

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. 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.

Dayton® Portable Electric Heaters

Description

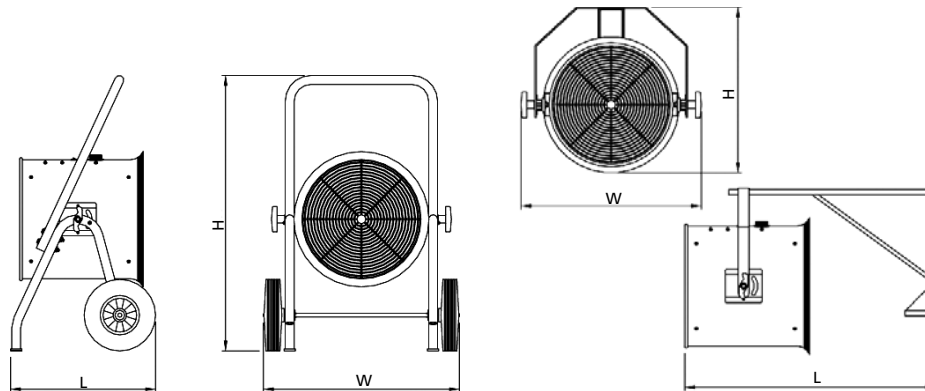
This is an electric, forced air heater. It is primarily intended for temporary heating of buildings under construction, alteration or repair. This heater circulates the room air to gradually and continuously heat the space. The heater is constructed with a high quality heating element, and is supplied with front and rear safety screens. It comes with a high limit temperature switch, with automatic reset, a temperature control thermostat, and a fan control switch. Note that each heater can be used as a portable model, or wall or ceiling mounted with the optional wall/ceiling mount kit. It is not intended for use in residential applications.

Dimensions (Port / Suspend)

Model	Length	Width	Height
1RKT2	21"/36"	27"/23"	39"/23"
1RKT3	21"/36"	27"/23"	39"/23"
1RKT4	21"/36"	27"/23"	39"/23"
1RKT5	21"/36"	27"/23"	39"/23"
1RKT9	21"/36"	27"/23"	39"/23"
1RKU2	23"/38"	27"/23"	39"/23"



Figure 1 - 1RKT2.



Model 1RKT2 w/ cart

Model 1RKU2 w/optional Wall mount

Figure 2



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Specifications

Model	Unit Weight (Lbs)	Kilowatts	Volts-	Phase	Amps	Fan Output	Heat Output
1RKT2	76	15	240	3	36	790 CFM	51,216 BTU/Hr
1RKT3	76	15	240	1	63	790 CFM	51,216 BTU/Hr
1RKT4	76	15	480	3	18	790 CFM	51,216 BTU/Hr
1RKT5	71	10	240	1	42	790 CFM	34,144 BTU/Hr
1RKT9	76	15	208	3	42	790 CFM	51,216 BTU/Hr
1RKU2	88	30	480	3	36	1,200 CFM	102,432 BTU/Hr

Dayton® Portable Electric Heaters

Unpacking

Remove the heater and all of its packaging materials from the shipping carton.

NOTE

Save the box and packaging materials for future use.

General Safety Information

▲ WARNING *Do not operate this heater until you have read, and thoroughly understand these safety and operating instructions. Failure to comply with the precautions and instructions provided with this heater can result in death, serious bodily injury, property loss or damage from the hazards of fire, explosion, burns, or electric shock. Only persons who can read and understand these instructions should use or service this heater. Not for residential, household or recreational vehicle use. Please read this manual*

▲ WARNING **FIRE, BURN, INHALATION AND EXPLOSION HAZARD:**

1. Keep solid combustibles, such as building materials, paper or cardboard, a safe distance away from the heater as recommended by the instructions in this manual.

NEVER use the heater in locations which do or may contain volatile or airborne combustibles, or products such as gasoline, solvents, paint thinner, dust particles or unknown chemicals.

2. These heaters are design certified as portable and wall or ceiling mounted electric room heaters under UL1278 and C22.2 No. 46-M1988 standards.

3. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Use handle when moving this heater. Keep

combustible materials, such as furniture, pillow, bedding, papers, clothes and curtains at least 3 feet from the front, sides and rear of the heater and the feeder cable.

▲ DANGER *Never let children operate or allow near any heater. Never leave heater operating and unattended.*

▲ CAUTION *Always turn off heater at control service panel and then unplug heater when not in use.*

4. 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 adjustment, or repair.

