

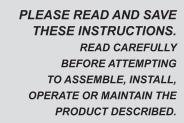




Portable Electric
Salamander/
Construction Heaters

Models: 784JH7A, 784JH8A, 784JH9A, 784JJ0A, 784JJ1A, 784JJ2A and Wall/Ceiling Bracket 784JJ3A





PROTECT YOURSELF AND
OTHERS BY OBSERVING ALL
SAFETY INFORMATION. FAILURE
TO COMPLY WITH INSTRUCTIONS
COULD RESULT IN PERSONAL
INJURY AND/OR PROPERTY
DAMAGE! RETAIN INSTRUCTIONS
FOR FUTURE REFERENCE.

PLEASE REFER TO BACK COVER FOR INFORMATION REGARDING DAYTON'S WARRANTY AND OTHER IMPORTANT INFORMATION.

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Dayton

GENERAL SAFETY INSTRUCTIONS

READ AND SAVE THESE INSTRUCTIONS.

When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- 1. Read all instructions before using this heater.
- Verify the power supply voltage coming to heater matches the voltage rating printed on the heater nameplate before energizing.
- 3. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. If provided, use handles when moving this heater. Keep combustible materials such as furniture, pillows, bedding, papers, clothes and curtains at least 3 feet (0.9m) from the front of the heater and keep them away from the sides and rear at all times.
- Extreme caution is necessary when any heater is used by or near children or handicapped individuals and whenever the heater is left operating and unattended.
- 5. Always disconnect heater from the power source when not in use.
- 6. Do not operate any heater with a damaged cord or plug or after the heater malfunctions, has been dropped, or damaged in any manner. Return heater to an authorized service facility for examination, electrical or mechanical adjustments or repair.
- 7 Do not use outdoors
- 8. This heater is not intended for use in bathrooms, laundry areas and similar indoor locations. Never locate heater where it may fall into a bathtub or other water container.
- 9. Do not run cord under carpeting. Do not cover cord with throw rugs, runners or the like. Arrange cord away from traffic area's and where it will not be tripped over.
- 10. To disconnect heater, turn the heater's thermostat to the lowest setting. Keep the fan switch engaged in the ON position for a minimum of 3 minutes to remove residual heat. Then turn to OFF position, then remove plug from power source.
- 11. Connect to properly grounded power source only.
- 12. Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock, fire or damage the heater.
- 13. To prevent a possible fire, do not block air intakes or exhaust in any manner. Do not use on soft surfaces, like a bed, where opening may become blocked.
- 14. A heater has hot and arcing or sparking parts inside. Do not use in areas where gasoline, paint or flammable liquids are used or stored.
- 15. 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.
- 16. This heater is not intended for use with an extension cord.

▲ WARNING

Risk of fire. Do not use as a residential or household heater.



GENERAL SAFETY INSTRUCTIONS

IMPORTANT: Heated airflow may result in discoloration or damage to certain temperature sensitive fabrics and materials. Keep combustible materials and other items sensitive to heat damage away from heater at all times.

These units are for use in rooms with ambient temperatures ranging from -40°F to 80°F only. Use at temperatures outside this range may result in improper operation.

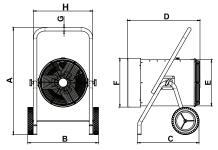
DESCRIPTION

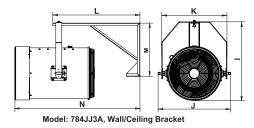
Power Source

Dayton Portable Electric Salamander Heaters are for use as temporary heating of enclosed spaces such as work areas or buildings under construction. Heaters are designed to gradually increase the room temperature by circulating the air through the heating elements. Best results occur when using the heater in enclosed spaces with standard ceiling heights. Heaters can be used as a source of portable heat or can be wall or ceiling mounted with the optional wall mounting bracket (784JJ3A).

