

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® Natural Gas Radiant Construction Heaters

Description

Dayton Model 6BY70 is a 125,000 Btu/Hr construction heater.

Dayton Model 6BY72 is a 250,000 Btu/Hr construction heater.

These heaters use natural gas for combustion and are intended for indoor use only and the temporary heating of well-ventilated buildings under construction, alteration, or repair. These heaters should never be used in occupied dwellings. **Products of combustion are vented into the area being heated.**

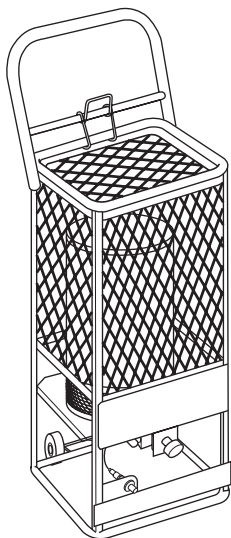


Figure 1 - Model 6BY70

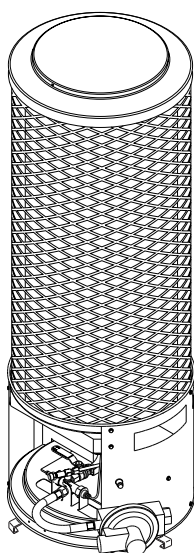


Figure 2 - Model 6BY72

Unpacking

1. Remove all packing items applied to heater for shipment. Keep plastic cover caps (attached to valve inlet and regulator assembly) for storage.
2. Remove all items from carton.
3. Check all items for shipping damage. If heater is damaged, promptly inform dealer where you bought heater.



Model 6BY70 Only

⚠ GENERAL HAZARD WARNING

Failure to comply with the precautions and instructions provided with this heater, can result in death, serious bodily injury and property loss or damage from hazards of fire, explosion, burn, asphyxiation, carbon monoxide poisoning and/or electrical shock.

Only persons who can understand and follow the instructions should use or service this heater.

If you need assistance or heater information such as an instructions manual, labels, etc. contact the manufacturer.

Dayton® Natural Gas Radiant Construction Heaters

General Safety Information

Make certain you read and understand all warnings. Keep these instructions for reference. They are your guide to safe and proper operation of this heater.

Safety information appears throughout these instructions. Pay close attention to them. Below are definitions for the safety information listed throughout this manual.

▲ DANGER

Under this heading, installation, operating and maintenance procedures or practices will be found that, if not carefully followed, **WILL** result in **IMMEDIATE** serious personal injury or death.

▲ WARNING

Under this heading, installation, operating, and maintenance procedures or practices will be found that, if not carefully followed, **COULD** result in severe personal injury or death.

▲ CAUTION

Under this heading, installation, operating, and maintenance procedures or practices will be found that, if not carefully followed, **MAY** result in minor personal injury, product or property damage.

IMPORTANT: Not every possible circumstance that might involve a hazard can be anticipated. The warnings in this manual and on tags or decals affixed to the unit are therefore not all-inclusive. If a procedure, work method, or

operating technique not specifically recommended by Dayton is used, you must make sure it is safe for you and others. You should also ensure that equipment will not be damaged or made unsafe by the operating or maintenance method you choose.

▲ WARNING

Not for home or recreational vehicle use.

▲ WARNING

This product contains and/or generates chemicals known to the State of California to cause cancer or birth defects, or other reproductive harm.

▲ WARNING

Fire, burn, inhalation and explosion hazard. Keep solid combustibles, such as building materials, paper or cardboard, a safe distance away from the heater as recommended by the instructions. Never use the heater in spaces which do or may contain volatile or airborne combustibles or products such as gasoline, solvents, paint thinner, dust particles or unknown chemicals.

▲ WARNING

For 125,000 Btu models, do not exceed 1/2 psi (14" w.c.) gas pressure to the gas control valve.

The heater is designed for use as a construction heater in accordance with ANSI Z83.7/CGA 2.14. Other standards govern the use of fuel gases and heating products for specific uses. Your local authority can advise you about these. The primary purpose of construction heaters is to provide temporary heating of buildings under construction, alteration or repair. Properly used, the heater provides safe economical heating. Products of combustion are vented into the area being heated.

We cannot foresee every use which may be made of our heaters. **Check with your local fire safety authority if you have questions about heater use.**

Carbon Monoxide Poisoning:

Some people are more affected by carbon monoxide than others. Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness and/or nausea. If you have these signs, the heater may not be working properly. **Get fresh air at once!** Check for proper ventilation and have heater serviced.

