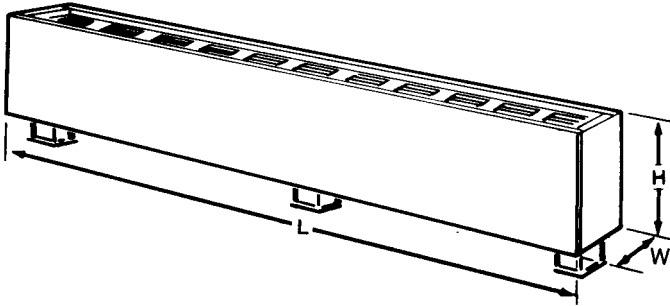


## CPL Series Pedestal Convection Heater



MODEL CPLAS (H=5-1/2", D=3")								
CAT. NO.*	LENGTH "L"	WATTS/ Ft.	TOTAL WATTS	AMPERAGE				
				120V	208V	240V	277V	
2125	28"	125	250	2.4	1.2	1.0	0.9	
2188		188	375	3.1	1.8	1.6	1.4	
2250		250	500	4.2	2.4	2.1	1.8	
3125		3'	125	375	3.1	1.8	1.6	1.4
3188			188	564	4.7	2.7	2.4	2.0
3250	250		750	6.2	3.6	3.1	2.7	
4125	4'		125	500	4.2	2.4	2.1	1.8
4188			188	750	6.2	3.6	3.1	2.7
4250		250	1000	8.3	4.8	4.2	3.6	
5125		5'	125	625	5.2	3.0	2.6	2.2
5188			188	940	7.8	4.5	3.9	3.4
5250	250		1250	10.4	6.0	5.2	4.5	
6125	6'		125	750	6.2	6.3	3.1	2.7
6188			188	1125	9.4	5.4	4.7	4.1
6250		250	1500	12.5	7.2	6.2	5.4	
8125		8'	125	1000	-	4.8	4.2	3.6
8188			188	1500	-	7.2	6.2	5.4
8250	250		2000	-	9.6	8.3	7.2	
10125	10'		125	1250	-	6.0	5.2	4.5
10188			188	1875	-	9.0	7.8	6.7
10250		250	2500	-	12.0	10.4	9.0	

\* Prefix with CPLAS

MODEL CPLAM (H=7", D=5")									
CAT. NO.**	LENGTH "L"	WATTS/ FT.	TOTAL WATTS	AMPERAGE					
				208V		240V		277V	
				1 PH	3PH	1Ph	3PH	1PH	
2125	28"	125	250	1.2	-	1.0	-	0.9	
2188		188	375	1.8	-	1.6	-	1.4	
2250		250	500	2.4	-	2.1	-	1.8	
2375		375	750	3.6	-	3.1	-	2.7	
2500		500	1000	4.8	-	4.2	-	3.6	
2564		564	1125	5.4	3.1	4.7	2.7	4.0	
2625		625	1250	6.0	3.5	5.2	3.0	4.5	
2750		750	1500	7.2	4.2	6.2	3.6	5.4	
3125		3'	125	375	1.8	-	1.6	-	1.4
3188			188	564	2.7	-	2.4	-	2.0
3250	250		750	3.6	-	3.1	-	2.7	
3375	375		1125	5.4	-	4.7	-	4.0	
3500	500		1500	7.2	-	6.2	-	5.4	
3564	564		1690	8.1	4.7	7.4	4.3	6.1	
3625	625		1875	9.0	5.2	7.8	4.5	6.7	
3750	750		2250	11.0	6.5	9.4	5.4	8.1	
4125	4'		125	500	2.4	-	2.1	-	1.8
4188			188	750	3.6	-	3.1	-	2.7
4250		250	1000	4.8	-	4.2	-	3.6	
4375		375	1500	7.2	-	6.2	-	5.4	
4500		500	2000	9.6	-	8.3	-	7.2	
4564		564	2250	10.8	6.2	9.4	5.4	8.0	
4625		625	2500	12.0	6.9	10.4	6.2	9.0	
4750		750	3000	14.4	8.3	12.5	7.2	10.8	
5125		5'	125	625	3.0	-	2.6	-	2.2
5188			188	940	4.5	-	3.9	-	3.4
5250	250		1250	6.0	-	5.2	-	4.5	
5375	375		1875	9.0	-	7.8	-	6.7	
5500	500		2500	12.0	-	10.4	-	9.0	
5564	564		2820	13.5	7.8	11.8	6.8	10.2	
5625	625		3125	15.0	8.6	13.0	7.5	11.3	
5750	750		3750	18.0	10.4	15.6	9.0	13.5	
6125	6'		125	750	3.6	-	3.1	-	2.7
6188			188	1125	5.4	-	4.7	-	4.0
6250		250	1500	7.2	-	6.2	-	5.4	
6375		375	2250	10.8	-	9.4	-	8.1	
6500		500	3000	14.4	-	12.5	-	10.8	
6564		564	3380	16.2	9.4	14.1	8.1	12.2	
6625		625	3750	18.0	10.4	15.6	9.3	13.5	
6750		750	4500	21.6	12.5	18.7	10.8	16.2	
8125		8'	125	1000	4.8	-	4.2	-	3.6
8188			188	1500	7.2	-	6.2	-	5.4
8250	250		2000	9.6	-	8.3	-	7.2	
8375	375		3000	14.4	-	12.5	-	10.8	
8500	500		4000	19.2	-	16.7	-	14.4	
8564	564		4500	21.6	12.5	18.7	10.8	16.2	
8625	625		5000	24.0	13.9	20.8	12.4	18.0	
8750	750		6000	28.8	16.5	25.0	14.4	21.6	
10125	10'		125	1250	6.0	-	5.2	-	4.5
10188			188	1875	9.0	-	7.8	-	6.7
10250		250	2500	12.0	-	10.4	-	9.0	
10375		375	3750	18.0	-	15.6	-	13.5	
10500		500	5000	24.0	-	20.8	-	18.0	
10564		564	5640	27.2	15.7	23.5	13.6	20.4	
10625		625	6250	30.0	17.4	25.0	15.0	22.6	
10750		750	7500	36.0	20.8	31.3	18.1	27.0	

