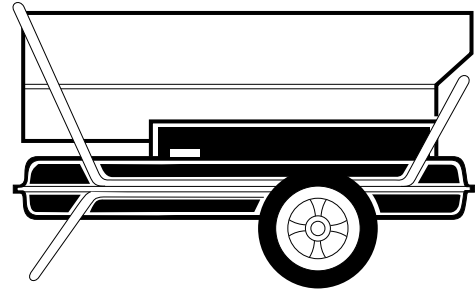
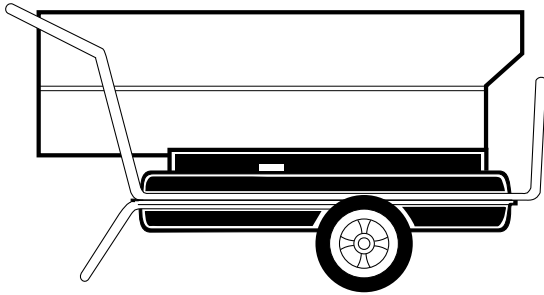


For more information, visit [www.desatech.com](http://www.desatech.com)



Heater Sizes: 350,000 and 600,000 Btu/Hr  
Models: B350D, SB350D, R350A, B600D, SB600D and R600A

**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.**

### TABLE OF CONTENTS

|  |   |  |            |
|--|---|--|------------|
| SAFETY INFORMATION .....                 | 2 | SERVICE PROCEDURES .....                         | 8          |
| PRODUCT IDENTIFICATION .....             | 3 | ILLUSTRATED PARTS BREAKDOWN AND PARTS LIST ..... | 12         |
| UNPACKING .....                          | 3 | SPECIFICATIONS .....                             | 18         |
| THEORY OF OPERATION .....                | 3 | WIRING DIAGRAM .....                             | 18         |
| FUELS .....                              | 4 | MAINTENANCE KITS .....                           | 18         |
| VENTILATION .....                        | 4 | ACCESSORY .....                                  | 18         |
| OPERATION .....                          | 4 | TECHNICAL SERVICE .....                          | 18         |
| STORING, TRANSPORTING, OR SHIPPING ..... | 5 | REPLACEMENT PARTS .....                          | 18         |
| OPERATION WITH PORTABLE GENERATOR .....  | 5 | OWNER'S REGISTRATION FORM .....                  | 19         |
| PREVENTATIVE MAINTENANCE SCHEDULE .....  | 6 | WARRANTY INFORMATION .....                       | Back Cover |
| TROUBLESHOOTING .....                    | 6 |  |            |

**Fill In For Your Records**

Model No. \_\_\_\_\_  
(Located on side panel)

Serial No. \_\_\_\_\_  
(Located on fuel tank)

Date of Purchase: \_\_\_\_\_



## 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.

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

**⚠️ 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.

- 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.
- Follow all local ordinances and codes when using heater.
- 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. Before using heater, provide at least a three-square-foot opening of fresh, outside air for each 100,000 Btu/Hr of rating.
- Use only in places free of flammable vapors or high dust content.
- Use only with the electrical voltage and frequency specified on model plate.
- Heater must be grounded. Use only a properly grounded three-wire extension cord. Plug into grounded outlet only.
- Minimum heater clearances from combustibles:  
Outlet: 8 Ft. Sides: 4 Ft. Top: 4 Ft. Rear: 4 Ft.
- 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.
- Keep children and animals away from heater.
- Never start heater when combustion chamber is hot or if fuel has accumulated in combustion chamber.
- Unplug heater when not in use.
- This heater has a built-in thermostat. Plugged-in heater may start at anytime.
- Never use heater in living or sleeping areas.
- Never block air inlet (rear) or air outlet (front) of heater.
- Never move, handle, refuel, or service a hot, operating, or plugged-in heater.
- Never attach duct work to front or rear of heater.
- Never use gasoline, crankcase drainings, naphtha, paint thinners, alcohol, or other highly flammable fuels.
- Never leave a heater plugged in without adult supervision if children or animals are likely to be present.
- **Warning to New York City Residents For Use Only At Construction Sites** in accordance with applicable NYC codes under NYCFD certificate of approval #4803, #4899, #4908, #4909, or #4934 or NYC Board of Standards and Appeals calendar number 62-59-5A.

