

907, 911, and 913 Series

**Pedestal Convectors** 

Commercial Pedestal Convection Heater (907 Series)



Architectural Pedestal Convection Heaters (911 and 913 Series)

# **IMPORTANT INSTRUCTIONS**

# WARNING

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**Read Carefully** – These instructions are written to help you prevent difficulties that might arise during installation of these Pedestal Heaters. Studying these instructions first may save you considerable time and money later. These Pedestal Heaters are designed for easy and economical installation. Follow these instructions to keep your installation time to a minimum.

- 1. Read all instructions before using the heater.
- Hazard of fire or electric shock To avoid possible electrical shock, be sure electricity is turned off at main switch first before wiring. All wiring must be in accordance with the National Electrial Code (NEC) applicable local codes and the entire heater installation must be grounded as a precaution against possible electrical shock.
- 3. Check the supply voltage to make sure it is the same as indicated on the heater nameplate before energizing.
- 4. Do not install heaters against combustible low-density cellulose fiberboard surfaces.
- Due to variations in vinyl compositions and their potential to discolor, the use of stand off brackets (BIB-VVSO1 and BIB-VVSO2) and / or specifying a lower watt density unit may be required when installing on vinyl wall coverings or under vinyl window

dressings.

- 6. The ends of the heater must be fully closed by the use of adjoining heaters, end caps, or other accessories.
- 7. Do not locate the heater below an electrical convenience receptacle.
- 8. 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. Do not install this heater upside down or where water is present.
- 9. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, and curtains away from heater.
- 10. To prevent possible fire, do not block air intakes or exhaust in any manner.
- Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock or fire, or damage the heater.
- 12. Discard packing pads before heater is used.

See also additional warnings located in this manual

# SAVE THESE INSTRUCTIONS

### **SPECIFICATIONS**

#### Table A

907, 911 Series (H=5-1/2"; D=3")							
	Watts	Total	Amperage				
Length "L"	per ft.	Watts	120V	208V	240V	277V	
28"	125	250	2.4	1.2	1.0	0.9	
	188	375	3.1	1.8	1.6	1.4	
	250	500	4.2	2.4	2.1	1.8	
3'	125	375	3.1	1.8	1.6	1.4	
	188	564	4.7	2.7	2.4	2.0	
	250	750	6.2	3.6	3.1	2.7	
4'	125	500	4.2	2.4	2.1	1.8	
	188	750	6.2	3.6	3.1	2.7	
	250	1000	8.3	4.8	4.2	3.6	
5'	125	625	5.2	3.0	2.6	2.2	
	188	940	7.8	4.5	3.9	3.4	
	250	1250	10.4	6.0	5.2	4.5	
6'	125	750	6.2	3.6	3.1	2.7	
	188	1125	9.4	5.4	4.7	4.1	
	250	1500	12.5	7.2	6.2	5.4	
8'	125	1000	-	4.8	4.2	3.6	
	188	1500	-	7.2	6.2	5.4	
	250	2000	-	9.6	8.3	7.2	
10'	125	1250	-	6.0	5.2	4.5	
	188	1875	-	9.0	7.8	6.7	
	250	2500	-	12.0	10.4	9.0	

# 913 Series (H=7"; D=5")

			Amperage				
	Watts	Total	20	8V	24	ov	277V
Length "L"	per ft.	Watts	1Ø	зø	1Ø	зø	1Ø
	125	250	1.2	-	1.0	-	0.9
	188	375	1.8	-	1.6	-	1.4
	250	500	2.4	-	2.1	-	1.8
20"	375	750	3.6	-	3.1	-	2.7
20	500	1000	4.8	-	4.2	-	3.6
	564	1125	5.4	3.1	4.7	2.7	4.0
	625	1250	6.0	3.5	5.2	3.0	4.5
	750	1500	7.2	4.2	6.2	3.6	5.4
	125	375	1.8	-	1.6	-	1.4
	188	564	2.7	-	2.4	-	2.0
	250	750	3.6	-	3.1	-	2.7
3'	375	1125	5.4	-	4.7	-	4.0
	500	1500	7.2	-	6.2	-	5.4
	564	1690	8.1	4.7	7.4	4.3	6.1
	625	1875	9.0	5.2	7.8	4.5	6.7
	750	2250	11.0	6.5	9.4	5.4	8.1