\*\* Prefix with CPLAM

**IMPORTANT  
READ WARNINGS ON  
PAGE 2 BEFORE  
INSTALLING.**

**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, ELECTRIC SHOCK, DEATH, SERIOUS PERSONAL INJURY OR PROPERTY DAMAGE. SAVE THESE INSTRUCTIONS AND REVIEW FREQUENTLY FOR CONTINUING SAFE OPERATION AND INSTRUCTING FUTURE USERS.

**WARNING: HAZARD OF FIRE OR ELECTRICAL SHOCK.**

1. To avoid possible electrical shock, be sure electricity is turned off at main switch first before wiring. All wiring must be in accordance with local electrical codes and the entire heater installation must be grounded as a precaution against electrical shock.
2. Do not install the heater in an explosive or corrosive environment, or upside down, or where water is present.
3. Do not locate the heater below an electrical convenience receptacle.
4. High Temperature - Keep electrical cords, furniture, draperies or any other blocking material at least four inches away from top or front of heater.
5. The ends of the heater must be fully closed by the use of adjoining heaters, end caps or other accessories.
6. Do not install heaters against paperboard or low density fiberboard surfaces.
7. Do not install against vinyl or similar wall coverings. Use standoff kits, Cat. No. S01 or S02, to locate heater away from surface of wall coverings.
8. Check the supply voltage to make sure it is the same as indicated on the heater nameplate.
9. Discard the foam packing pads between the heater grille and the element assembly before the heater is used.
10. To reduce the risk of fire, do not store or use gasoline or other flammable vapors or liquids in the vicinity of this heater.

**INSTALLATION INSTRUCTIONS**

Read Carefully - These instructions are written to help you prevent difficulties that might arise during installation of CPL Series Pedestal Heaters. Studying the instructions first may save you considerable time and money later. Berko CPL Series Pedestal heaters are designed for easy and economical installation. When properly assembled, they make a beautiful heating installation. Observe the following procedures, and cut your mounting time to a minimum.

**STEP ONE - Receiving Instructions**

1. Each Pedestal Heater is shipped in two cartons. One carton contains the heater, the other contains the pedestals.
2. Material when shipped was in good order and Marley Engineered Products holds clear bill of lading, therefore any concealed damage must be reported at once to the carrier for inspection and settlement.

**STEP TWO - Rough-In Wiring**

1. Branch circuits for the heaters shall be enclosed in 1" rigid conduit for CPLAS, or 1-1/4" rigid conduit for CPLAM heaters.
2. Run branch circuit of proper voltage and wire size, in rigid conduit, to location of left or right junction box as indicated on heater wiring diagram. Wire entry to heater is through either end pedestal.