## PRODUCT IDENTIFICATION

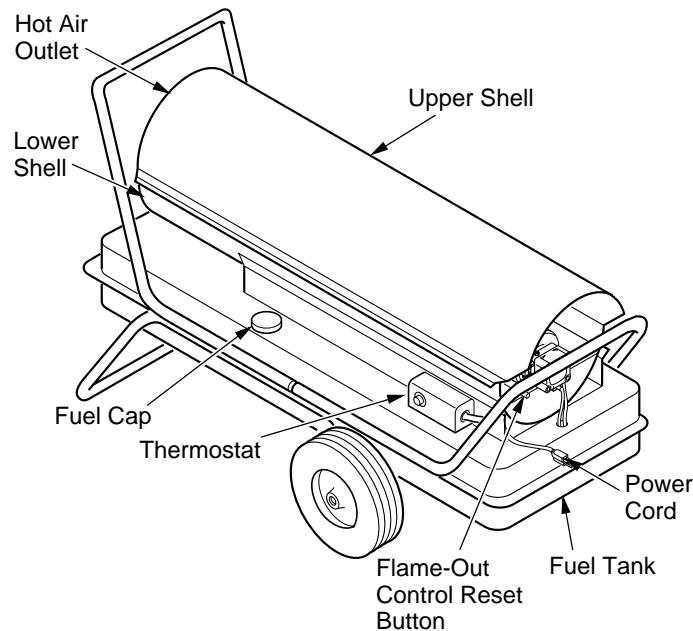


Figure 1 - 350,000 Btu/Hr Model

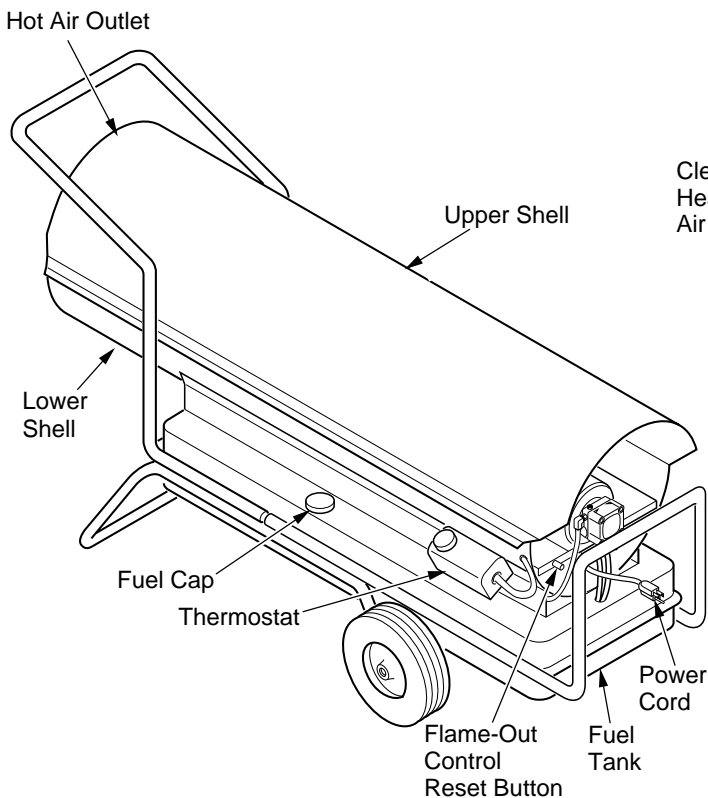


Figure 2 - 600,000 Btu/Hr Model

## UNPACKING

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

## THEORY OF OPERATION

**The Fuel System:** The motor turns the fuel pump. The fuel pump pulls fuel from the fuel tank. The fuel pump pushes fuel through a filter and a solenoid valve and out the burner head nozzle. 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 electronic ignitor sends voltage to the spark plug. The spark plug ignites the fuel and air mixture.

**The Flame-Out Control System:** This system causes the heater to shut down if the flame goes out. It also allows the fan to continue running after normal shutdown of heater. This cools the combustion chamber.