5. Do not use this heater outdoors or in a residential or household area.

6. This heater is not intended for use in bathrooms, laundry areas and similar indoor locations.

7. Do not run the cord under any carpeting. Do not cover the cord with runners or similar coverings. Arrange cord away from traffic area and where it will not be tripped over.

8. Do not insert or allow any foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock or fire, or damage to the heater.

9. To prevent a possible fire, do not block air intakes or exhaust in any manner.

10. A heater has hot and arcing or sparking parts inside. Do not use

this heater in areas where gasoline, paint, or flammable liquids are used or stored.

11. 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.

12. Do not operate without protective grilles or guards in place.

13. Do not modify this heater in any way, or operate any heater that has been modified from its original state.

14. It is hard to anticipate every use, which may be made of the heater. Check with your local fire safety authority if you have any questions about heater application.

15. Do not supply power to this heater when heater is near standing water.

▲ CAUTION *Avoid the use of an extension cord because the extension cord may overheat and cause a risk of fire. If you are to use an extension cord, however: Check and verify branch circuit voltage. Heater should NOT be operated at voltages higher than the heater ratings!*

Features

The Dayton portable electric heaters come mounted on a two wheeled tilt cart assembly, which can be moved around on its cart. The heater housing can be tilted to direct the air flow to any desired location. The features of the Dayton portable electric heaters are shown in Figure 3 on page 3.

Models 1RKT2, 1RKT3, 1RKT4, 1RKT5, 1RKT9 and 1RKU2

Assembly ASSEMBLING THE WHEELED CART

Tools required:

(2) 1/2" socket or box wrenches

To position the handle at the proper operating height:

Step 1:

Remove and retain all of the hardware securing the legs to the handle.

Step 2:

Raise handle until holes in handle match the upper holes in the legs.

Step 3:

Re-install the hardware as shown in Figure 3a, and fasten securely.

ASSEMBLING THE OPTIONAL WALL / CEILING MOUNT KIT

▲WARNING FALLING OBJECTS HAZARD

Serious injury or death may occur. Read and follow all safety information and instructions on pages 2 and 3.

Tools required:

(2) 3/4" socket or box wrenches

Parts required:

The two (2) screws required to secure wall/ceiling bracket to a suitable surface (not supplied), **must** be 5/16" bolts and flat washers.

Step 1:

Remove the wing knobs and remove the housing from the cart.

Step 2:

Install side rotating stop over bolts and into curved slots as shown in Figure 3b, on each side of the heater.

Step 3:

Assemble hanger to heater as per Figure 3b. This step requires no tools.

Step 4:

Secure mounting bracket to a surface that can support a minimum of 120 continuous pounds.

Step 5:

Attach heater to bracket using the desired option shown in Figure 4 on page 5.