**NOTE: When pedestal is not used for wire entry, pedestal base must be covered with cover plate (supplied with pedestal). See Figure 2.**

3. When installing heaters on existing floors, the threaded end of the rigid conduit must extend 7/8" to 1" above finished concrete. Conduit must be threaded a minimum of 3/8".
4. Basic heaters are prewired and can be connected to branch circuit at either end. Heaters with controls are prewired for connection to branch circuit at one end only (refer to heater wiring diagram), however, heater can be wired from opposite end by running wires through heater wireway.
5. If it is necessary to run wires through the heater wireway, use Table B to size the field installed wiring.
6. The factory installed wires in the heater wire way can be loaded up to 35 amps in CPLAS and up to 45 amps in CPLAM units. Refer to Table C and D for maximum length of heater run when the heaters are connected in parallel.

**CAUTION**

**IF THE FACTORY INSTALLED WIRES IN THE WIREWAY ARE USED TO CONNECT THE BUILT-IN CONTROLS, LIMIT THE MAXIMUM CURRENT TO THE FOLLOWING VALUES.**

Thermostat	24 Amps @ 120-240VAC 22 Amps @ 277 VAC Pilot Duty - 125VA (All Voltages)
Transformer Rely	
CPLAS Units	22 Amps @ 120-240 VAC 19 Amps @ 277 VAC
CPLAM Units	25 Amps @ 120-240 VAC 22 Amps @ 277VAC
Power Relay	25 amps @ 120-277 VAC See Wiring Diagram on Heater
Disconnect Switch	20 amps @ 120-277 VAC

**TABLE B - Sizing Field Installed Wiring**

Copper Wire Size 75 Deg. C	Max. No. of Wires That May Be Installed In Wireway	Max. Allowable Current		
		Up to 3 Conductors	4 to 6 Conductors	7 thru 9 Conductors
2				

TABLE C - Maximum Length of Heater Run (CPLAS - 1PH)				
Watts/Ft. of the Heaters	Max. Allowable Length of the Heater Run (Ft.)			
	120V	208V	240V	277V
125	33	58	67	77
188	22	38	44	51
250	16	29	33	38

**NOTE: For mix of watt densities, calculate amp draw. Do not exceed values indicated in Step 2, number 6.**

TABLE D - Maximum Length of Heater Run (CPLAM - 1PH and 3PH)					
Watts/Ft. of the Heaters	Max. Allowable Length of the Heater Run (Ft.)				
	208V 1 Ph	208V 3 Ph	240V 1 Ph	240V 3 Ph	277V 1 Ph
125	74	-	86	-	99
188	49	-	57	-	66
250	37	-	43	-	49
376	24	-	28	-	33
500	18	-	21	-	24
564	16	27	19	32	22
625	14	24	17	29	19
750	12	20	14	24	16

**NOTE: For mix of watt densities, calculate amp draw. Do not exceed values indicated in Step 2, number 6.**

7. Standard 75 degree C wiring must be used in junction boxes, wireways and blank sections.

### STEP THREE - Room Layout

Refer to heating plans for exact room arrangements of heaters (with or without thermostats and/or relays and/or switches and accessories).

### STEP FOUR - Mounting Height

Refer to Figure 1a for typical mounting of heaters and pedestals imbedded in floor; refer to Figure 1b for surface-mounted heaters and pedestals.

**NOTE: Up to 3/4" thick floor covering, such as carpet, tiles, linoleum, etc., may be installed around and under the heater without adversely affecting the performance of the heaters.**

Heater Capacity (Watts/Ft. Heater Length) 125, 188 & 250 Watts/Ft. 376, 500, 564, 625 & 750 Watts/Ft.	Heater Dimension "A" (Minimum Mounting Height Above Floor)	Pedestal Dimension "B" (Minimum Mounting Height Above Floor)
	1-3/4"	2"
	3"	3-1/4"

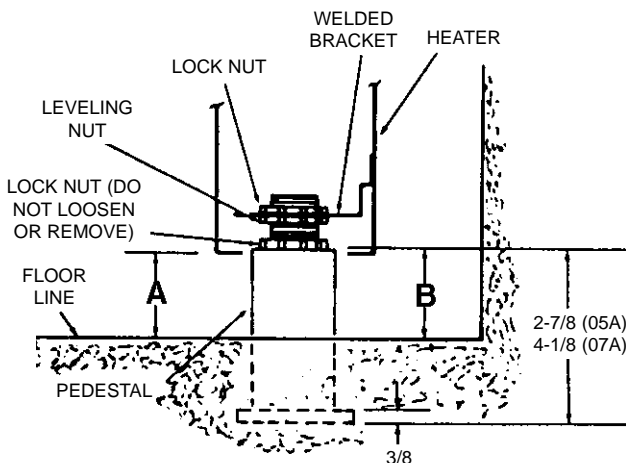


Figure 1a. Pedestal Imbedded in Floor

Heater Catalog Number	Height Above Floor (Dim. "A")	
	Min.	Max.
CPLAS	2-5/8"	3-3/8"
CPLAM	3-7/8"	4-5/8"