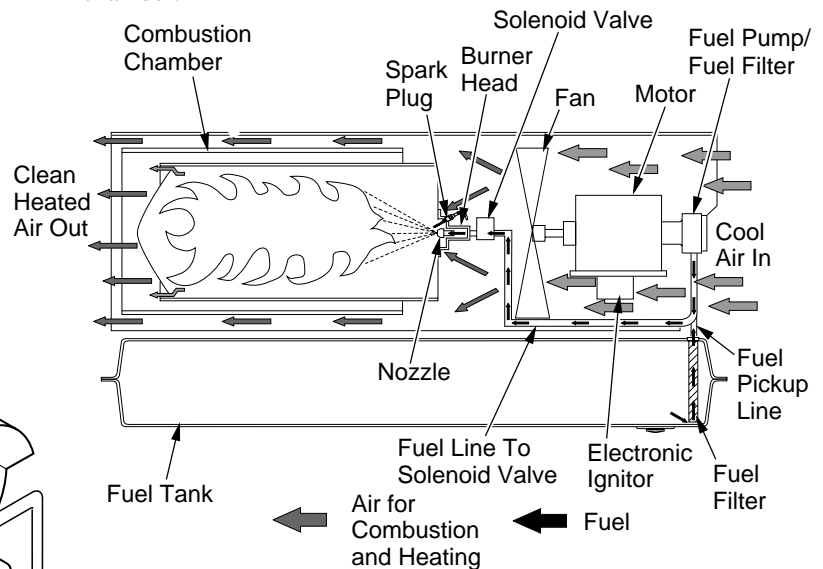


Figure 3 - Cross Section Operational View

## 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 flame-out control to shut down heater. Foreign matter may also require you to clean fuel system often.

## VENTILATION

**⚠ 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.**

### Fresh Air Opening Requirements

| Heater Size    | Square Feet Opening |
|----------------|---------------------|
| 350,000 Btu/Hr | 10.5                |
| 600,000 Btu/Hr | 18.0                |

**Note:** If you use more than one heater, provide extra fresh air. Provide a fresh air opening of at least three square feet for each 100,000 Btu/Hr rating.

## OPERATION

**⚠ WARNING: Review and understand the warnings in the *Safety Information* section, page 2. They are needed to safely operate this heater.**

### TO START HEATER

1. Follow all ventilation and safety information.
2. Locate heater to provide maximum circulation of the heated air. Follow all location requirements noted in *Safety Information*, page 2.
3. Fill fuel tank with kerosene or No. 1 fuel oil.
4. Attach fuel cap.
5. Set thermostat dial to desired temperature. **Note:** Thermostat setting must be higher than surrounding air temperature.

6. Plug power cord of heater into three-prong, grounded extension cord. Extension cord must be at least six feet long.

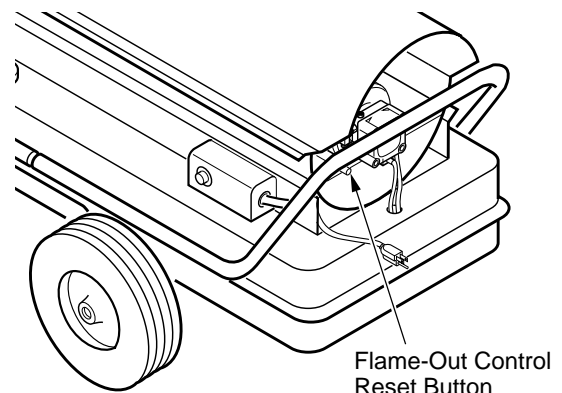
**⚠ WARNING: Use only a three-prong, grounded extension cord. Use cord with proper wire size to assure 120 volt operation. See *Extension Cord Wire Size Requirements* below.**

### Extension Cord Wire Size Requirements

- 6 to 100 feet long, use 14 AWG rated cord
  - 101 to 200 feet long, use 12 AWG rated cord
  - 201 to 300 feet long, use 10 AWG rated cord
  - 301 to 400 feet long, use 8 AWG rated cord
  - 401 to 500 feet long, use 6 AWG rated cord
7. Plug extension cord into standard 120 volt/60 hertz, three-hole, grounded outlet.
  8. The motor will start when extension cord is plugged into outlet. The heater should ignite at once. If heater does not ignite, restart heater. To restart heater, wait 60 seconds, then push in flame-out control reset button. Flame-out control reset button is at rear of heater near power cord (see Figure 4).

**Note:** A cold heater may affect the thermostat setting. This thermostat is a general-heating control. It is not intended for precise temperature control. Adjust thermostat until heater cycles at the desired setting.

**Note:** If starting heater for first time, you may need to prime the pump. If equipped, slightly open bleeder valve of pump to allow air to escape. Quickly close valve once fuel is seen. Wipe up any excess fuel. If equipped with canister fuel filter, remove the canister bottom and fill with fuel. Reassemble filter. Wipe up any excess fuel. You may also have to do this after taking heater out of storage.