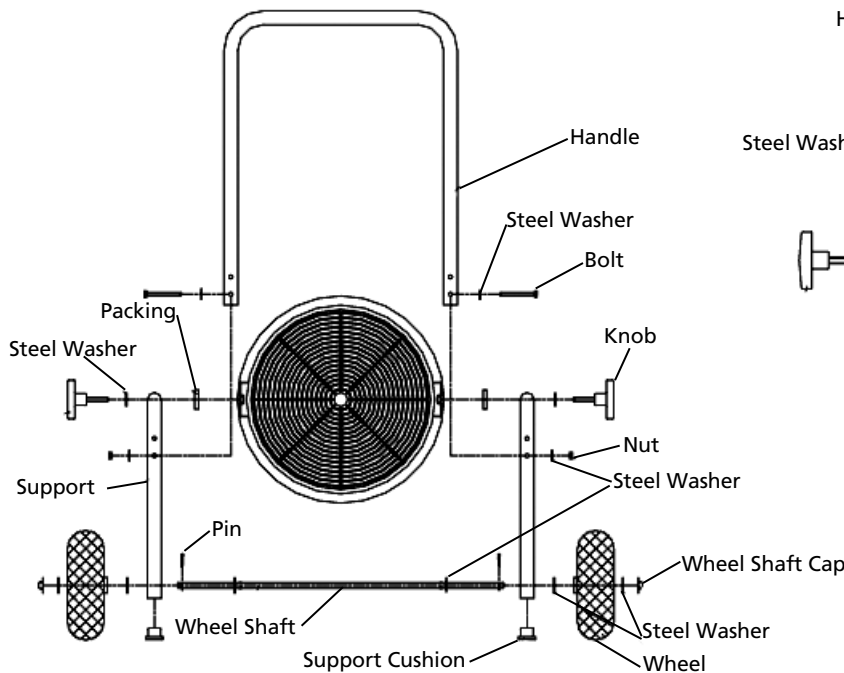


Figure 3a - Cart Assembly Features

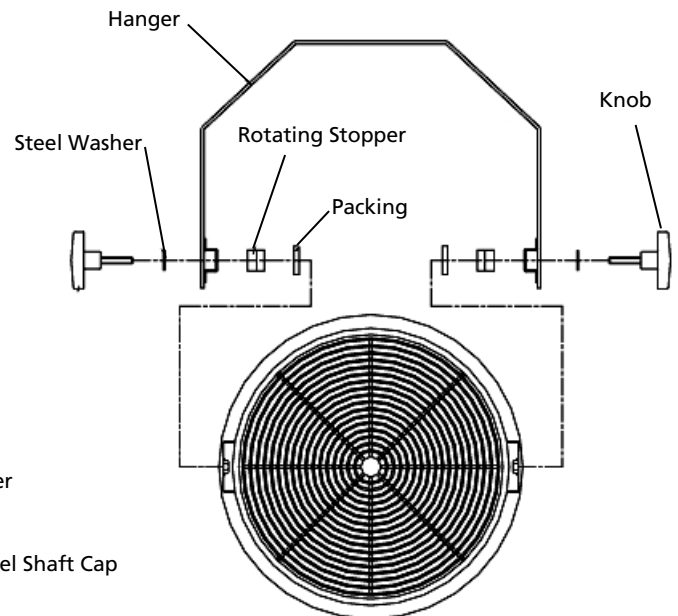


Figure 3b - Hanger Assembly Features

Dayton™ Portable Electric Heaters

TABLE 1 Under 50 ft long

Model	Unit Rating	Cable Size *	25' Cable part number
1RKT2	15kW - 240 Volt - 3 Phase	6/4	1RKT7
1RKT3	15kW - 240 Volt - 1 Phase	4/3	1RKT6
1RKT4	15kW - 480 Volt - 3 Phase	12/4	1RKT8
1RKT5	10kW - 240 Volt - 1 Phase	4/3	1RKT7
1RKT9	15kW - 208 Volt - 3 Phase	6/4	1RKT7
1RKU2	30kW - 480 Volt - 3 Phase	6/4	1RKT7

TABLE 2 Over 50 ft long

Model	Unit Rating	Cable Size *	Max. Cable Length (ft)
1RKT2	15kW - 240 Volt - 3 Phase	6/4	150
1RKT3	15kW - 240 Volt - 1 Phase	2/3	215
1RKT4	15kW - 480 Volt - 3 Phase	12/4	140
1RKT5	10kW - 240 Volt - 1 Phase	4/3	140
1RKT9	15kW - 208 Volt - 3 Phase	4/4	120
1RKU2	30kW - 480 Volt - 3 Phase	6/4	300

Tables 1 and 2: Cable information

* Cable Size: AWG / Number of Conductors

Models 1RKT2, 1RKT3, 1RKT4, 1RKT5, 1RKT9 and 1RKU2

Assembly (Continued)

- The mounting bracket supplied for the wall/ceiling mount option **MUST** be used to support heater.
- The installer **MUST** be certain that the wall or ceiling that the mounting bracket is mounted to shall be able to support 120 pounds continuously.
- The rotating stoppers shown in Figure 3b **MUST** be used.
- **DO NOT** mount the heater upside down. Locate label on the heater showing "TOP" of heater.
- The bottom of the heater must be mounted at least 6 feet from the floor and 2 feet from the ceiling.
- **DO NOT** hang any other equipment from this heater, and only hang ONE heater per mounting bracket.

Wiring Instructions

NOTE: Feeder cable is not included with this heater.

⚠ WARNING *The proper size SO type feeder cable must be used for the electrical connection of this heater. The proper size cable is shown in the tables on page 4 (AWG / number of conductors). Table 1 is for cable 50 feet or less, and Table 2 is for cable longer than 50 feet. Comply with ALL electrical codes and the National Electrical Code (NFPA70) when providing electrical power to this heater. Feeder cable hook-up MUST be done by a licensed electrician*

1. Use this heater only on the voltage and frequency specified on the nameplate.
2. All wiring should be done in accordance with local codes and the National Electrical Code by a licensed electrician.

