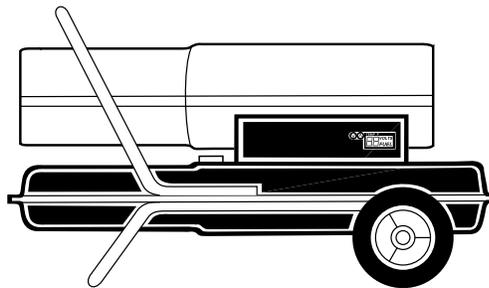
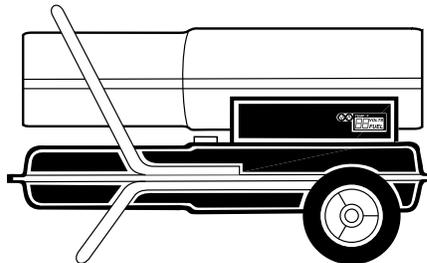
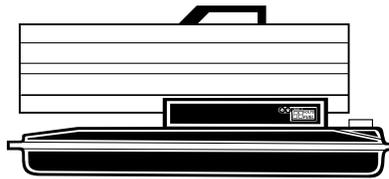


PORTABLE FORCED AIR HEATERS

OWNER'S MANUAL



Heater Sizes: 70,000 110,000 150,000 BTU/Hr
Featuring: Built-In Thermostat with LCD Display

IMPORTANT

Read and understand this manual before assembling, starting, or servicing heater. Improper use of heater can cause serious injury. Keep this manual for future reference.



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SAFETY INFORMATION

WARNINGS

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate, or service this heater. Improper use of this heater can cause serious injury or death from burns, fire, explosion, electrical shock, and carbon monoxide poisoning.

DANGER

Carbon monoxide poisoning may lead to death!

Carbon Monoxide Poisoning: 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!** Have heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, persons with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

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.

SAFETY INFORMATION

Continued

- Use only kerosene or No. 1 fuel oil to avoid risk of fire or explosion. Never use gasoline, naphtha, paint thinners, alcohol, or other highly flammable fuels.
- Fueling
 - a) Personnel involved with fueling shall be qualified and thoroughly familiar with the manufacturer's instructions and applicable federal, state, and local regulations regarding the safe fueling of heating units.
 - b) Only the type of fuel specified on the heater's data plate shall be used.
 - c) All flame, including the pilot light, if any, shall be extinguished and the heater allowed to cool, prior to fueling.
 - d) During fueling, all fuel lines and fuel-line connections shall be inspected for leaks. Any leaks shall be repaired prior to returning the heater to service.
 - e) At no time shall more than one day's supply of heater fuel be stored inside a building in the vicinity of the heater. Bulk fuel storage shall be outside the structure.
 - f) All fuel storage shall be located a minimum of 25 feet from heaters, torches, welding equipment, and similar sources of ignition (exception: the fuel reservoir integral with the heater unit).
 - g) Whenever possible, fuel storage shall be confined to areas where floor penetrations do not permit fuel to drip onto or be ignited by a fire at lower elevation.
 - h) Fuel storage shall be in accordance with the federal, state, or local authority having jurisdiction.
- Never use heater where gasoline, paint thinner, or other highly flammable vapors are present. Never use heater in areas with high dust content.
- Minimum heater clearances from combustibles:
Outlet: 8 Ft. Sides: 4 Ft. Top: 4 Ft. Rear: 4 Ft.
- Heaters used in the vicinity of tarpaulins, canvas, or similar enclosure materials shall be located a safe distance from such materials. The recommended minimum safe distance is 10 feet. It is further recommended that these enclosure materials be of a fire retardant nature. These enclosure materials shall be securely fastened to prevent them from igniting or from upsetting the heater due to wind action.
- Use only in well vented areas. Provide at least three square feet of fresh, outside air for each 100,000 BTU/Hr of rating. This heater produces carbon monoxide, which is listed by the State of California as a reproductive toxin under Proposition 65.
- Use only a three-prong, grounded extension cord. Use only with the electrical voltage and frequency specified on model plate.
- Unplug heater when not in use.
- Never block air inlet (rear) or air outlet (front) of heater. Never attach duct work to front or rear of heater.
- Locate heater on a stable and level surface while hot or running or a fire may occur.
- When moving or storing heater, keep heater in a level position or fuel spillage may occur.
- Never move, handle, refuel, or service a hot, operating, or plugged-in heater.
- When used with thermostat, heater may start anytime.
- Keep children and animals away from heater.
- Never use heater in living or sleeping areas.
- Follow all local ordinances and codes when using heater.