**Figure 4 - Flame-Out Control Reset Button**

## OPERATION

### Continued

#### TO STOP HEATER

**⚠ CAUTION: Never unplug heater while heater is running. Heater must go through purge cycle. The purge cycle cools the combustion chamber. Damage to heater can occur if combustion chamber is not cooled. Do not restart heater until purge cycle is complete.**

1. Turn thermostat dial to lowest temperature setting. This will cause heater flame to go out. The motor will continue to run during the purge cycle. This allows the fan to cool the combustion chamber. When the purge cycle is finished, the motor will stop. Do not unplug heater until purge cycle is finished.
2. Unplug extension cord from outlet.
3. To temporarily stop heater, set thermostat at a temperature lower than air around heater. Heater will cycle back on if air temperature around heater matches thermostat setting.

#### TO RESTART HEATER

**⚠ CAUTION: Do not restart heater until purge cycle is finished. The purge cycle cools the combustion chamber.**

1. Wait until purge cycle is finished after stopping heater.
2. Repeat steps under *To Start Heater*, page 4.

## STORING, TRANSPORTING, OR SHIPPING

**Note:** If shipping transport companies require fuel tanks to be empty.

1. Drain all fuel from fuel lines and pump/filter (see *Fuel Filters*, page 11).
2. Clean and flush fuel filter in fuel pump if equipped (see *Fuel Filters*, page 11).
3. Remove drain plug and drain fuel tank.
4. Replace drain plug.
5. If any debris is noted in old fuel, add 1 or 2 quarts of clean kerosene to tank, stir, and drain again. This will prevent excess debris from clogging filters during future use.
6. Replace fuel cap or drain plug. Properly dispose of old and dirty fuel. Check with local automotive service stations that recycle oil.
7. Add two gallons (350,000 Btu/Hr) or three gallons (600,000 Btu/Hr) of clean kerosene or No. 1 fuel oil to fuel tank.
8. Replace fuel cap.

9. Operate heater for 5 minutes (see *Operation*, page 4).
10. Stop heater and let cool completely.
11. Remove drain plug and drain fuel tank.
12. Replace drain plug.
13. Properly dispose of old and dirty fuel.
14. If storing, store heater in a dry location. Make sure storage place is free of dust and corrosive fumes.

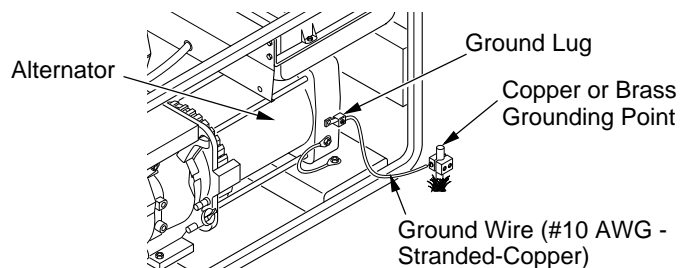
**IMPORTANT:** Do not store kerosene over summer months for use during next heating season. Using old fuel could damage heater.

## OPERATION WITH PORTABLE GENERATOR

**⚠ WARNING: Before operating heater or any appliance from a portable generator, verify that generator has been properly connected to earth ground. Improper grounding or failure to ground generator can result in electrocution if a ground fault occurs. Refer to owner's manual supplied by generator manufacturer for proper grounding procedures.**

The operating voltage range of the heater is 108 to 132 Volts (120 Volts +/- 10%). Prior to plugging heater into generator the output voltage should be verified (if generator is equipped with the automatic idle feature, the output voltage should be measured with the generator running at full speed). If the voltage does not measure in this range the heater should not be plugged into the generator.

Refer to *Operation*, pages 4 and 5, for starting, stopping, and resetting heater procedures.



