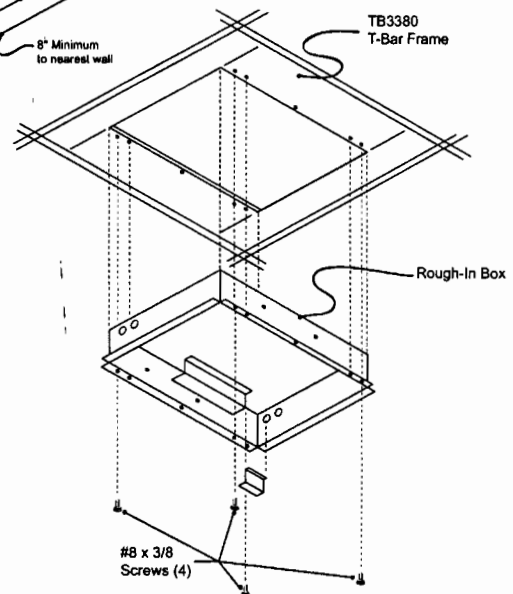


Fig. 3
T-Bar Mounting

**INSTALLATION INSTRUCTIONS
T-BAR CEILING MOUNTING FRAME
MODEL CEH-TBF/TB3380**

T-BAR CEILING MOUNTING

1. Select a panel location which meets the minimum clearances for mounting CEH-3380 Series Heaters (See heater installation instructions, 9585).
 2. Remove ceiling panel and at least one adjacent panel.
 3. Assemble the T-Bar frame CEH-TBF/TB3380. See Fig. 1. Frame sides fit into frame ends and are secured with four #8 x 3/8 screws provided.
 4. Slip T-Bar frame into T-Bar ceiling at desired location.
 5. Disassemble heater. Attach 4 hanger brackets to the back side of the rough-in box using the mounting holes supplied, and the 4 short bolts and hex nuts supplied. See Fig. 3.
 6. Slip rough-in box into the opening of the T-Bar frame. Secure the rough-in box to the frame using 4 #8 x 3/8 screws provided. See Fig. 2.
 7. Attach safety wires to fixed anchors in the upper ceiling above the rough-in box. Attach the loose ends of the safety wires to the upturned legs of the hanger brackets on the back side of the rough-in box. See Fig. 3.
 8. Install heater in rough-in box and wire per heater instructions for flush mounting.
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FIG. 1

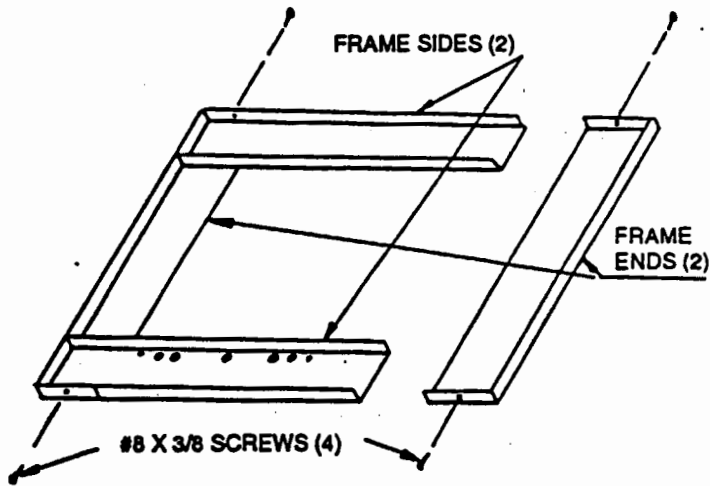


FIG. 3

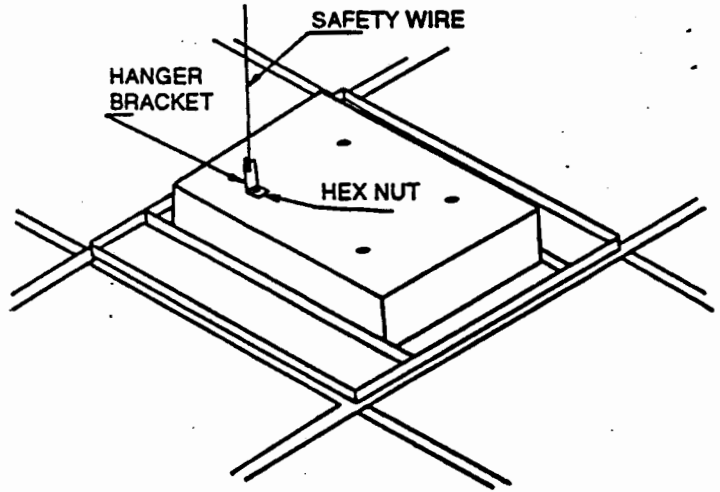


FIG. 2