GENERAL SPECIFICATIONS

	errown in table below
Operation Position	Roll-About on Hard Stable Floors
Frame and Cart Material	Steel with Powder Coating Finished
Propeller Material	Aluminum Alloy and Galvanized Steel
Agency Compliance	CSA C22 2 No. 46-13 & LII. 2021





Shown in table below

Models: 784JJ7A, 784JJ8A, 784JJ9A, 784JJ0A, 784JJ1A, 784JJ2A

Figure 1

DIMENSIONS (INCHES)

Figure 2

	10101	40 (1144	JIIEU,						
MODEL	Prop. Dia.	Α	В	С	D	E	F	G	н
784JH7A	15-7/8"	38-9/16"	25"	22-5/32"	26-1/4"	16-23/32"	17-19/32"	1-1/4"	21-13/32"
784JH8A	15-7/8"	38-9/16"	25"	22-5/32"	26-1/4"	16-23/32"	17-19/32"	1-1/4"	21-13/32"
784JH9A	15-7/8"	38-9/16"	25"	22-5/32"	26-1/4"	16-23/32"	17-19/32"	1-1/4"	21-13/32"
784JJ0A	15-7/8"	38-9/16"	25"	22-5/32"	26-1/4"	16-23/32"	17-19/32"	1-1/4"	21-13/32"
784JJ1A	15-7/8"	38-9/16"	25"	22-5/32"	26-1/4"	16-23/32"	17-19/32"	1-1/4"	21-13/32"
784JJ2A	15-7/8"	38-9/16"	25"	22-5/32"	26-1/4"	16-23/32"	17-19/32"	1-1/4"	21-13/32"

MODEL	1	J	K	L	M	N
784JJ3A	25-17/32"	23-1/2"	21-3/16"	28-23/32"	17-9/16"	41-3/16"



PERFORMANCE

							Motor			Wire Size	
MODEL	Voltage	Frequency (Hz)	Phase	Watts	Amps	CFM	Noise Level(dB)	НР	Amps	RPM	(AWG/C), Max. 25'
784JH7A	240	60	3	15KW	36.1	2840	75	1/6	1.1	1485	6/4
784JH8A	240	60	1	15KW	62.5	3470	75	1/6	1.1	1485	4/3
784JH9A	480	60	3	15KW	18	2810	75	1/6	0.55	1580	8/4
784JJ0A	240	60	1	10KW	41.7	2720	75	1/6	1.1	1485	6/3
784JJ1A	208	60	3	15KW	41.6	2780	75	1/6	1.05	1485	6/4
784JJ2A	480	60	3	30KW	36.1	3100	78	1/4	0.7	1730	6/4

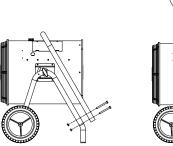
All electrical wiring to the heater must be performed by a qualified / certified electrician.

All electrical wire sizing must be determined at installation based upon application of the heater and length of the wiring. This final determination may require a larger wire size then what is shown in the table. Consult a qualified local electrical engineer if there are any questions.

INSTALLATION INSTRUCTION

HANDLE POSITION

The handle is assembled in the lower position when shipped from manufacturer (see Figure 3). To position handle in the upright position, remove nuts and bolts securing the handle to the support legs, lift handle until the handle holes line up with the upper holes in the support legs. Re-install nuts and bolts to secure the handle in the full upright position.



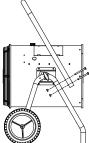


Figure 3

FRONT SHIELD ASSEMBLY

Heater's body is shipped fully assembled except for the front shield in package. It is highly recommended that you install the front shield on the heater prior to operating for the safety of you and others. Install it onto the heater's head by fastening 4 screws which are included inside the package (Figure 4).

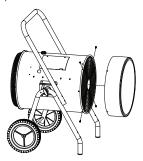


Figure 4



INSTALLATION INSTRUCTION (CONTINUED)

OPTIONAL WALL/CEILING MOUNTING BRACKET - MODEL 784JJ3A

- 1. Remove the drum knobs and stop bolts, then remove the housing from cart.
- Assemble hanger to heater as shown in Figure 5. Install the drum knob and stopper screws as shown.
- 3. Secure the mounting bracket to a surface that can support the weight of the heater.
- 4. Loop the secondary support cable through both of the welded heater housing side bracket as indicated. Secure the ends with two cable clamps. Loop the other end of cable around any permanent structural member close to the heater (I-beam, rafter, joist, etc.) and secure ends with two cable clamps.