PRODUCT IDENTIFICATION

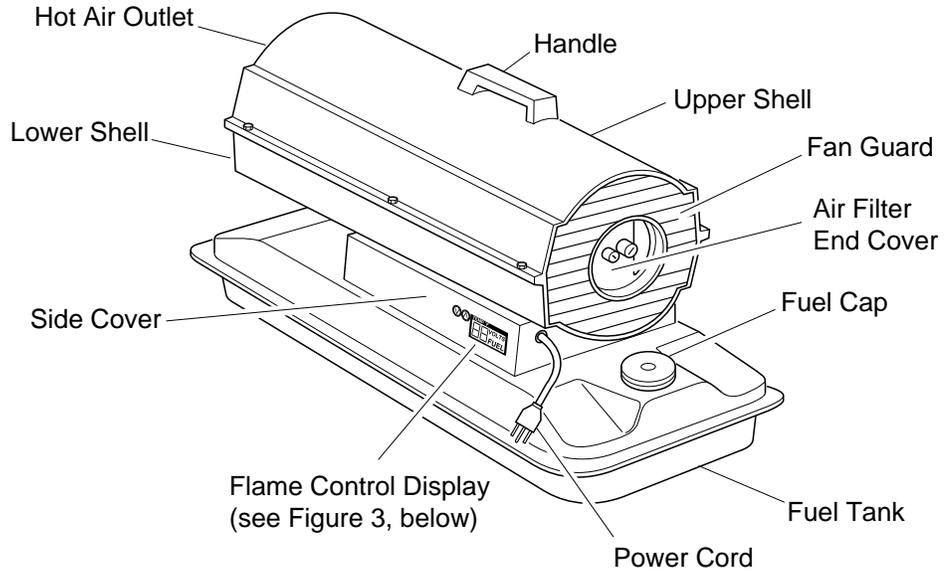


Figure 1 - 70,000 BTU/Hr Model

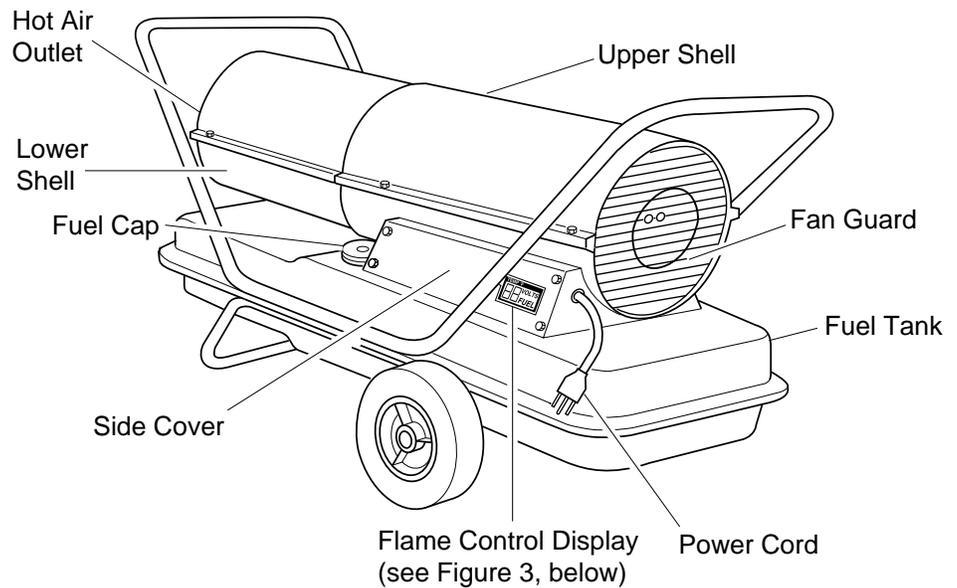


Figure 2 - 110,00 and 150,000 BTU/Hr Models

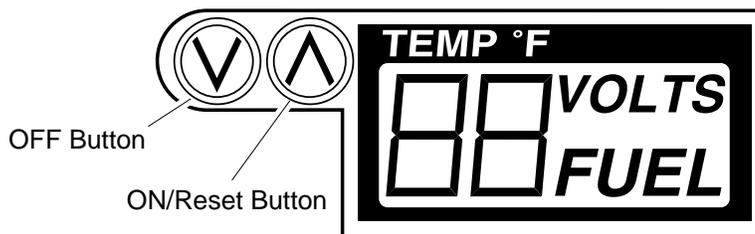


Figure 3 - Flame Control Display

UNPACKING

ASSEMBLY

(For 110,000 and 150,000
BTU/Hr Models Only)

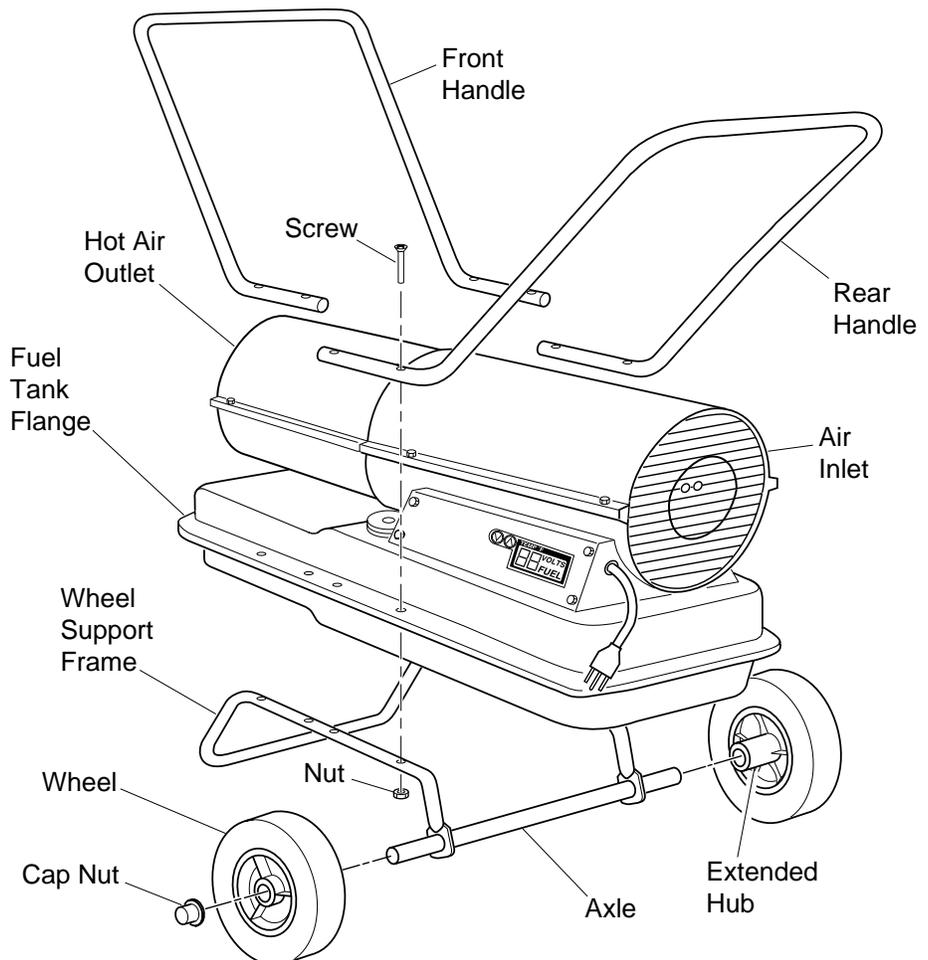
1. Remove all packing items applied to heater for shipment.
2. Remove all items from carton.
3. Check items for shipping damage. If heater is damaged, promptly inform dealer where you bought heater.

These models are furnished with wheels and a front handle. Some models are furnished with a rear handle also. Wheels, handle(s), and the mounting hardware are found in the shipping carton.

Tools Needed

- Medium Phillips Screwdriver
- 3/8" Open or Adjustable Wrench
- Hammer

1. Slide axle through wheel support frame. Install wheels on axle.
IMPORTANT: When installing wheels, point extended hub of wheels toward wheel support frame (see Figure 4).
2. Place cap nuts on axle ends. Gently tap with hammer to secure.
3. Place heater on wheel support frame. Make sure air inlet end (rear) of heater is over wheels. Line up holes on fuel tank flange with holes on wheel support frame.
4. Place front handle (and rear handle if provided) on top of fuel tank flange. Insert screws through handle(s), fuel tank flange, and wheel support frame. Attach nut finger tight after each screw is inserted.
5. After all screws are inserted, tighten nuts firmly.



**Figure 4 - Wheel and Handle Assembly,
110,000 and 150,000 BTU/Hr Models Only**

THEORY OF OPERATION

The Fuel System: The air pump forces air through the air line. The air is then pushed through the burner head nozzle. This air causes fuel to lift from the tank. A fine mist of fuel is sprayed into the combustion chamber.

The Air System: The motor turns the fan. The fan pushes air into and around the combustion chamber. This air is heated and provides a stream of clean, hot air.

The Ignition System: The ignition system (part of the flame control) sends voltage to the spark plug. The spark plug ignites the fuel and air mixture.

The Flame Control System: This system monitors the combustion process inside the heater. The flame control will shut down the heater when it is out of fuel or when flame is unstable.