3. Branch circuit wire for connection to heater must be at least 90 degree C wire.
 4. Connect green ground conductor on feeder cable or cable kit to the grounding lug on the heater.
 5. A ground terminal is provided near the power terminal board. The ground wire should be connected before any other connections are made.
 6. Refer to tables 1 and 2 on page 4 for the proper size SO feeder cable.
 7. A proper strain relief must be used with the designated cable.
 8. The control / service panel or receptacle used to supply power to this heater **MUST** have a grounding bus or ground lug that is securely bonded to earth ground.
- Failure to comply with the precautions provided with this heater can result in serious injury and property loss or damage from hazards of fire, burn, and/or electric shock.**

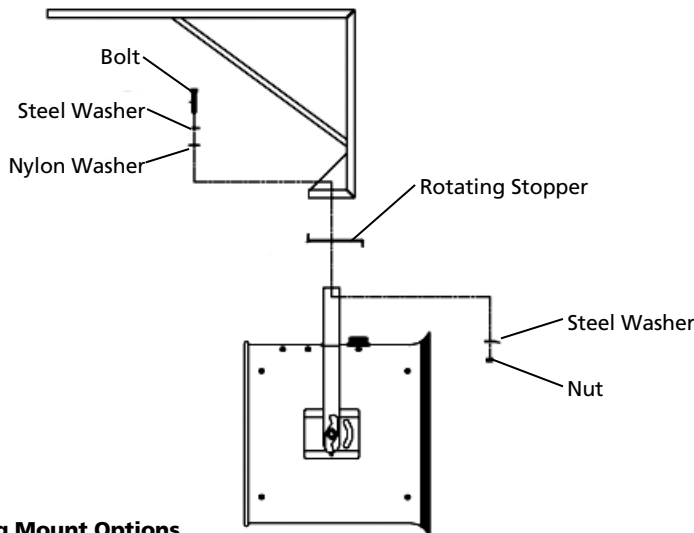


Figure 4 – Ceiling Mount Options

Dayton™ Portable Electric Heaters

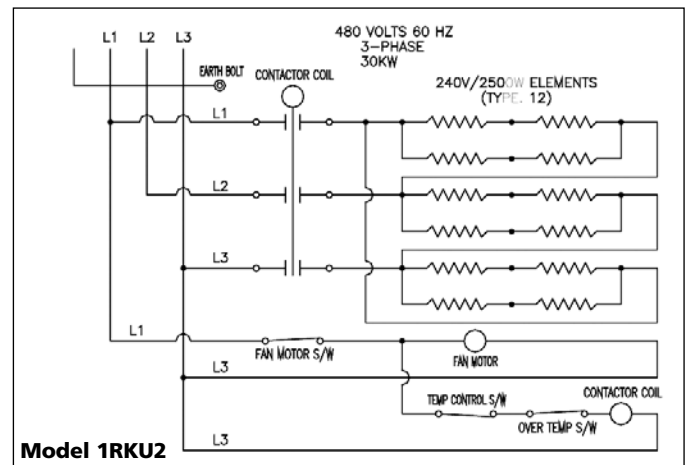
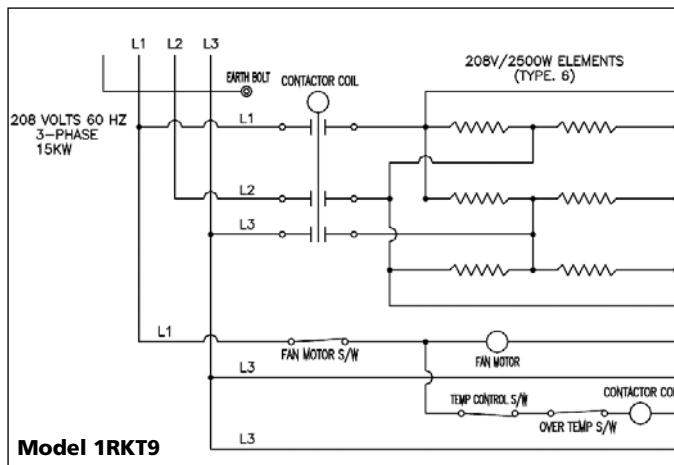
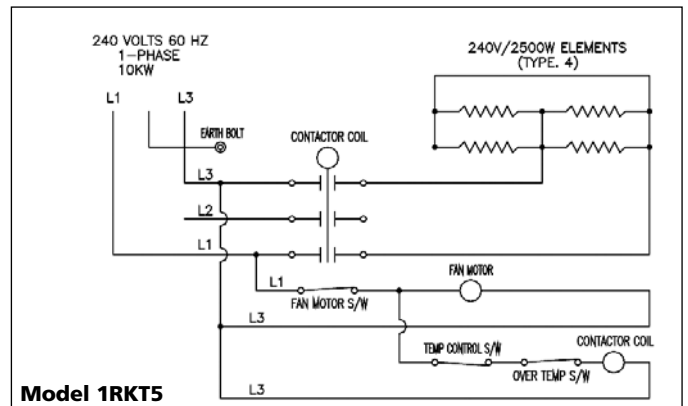
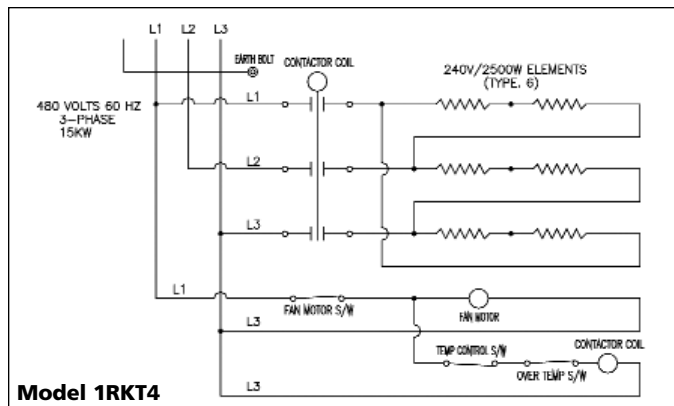
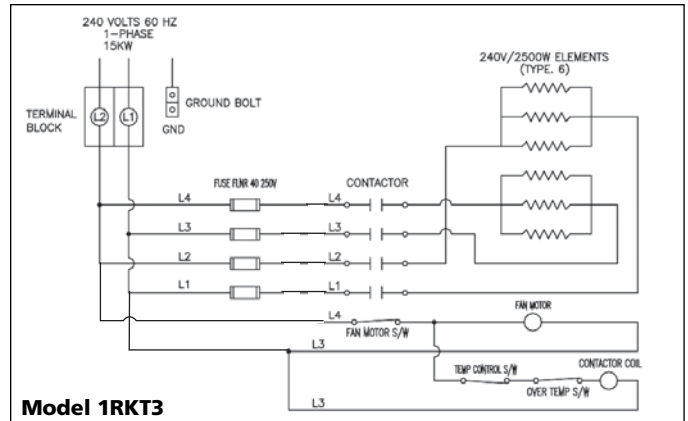
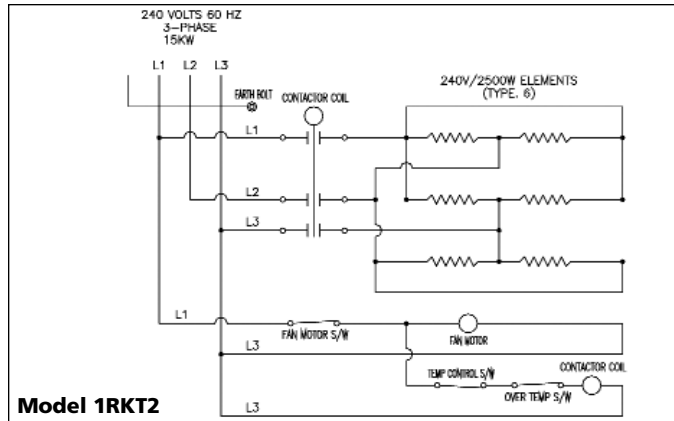


Figure 5 - Wiring Diagrams

Models 1RKT2, 1RKT3, 1RKT4, 1RKT5, 1RKT9 and 1RKU2

Operating Instructions