**Figure 5 - Typical Generator Grounding Method (Generator construction may vary from that shown)**

## PREVENTATIVE MAINTENANCE SCHEDULE

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

| Item                                       | How Often   | How To   |
|--|---|--|
| Fuel tank                                  | Flush every 150-200 hours of operation or as needed                     | See <i>Storing, Transporting, or Shipping</i> , page 5 |
| Filler neck screen                         | Check for particles in fuel when filling fuel tank.<br>Clean when dirty | Lift out of fuel tank and rinse with clean kerosene    |
| Fuel filter assembly (Fuel tank)           | Clean twice a heating season or replace as needed                       | See <i>Fuel Filters</i> , page 11                      |
| Fuel filter lines                          | Check and tighten loose connections occasionally                        | See <i>Fuel Lines</i> , Page 10                        |
| Fuel filter (In pump or external canister) | Clean fuel filter element every 250 hours                               | See <i>Fuel Filters</i> , page 11                      |
| Spark plug                                 | Clean and regap every 300 hours of operation or replace as needed       | See <i>Spark Plug</i> , page 9                         |
| Fan blades and air deflectors              | Clean each season or as needed  | See <i>Fan Blades and Air Deflectors</i> , page 9      |
| Air passages around burner head            | Check each season for dirt and debris                                   | Remove debris and trash with a clean, soft cloth       |
| Motor                                      | Not required, permanently lubricated                                    |  |

## TROUBLESHOOTING

*Note:* For additional help, visit DESA International's Technical Service web site at [www.desatech.com](http://www.desatech.com).

**⚠ WARNING: Never service heater while it is plugged in, operating, or hot. Severe burns and electrical shock can occur. Only a qualified service person should service and repair heater.**

| OBSERVED PROBLEM   | POSSIBLE CAUSE   | REMEDY   |
|--|--|--|
| Motor does not start when heater is plugged in and thermostat setting is higher than surrounding air temperature | <ol style="list-style-type: none"> <li>No power or low voltage at heater due to:               <ol style="list-style-type: none"> <li>Damaged power cord or extension cord</li> <li>Wrong size extension cord</li> <li>Heater plugged into outlet with voltage lower than 120 volt</li> </ol> </li> <li>Loose electrical connections</li> <li>Motor overload protector tripped due to:               <ol style="list-style-type: none"> <li>Dirty fan</li> <li>Debris pulled into fan area by fan</li> <li>Binding pump</li> <li>Low voltage</li> </ol> </li> <li>Flame-out control not reset</li> <li>Damaged flame-out control</li> <li>Damaged power relay</li> <li>Damaged thermostat</li> <li>Binding pump</li> </ol> | <ol style="list-style-type: none"> <li> <ol style="list-style-type: none"> <li>Check condition of power cord or extension cord. Repair or replace if damaged</li> <li>Use extension cord with proper wire size (see <i>To Start Heater</i>, page 4)</li> <li>Make sure heater is plugged into 120 volt/60 hertz outlet</li> </ol> </li> <li>Check connections. Tighten if loose</li> <li> <ol style="list-style-type: none"> <li>See <i>Fan Blades and Air Deflectors</i>, page 9</li> <li>Remove debris from fan and fan guard area</li> <li>Turn fan by hand. If fan is hard to turn, see <i>Pump</i>, page 10</li> <li>See steps B and C under item 1 above</li> </ol> <p><i>Note:</i> Be sure to reset motor overload protector by pressing reset button on top of motor</p> </li> <li>Press and release flame-out control reset button. See Figure 4, page 4 for button location</li> <li>Replace flame-out control</li> <li>Replace power relay</li> <li>Replace thermostat</li> <li>Turn fan by hand. If fan is hard to turn, see <i>Pump</i>, page 10</li> </ol> |

## TROUBLESHOOTING

*Continued*

| OBSERVED PROBLEM   | POSSIBLE CAUSE  | REMEDY   |
|--|---|--|
| Heater will not ignite, but motor runs for a short period of time. | <ol style="list-style-type: none"> <li>1. A) Fuel tank empty</li> <li>B) Water in fuel</li> <li>C) Wrong fuel</li> </ol> <ol style="list-style-type: none"> <li>2. Dirt in nozzle</li> <li>3. Very low temperature may cause fuel to thicken and not flow</li> <li>4. Dirty fuel filters</li> <li>5. Wrong pump pressure</li> <li>6. Spark plug wire disconnected from plug</li> <li>7. Spark plug problems due to:               <ol style="list-style-type: none"> <li>A) Wrong gap</li> <li>B) Plug wet with fuel</li> <li>C) Carbon deposits on plug</li> <li>D) Damaged plug</li> </ol> </li> <li>8. Solenoid valve not opening</li> </ol> | <ol style="list-style-type: none"> <li>1. A) Add fuel to tank</li> <li>B) Check fuel tank for bubbles of water in bottom. If found, remove fuel (see <i>Storing, Transporting, or Shipping</i>, page 5). Clean tank and fuel filters (see <i>Fuel Filters</i>, page 11). Fill with clean fuel</li> <li>C) Remove wrong fuel (see <i>Storing, Transporting, or Shipping</i>, page 5). Clean tank and fuel filters (see <i>Fuel Filters</i>, page 11). Fill with correct fuel</li> <li>2. Replace nozzle (see <i>Nozzle</i>, page 9)</li> <li>3. Move heater to warmer place until fuel flows freely</li> <li>4. Clean fuel filters (see <i>Fuel Filters</i>, page 11)</li> <li>5. Adjust pump pressure (see <i>Pump Pressure Adjustment</i> sections, pages 9 and 10)</li> <li>6. Connect spark plug wire to spark plug</li> <li>7. A) Adjust electrode gap to .075" (see <i>Spark Plug</i>, page 9)</li> <li>B) Clean fuel from spark plug with clean, soft cloth</li> <li>C) Replace plug if heavily coated with carbon (see <i>Spark Plug</i>, page 9)</li> <li>D) Inspect plug for worn or eroded electrodes. If found, replace plug (see <i>Spark Plug</i>, page 9)</li> <li>8. Check electrical connections and voltage to solenoid. If good, replace solenoid valve</li> </ol> |