913 Series (H=7"; D=5") (Cont.)								
					Α	m		
		Watts	Total	208V				
	Length "L"	per ft.	Watts	1Ø	зø			
			500	0.4		F		
		125	500	2.4	-			
		188	750	3.6	-			
		250	1000	4.8	-			
	<i>A</i> !	375	1500	7.2	-			
	4	500	2000	9.6	-			
		564	2250	10.8	6.2			
		625	2500	12.0	6.9			
		750	3000	14.4	8.3			
		913 Serie Length "L"	913 Series (H= Length "L" 4' 4' 500 564 625 750	913 Series (H=7"; D=           Length "L"         Watts per ft.         Total Watts           125         500           188         750           250         1000           375         1500           500         2000           564         2250           625         2500           750         3000	913 Series (H=7"; D=5") (           Watts         Total         20           Length "L"         Watts         Total         20           125         500         2.4         188         750         3.6           250         1000         4.8         375         1500         7.2           4'         500         2000         9.6         564         2250         10.8           625         2500         12.0         750         3000         14.4	913 Series (H=7"; D=5") (Cont.           Watts         Total         208∨           Length "L"         Per ft.         Watts         10         30           125         500         2.4         -           188         750         3.6         -           250         1000         4.8         -           4'         375         1500         7.2         -           500         2000         9.6         -         -           564         2250         10.8         6.2         625         2500         12.0         6.9           750         3000         14.4         8.3         -         -         -		

Table A (continued)

	Watts	Total	208V		240V		277V
Length "L"	per ft.	Watts	1Ø	3Ø	1Ø	3Ø	1Ø
4'	125 188 250 375 500 564 625 750	500 750 1000 1500 2000 2250 2500 3000	2.4 3.6 4.8 7.2 9.6 10.8 12.0 14.4	- - - 6.2 6.9 8.3	2.1 3.1 4.2 6.2 8.3 9.4 10.4 12.5	- - - 5.4 6.2 7.2	1.8 2.7 3.6 5.4 7.2 8.0 9.0 10.8
5'	125 188 250 375 500 564 625 750	625 940 1250 1875 2500 2820 3125 3750	3.0 4.5 6.0 9.0 12.0 13.5 15.0 18.0	- - - 7.8 8.6 10.4	2.6 3.9 5.2 7.8 10.4 11.8 13.0 15.6	- - - 6.8 7.5 9.0	2.2 3.4 4.5 6.7 9.0 10.2 11.3 13.5
6'	125 188 250 375 500 564 625 750	750 1125 1500 2250 3000 3380 3750 4500	3.6 5.4 7.2 10.8 14.4 16.2 18.0 21.6	- - - 9.4 10.4 12.5	3.1 4.7 6.2 9.4 12.5 14.1 15.6 18.7	- - - 8.1 9.3 10.8	2.7 4.0 5.4 8.1 10.8 12.2 13.5 16.2
8'	125 188 250 375 500 564 625 750	1000 1500 2000 3000 4000 4500 5000 6000	4.8 7.2 9.6 14.4 19.2 21.6 24.0 28.6	- - - 12.5 13.9 16.5	4.2 6.2 8.3 12.5 16.7 18.7 20.8 25.0	- - - 10.8 12.4 14.4	3.6 5.4 7.2 10.8 14.4 16.2 18.0 21.6
10'	125 188 250 375 500 564 625 750	1250 1875 2500 3750 45000 5640 6250 7500	6.0 9.0 12.0 18.0 24.0 27.2 30.0 36.6	- - - 15.7 17.4 20.8	5.2 7.8 10.4 15.6 20.8 23.5 26.0 31.3	- - - 13.6 15.0 18.1	4.5 6.7 9.0 13.5 18.0 20.4 22.6 27.0

Amperage

## INSTALLATION

#### WARNING /4

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Warning-To reduce the risk of fire, electric shock and damage to property, read, understand and follow the below special instructions:

- 1. All wiring procedures and connections must be in accordance with the National Electrical Code (NEC) and local codes.
- 2. Do not install heaters against combustible low-density cellulose fiberboard surfaces.
- 3. Do not install heaters below electrical convenience receptacles (outlets).
- 4. To reduce the risk of fire, do not store or use gasoline or other flammable vapors or liquids in the vicinity of the heater.