Dayton Portable Electric Heaters are designed to circulate room air across the heating element to gradually increase the room temperature. Best results will be obtained when using this heater in smaller, confined spaces with standard ceiling heights.

The operation of this heater is controlled by a Thermostat Control Knob shown in Figure 6 below.

It is possible to operate the heater fan only, or the fan and heater together. Press the Fan Control Switch to the "ON" position for fan only use. To add heat to the fan operation, turn the Thermostat Control Knob clockwise to the desired heat setting. Maximum heating will be obtained by turning the knob as far as it will rotate in the clockwise direction.

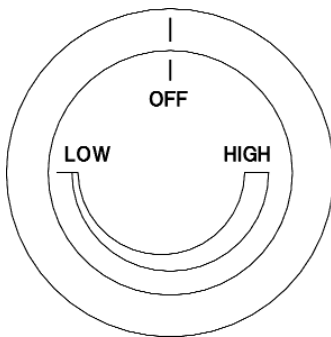


Figure 6 – Thermostat Control Knob

Always allow the fan to operate for at least 3 minutes when you are finished using the heater element. This will allow the heat to be dissipated from the unit. Be sure access panel (see Figure 7) is secure before and during use of heater.

All Dayton heaters are equipped with an internal temperature sensor that will completely shut down the heater should the sensor exceed the set limit. The heater will automatically reset, once the temperature drops to the proper level.