Natural Gas: Natural gas is odorless. An odor-making agent is added to this gas. The odor helps you detect a gas leak. However, the odor added to the gas can

Models 6BY70 and 6BY72

General Safety Information (Continued)

fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this heater.

1. Install and use heater with care. Follow all local ordinances and codes. In the absence of local ordinances and codes, refer to the *National Fuel Gas Code Handbook, ANSI Z223.1/NFPA 54*. This instructs on the safe storage and handling of flammable gases.

2. Use only with natural gas. Do not attempt to use with propane gas.

3. Use only the factory preset regulator provided with the heater.

4. Provide adequate ventilation. Before using heater, provide at least a 0.28 m² (3 ft²) opening of fresh, outside air for each 100,000 Btu/hr of rating. [Or for 125,000 Btu/hr models 0.35 m² (3.75 ft²) and 250,000 Btu/hr models 0.7 m² (7.5 ft²).]

5. For indoor use only. Do not use heater outdoors.

6. Do not use heater in occupied dwellings or in living or sleeping quarters.

7. Do not use heater in basement or below ground level.

8. Keep appliance area clear and free from combustible materials, gasoline, paint thinner and other flammable vapors and liquids. Dust is combustible. Do not use heater in areas with high dust content.

9. Minimum heater clearances from combustibles

125,000 Btu/Hr: Sides 1.54 m (5 ft), Top 1.22 m (4 ft)

250,000 Btu/Hr: Sides 1.83 m (6 ft), Top 1.54 m (5 ft)

10. Check heater for damage before each use. Do not use a damaged heater.

11. Check hose (if used) before each use of heater. If highly worn or cut, replace.

12. Locate heater on stable and level surface if heater is hot or operating.

13. Not intended for use on finished floors.

14. Never block any air inlet or air outlet openings of heater.

15. Keep heater away from strong drafts, wind, water spray, rain or dripping water.

16. Do not leave heater unattended.

17. Keep children and animals away from heater.

18. To prevent burns, remove handle before operating heater (6BY70 only).

19. Never move, handle or service a hot or operating heater. Severe burns may result. Wait 20 minutes after turning heater off.

20. To prevent injury, wear gloves when handling heater.

21. Never attach duct work to heater.

22. Do not alter heater. Keep heater in its original state.

23. Do not use heater if altered.

24. Turn off gas supply to heater when not in use.

25. Use only original replacement parts. This heater must use design-specific parts. Do not substitute or use generic parts. Improper replacement parts could cause serious or fatal injuries.

Product Identification

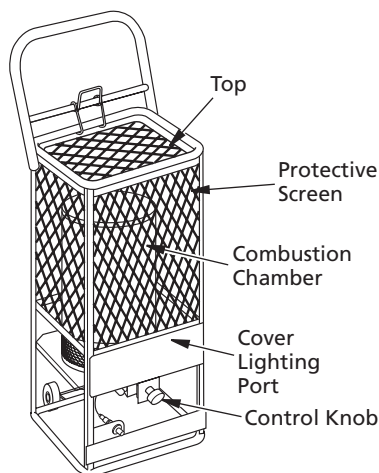


Figure 3 - 125,000 Btu/Hr Model (6BY70)

Dayton® Natural Gas Radiant Construction Heaters

Product Identification (Continued)

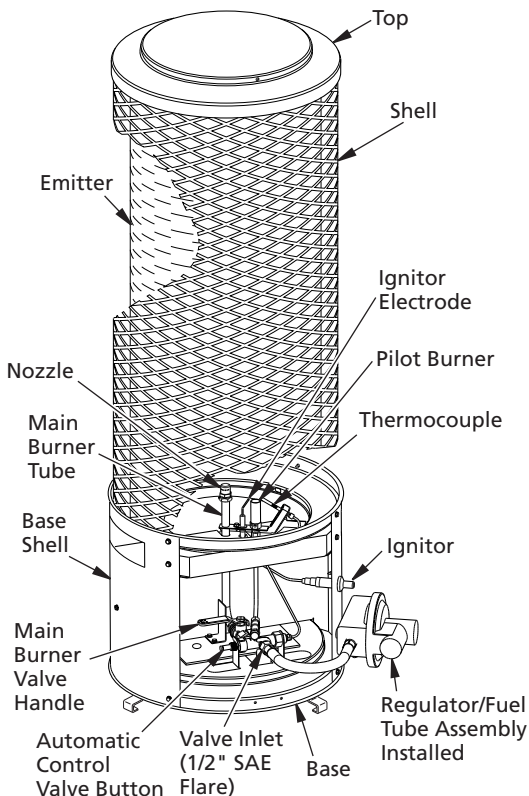


Figure 4 - 250,000 Btu/Hr Model (6BY72)

Theory of Operation

The Fuel System: The gas supply attaches to the heater through user supplied hose or pipe. This provides fuel to the heater.