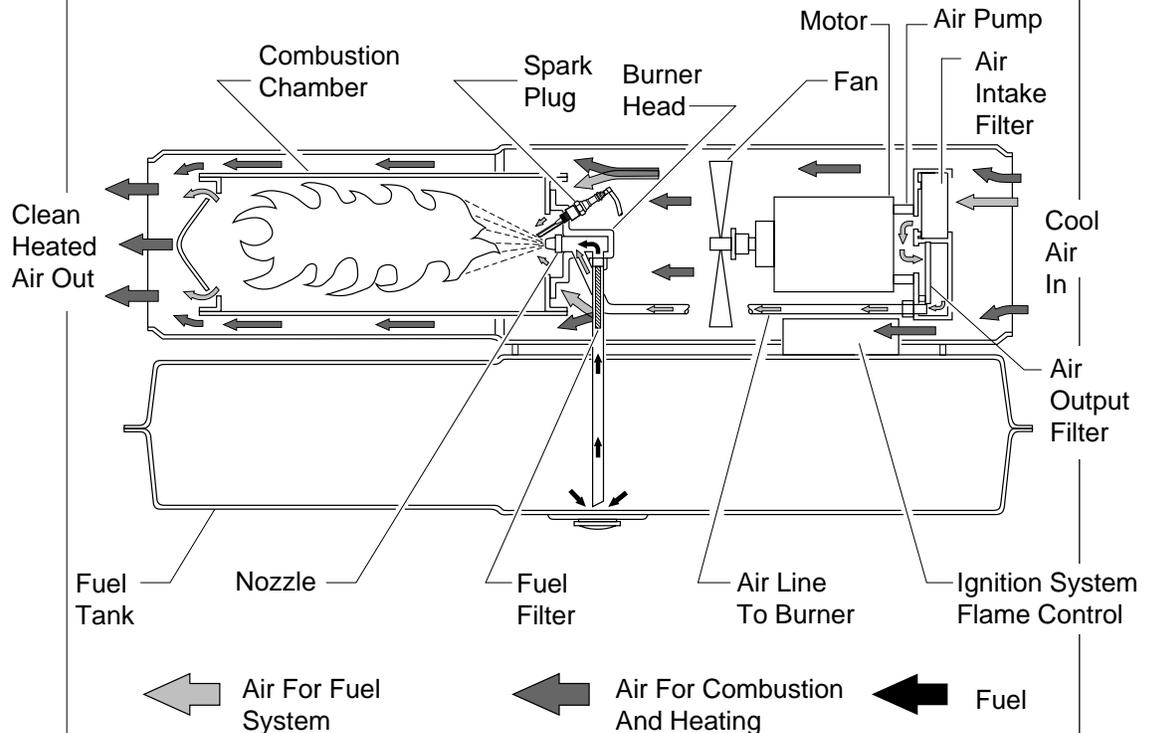


Figure 5 - Cross Section Operational View

FUELS

⚠ WARNING

Use only kerosene or No. 1 fuel oil to avoid risk of fire or explosion. Never use gasoline, naphtha, paint thinners, alcohol, or other highly flammable fuels.

Do not use heavy fuels such as No. 2 fuel oil or No. 2 Diesel. Using heavy fuels will result in:

- clogged fuel filter and nozzle
- carbon build up on spark plug
- the need of non-toxic anti-icer in fuel during very cold weather

IMPORTANT: Use a KEROSENE ONLY storage container. Be sure storage container is clean. Foreign matter such as rust, dirt, or water will cause the flame control to shut down heater. Foreign matter may also require you to clean fuel system often.

VENTILATION

OPERATION WITHOUT THERMOSTAT

⚠ WARNING

Follow the minimum fresh, outside air ventilation requirements. If proper fresh, outside air ventilation is not provided, carbon monoxide poisoning can occur. Provide proper fresh, outside air ventilation before running heater.

Provide a fresh air opening of at least three square feet for each 100,000 BTU/Hr rating. Provide extra fresh air if more heaters are being used.

Example: A 150,000 BTU/Hr heater requires one of the following:

- a two-car garage door raised six inches
- a single-car garage door raised nine inches
- two, thirty-inch windows raised twelve inches

⚠ WARNING

Review and understand the warnings in the Safety Information Section. They are needed to safely operate this heater. Follow all local codes when using this heater.

To Start Heater (for continuous operation without thermostat)

1. Follow all ventilation and safety information.
2. Fill fuel tank with kerosene or No. 1 fuel oil.
3. Attach fuel cap.
4. Plug power cord of heater into three-prong, grounded extension cord. Extension cord must be at least six feet long.

Extension Cord Wire Size Requirements

6 to 10 feet long, use 18 AWG rated cord

11 to 100 feet long, use 16 AWG rated cord

101 to 200 feet long, use 14 AWG rated cord

5. Plug extension cord into standard 120 volt/60 hertz, three-hole, grounded outlet. Heater will display ambient temperature and "OFF" (see Figure 6). If not, check status of display and refer to *Troubleshooting*, pages 11 and 12.
6. Press ⏏ (ON/Reset) Button (see Figure 6) until display flashes. Heater will start when button is released.

ON/Reset Button

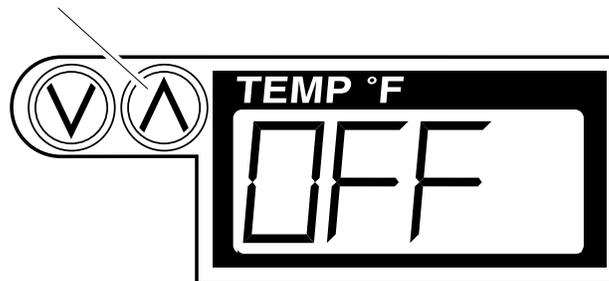


Figure 6 - ON/Reset Button Location

OPERATION WITHOUT THERMOSTAT

Continued

To Stop Heater

Press  (OFF) button.

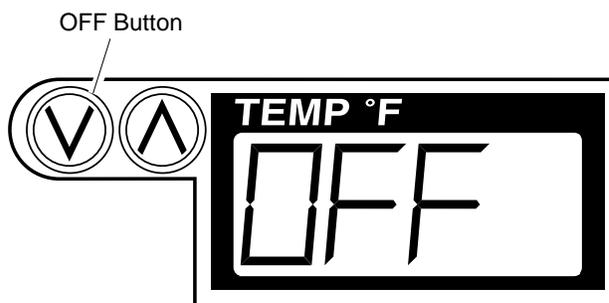


Figure 7 - OFF Button Location

To Restart Heater

Repeat steps under *To Start Heater*, page 7.

WARNING

Review and understand the warnings in the Safety Information Section. They are needed to safely operate this heater. Follow all local codes when using this heater.

OPERATION WITH THERMOSTAT

To Start Heater (with thermostat operation)

1. Follow all ventilation and safety information.
2. Fill fuel tank with kerosene or No. 1 fuel oil.
3. Attach fuel cap.
4. Plug power cord of heater into three-prong, grounded extension cord. Extension cord must be at least six feet long.

Extension Cord Wire Size Requirements

6 to 10 feet long, use 18 AWG rated cord

11 to 100 feet long, use 16 AWG rated cord

101 to 200 feet long, use 14 AWG rated cord

5. Plug extension cord into standard 120 volt/60 hertz, three-hole, grounded outlet. Heater will display ambient temperature and “OFF” (see Figure 6, page 7). If not, check status of display and refer to *Troubleshooting*, pages 11 and 12.
6. Press  button until display flashes. Release  button. Heater will flash the current thermostat set temperature (F°) for 10 seconds. Press and hold  button to increase thermostat setting or  button to decrease thermostat setting. Display will automatically advance to next screen 4 seconds after the last adjustment.