- Do not use outdoors.
- Do not use where flammable chemicals or liquids are stored.
- Do not use this heater in a residence.
- Always keep this heater at least 3 feet away from any combustible materials.
- Do not modify this heater in any way.
- Do not power this heater when it is near standing water.
- Do not touch heater housing while heater is operating.
- Do not allow power cable to contact any combustible materials.

SHUT DOWN INSTRUCTIONS

Turn thermostat control knob to OFF position and wait 2-3 minutes then press fan control switch to OFF position.

NOTE: Always operate fan 2-3 minutes after the thermostat control knob has been turned to the OFF position to avoid overheating of the heater housing.

- Always unplug heater when not in use, or turn off at control / service panel.

▲ WARNING Maintenance ELECTRIC SHOCK

HAZARD.

- Serious injury or death may occur.
- Disconnect all power before installation or servicing this heater. Failure to do so can result in personal

injury or property damage. Heater must be effectively grounded in accordance with the National Electrical Code NFPA 70.v.

▲ WARNING DANGER OF BODILY INJURY

Never service heater while it is plugged in, operating or hot. Turn power off at disconnect switch or control / service panel before removing any access panels from heater!

- Dust, lint and debris may affect heater performance. The heater draws air into it during operation. In the process dust, lint or debris will be drawn into your heater and spider webs can build up during off-season. Keep heating element and air passageways clean. Inspect or have these areas inspected annually at the beginning of the heating season by a qualified person. Your portable heater may require frequent cleaning due to excessive lint or debris depending on the surroundings.
- To clean the housing of the heater wipe it down with a clean, moist rag. NEVER hose the unit down.
- Remove any dust or dirt with compressed air.
- NEVER operate the heater without any of the protective guards in place.
- Replace the cable immediately if it should become damaged or cut.
- The motor never needs lubrication. It is permanently lubricated.