The Ignition System: The ignitor lights the burner fuel supply.

The Automatic Control System: This system causes the heater to shut down if the flame goes out.

Natural Gas Supply

The user must furnish the natural gas supply and the connections to the heater.

For 125,000 Btu/Hr models, regulate the natural gas supply between a minimum 7" w.c. to a maximum of 1/2 psi (14" W.C.). The natural gas supply capacity should be able to supply a minimum of 125 cubic feet of gas at pressure for each heater connected to the system.

For 250,000 Btu/Hr models, regulate the natural gas supply to min. 4 psi. If over 4 psi is supplied, then use the supplied regulator on the heater. The natural gas supply capacity should be able to supply a minimum of 250 cubic feet of gas at pressure for each heater connected to the system.

Consult your natural gas supplier for proper sizing of the natural gas supply lines.

Follow all local ordinances and codes. In the absence of local ordinances and codes, refer to the *National Fuel Gas Code Handbook, NFPA 54/ANSI Z223.1*.

Models 6BY70 and 6BY72

Specifications

Model 6BY70

- **Rating:** 125,000 Btu/Hr
- **Fuel:** Natural Gas Only
- **Fuel Consumption:** 3.5 m³/hr (125 ft³/hr)
- **Manifold Pressure:** 1.5 kPa (6" W.C.)
- **Min Temperature:** -29 °C (-20° F) Surrounding Air Temperature
- **Ignitor Gap:** 0.195"

Model 6BY72

- **Rating:** 250,000 BTU/Hr
- **Fuel:** Natural Gas Only
- **Fuel Consumption:** 243 ft³/hr
- **Supply Pressure:** Max. (to regulator) - 200 psi
Min. (to heater) - 4 psi
Max. To Heater Without Regulator - 4 psi
- **Manifold Pressure:** 3.5 psi
- **Ignitor Gap:** 0.195"

Ventilation

▲ WARNING

Provide at least a 0.28 m² (3 ft²) opening of fresh, outside air for each 100,000 Btu/Hr of rating while running heater. If proper fresh, outside air ventilation is not provided, carbon monoxide poisoning can occur. Provide proper fresh, outside air ventilation before running heater.

Installation

▲ WARNING

Test all gas piping and connections for leaks after installation or servicing. Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. Bubbles forming show a leak. Correct all leaks at once.

Read these instructions carefully. Read and adhere to these instructions. Do not allow anyone who has not read these instructions to assemble, light, adjust or operate this heater.

Do not attempt to operate the heater with any gas other than that indicated on the heater nameplate.

The installation of this appliance must comply with local and/or Provincial codes or, in the absence of these codes, with the *National Fuel Gas Code, ANSI Z223.1* – Latest Edition or with the current installation codes.

This heater (including hose and regulator) must be inspected before each use and at least annually by a qualified service person. If the hose shows evidence of excessive abrasion or wear or if the hose is cut, it must be replaced prior to the heater being put into operation.

LOCATING HEATER

The heater must be located on a hard, flat, level surface to minimize the risk of accidental tipping.

This appliance must be installed only in locations where the potential for physical damage to the appliance (i.e., due to physical contact) is reduced to a minimum.

The installer must inform the owner/operator of this appliance that precautions must be taken to protect the appliance from physical damage.

This appliance produces radiant heat. Therefore, it must be located at least 1.8 m (6 ft) away from any propane/LP gas container and must not be directed toward any propane/LP gas container within 6 m (20 ft).

The heater must be installed in a location such that it will not be exposed directly to water spray, rain and/or dripping water.

Use of this heater in a draft/windy area decreases its efficiency. If possible, operate the unit in a draft free area.

Dayton® Natural Gas Radiant Construction Heaters

Installation (Continued)

CONNECTING TO GAS SUPPLY

125,000 Btu/Hr Model Only (6BY70)

Piping must be clean and free from scale or burrs.

Install regulator supplied with heater. Connect with 1/2" NPT nipple to control valve.

Connect the appliance to an appropriately designed and installed fuel supply system. This system must include an approved manual shutoff valve which is readily accessible and is located within 1.8 m (6 ft) of the appliance. Additionally, a sediment trap or drip leg must be located upstream of this manual shutoff valve. Refer to the appropriate (natural gas) installation code noted on page 5. If a flexible connector is used, it must be of an approved type.