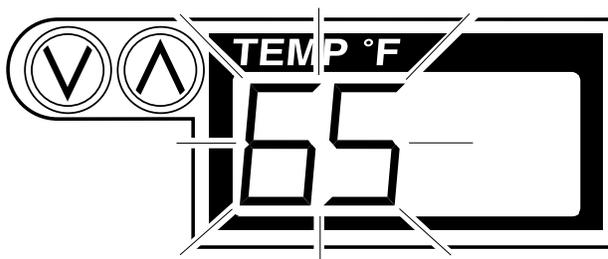


Figure 8 - Adjusting Thermostat

7. Display alternates between “th” and the temperature selected. Heater has accepted the new thermostat setting. Press \wedge button to activate the new thermostat setting and start heater operation with thermostat.

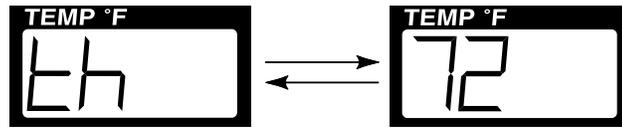


Figure 9 - Alternating Between “th” and the Temperature Selected

NOTE: This thermostat has a 6°F differential. *Example:* With thermostat set at 72°F, the heater will cycle ON if the ambient temperature drops to 69°F. The heater will cycle OFF when the ambient temperature rises to 75°F.

To Change Thermostat Setting During Operation

1. Press \wedge button until display flashes. The heater will stop and the display will flash the current thermostat setting.
2. Press and hold \wedge button to increase thermostat setting or \vee button to decrease thermostat setting. Display will automatically advance to next screen 4 seconds after the last adjustment.
3. Display alternates between “th” and the temperature selected . Heater has accepted the new thermostat setting. Press \wedge button to activate the new thermostat setting and start heater operation with thermostat.

To Stop Heater

Press \vee (OFF) button.

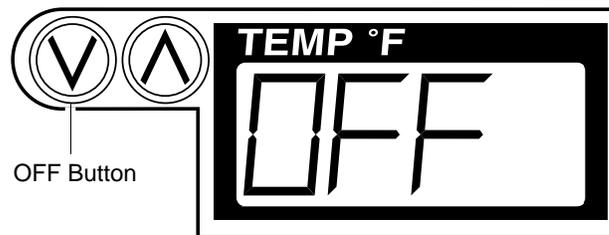


Figure 10 - OFF Button Location

To Restart Heater

Repeat steps under *Operation With Thermostat*, page 8 to operate heater with thermostat. Refer to step under *Operation Without Thermostat*, page 7 to operate heater without thermostat.

STORAGE

1. Drain fuel tank.
NOTE: Some models have drain plug on underside of fuel tank. If so, remove drain plug to drain all fuel. If heater does not have drain plug, drain fuel through fuel cap opening. Be sure all fuel is removed.
2. Replace drain plug if used.
3. Add one gallon of clean kerosene to fuel tank.
4. Attach fuel cap.
5. Move heater forwards and backwards to stir fuel.
6. Remove fuel cap or drain plug and drain fuel tank. Be sure all fuel is removed.
7. Replace fuel cap or drain plug. Properly dispose of old and dirty fuel.
8. Store heater in dry place. Make sure storage place is free of dust and corrosive fumes.

IMPORTANT: Do not store kerosene over summer months for use during next heating season. Using old fuel could damage heater.

WARNING

Never service heater while it is plugged in, operating, or hot. Severe burns and electrical shock can occur.

PREVENTATIVE MAINTENANCE SCHEDULE

<u>Item</u>	<u>How Often</u>	<u>How To</u>
Fuel tank	Flush every 150-200 hours of operation or as needed.	See <i>Storage</i> above.
Air output and lint filters	Replace every 500 hours of operation or once a year.	See <i>Air Output, Air Intake, and Lint Filters</i> , page 14.
Air intake filter	Wash and dry with soap and water every 500 hours of operation or replace as needed.	See <i>Air Output, Air Intake, and Lint Filters</i> , page 14.
Fuel filter	Clean twice a heating season or replace as needed.	See <i>Fuel Filter</i> , page 15.
Spark plug	Clean and regap every 2,000 hours operation or replace as needed.	See <i>Spark Plug</i> , page 15.
Fan blades	Clean each season or as needed.	See <i>Fan</i> , page 13.
Motor	Not required/permanently lubricated	

TROUBLE-SHOOTING

⚠ WARNING

Never service heater while it is plugged in, operating, or hot. Severe burns and electrical shock can occur.

OBSERVED FAULT

Heater ignites, but flame control shuts off heater after a short period of time.

DISPLAY SCREEN



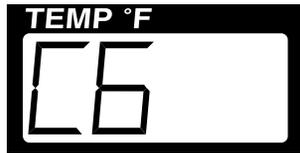
Display shows “no fuel” (fuel lean).

POSSIBLE CAUSE

- Out of fuel
- Wrong pump pressure
- Dirty air output, air intake and lint filters
- Dirty fuel filter
- Dirt in nozzle
- Dirty photocell lens or photocell not seated in bushing

REMEDY

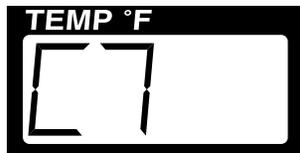
- Fill tank with kerosene.
- See *Pump Pressure Adjustment*, page 14.
- See *Air Output, Air Intake and Lint Filters*, page 14.
- See *Fuel Filter*, page 15.
- See *Nozzle*, page 16.
- Clean photocell lens and make sure photocell is seated in bushing.



Display shows “C6” (sudden overfire).

- Pump regulator blocked
- Loose fan setscrew
- Defective nozzle

- Remove blockage.
- Tighten set screw. See *Fan*, Page 13.
- Replace nozzle. See *Nozzle*, Page 16.

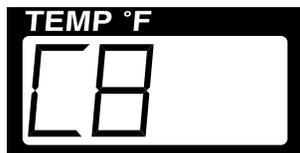


Display shows “C7” (fuel rich).

- Wrong pump pressure
- Heater inlet blocked
- Dirty fan
- Defective nozzle

- See *Pump Pressure Adjustment*, page 14.
- Remove blockage.
- Clean fan. See *Fan*, page 13.
- Replace nozzle. See *Nozzle*, Page 16.

Heater will not ignite, but motor runs for a short period of time.



Display shows “no fuel” or “C8” (multiple ignition failures).

- Out of fuel
- Wrong pump pressure
- Dirty fuel or water in fuel tank
- Carbon deposits on spark plug and/or improper gap
- Dirty fuel filter
- Dirt in nozzle

- Fill tank with kerosene
- See *Pump Pressure Adjustment*, page 14.
- Drain and flush fuel tank with clean kerosene. See *Storage*, page 10.
- See *Spark Plug*, page 15
- See *Fuel Filter*, page 15.
- See *Nozzle*, page 16.