 **WARNING: High Voltage!**

9. Damaged electronic ignitor

9. Replace electronic ignitor

## TROUBLESHOOTING

*Continued*

| OBSERVED PROBLEM  | POSSIBLE CAUSE   | REMEDY   |
|---|--|--|
| Heater ignites, but flame-out control shuts off heater after a short period of time   | <ol style="list-style-type: none"> <li>1. Wrong pump pressure</li> <li>2. Dirty fuel filters</li> <li>3. Dirt in nozzle</li> <li>4. Dirty photocell lens</li> <li>5. Open or damaged photocell</li> <li>6. Bad flame-out control</li> <li>7. Damaged fan switch</li> </ol>   | <ol style="list-style-type: none"> <li>1. Adjust pump pressure (see Pump Pressure Adjustment sections, pages 9 and 10)</li> <li>2. Clean fuel filters (see <i>Fuel Filters</i>, page 11)</li> <li>3. Replace nozzle (see <i>Nozzle</i>, page 9)</li> <li>4. Clean photocell lens with clean cotton swab</li> <li>5. Replace photocell</li> <li>6. Replace flame-out control</li> <li>7. Replace fan switch</li> </ol>  |
| Heater burns, but puffs of smoke can be seen<br>Heater does not burn steady<br>Heater burns with odor<br>Heater smokes continuously | <ol style="list-style-type: none"> <li>1. Wrong pump pressure</li> <li>2. A) Heater almost out of fuel<br/>B) Water condensation in fuel tank<br/>C) Wrong fuel</li> <li>3. Dirty fuel filters</li> <li>4. Air leak in suction system</li> <li>5. Dirty nozzle</li> <li>6. Low voltage causing motor to operate below rated speed</li> <li>7. Loose fuel line</li> </ol> | <ol style="list-style-type: none"> <li>1. Adjust pump pressure (see Pump Pressure Adjustment sections, pages 9 and 10)</li> <li>2. A) Add fuel to tank<br/>B) Check fuel tank for bubbles of water in bottom. If found, remove fuel (see <i>Storing, Transporting, or Shipping</i>, page 5). Clean tank and fuel filters (see <i>Fuel Filters</i>, page 11). Fill with clean fuel<br/>C) Remove wrong fuel (see <i>Storing, Transporting, or Shipping</i>, page 5). Clean tank and fuel filters (see <i>Fuel Filters</i>, page 11). Fill with correct fuel</li> <li>3. Clean fuel filters (see <i>Fuel Filters</i>, page 11)</li> <li>4. Tighten all fuel line connections (see <i>Fuel Lines</i>, page 10)</li> <li>5. Replace nozzle (see <i>Nozzle</i>, page 9)</li> <li>6. Check voltage at heater. Voltage at heater should be not less than 90% of rated voltage (108V minimum for 120V heaters)</li> <li>7. Check and tighten all fuel line connections (see <i>Fuel Lines</i>, page 10)</li> </ol> |

## SERVICE PROCEDURES

**⚠ WARNING:** Never service heater while it is plugged in, operating, or hot. Severe burns and electrical shock can occur. Only a qualified service person should service and repair heater.

## UPPER SHELL REMOVAL

1. Remove screws along each side and top of heater using 5/16" nut-driver. These screws attach upper and lower shells together (see Figure 6).
2. Lift upper shell off.