⚠ WARNING

Never use a flame for gas leak testing.

250,000 Btu/Hr Model only (6BY72)

1. Provide natural gas supply system (see *Natural Gas Supply*, page 4).
2. Install plumbing from natural gas supply system to heater. Provide 4 psi gas pressure to heater. If gas supply pressure is over 4 psi, use high pressure regulator (provided).
3. Connect gas supply to heater using minimum 3/8" i.d. hose. Maximum hose length is 3 m (10 ft).
4. Connect hose or plumbing to 1/2" SAE flare fitting at

the valve inlet. Tighten all fittings with a wrench.

5. Open natural gas supply valve slowly. Check all connections for leaks. Never use an open flame to check for a leak. Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak that must be corrected. Correct all leaks at once.
6. Close natural gas supply valve.

Installing High Pressure Regulator (250,000 Btu/Hr Model Only) (6BY72)

If the inlet supply pressure is above 4 psi, you must use the high pressure regulator (supplied). Follow the instructions below to install regulator.

1. Install pipe or flexible connector (not supplied) from gas supply to high pressure regulator. Pipe or flexible connector must be a minimum of 3/8" i.d. with a maximum length of 3 m (10 ft). Attach pipe or flexible connector to inlet of regulator. The female threads of the regulator are 1/2 NPT. **NOTE:** The natural gas supply must deliver 250 CFH of natural gas

at 4 psi pressure for each heater connected to the system.

2. By hand, attach the 1/2" fuel tube (supplied) to male connector on regulator (finger tight). By hand, attach other end of fuel tube to heater inlet (finger tight).
3. Position regulator to heater base below ignitor button (see illustration). Use 1/4-20 screws and flat washers from hardware bag to attach regulator to heater, by hand. Orient regulator so the outlet with male connector points toward the heater inlet.
4. Firmly tighten fuel tube flare nuts onto each fitting.
5. Firmly tighten 1/4-20 regulator mounting screws.
6. Open natural gas supply valve slowly. Check all connections for leaks. Never use an open flame to check for a leak. Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak that must be corrected. Correct all leaks at once.
7. Close natural gas supply valve.
8. Follow steps under *To Start Heater*, page 8.

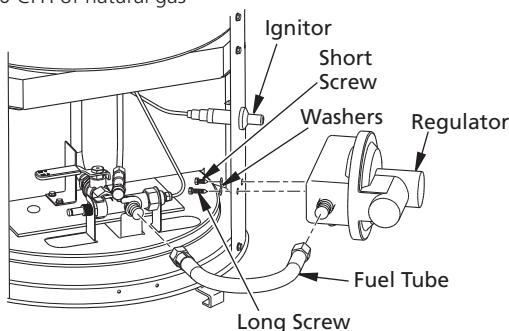


Figure 5 - Installing Regulator

Models 6BY70 and 6BY72

Operating Instructions

▲ WARNING

Review and understand the warnings in the *General Safety Information* section on page 2. They are needed to safely operate this heater. Follow all local codes when using this heater.

▲ WARNING

If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

▲ WARNING

This appliance is hot during normal operation, avoid physical contact.

▲ WARNING

Do not place clothing or other combustible materials on this appliance.

▲ CAUTION

Model 6BY70 only. Handle must be removed before operating heater due to high temperatures. If left in place handle will reach high temperatures and could cause burns.

DO NOT operate this heater if any part has been under water. Call a qualified service technician to inspect the appliance and to replace any part of the control system or gas control valve which has been under water.

125,000 BTU/HR MODELS ONLY (6BY70)

REMOVING HANDLE

1. Remove wire clip securing handle to top edge of heater.
2. Pull handle upward and away from heater to remove. Set aside for future use.

LIGHTING HEATER

1. Before attempting to light the heater, smell all around the heater area for gas. Turn on the gas supply to the appliance and check all fittings and connections for gas leaks using a mild soap and water solution. NEVER use a match to check for gas leaks. Should a gas leak occur, shut off the gas supply to the appliance immediately. Wait a minimum of five minutes before repairing the leak.
2. Use only the fuel intended for this appliance. Check the appliance rating plate for the correct fuel information.
3. Turn the control knob clockwise to the OFF position. See Figure 3, page 3 and Figure 6 for location of appliance parts.
4. Wait a sufficient length of time (at least five minutes) to allow gas which may have accumulated in burner compartment to escape.

5. Turn on the main gas supply.
6. Turn control knob counterclockwise to the PILOT position.
- 7a. Press and turn control knob counterclockwise to PILOT position and hold for 1 to 2 minutes. This may take longer to purge air from supply hose depending on length of the hose being used.