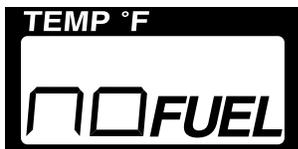
⚠ WARNING: High voltage

- Ignition system/flame control not grounded
- Bad ignition system/flame control

- Make sure green ground wires are secured.
- Replace flame control.

OBSERVED FAULT

Motor does not start when heater is plugged in, fan rotates slowly or does not turn.

DISPLAY SCREEN

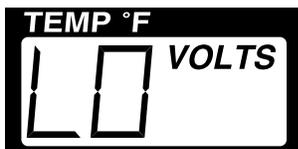
Display shows "no fuel".

POSSIBLE CAUSE

Binding pump rotor

REMEDY

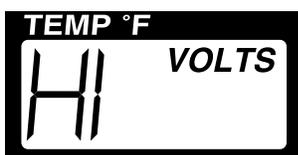
If fan is hard to turn, see *Pump Rotor*, page 16.



Display shows "LO volts".

Voltage to heater less than 85 VAC

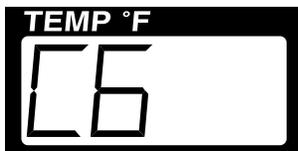
Voltage to heater should be 105 to 132 VAC.



Display shows "HI volts".

Voltage to heater over 132 VAC

Voltage to heater should be 105 to 132 VAC.



Display shows "C6".

Shorted photocell wires or defective photocell

Correct wiring or replace photocell.

Call DESA International's Technical Service Department at 1-800-323-5190 if you have any questions on troubleshooting or operating your portable forced air heater.

SERVICE PROCEDURES

Upper Shell Removal

1. Remove screws along each side of heater using 5/16" nut-driver. These screws attach upper and lower shells together.
2. Lift upper shell off.
3. Remove fan guard.

Fan

IMPORTANT: Remove fan from motor shaft before removing motor from heater. The weight of the motor resting on the fan could damage the fan pitch.

1. Remove upper shell (see above).
2. Use 1/8" allen wrench to loosen set-screw which holds fan to motor shaft.
3. Slip fan off motor shaft.
4. Clean fan using soft cloth moistened with kerosene or solvent.
5. Dry fan thoroughly.
6. Replace fan on motor shaft. Place fan hub flush with end of motor shaft (see Figure 13).
7. Place setscrew on flat of shaft. Tighten setscrew firmly (40-50 inch-pounds).
8. Replace fan guard and upper shell.

⚠ WARNING

Never service heater while it is plugged in, operating, or hot. Severe burns and electrical shock can occur.

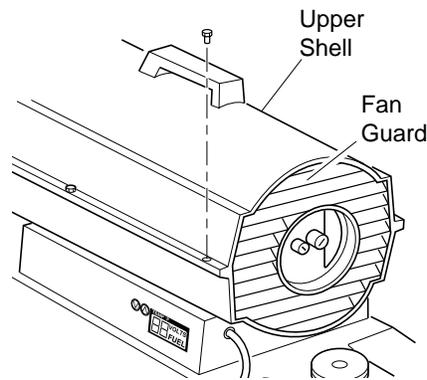


Figure 11 - Upper Shell Removal, 70,000 BTU/Hr Model

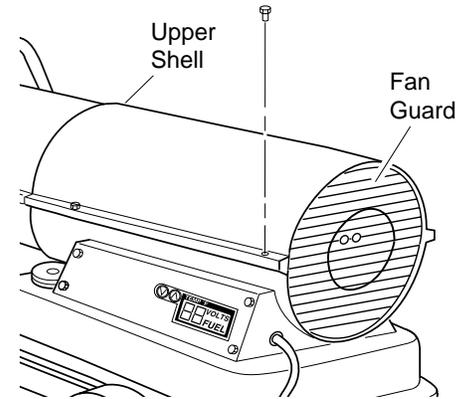


Figure 12 - Upper Shell Removal, 110,000 and 150,000 BTU/Hr Models

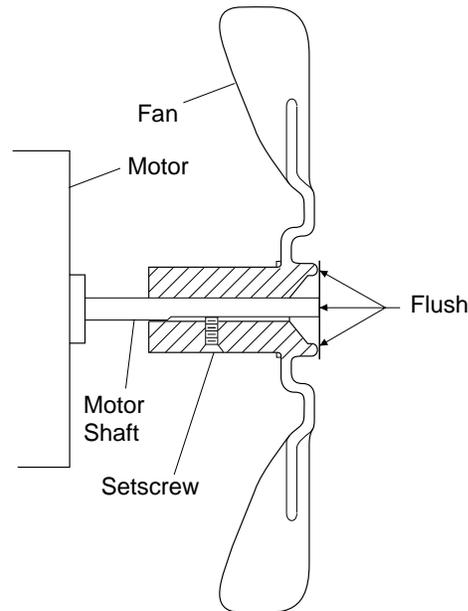


Figure 13 - Fan Cross Section

Air Output, Air Intake, and Lint Filters

1. Remove upper shell (see *Upper Shell Removal*, page 13).
2. Remove filter end cover screws using 5/16" nut-driver.
3. Remove filter end cover.
4. Replace air output and lint filters.
5. Wash or replace air intake filter (see *Preventative Maintenance Schedule*, page 10).
6. Replace filter end cover.
7. Replace fan guard and upper shell.

IMPORTANT: Do not oil filters.

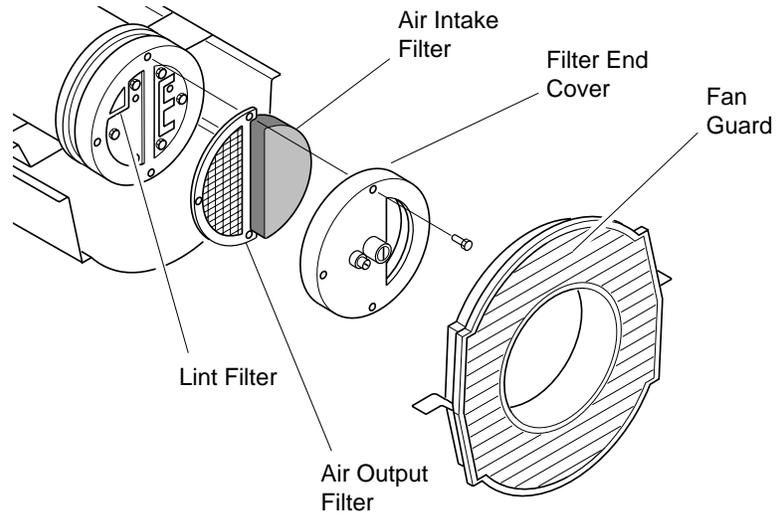


Figure 14 - Air Output, Air Intake, and Lint Filters, 70,000 BTU/Hr Model

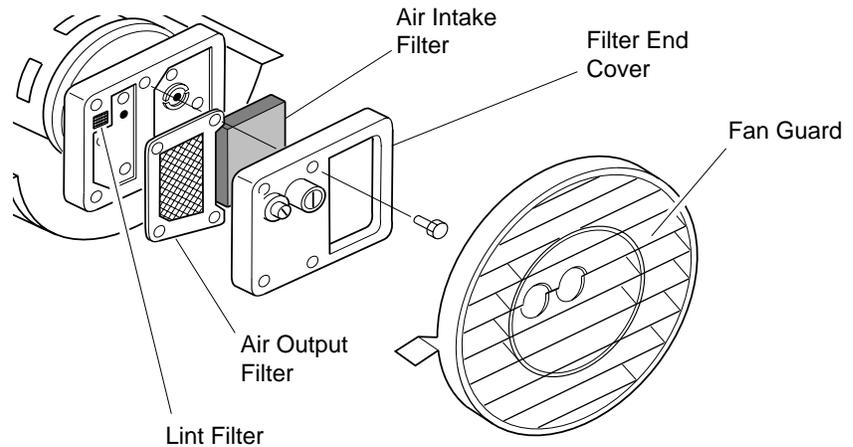


Figure 15 - Air Output, Air Intake, and Lint Filters, 110,000 and 150,000 BTU/Hr Models