5. CAUTION- Heater operates at High Temperatures. Keep Electrical Cords, Drapes and Other Furnishings Away From Heater. Maintain a minimum of 4 inches (102 mm) clearance from all exposed heater surfaces (top and front) at all times.

#### **Rough-in Wiring**

- 1. Branch circuits for the heaters shall be enclosed in 1" rigid conduit for 05A heaters, or 1-1/4" rigid conduit for 07A 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 wire way, use Table B to size the field installed wiring.
- 6. The factory installed wires in the heater wireway can be loaded up to 35 amps in 05A units and up to 45 amps in 07A units. Refer to Table C and D for maximum length of heater run when the heaters are connected in parallel.

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

Thermostat	24 amps @ 120-240 VAC
	22 amps @ 277 VAC
	Pilot duty- 125 VAC (all voltages)
Transformer relay	
907 and 911 Series:	22 amps @ 120-240 VAC
	19 amps @ 277 VAC
913 Series:	25 AMPS @ 120-240 VAC
	22 AMPS @ 277 VAC
Power relay	25 amps @ 120-277 VAC- see wiring dia- gram on heater
<b>Disconnect switch</b>	20 amps @ 120-277 VAC

#### Table B. Sizing Field Installed Wiring

		Maximum allowable current			
Copper wire size 75° C	of wires in wireway	Up to 3 Conductors	4 to 6 Conductors	7 thru 9 Conductors	
No. 12 AWG	9	11.5 amps	9.3 amps	8.1 amps	
No. 10 AWG	8	17.4 amps	14.0 amps	12.1 amps	
No. 8 AWG	4	24.0 amps	21.0 amps	-	

# Table C. Maximum Length of Heater Run (907 and 911-1Ø)

Watts/Ft. of	Maximum allowable length of heater run (feet)					
the heaters	120 Volts	208 Volts	240 Volts	277 Volts		
125 188 250	33 22 16	58 38 29	67 44 33	77 51 38		

**Note:** For mix of watt densities, calculate amp draw. Do not exceed values indicated in step 6 above.

# TABLE D. Maximum Length of Heater Run (913 - 1Ø and 3Ø)

Watts/Ft. of	Maximum Allowable Length of Heater Run (Feet)				
the Heaters	208 Volts	208 Volts	240 Volts	240 Volts	277 Volts
	1Ø	3Ø	1Ø`	3Ø	1Ø
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

<sup>7.</sup> Standard 75°C wiring must be used in junction boxes, wireway and blank sections.

#### **Room Layout**

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

#### **Mounting Height**

Refer to Figure 1a. for typical mounting of heaters and pedestals embedded 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.







Figure 1b. Surface-Mounted Pedestal



#### 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 front cover by removing mounting screws (Fig. 2)
- 2. Remove the top lock nut and the leveling nut from each pedestal. (Do not loosen or remove the 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.
- Drill holes in floor (Fig. 3b) and install threaded inserts (or equivalent for 1/4" mounting bolts (inserts and bolts supplied by installer.)
- 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.

### Pedestal Installation (Embedded in New Concrete Floor)

When a heater installation is to be embedded 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 order to achieve the required alignment, it is recommended that the pedestals be held in place by the use of jigs during the concrete pour. The jigs should be constructed of good quality 1" x 4" lumber as shown in Figure 4. The pedestals are installed in the jigs 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 jigs in place during the pouring of the concrete is at the option of the installer.) After the concrete has set, remove the jigs from the pedestals and install the heater as indicated in steps Seven or Eight.