Press red spark ignition button to light pilot flame (repeat until pilot lights) and continue to hold control knob at PILOT position for 30-60 seconds to enable pilot light safety system. Fully turn control knob to HI position to light burner.

Once heater is lit, check all internal gas connections on unit for leaks (burner, valves, etc.). Never use an open flame to check for a leak. Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak that must be corrected. Correct all leaks at once.

- 7b. **To match light the pilot,** move the lighting hole cover aside (see Figure 6, page 8) and place a lighted match into hole. Press control knob and hold while lighting and observing pilot burner. Ensure that pilot burner ignites from match. Allow pilot to burn approximately 30 seconds before releasing control knob. If pilot does not remain lit, repeat lighting operation allowing a longer period of time before releasing control knob.

Dayton® Natural Gas Radiant Construction Heaters

Operating Instructions (Continued)

NOTE: In cases where long runs of gas supply lines have been installed ahead of the appliance, it may be necessary to bleed trapped air out of supply lines before lighting pilot. New installations generally require bleed of supply lines. Wait a minimum of five minutes after bleeding supply lines before attempting to light heater.

Adjust pilot if necessary as noted under *Pilot Burner Adjustment*.

- Turn control knob counter-clockwise to the ON position. The burner will light. DO NOT operate heater in any position other than full ON.

IMPORTANT: DO NOT attempt to adjust the main burner input using the main gas supply valve. This may cause the pilot and thermocouple to shut down the burner.

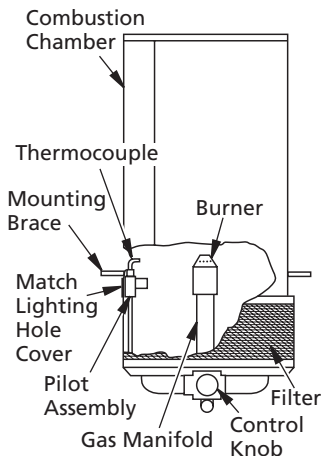


Figure 6 - Appliance Parts Identification

SHUTTING OFF HEATER

- For short periods of time, turn the main burner off by turning control knob clockwise to the PILOT position.
- For extended periods of non use, turn appliance completely off by turning control knob clockwise to the PILOT position, press knob slightly, then turn knob fully clockwise to the OFF position.

PILOT BURNER ADJUSTMENT

- Remove pilot adjustment cap. The pilot adjustment cap is a slotted screw located in front of the PILOT designation stamped on top of valve body just below control knob.
- Adjust pilot key to provide properly sized flame. Rotate the key clockwise to decrease flame or counter-clockwise to increase flame.
- Replace pilot adjustment cap.

250,000 BTU/HR MODELS ONLY (6BY72)

TO START HEATER

- Follow all installation, ventilation, and safety information.

- Locate heater on stable and level surface. Make sure strong drafts do not blow on heater.

⚠ WARNING

Fully close main burner valve before lighting pilot. If not, severe burns can occur. Do this by turning valve handle towards the OFF position until it stops.

- Open natural gas supply valve slowly.
- Push in and hold automatic control valve button (see Figure 7). Push ignitor button (see Figure 7). You may need to push the ignitor button 3-8 times until the pilot lights. **NOTE:** Hose may be filled with air. If so, keep automatic control valve button pressed and wait 20 seconds for gas to clear before pressing ignitor button again. When pilot lights, keep automatic control valve button pushed in. Release button after 30 seconds.

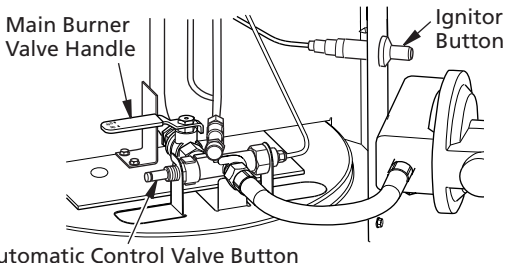


Figure 7 - Main Burner Valve Handle, Automatic Control Valve Button, and Ignitor Button Locations, With Regulator Installed

Models 6BY70 and 6BY72

Operating Instructions (Continued)

5. If pilot light goes out, repeat step 4.
6. When pilot remains lit, fully open main burner valve. Do this by turning main burner valve handle towards the ON position until it stops. **NOTE:** Arrows on main burner valve handle show directions for ON and OFF.

Once heater is lit, check all internal gas connections for leaks (burner, valves, etc.). Never use an open flame to check for a leak. Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak that must be corrected. Correct all leaks at once.