IMPORTANT: Note the proper installation position of the cable clamps as illustrated. To obtain maximum holding power, install U-bolt section of clip on dead or short end of cable and saddle on long end of cable. Improper installation reduces the efficiency of the connection by as much as 40 percent (See Figure 6).

▲ WARNING

Falling hazard. Wall bracket must be reliably attached to building using appropriate hardware.

A WARNING

Test to make sure the wall in which the wall bracket is to be secured is capable of safely and reliably supporting at least 100 lbs before

installing the heater.

5. Attach heater to bracket using the desired configuration shown in Figure 7.

▲ CAUTION

To reduce the risk of personal injury, observe the following: Do not install less than 6 feet (1.8m) high from the floor and do not

install less than 2 feet (0.6m) from the ceiling while also maintaining the mounting bracket not less than 4 feet (1.2m) away from any adjacent vertical surface. Keep at least 1 foot (0.3m) from the back wall.

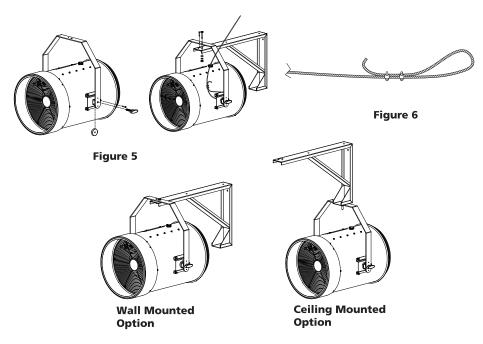


Figure 7 - 784JJ3A Mounting Bracket

SSEMBLY



WIRING

A WARNING ELECTRIC SHOCK HAZARD. Disconnect all power before installing or servicing heater. Failure to

do so could result in personal injury or property damage. Heater must be effectively grounded in accordance with the National Electrical Code, NFPA 70. Follow all local electrical and safety codes in the United States and Canada, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA) in the United States, and the Canadian Electric Code (CEC) in Canada.

- 1. Use heater only at the voltage and frequency specified on the nameplate.
- All wiring should be done in accordance with local codes and the National Electrical Code by a qualified technician.
- 3. Branch circuit wire for connection to heater must be rated for at least 90°C.
- 4. The top access panel is secured by 2 screws that must be loosened to gain access.
- 5. A ground terminal is provided near the power terminal board or the line voltage contactor. The ground wire should be connected before other connections are made.
- 6. Refer to Specifications for proper size "SO" grade cable.
- 7. A proper strain relief must be used with "SO" grade cable.
- 8. Refer to the appropriate wiring diagram for your model in this manual. The appropriate wiring diagram is also located on the back of the wiring compartment cover.

WARNINGAll connections must be tight with all copper wire strands within the connector. A loose or improperly installed connector can heat and could fail or possibly cause a fire hazard.

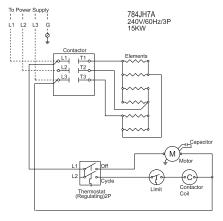
CORD ASSEMBLY

- Determine the gauge and number of conductors from the Specifications Table using amps and phase from the heater nameplate. It is not recommended that power cord exceed 50 feet in length.
- 2. Strip off outer jacket of cord and insulation from lead wires. Figure 8 provides the strip dimensions.
- 3. Slide fitting onto cord and tighten the strain relief to secure fitting to cord.
- 4. Select plug (sold separately) to match electrical rating of cord.
- On opposite end of cord, prepare the end as directed by instructions that are provided with the plug.
- 6. Attach cord assembly to heater. Refer to appropriate wiring diagram for your model.