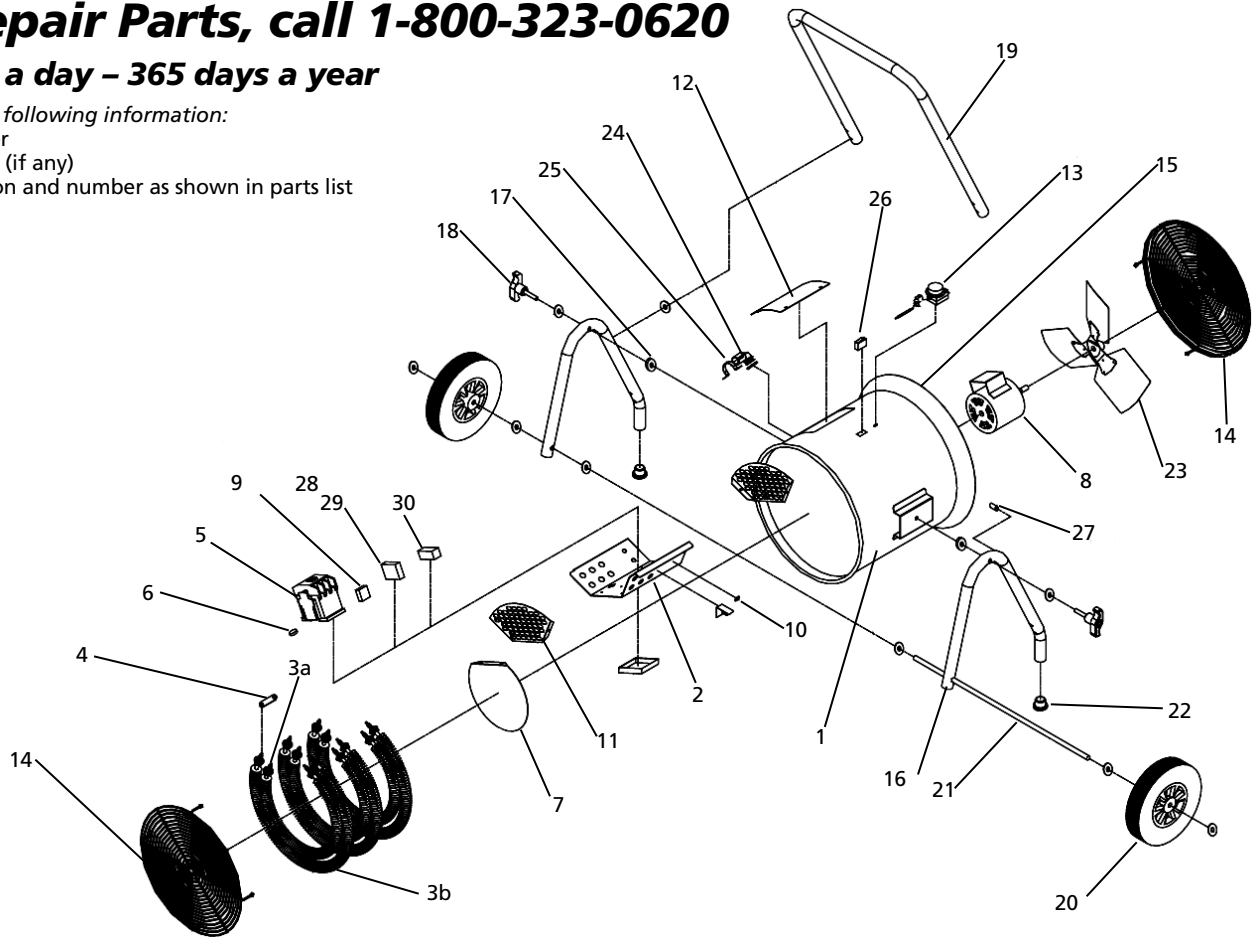
Storage

- Store your portable heater in a dry and ventilated place. Make sure storage place is free of corrosive fumes.

For Repair Parts, call 1-800-323-0620**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

**Figure 7 – Exploded Parts Illustration****Replacement Parts List**

Ref No.	Description	Part Number for Models:			Qty
		1RKT2	1RKT3	1RKT9	
1	Drum Assembly	HV800010100G	HV800010100G	HV800010100G	1
2	Heater and Motor Bracket	HV800020100G	HV800020200G	HV800020200G	1
3a	Heating Element - inner ring	HV800030100G	HV800030100G	HV800030300G	3
3b	Heating Element - outer ring	HV800030200G	HV800030200G	HV800030400G	3
4	Link	HV800040100G	HV800040100G	HV800040100G	10
5	Magnetic Switch	HV800050100G	HV800050200G	HV800050400G	1
6	Over Temperature Switch	HV800060100G	HV800060100G	HV800060100G	1
7	Air Resister	HV800070100G	HV800070100G	HV800070100G	1
8	Motor Assembly	HV800080100G	HV800080100G	HV800080300G	1
9	Capacitor	HV800090100G	HV800090100G	HV800090300G	1
10	Lead Bushing	HV800100100G	HV800100100G	HV800100100G	2
11	Heater and Motor Bracket Cover	HV800020400G	HV800020400G	HV800020400G	1
12	Access Panel	HV800110100G	HV800110100G	HV800110100G	1
13	Thermostat Control Knob	HV800120100G	HV800120100G	HV800120100G	1
14	Guard (front/ rear)	HV800130100G	HV800130100G	HV800130100G	2
15	Rubber Hoop	HV800140100G	HV800140100G	HV800140100G	1
16	Support	HV800150100G	HV800150100G	HV800150100G	2
17	Packing	HV800160100G	HV800160100G	HV800160100G	2
18	Knob	HV800170100G	HV800170100G	HV800170100G	2
19	Handle	HV800180100G	HV800180100G	HV800180100G	1
20	Wheel	HV800190100G	HV800190100G	HV800190100G	2

For Repair Parts, call 1-800-323-0620

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

Replacement Parts List (Continued)

Ref No.	Description	Part Number for Models:			Qty
		1RKT2	1RKT3	1RKT9	
21	Wheel Shaft	HV800200100G	HV800200100G	HV800200100G	1
22	Support Cushion	HV800210100G	HV800210100G	HV800210100G	2
23	Fan Assembly	HV800220100G	HV800220100G	HV800220100G	1
24	Connector	HV800230100G	HV800230100G	HV800230100G	1
25	Cable Band	HV800240100G	HV800240100G	HV800240100G	1
26	Fan Control Switch	HV800250100G	HV800250100G	HV800250100G	1
27	Stopper	HV800260100G	HV800260100G	HV800260100G	2
28	Fuse	-	HV800280100G	-	4
29	Fuse Holder	-	HV800290100G	-	4
30	Terminal Block	-	HV800300100G	-	1