Pump Pressure Adjustment

1. Remove pressure gauge plug from filter end cover.
2. Install accessory pressure gauge (part number HA1180).
3. Start heater (see *Operation*, page 7). Allow motor to reach full speed.
4. Adjust pressure. Turn relief valve to right to increase pressure. Turn relief valve to left to decrease pressure. See specifications at right for correct pressure for each model.
5. Remove pressure gauge. Replace pressure gauge plug in filter end cover.

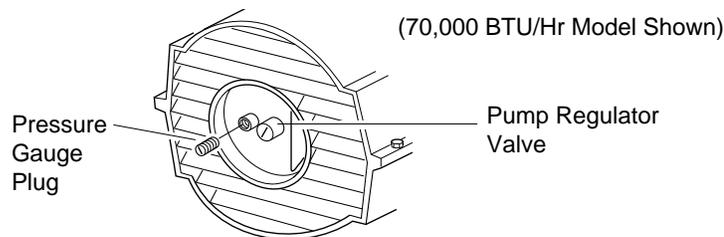


Figure 16 - Pressure Gauge Plug Removal

Model	Pump Pressure
70,000 BTU/Hr	4.0 PSI
110,000 BTU/Hr	4.5 PSI
150,000 BTU/Hr	5.2 PSI

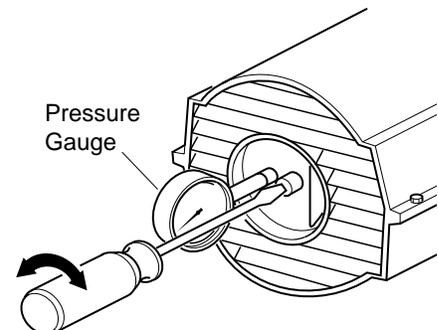


Figure 17 - Adjusting Pump Pressure

Fuel Filter

1. Remove side cover screws using 5/16" nut-driver.
2. Remove side cover.
3. Pull upper fuel line off fuel filter neck.
4. Carefully pry bushing, fuel filter, and lower fuel line (110,000 and 150,000 BTU/Hr models only) out of fuel tank.
5. Wash fuel filter with clean fuel and replace in tank.
6. Attach upper fuel line to fuel filter neck.
7. Replace side cover.

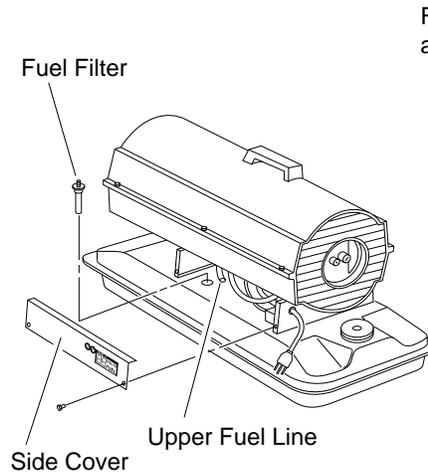


Figure 18 - Fuel Filter Removal, 70,000 BTU/Hr Model

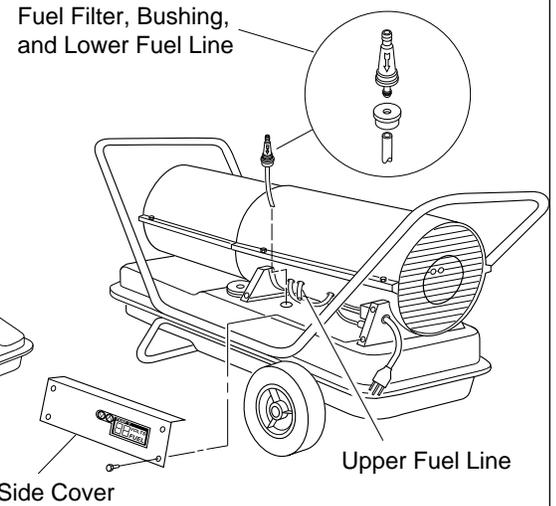


Figure 19 - Fuel Filter Removal, 110,000 and 150,000 BTU/Hr Models

Spark Plug

1. Remove upper shell (see page 13).
2. Remove fan (see page 13).
3. Remove spark plug wire from spark plug.
4. Remove spark plug from burner head using 13/16" open-end wrench.
5. Clean and regap spark plug electrodes to .085" gap.
6. Install spark plug in burner head.
7. Attach spark plug wire to spark plug.
8. Replace fan (see page 13).
9. Replace fan guard and upper shell.

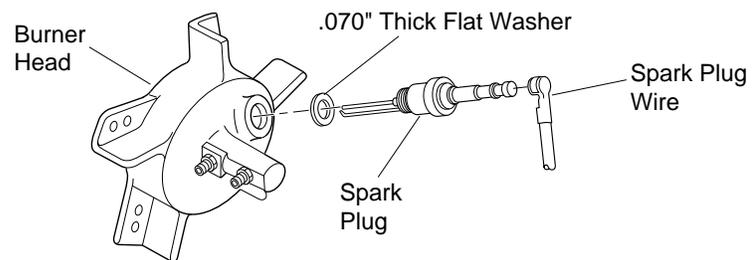


Figure 20 - Spark Plug Removal

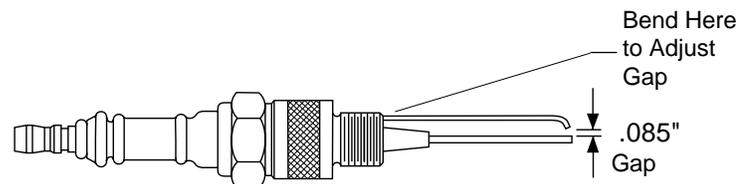


Figure 21 - Spark Plug Gap

Nozzle

1. Remove upper shell (see page 13).
2. Remove fan (see page 13).
3. Remove fuel and air line hoses from burner head.
4. Remove spark plug wire from spark plug.
5. Remove spark plug from burner head using 13/16" open-end wrench.
6. Remove three screws using 5/16" nut-driver and remove burner head from combustion chamber.
7. Place burner head into vise and lightly tighten.
8. Carefully remove nozzle from burner head using 5/8" socket wrench (see Figure 23).
9. Blow compressed air through face of nozzle. This will free any dirt in nozzle area.
10. Inspect nozzle seal for damage. Lubricate nozzle seal with kerosene before reassembly.
11. Replace nozzle into burner head and tighten firmly (80-110 inch-pounds).
12. Attach burner head to combustion chamber.
13. Install spark plug in burner head.
14. Attach spark plug wire to spark plug.
15. Attach fuel and airline hoses to burner head.
16. Replace fan (see page 13).
17. Replace fan guard and upper shell.