TO STOP HEATER

1. Tightly close natural gas supply valve.
2. Using a gloved hand, shut off main burner valve. Do this by turning main burner valve handle towards the OFF position until it stops. **NOTE:** Arrows on main burner valve handle show direction for ON and OFF.

TO RESTART HEATER

1. Wait five minutes after stopping heater.
2. Restart heater by following steps under *To Start Heater*, page 8.

Storage

▲ CAUTION

Disconnect heater from natural gas supply.

1. Place plastic cover cap over brass fitting on inlet connector.
2. Store in dry, clean, and safe place.
3. When taking heater out of storage, always check inside of heater. Insects and small animals may place foreign objects in heater. Keep inside of heater free from combustible and foreign objects.

Cleaning

▲ WARNING

Never attempt to service heater while it is connected to natural gas supply, operating or hot. Severe burns can occur.

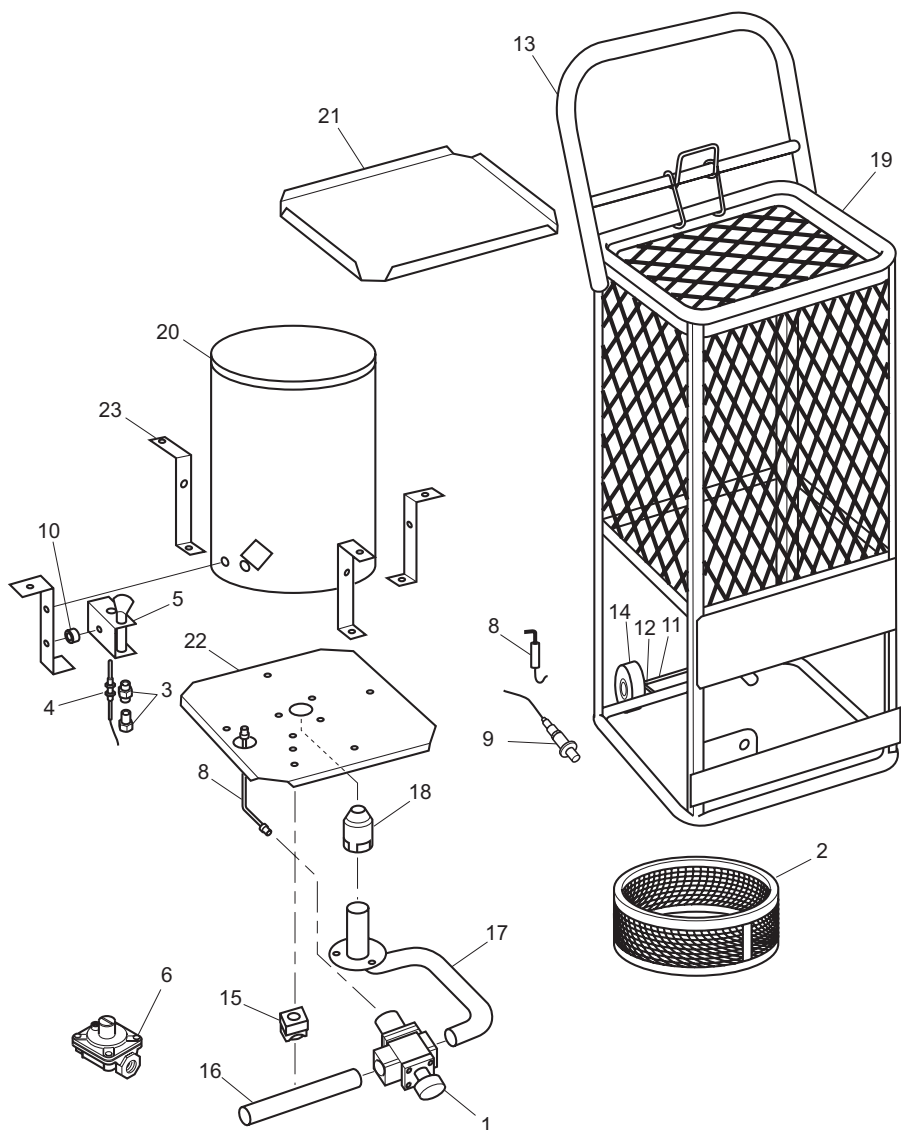
1. Keep heater clean. Clean heater annually or as needed to remove dust and debris. If heater is dirty or dusty, clean heater with a damp cloth.
2. Inspect heater before each use. Check connections for leaks. Apply mixture of liquid soap and water to connections. Bubbles forming show a leak. Correct all leaks at once.
3. Have heater inspected yearly by a qualified service agency.