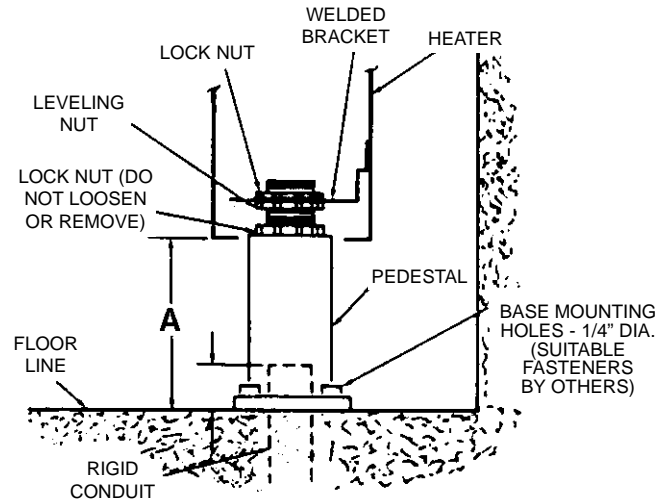


Figure 1b. Surface-Mounted Pedestal

### STEP FIVE - Pedestal Installation (Surface-Mounted to Existing Floor)

**NOTE: For ease of installation, it is important that the sequence of operations indicated below be followed in order.**

1. Remove from cover by removing mounting screws (Figure 2).
2. Remove the top lock nut and the leveling nut from each pedestal. (Do not loosen or remove bottom lock nut).
3. Screw one pedestal onto threaded rigid conduit protruding from floor.
4. Install remaining pedestal(s) in heater and secure by installing lock nut finger tight.
5. Install heater onto the pedestal which is screwed on the rigid conduit. Position heater in desired location and mark pedestal mounting hole locations on floor. Then remove the heater and the one pedestal from the rigid conduit. Remove the remaining pedestal(s) from the heater.
6. Drill holes in floor (Figure 3b) and install threaded inserts (or equivalent) for 1/4" mounting bolts (inserts and bolts supplied by installer).
7. Reinstall the one pedestal on the rigid conduit, then secure all other pedestals (with cover plates) to the floor with four 1/4" bolts through each pedestal flange.

## STEP SIX- Pedestal Installation (Imbedded in New Concrete Floor)

When a heater installation is to be imbedded in a new concrete floor, the pedestals are first installed in the concrete, then the heater installed after the concrete has set. It is imperative that the pedestals be installed in perfect alignment so that the holes in the bottom of the heater housing will mate with the pedestals. In order to achieve the required alignment, it is recommended that the pedestals be held in place by the use of jugs during the concrete pour. The jugs should be constructed of good quality 1" x 4" lumber as shown in Figure 4. The pedestals are installed in the jugs and then positioned for the concrete pour. One end pedestal must be screwed onto rigid wall conduit so that the mounting height requirements in Figure 1a are met after pouring of the finished floor. (The method of securing the pedestals and jugs in place during the pouring of the concrete is at the option of the installer.) After the concrete has set, remove the jugs from the pedestals and install the heater as indicated in steps Seven or Eight.

## STEP SEVEN- Installation of Single Unit

**NOTE: For ease of installation, it is important that the sequence of operations indicated below be followed in order.**

1. Remove front cover by removing mounting screws (Figure 2).
2. Remove end caps (must be purchased separately) on both ends of the heater housing. Refer to Figure 5 for details of end cap installation.
3. Install leveling nut on each installed pedestal, then position heater on pedestals. Adjust the leveling nuts until the heater is level and at the desired mounting height. Then install and tighten the pedestal lock nuts.
4. Run proper size branch circuit to the junction box through the appropriate end pedestal.
5. Following the wiring diagram secured to the heater, make electrical connections.
6. Replace front cover and secure with mounting screws (See Figure 2).
7. If the heater is equipped with a built-in thermostat, adjust the shaft to the mid-range and let the heater run for a few hours. If the room temperature is too hot, rotate the shaft counterclockwise; if too cool, rotate the shaft clockwise until a comfortable temperature is obtained. Let room temperature stabilize after each setting change.