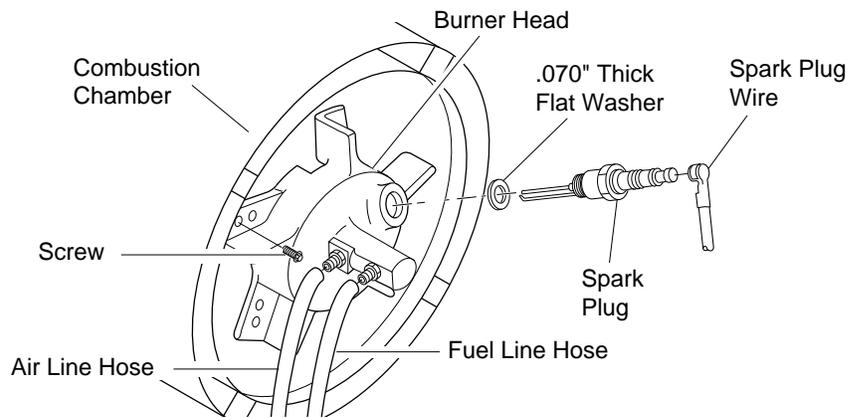


Figure 22 - Removing Burner Head

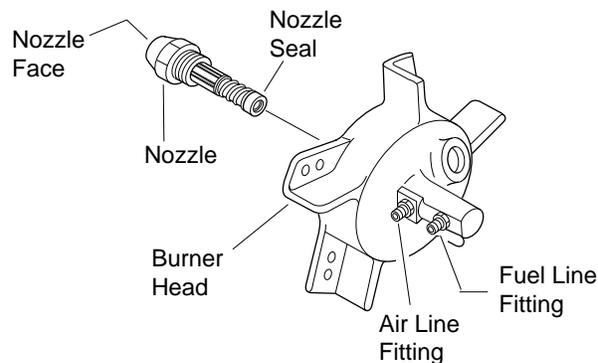


Figure 23 - Removing Nozzle

Pump Rotor

(Procedure if rotor is binding)

1. Remove upper shell (see page 13).
2. Remove filter end cover screws using 5/16" nut-driver.
3. Remove filter end cover and air filters.
4. Remove pump plate screws using 5/16" nut-driver.
5. Remove pump plate.
6. Remove rotor, insert, and blades.
7. Check for debris in pump. If debris is found, blow out with compressed air.
8. Install insert and rotor.
9. Check gap on rotor. Adjust to .003"/.004" if needed (see Figure 26).

Note: Rotate rotor one full turn to insure the gap is .003"/.004" at tightest position. Adjust if needed.

10. Install blades, pump plate, air filters, and filter end cover.
11. Replace fan guard and upper shell.
12. Adjust pump pressure (see page 14).

Note: If rotor is still binding, proceed as follows.

13. Perform steps 1 through 6 above.
14. Place fine grade sandpaper (600 grit) on flat surface. Sand rotor lightly in "figure 8" motion four times (see Figure 27).
15. Reinstall insert and rotor.
16. Perform steps 10 through 12 above.

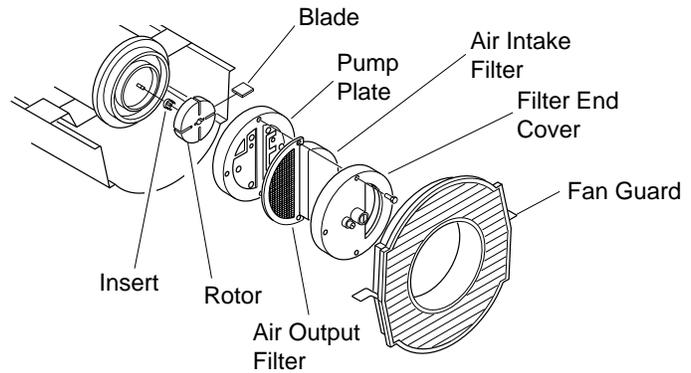


Figure 24 - Rotor Location, 70,000 BTU/Hr Model

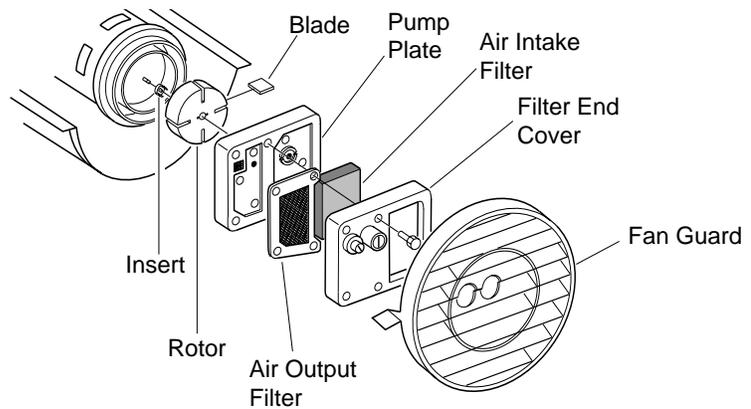


Figure 25 - Rotor Location, 110,000 and 150,000 BTU/Hr Models

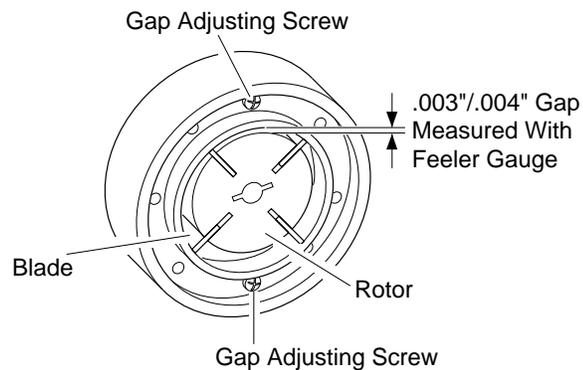


Figure 26 - Gap Adjusting Screw Locations

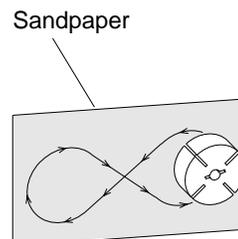


Figure 27 - Sanding Rotor

SPECIFICATIONS

Output Rating (BTU/Hr.)	70,000	110,000	150,000
Fuel	Use Only Kerosene or No. 1 Fuel Oil		
Fuel Tank Capacity (U.S. Gal.)	5.0	9.0	13.5
Fuel Consumption (Gal. Per Hr.)	.51	.82	1.10
Electric Requirements	120 V/60 Hz (Same All Models)		
Amperage (Normal Run)	2.5	4.5	4.5
Hot Air Output (CFM)	250	500	550