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

Address parts correspondence to:

Grainger Parts
P.O. Box 3074
1657 Shermer Road
Northbrook, IL 60065-3074 U.S.A.

**Figure 8 - Repair Parts Illustration, Model 6BY70**

Model 6BY70

Repair Parts List

Ref. No.	Description	Part Number	Qty.
1	104119-01	Manual Control Valve	1
2	114049-01	Filter/Diffuser	1
3	114148-01	Pilot Orifice	1
4	114121-01	Thermocouple	1
5	114128-01	Pilot Burner	1
6	103406-03	Regulator	1
7	114244-01	Pilot Supply Tube	1
8	114153-01	Ignitor	1
9	102445-01	Piezo	1
10	114243-01	Spacer	1
11	114154-01	Axle	1
12	114156-01	Axle Brackets	1
13	114157-01	Handle	1
14	114208-01	Wheel	2
15	114209-01	Valve Supply Tube Clamp	1
16	114212-01	Valve Supply Tube	1
17	114213-01	Burner Manifold	1
18	114216-01	Burner	1
19	**	Frame Assembly	1
20	**	Combustion Chamber	1
21	**	Top Plate	1
22	114241-01	Burner Mounting Plate	1
23	114242-01	Pilot Mounting Bracket	1
△	102334-01	Ignitor Nut	1
△	114245-04	General Info Decal	1
△	114246-02	Caution Decal	1
△	117193-02	Tradename Decal	1
△	115297-02	Hang Tag	1

(**) Not a field replaceable part.

(△) Not Shown.

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

24 hours a day - 365 days a year

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- Model number
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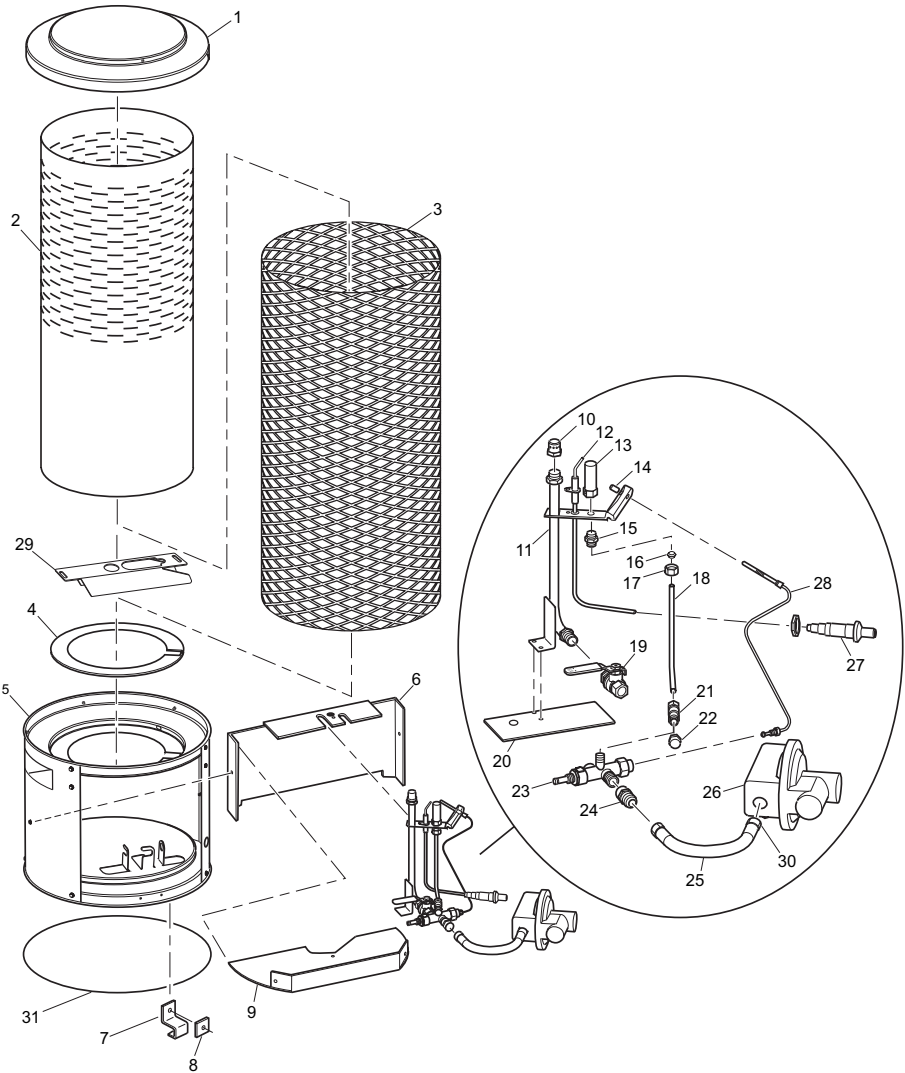