Replacement Parts List

Ref No.	Description	Part Number for Models:			Qty
		1RKT4	1RKT5	1RKU2	
1	Drum Assembly	HV800010100G	HV800010100G	HV800010200G	1
2	Heater and Motor Bracket	HV800020100G	HV800020200G	HV800020300G	1
3a	Heating Element - inner ring (Qty)	HV800030100G (3)	HV800030100G (2)	HV800030100G (6)	-
3b	Heating Element - outer ring (Qty)	HV800030200G (3)	HV800030200G (2)	HV800030200G (6)	-
4	Link (Qty)	HV800040100G (10)	HV800040100G (6)	HV800040100G (14)	-
5	Magnetic Switch	HV800050300G	HV800050400G	HV800050500G	1
6	Over Temperature Switch	HV800060100G	HV800060100G	HV800060100G	1
7	Air Resister	HV800070100G	HV800070100G	HV800070100G	1
8	Motor Assembly	HV800080200G	HV800080100G	HV800080400G	1
9	Capacitor	HV800090200G	HV800090100G	HV800090400G	1
10	Lead Bushing	HV800100100G	HV800100100G	HV800100100G	2
11	Heater and Motor Bracket Cover	HV800020400G	HV800020400G	HV800020400G	1
12	Access Panel	HV800110100G	HV800110100G	HV800110100G	1
13	Thermostat Control Knob	HV800120100G	HV800120100G	HV800120100G	1
14	Guard (front/ rear)	HV800130100G	HV800130100G	HV800130100G	2
15	Rubber Hoop	HV800140100G	HV800140100G	HV800140100G	1
16	Support	HV800150100G	HV800150100G	HV800150100G	2
17	Packing	HV800160100G	HV800160100G	HV800160100G	2
18	Knob	HV800170100G	HV800170100G	HV800170100G	2
19	Handle	HV800180100G	HV800180100G	HV800180100G	1
20	Wheel	HV800190100G	HV800190100G	HV800190100G	2
21	Wheel Shaft	HV800200100G	HV800200100G	HV800200100G	1
22	Support Cushion	HV800210100G	HV800210100G	HV800210100G	2
23	Fan Assembly	HV800220100G	HV800220100G	HV800220100G	1
24	Connector	HV800230100G	HV800230100G	HV800230100G	1
25	Cable Band	HV800240100G	HV800240100G	HV800240100G	1
26	Fan Control Switch	HV800250100G	HV800250100G	HV800250100G	1
27	Stopper	HV800260100G	HV800260100G	HV800260100G	2

Dayton™ Portable Electric Heaters

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Fan does not start when heater is plugged in and fan switch is in the ON position	1. No power to heater.	1. Check disconnect switch or circuit breaker at control / service panel.
	2. Bad electrical connection between motor and power supply / cord.	2. Check all electrical connections. See wiring diagram on page 6.
	3. Defective plug.	3. Replace plug.
	4. Defective Fan Control Switch.	4. Replace Fan Control Switch.
	5. Defective fan motor.	5. Replace fan motor.
Fan runs but heater does not come ON.	1. Thermostat setting too low.	1. Turn Thermostat Control Knob clockwise to a higher setting.
	2. Bad electrical connection between thermostat and power supply.	2. Check all electrical connections. See wiring diagram on page 6.
	3. Defective thermostat.	3. Replace thermostat.
	4. Defective high temperature limit control.	4. Replace high temperature limit control.
	5. Defective Contactor.	5. Replace Contactor.

Dayton™ Portable Electric Heaters

LIMITED WARRANTY

DAYTON ONE-YEAR LIMITED WARRANTY. Dayton® Portable Electric Heaters 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. Any part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at Dayton's option. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights which vary from jurisdiction to jurisdiction.

LIMITATION OF LIABILITY. To the extent allowable under applicable law, Dayton's liability for consequential and incidental damages is expressly disclaimed. Dayton's liability in all events is limited to and shall not exceed the purchase price paid.

WARRANTY DISCLAIMER. Dayton has made a diligent effort to provide product information and illustrate the products in this literature accurately; however, such information and illustrations are for the sole purpose of identification, and do not express or imply a warranty that the products are MERCHANTABLE, or FIT FOR A PARTICULAR PURPOSE, or that the products will necessarily conform to the illustrations or descriptions. Except as provided below, no warranty or affirmation of fact, expressed or implied, other than as stated in the "LIMITED WARRANTY" above is made or authorized by Dayton.

PRODUCT SUITABILITY. Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Dayton attempts to assure that its products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, review the product applications, and all applicable national and local codes and regulations, and be sure that the product, installation, and use will comply with them.

Certain aspects of disclaimers are not applicable to consumer products; e.g., (a) some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you; (b) also, some jurisdictions do not allow a limitation on how long an implied warranty lasts, consequentially the above limitation may not apply to you; and (c) by law, during the period of this Limited Warranty, any implied warranties of implied merchantability or fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

PROMPT DISPOSITION. Dayton will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom the product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Dayton at address below, giving dealer's name, address, date, and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714 U.S.A.