**NOTE: For thermostat adjustment shaft and the disconnect switch are accessible through the grille opening at the left end of the heater.**

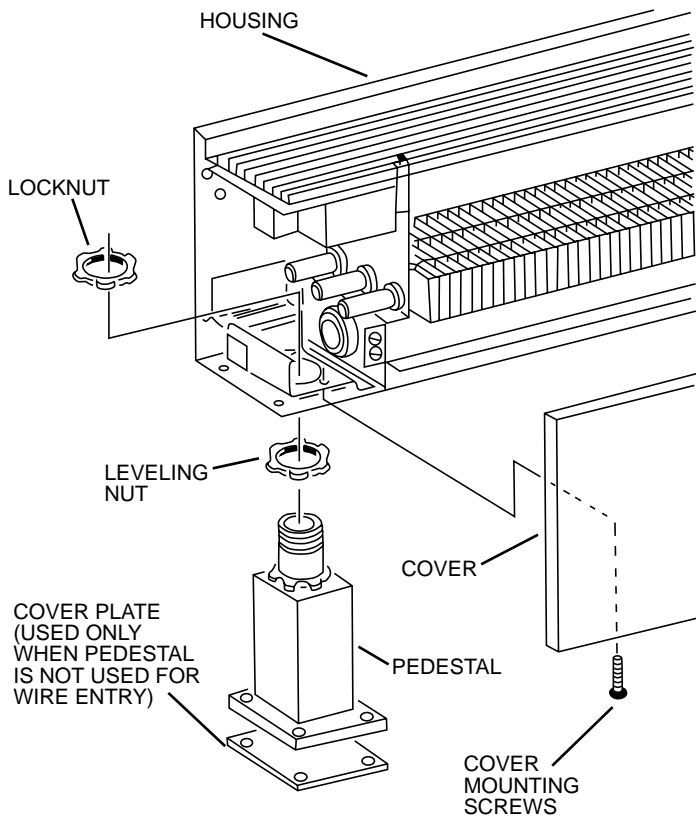


Figure 2.