Figure 9 - Repair Parts Illustration, Model 6BY72

Model 6BY72

Repair Parts List

Ref. No.	Description	Part Number	Qty.
1	104145-02	Top Disk	1
2	**	Emitter	1
3	103898-02	Shell	1
4	104116-01	Insulation Ring	1
5	104137-01	Outer Base Assembly	1
6	103935-01	Rear Burner Shield	1
7	103902-01	Leg	3
8	103903-01	Spacer	6
9	103900-02	Burner Shield	1
10	099138-05	Nozzle	1
11	118331-01	Burner Tube Assembly	1
12	104118-01	Ignitor Electrode	1
13	097163-07	Pilot Burner Assembly	1
14	099237-01	Thermocouple Clip	1
15	097161-01	Pilot Burner Orifice	1
16	M5788	Sleeve	1
17	M5787	Hex Nut	1
18	103028-02	Pilot Tube	1
19	097152-01	Manual Control Valve	1
20	103901-01	Burner Support	1
21	099461-01	Tee Compression Gauge	1
22	099460-01	Brass Hex Cap	1
23	097155-01	Automatic Control Valve	1
24	097157-03	Female Connector	1
25	104142-01	Fuel Tube	1
26	104141-01	Regulator	1
27	102445-01	Piezo Ignitor	1
	102334-01	Ignitor Nut	1
28	099236-01	Thermocouple Kit	1
29	104143-02	Pilot Shield	1
30	103401-01	1/2 NPT to 1/2 45° Male Connector	1
31	103899-01	Base Shield	1
△	104120-01	Hose Fitting Regulator Assembly	1
△	117218-01	Tradename Decal	1
△	104128-03	Operation Decal	1

(**) Not a field replaceable part.

(△) Not Shown.

Dayton® Natural Gas Radiant Construction Heaters

Troubleshooting Chart

▲ WARNING Never attempt to service heater while it is connected to natural gas supply, operating or hot. Severe burns can occur.

Symptom	Possible Cause	Corrective Action
Burner or pilot fails to light	1. Gas supply valve closed 2. Air in gas line 3. Blockage in orifice 4. Ignition system not sparking	1. Open gas supply valve slowly 2. Allow several minutes to purge air with automatic control valve button depressed 3. Replace orifice 4. Assure ignitor electrode gap is 5 mm (0.195 in). Check wire lead for damage Replace ignitor and/or ignitor electrode as necessary. Do not bend electrode, this may cause breakage
Pilot lights but goes out when automatic control valve button is released	1. Not enough warm-up time 2. Low gas pressure 3. Thermocouple loose or needs to be replaced 4. Automatic control valve needs to be replaced	1. Relight, hold automatic control valve button in 45 seconds 2. Check for proper gas supply 3. Tighten connection or replace thermocouple 4. Replace automatic control valve
Burn rate is low	1. Main burner valve not fully open 2. Plugged gas orifices 3. Low gas pressure 4. Low fuel supply	1. 125 models: Fully open main burner valve by pushing in control knob and turning counterclockwise towards HIGH position until it stops 250 models: Fully open main burner valve by turning the valve handle towards ON position until it stops 2. Replace gas orifice 3. Check gas supply; check regulator output 4. Consult gas supplier to determine adequate supply

Models 6BY70 and 6BY72

Troubleshooting Chart (Continued)

Symptom	Possible Cause	Corrective Action
Soot forming inside heater, flame 100% yellow	1. Main burner valve not open enough	1. 125 models: Fully open main burner valve by pushing in control knob and turning counterclockwise towards HIGH position until it stops 250 models: Adjust main burner valve slowly toward ON position until flame has more blue color
	2. Low fuel supply	2. Consult natural gas supplier
Burn rate too high. Flames coming out of emitter (250 models only)	1. Pressure too high	1. Check inlet pressure. If over 4 psi adjust or install regulator
	2. Unit connected to propane gas	2. Verify gas source. If connected to propane gas, disconnect. Connect to natural gas

Dayton® Natural Gas Radiant Construction Heaters

LIMITED WARRANTY

DAYTON ONE-YEAR LIMITED WARRANTY. Dayton Natural Gas Radiant Construction Heater, 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. 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 product 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 "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 limitations on how long an implied warranty lasts, consequently 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 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.



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