WIRING DIAGRAM

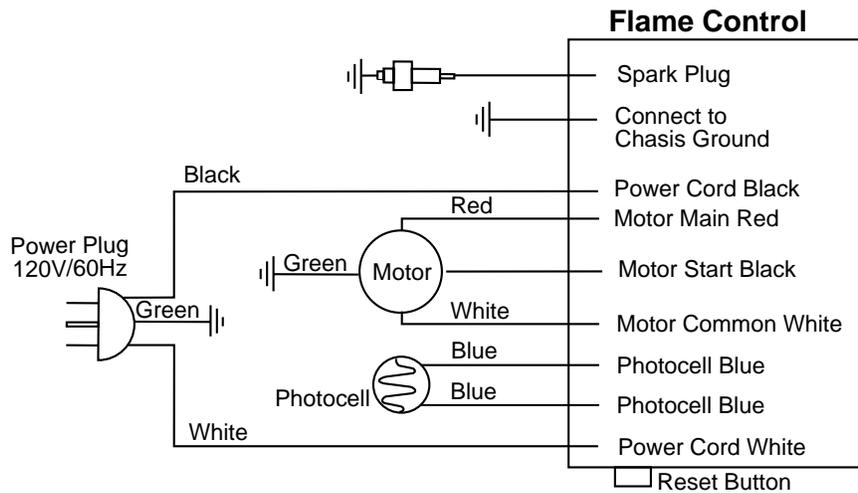


Figure 28 - Wiring Diagram

MAINTENANCE KITS

BTU/Hr	70,000	110,000	150,000
Spark Plug Part No.	102028-01	102028-01	102028-01
Filter Kit Part No.	HA3014	HA3017	HA3017
Nozzle Kit Part No.	HA3008	HA3022	HA3010
Rotor/Air Pump Kit Part No.	HA3004	HA3004	HA3004
Handle Part No.	—	HA2203	HA2204
Photocell Part No.	M16656-21	M16656-21	M16656-21
Pump Adjustment Part No.	HA3020	HA3020	HA3020

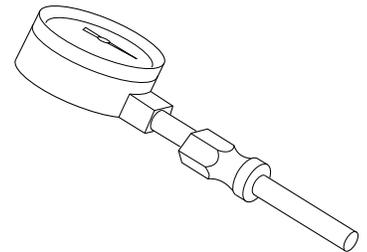
ACCESSORIES

Purchase accessories and parts from your nearest dealer or service center. If they can not supply these accessories or parts, either contact your nearest Parts Central or DESA International. Parts Centrals are listed in the Authorized Service Center booklet supplied with heater.

DESA International
P.O. Box 90004
Bowling Green, KY
42102-9004
1-800-972-7879
Parts Department

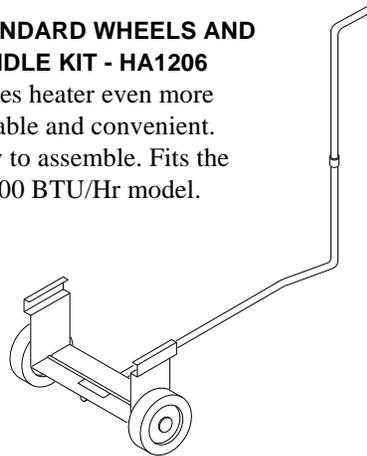
AIR GAUGE KIT - HA1180

For all models. Special tool to check pump pressure.



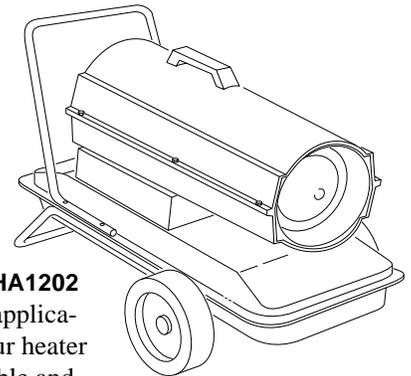
STANDARD WHEELS AND HANDLE KIT - HA1206

Makes heater even more portable and convenient. Easy to assemble. Fits the 70,000 BTU/Hr model.



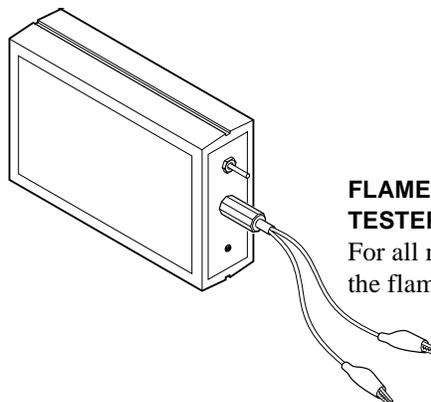
HEAVY DUTY WHEELS AND HANDLE KIT - HA1202

For heavy duty applications. Makes your heater even more portable and convenient. Fits the 70,000 BTU/Hr model.



FLAME CONTROL/PHOTOCELL TESTER - HA1170

For all models. Special tool used to test the flame control and photocell.



WARRANTY AND REPAIR SERVICE

LIMITED WARRANTY

DESA International warrants this product and any parts thereof, to be free from defects in materials and workmanship for six (6) months from the date of first purchase when operated and maintained in accordance with instructions. This warranty is extended only to the original retail purchaser, when proof of purchase is provided.

This warranty covers only the cost of parts and labor required to restore the product to proper operating condition. Transportation and incidental costs associated with warranty repairs are not reimbursable under this warranty.

Warranty service is available only through authorized dealers and service centers.

This warranty does not cover defects resulting from misuse, abuse, negligence, accidents, lack of proper maintenance, normal wear, alteration, modification, tampering, contaminated fuels, repair using improper parts, or repair by anyone other than an authorized dealer or service center. Routine maintenance is the responsibility of the owner.

THIS EXPRESS WARRANTY IS GIVEN IN LIEU OF ANY OTHER WARRANTY EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

DESA International assumes no responsibility for indirect, incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations or exclusions may not apply to you. This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

WARRANTY SERVICE

Should your heater require service, return it to your nearest authorized service center. Proof of purchase must be presented with the heater. The heater will be inspected. A defect may be caused by faulty materials or workmanship. If so, DESA International will repair or replace the heater without charge.

REPAIR SERVICE

Return the heater to your nearest authorized service center. Repairs not covered by the warranty will be billed at standard prices.

Illustrated parts lists can be obtained free of charge. Send a self addressed stamped envelope to the address listed below. List the heater model number and the date located in the lower right corner of this page. A service manual may be purchased from the address listed below. Send a check for \$5.00 payable to DESA International.

When writing for information regarding your heater, be sure to include the model number and serial number as shown on the model plate.

Each Service Center is independently owned and operated. We reserve the right to amend these specifications at any time without notice.

KEEP THIS WARRANTY

Model No. _____

Serial No. _____

Date of Purchase _____

(To be filled in by purchaser)

DESA

INTERNATIONAL

Corporate Headquarters

2701 Industrial Drive

P.O. Box 90004

Bowling Green, KY 42102-9004

For information, write: DESA International, P.O. Box 90004
Bowling Green, Kentucky 42102-9004 ATTN: Customer Service Department
When writing, always include model number and serial number.

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