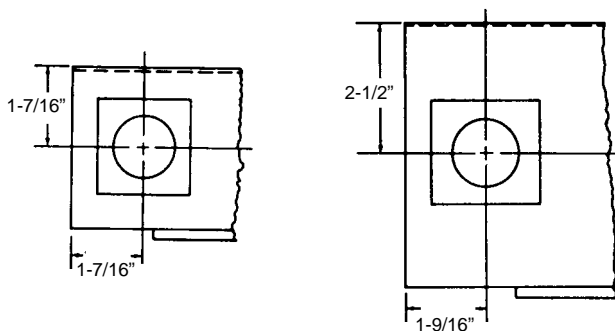


Figure 3a. End Pedestal Locations

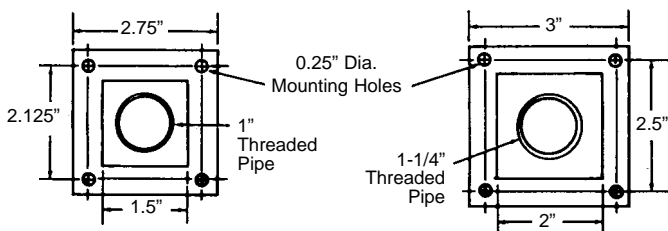


Figure 3b. Pedestal Details

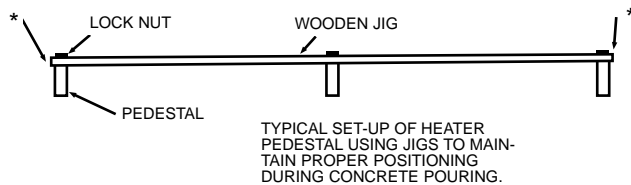
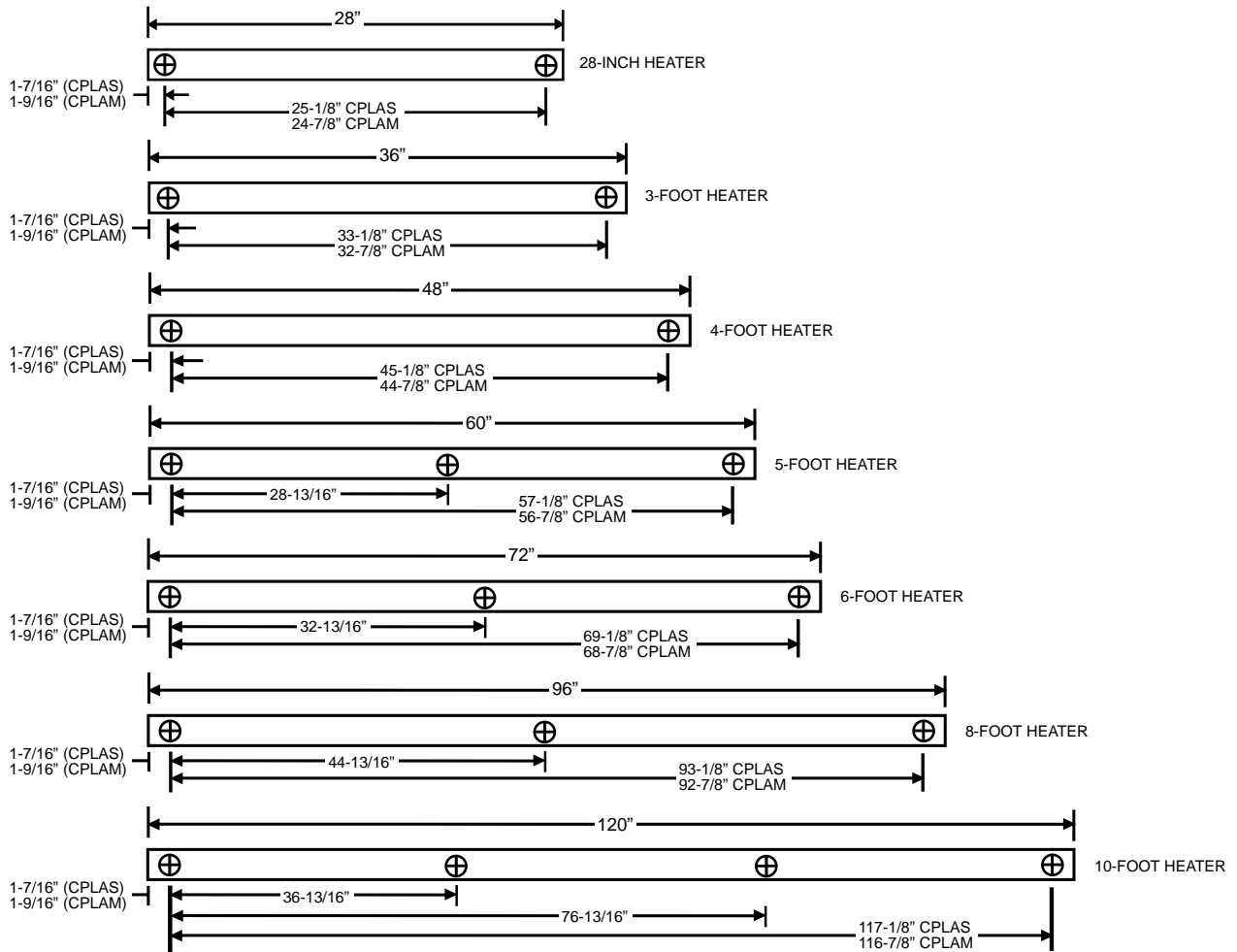


Figure 4.

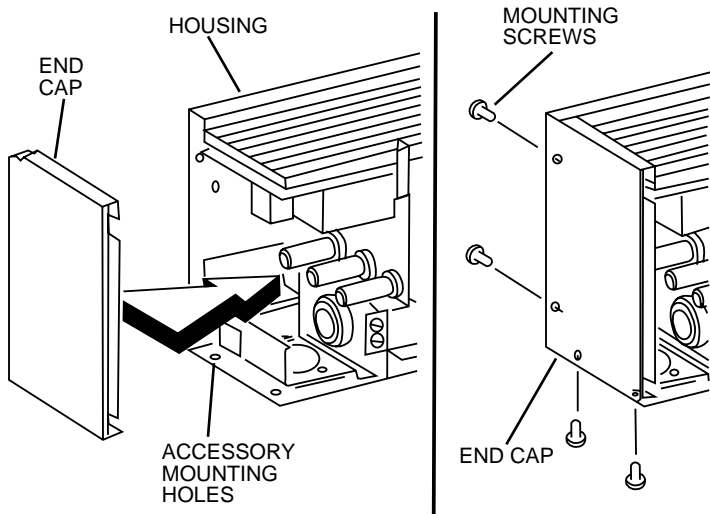
**NOTE:** Holes in jigs should be 1-3/8" for CPLAS heaters, or 1-11/16" for CPLAM heaters.