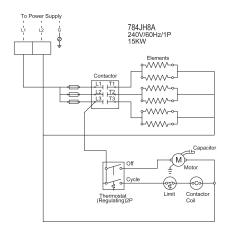


Figure 8

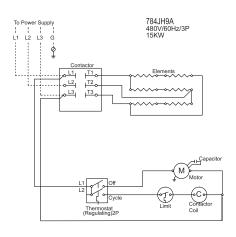
WIRING DIAGRAMS



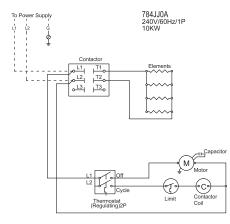
784JH7A - 240V/15KW, 3 PHASE



784JH8A - 240V/15KW, 1 PHASE



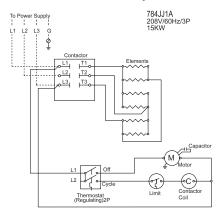
784JH9A - 480V/15KW, 3 PHASE



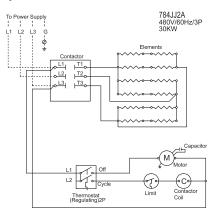
784JJ0A - 240V/10KW, 1 PHASE



WIRING DIAGRAMS (CONTINUED)



784JJ1A - 208V/15KW, 3 PHASE



784JJ2A - 480V/30KW, 3 PHASE

OPERATION

Dayton Portable Electric Salamander Heaters are designed to gradually increase the room temperature by circulating air across the heating elements. Best results occur when using the heater in enclosed space with standard ceiling heights. Heaters include a bimetal thermostat for the automatic control of the exiting air temperature. The thermostat knob controls the heating elements functions. The heater is deenergized with the knob in the extreme counterclockwise position. The adjustment knob controls power to the heater when turned further in the clockwise direction, with the highest temperature setting in the extreme clockwise position. The temperature setting in the heater mode is approximately 40°F in the low setting and 100°F at the highest setting.

IMPORTANT: Cool down cycle. After operating in the heating mode, when shutting down unit, always rotate the thermostat control knob to the lowest/extreme counterclockwise position and allow unit to cool down for at least three minutes. This will extend the life of the unit. Dayton Heaters are equipped with an over temperature limit that will shut the heater down in the event of overheating.

NOTE: Should the unit activate the over temperature limit, the cause of overheating should be determined before operating any further. Check heater to ensure it has not been blocked by in any manner, if so remove blockage. If there is no indication of blockage, it is recommended the heater be checked by a qualified electrician or service technician to ensure the heater has not been damaged.



TROUBLESHOOTING GUIDE

A WARNING

Parts replacement and troubleshooting are to be performed only by a qualified technician.

Symptom	Possible Cause(s)	Corrective Action		
	Thermostat setting lower than room temperature	Adjust thermostat control knob to a higher setting by turning clockwise.		
No heating	2. Wrong wire connection	2. Check wire connection according to wiring diagram.		
	3. Overheat protection limit device tripped	3. Turn the heater OFF; allow it to cool. Inspect and remove any objects on or adjacent to the heater that may have caused an obstruction to the unit's airflow. Wait 30 minutes before turning back on.		
Foul doors or smells	1. A drop of oil fell on the heating coil during the manufacturing process. 2. Materials surrounding the heater are reacting to temperature increase from the heater's operation.	It will quickly dissipate after 30 minutes of operation and should not occur again. Check to ensure that there are no combustible materials within 0.9 meters (3 feet) surrounding the heater.		

MAINTAINANCE

A WARNING

ELECTRIC SHOCK HAZARD.

Disconnect heater from power supply before servicing and/or inspecting the heater; failure to do so may result in electrical shock.

▲ CAUTION

Allow heater to cool completely before servicing or cleaning.

Replace or repair damaged cords or plugs immediately. Check tightness of all electrical connections prior to energizing the heater. Blow with compressed air or vacuum away any dirt or debris that may have accumulated around the control enclosure, fan motor or heating elements. The heater housing can be wiped clean with a clean damp rag.

REPAIR PARTS AND DISASSEMBLY

▲ WARNING

Parts replacement and troubleshooting are to be performed only by a qualified technician.

- 1. Disconnect power before servicing.
- 2. Refer to illustration of parts placement (Figure 9).
- 3. Remove the four screws holding the guard to the venturi panel. Remove the guard/motor/propeller assembly.
- 4. Loosen the set screw on propeller hub and remove the propeller.