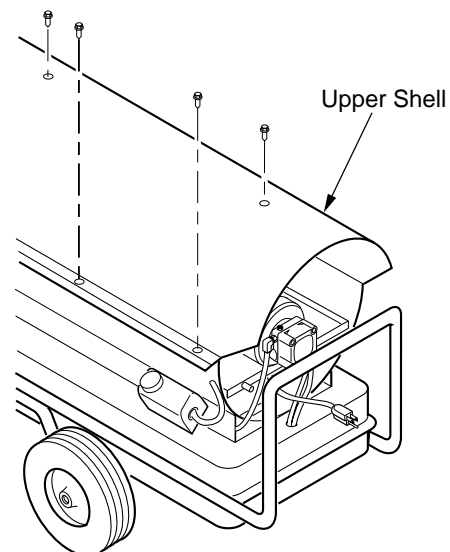


Figure 6 - Upper Shell Removal, 600,000 Btu/Hr Model



## SERVICE PROCEDURES

### Continued

#### FAN BLADES AND AIR DEFLECTORS

1. Remove upper shell (see *Upper Shell Removal*, page 8).
2. Clean fan blades and air deflectors with clean, soft cloth moistened with kerosene or solvent (see Figure 7).
3. Dry fan blades and air deflectors thoroughly.
4. Replace upper shell.

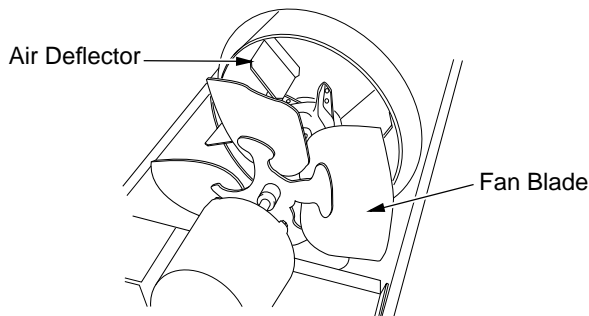


Figure 7 - Fan Blades and Air Deflectors

#### SPARK PLUG

1. Remove upper shell (see *Upper Shell Removal*, page 8).
2. Remove spark plug wire from spark plug (see Figure 8).
3. Remove spark plug from burner head using 13/16" open-end wrench (see Figure 8).
4. Replace spark plug if damaged or heavily coated with carbon.
5. Clean and regap spark plug electrodes to .075 inch (see Figure 9).
6. Install spark plug in burner head.
7. Attach spark plug wire to spark plug.
8. Replace upper shell.

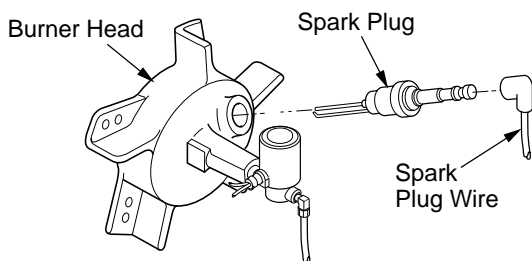


Figure 8 - Spark Plug Removal

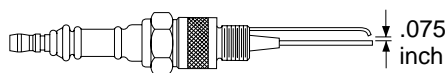


Figure 9 - Spark Plug Gap

#### NOZZLE

1. Remove upper shell (see *Upper Shell Removal*, page 8).
2. Remove fuel line from solenoid valve using 7/16" wrench.
3. Remove spark plug wire from spark plug.
4. Remove spark plug from burner head using 13/16" open-end wrench.
5. Remove five screws using 5/16" nut-driver and remove burner head from combustion chamber.
6. Place burner head into vise and lightly tighten.
7. Carefully remove nozzle from burner head using 5/8" socket wrench (see Figure 10).
8. Inspect nozzle for damage. If damaged or clogged, replace nozzle.
9. Make sure plug is in place on burner head.
10. Replace nozzle into burner head and tighten firmly (175-200 inch-pounds).
11. Attach burner head to combustion chamber.
12. Install spark plug in burner head.
13. Attach spark plug wire to spark plug.
14. Attach fuel line to solenoid valve. Tighten firmly.
15. Replace upper shell.