\*When butting heaters, leave a 1/16" gap between heaters to allow for expansion.

**STEP EIGHT- Installation of Multiple Units**  
**NOTE:** For ease of installation, it is important that the sequence of operations indicated below be followed in order.

1. Remove front cover by removing mounting screws (Figure 2).
2. Install end caps on the outer end of the first and last heater (or blank section) in a run using four No. 6 screws supplied with end caps. (Refer to Figure 5 for details of end cap installation.)
3. Run proper size branch circuit to the junction box through heaters and blank sections (if applicable) on pedestals.

**NOTE:** When butting heaters end-to-end, be sure to position heaters carefully to insure proper alignment. Leave a 1/16" gap between heaters to allow for expansion.



4. Adjust the leveling nuts until the heaters are level and at the desired mounting height. Then install and tighten the pedestal lock nuts.

**NOTE: 75 degree C field wiring may be run through the blank section wireway.**

5. Following the wiring diagram secured to the heater make the electrical connections. Refer to Figure 6 to connect the other heaters in parallel. Grounding of the other heaters is accomplished by connecting a jumper wire (not supplied) between the two adjacent heaters.

6. Replace front covers, and secure with the mounting screws. (Figure 2)

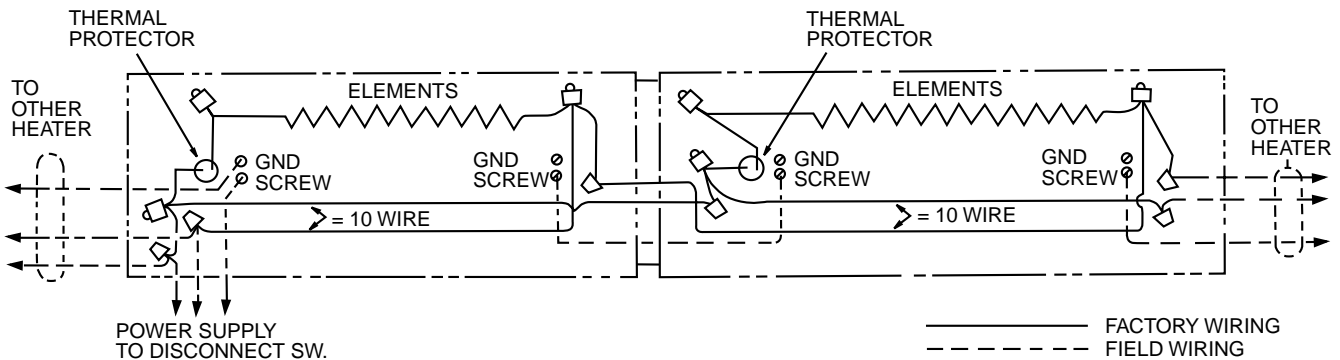
7. If the heaters are equipped with built-in thermostat, adjust the shaft to the mid-range and let the heaters run for a few hours. If the room temperature is too hot, rotate the shaft counterclockwise; if too cool, rotate the shaft clockwise until a comfortable temperature is obtained. Let room temperature stabilize after each setting change.

**NOTE: The thermostat adjustment shaft and the disconnect switch are accessible through the grille openings at the left of the heater.**