REPAIR PARTS ILLUSTRATION FOR PORTABLE ELECTRIC SALAMANDER/CONSTRUCTION HEATER

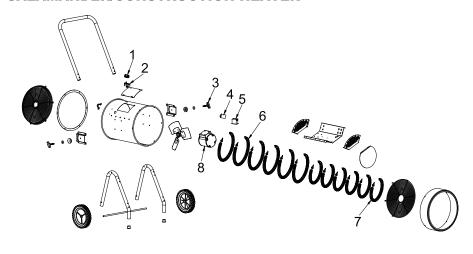


Figure 9

REPAIR PARTS LIST FOR PORTABLE ELECTRIC SALAMANDER/CONSTRUCTION HEATER

Reference		Part Number	Part Number For Models:					
umb	er Description	784JH7A	784JH8A	784JH9A	784JJ0A	784JJ1A	784JJ2A	Qty
1	Thermostat Knob	797NY4A	797NY4A	797NY4A	797NY4A	797NY4A	797NY4A	1
2	Thermostat	797NY8A	797NY8A	797NY8A	797NY8A	797NY8A	797NY8A	1
3	Knob for Cart (pair)	797NY3A	797NY3A	797NY3A	797NY3A	797NY3A	797NY3A	1
4	Capacitor	797NX4A	797NX4A	797NX4A	797NX4A	797NX4A	797NX5A	1
5	Contactor	797NX6A	797NX6A	797NX7A	797NX8A	797NX8A	797NX7A	1
6	Heating Element L	797NX9A	797NX9A	797NX9A	797NX9A	797NY0A	797NX9A	
#	of Heating Element L	3	3	3	2	3	6	
7	Heating Element S	797NY1A	797NY1A	797NY1A	797NY1A	797NY2A	797NY1A	
#	of Heating Element S	3	3	3	2	3	6	
8	Motor	797NY5A	797NY5A	797NY6A	797NY5A	797NY5A	797NY7A	1

For Repair Parts, call 1-800-Grainger 24 hours a day – 365 days a year

Please provide following information:

- -Model number
- -Serial number (if any)
- -Part description and number as shown in parts list

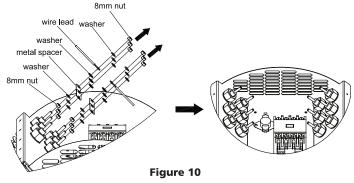


STEPS TO REPLACE SALAMANDER HEATING ELEMENTS

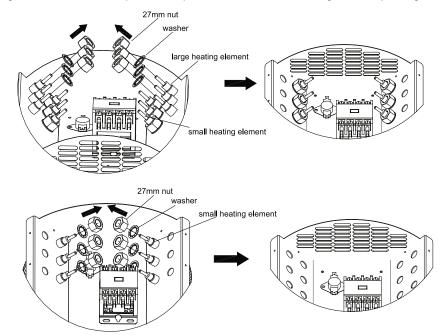
A WARNING

Parts replacement and troubleshooting are to be performed only by a qualified technician.

1. Take a picture of the wiring prior to repairing for future reference. Remove the 8mm nuts and washers and then remove the metal spacer from the heating element assembly. Disconnect the wire leads from the damaged heating element(s) and retain all hardware for replacing the damaged element. (See Figure 10).



2. After disconnecting the wires, identify which type of heating element (large or small) needs to be replaced. If you are replacing the smaller heating element (797NY1A/797NY2A), you must take off the larger heating element (797NX9A/797NY0A) first. To remove a heating element, remove the 27mm nuts and washers located between the heating element and the unit's housing using a wrench or socket. Repeat this step to remove the smaller heating element. (See Figure 11).





3. Install the small heating element prior to installing the large heating element (if required). To replace a heating element, first remove the 27mm nuts, one 8mm nut and 2 small washers from each side of the new heating element. Leave one 8mm nut on both sides of the new component (See Figure 12).

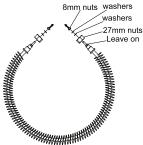


Figure 12

4. Install the new heating element in its appropriate position using the hardware removed in step 2. Ensure that the smaller heating element is replaced prior to installing the larger heating element (See Figure 13).