### Installation of Single Unit

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

- 1. Remove front cover by removing mounting screws (Fig. 2)
- Install end caps (must be purchased separately) on both ends of the heater housing. Refer to Figure 5 (907, 911, and 913 series) for details of end cap installation.
- 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.



#### End Cap Data

	Heater Catalog Number					
Description	907 Series					
End Cap Left	BIC-C5PECL (R)					
End Cap Right	BIC-C5PECR (R)					
	Heater Catalog Number					
	911 Series	913 Series				
End Cap Left	BIC-D5PECL (R)	BIC-D7PECL (R)				
End Cap Right	BIC-D5PECR (R)	BIC-D7PECR (R)				

#### (R) Suffix on catalog number refers to accessories with 120 VAC receptacle.

#### Figure 5. (907, 911, and 913 Series Only)

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 end of the heater.

#### 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.)
- 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 5a or 5b 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 (907, 911, and 913 Series only):** 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.

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

## CAUTION A

DO NOT OPERATE THE HEATERS UNLESS THE OUTER END OF THE LAST HEATERS (OR BLANK SECTIONS) IN THE RUN ARE CLOSED WITH END CAPS.

**Note**: 75°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 7 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 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 counter-clockwise; 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 end of the heater.

### **OPERATION**

- 1. This heater must be properly installed before it is used.
- 2. 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 counter-clockwise; if too cool, rotate the shaft clockwise until a comfortable temperature is obtained. Let room temperature stabilize after each setting change. The heater will automatically cycle around this set point on the thermostat.

**Note:** If a thermostat or disconnect switch is provided in the heater, these components are accessible through the grille openings at the left or right end of the heater.

3. There are safety over-temperature limiting devices inside the heater. These safety devices are there to turn off the heater automatically in the event of an over-temperature condition. These devices are not to be tampered with or disconnected from the electrical system. If the heater is installed correctly and wired to the correct voltage, these devices should never operate to turn off the heater. If this device is cycling the heater off and on, turn off power to the heater and and have the heater serviced by qualified service personnel.

### MAINTENANCE

- 1. The user can perform periodic cleaning of the outer cabinet. All other servicing is to be done by qualified service personnel.
- 2. The finish of the heater may be cleaned with a slightly damp rag if desired.
- 3. Because of the convection heating principle which depends on air circulation through the heater, dust can collect between the fins. The heater should be cleaned annually for maximum efficiency.
- 4. To remove the front cover, remove attachment screws at the bottom of the front cover.

## 🛆 WARNING 🗥

BEFORE REMOVING THE FRONT COVER FOR SERVICING OR CLEANING, BE SURE POWER HAS BEEN TURNED OFF AT THE CIRCUIT BREAKER PANEL AND THE HEATER ELE-MENT IS COOL.

- 5. A vacuum cleaner with a brush attachment may be used for cleaning of the element fins.
- 6. Replace front cover, (using the screws provided), restore power and check heater for proper operation.



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

Figure 7 - Wiring Diagram

#### LIMITED WARRANTY

All products manufactured by Indeeco are warranted against defects in workmanship and materials for one year from the date of purchase, except heating elements which are warranted against defects in workmanship and materials for five years from date of purchase 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. This warranty does not apply to refurbished products. All claims for warranty work must be accompanied by proof of the date of purchase.

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 Indeeco. Within the limitations of this warranty, inoperative units should be returned to Indeeco, and we will repair or replace, at our option, at no charge to you with return freight paid by Indeeco. It is agreed that such repair or replacement is the exclusive remedy available from Indeeco.

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. Indeeco SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES ARISING WITH RESPECT TO THE PRODUCT, WHETHER BASED UPON NEGLI-GENCE, 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 have other rights which vary from state to state.

Contact Indeeco in St Louis, MO, at 314-644-4300. Merchandise returned to the factory must be accompanied by a return authorization and service identification tag, both available from Indeeco. 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 314-644-4300

2. General Product Information www.indeeco.com

Note: When obtaining service always have the following:

1. Model number of the product

2. Date of manufacture

3. Part number or description



St Louis, MO 63144 USA