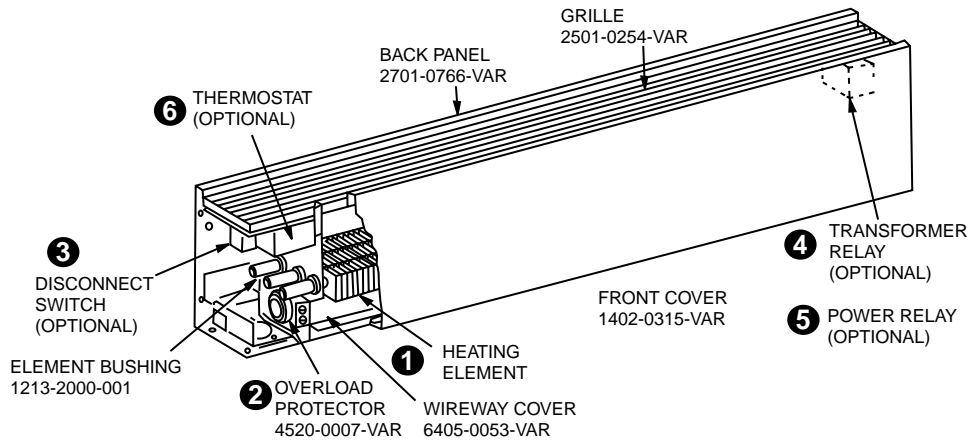
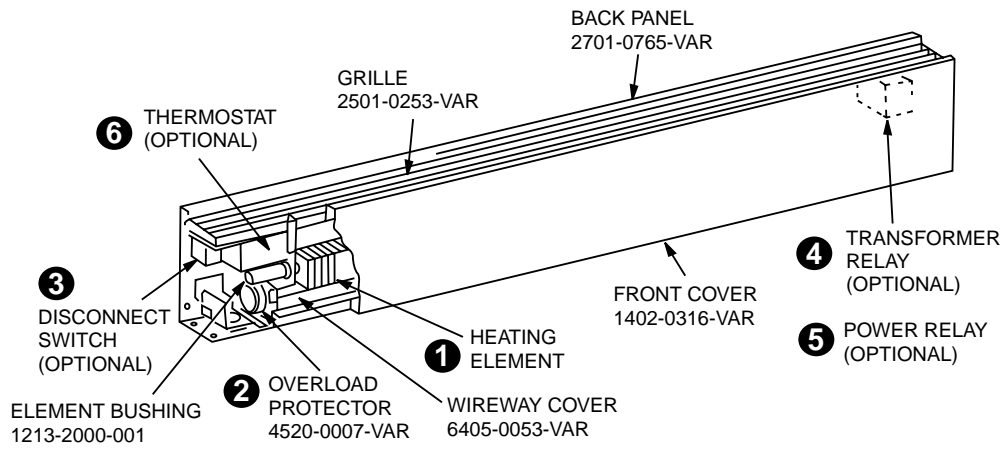
End Cap Data		
Description	Heater Catalog Number	
	CPLAS	CPLAM
End Cap Left	CPLAS-ECL(R)	CPLAM-ECL(R)
End Cap Right	CPLAS-ECR(R)	CPLAM-ECR(R)
(R) Suffix On Catalog Number Refers To Accessories With 120VAC Receptacle.		

Figure 5.

### TYPICAL WIRING OF MULTIPLE HEATERS (WITHOUT CONTROLS)



NOTE: For individual internal heater wiring, refer to the wiring diagram label in the unit.



Heating Element (Part No. Prefix 1802-2001)								
Description		Heater Length						
		28"	3'	4'	5'	6'	8'	10'
125W/Ft. per Element	120V	085	087	089	091	093	-	-
	208V	086	088	090	092	094	095	096
	240V	048	054	060	066	072	077	081
	277V	049	055	061	067	073	078	082
188 W/Ft. per Element	120V	005	011	017	023	029	-	-
	208V	002	008	014	020	026	032	036
	240V	001	007	013	019	025	031	035
250W/Ft. per Element	120V	004	010	016	022	028	-	-
	208V	003	009	015	021	027	033	037
	240V	002	008	014	020	026	032	036
	277V	001	007	013	019	025	031	035

Built-In Controls (Optional)			
Description		Part Number	
		CPLAM	CPLAS
Disconnect Switch		5216-0125-000	5216-0124-000
Transformer Relay	120 Volt	R13700002B001	410043001
	208 Volt	R13700002B002	410043002
	240 Volt	R13700002B003	410043003
	277 Volt	R13700002B004	410043004
Power Relay	24 Volt	5018-2006-000	5018-2006-000
	120 Volt	5018-2006-001	5018-2006-001
	208/240 Volt	5018-2006-002	5018-2006-002
	277 Volt	5018-2006-003	5018-2006-003
Thermostat	1 Pole	5813-0024-000	5813-0024-000
	2 Pole	5813-0023-000	5813-0023-000

## 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 form 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 voltages; 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 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, SC 29512. Merchandise returned to the factory must be accompanied by a return authorization and service identification tag, both available from the above location. When requesting authorization, include all catalog numbers shown on the products.

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## HOW TO ORDER REPAIR PARTS

When ordering repair parts, always give the following information as shown in this list:

1. The Part Number
2. The Model Number
3. The Part Description

All parts listed herein may be ordered from:

Marley Engineered Products  
470 Beauty Spot Road East  
Bennettsville, SC 29512

Need technical or warranty assistance?

Please call too-free 1-800-642-HEAT.



**Marley**  
Engineered Products

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