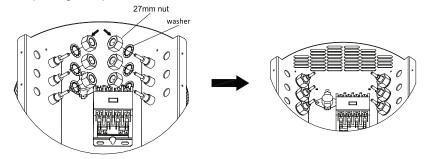


Figure 13

5. Connect the wire lead from the contactor to the heating element according to the wiring diagram on the unit. Replace the metal spacer from step 1 and fasten the assembly using a 8mm nut. Refer to your picture of your unit's factory wiring to ensure that all proper connections have been made.

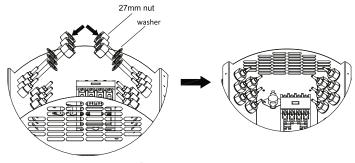
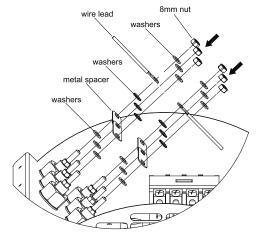


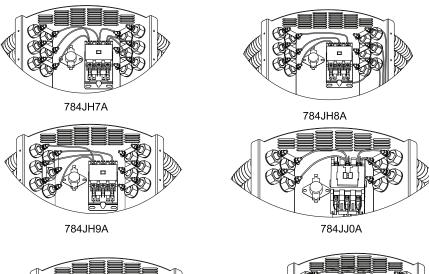
Figure 14

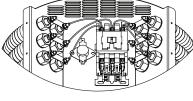


NOTE: All installations and connections should be the same as before replacement. Connections vary depending on the model of the heater. Refer to the appropriate wiring diagram for your model in this manual.

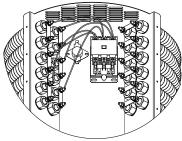


After installation:





784JJ1A



784JJ2A

DAYTON ONE-YEAR LIMITED WARRANTY

<u>DAYTON ONE-YEAR LIMITED WARRANTY.</u> All Dayton* product models covered in this manual are warranted by Dayton Electric Mfg. Co. ("Dayton") to the original user against defects in workmanship or materials under normal use for one year after date of purchase. If the Dayton product is part of a set, only the portion that is defective is subject to this warranty. Any product or part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton or Dayton's designee designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced with a new or reconditioned product or part of equal utility or a full refund given, at Dayton's or Dayton's designee's option, at no charge. For limited warranty claim procedures, see "Warranty Service" below. This warranty is void if there is evidence of misuse, mis-repair, mis-installation, abuse or alteration. This warranty does not cover normal wear and tear of Dayton products or portions of them, or products or portions of them which are consumable in normal use. This limited warranty gives purchasers specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

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WARRANTY SERVICE

To obtain warranty service if you purchased the covered product directly from W.W. Grainger, Inc. ("Grainger"), (i) write or call or visit the local Grainger branch from which the product was purchased or another Grainger branch near you (see www.grainger.com for a listing of Grainger branches); or (ii) contact Grainger by going to www.grainger.com and clicking on the "Contact Us" link at the top of the page, then clicking on the "Email us" link; or (iii) call Customer Care (toll free) at 1-888-361-8649. To obtain warranty service if you purchased the covered product from another distributor or retailer, (i) go to www.grainger.com for Warranty Service; (ii) write or call or visit a Grainger branch near you; or (iii) call Customer Care (toll free) at 1-888-361-8649. In any case, you will need to provide, to the extent available, the purchase date, the original invoice number, the stock number, a description of the defect, and anything else specified in this Dayton One-Year Limited Warranty. You may be required to send the product in for inspection at your cost. You can follow up on the progress of inspections and corrections in the same ways. Title and risk of loss pass to buyer on delivery to common carrier, so if product was damaged in transit to you, file claim with carrier, not retailer, Grainger or Dayton. For warranty information for purchasers and/or delivery outside the United States, please use the following applicable contact information:

Dayton Electric Mfg. Co., 100 Grainger Parkway, Lake Forest, IL 60045 U.S.A. or call +1-888-361-8649