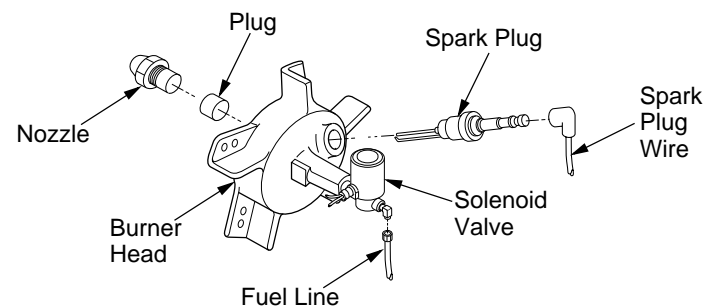


Figure 10 - Replacing Nozzle

#### PUMP PRESSURE ADJUSTMENT FOR HEATERS WITH FUEL FILTER/CANISTER EXTERNAL TO PUMP

1. Remove pressure gauge plug from fuel pump port marked "GAUGE."
2. Install accessory pressure gauge (part number 110380-01) to fuel pump port marked "GAUGE" (see Figure 11, page 10).
3. Start heater (see *Operation*, page 4). Allow motor to reach full speed.
4. Adjust pressure. Use small flat blade screwdriver to turn slotted screw at fuel pump pressure adjusting port. Turn screw clockwise to increase pressure. Turn screw counterclockwise to decrease pressure. See specifications in Figure 11, page 10, for correct pressure for each model.

## SERVICE PROCEDURES

### Continued

5. Stop heater (see page 5).
6. Remove pressure gauge. Replace pressure gauge plug in fuel pump port marked "GAUGE."

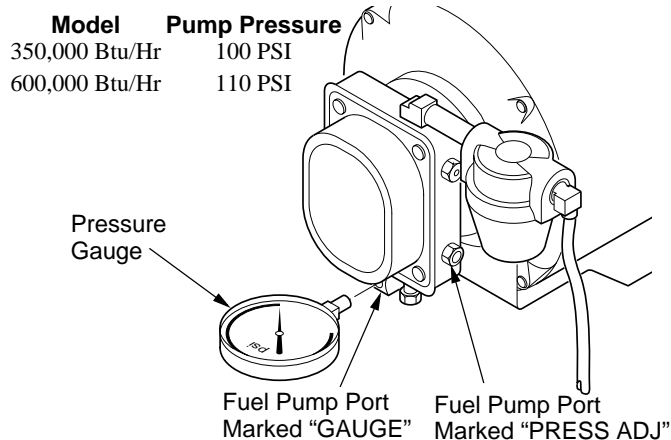


Figure 11 - Adjusting Pump Pressure

### PUMP PRESSURE ADJUSTMENT FOR HEATERS WITH FUEL FILTER INTERNAL TO PUMP

1. Remove pressure gauge plug from fuel pump port marked "GAUGE."
2. Install accessory pressure gauge (part number 110380-01) to fuel pump port marked "GAUGE" (see Figure 12). Do not use bleeder valve port to check the pressure. The bleeder valve port contains pressure higher than operating pressure. Setting pump pressure with gauge in the bleeder valve port results in wrong operating pressure.
3. Start heater (see *Operation*, page 4). Allow motor to reach full speed.

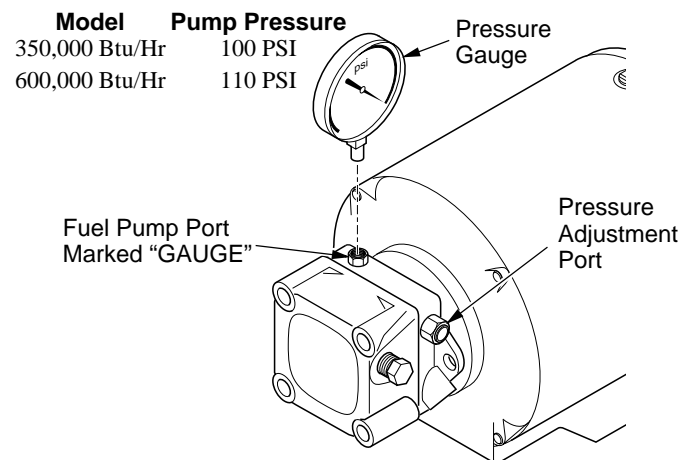


Figure 12 - Adjusting Pump Pressure

4. Adjust pressure. Use small flat blade screwdriver to turn slotted screw at fuel pump port at top right side of pump. Turn screw clockwise to increase pressure. Turn screw counterclockwise to decrease pressure. See specifications in Figure 12 for correct pressure for each model.

5. Stop heater (see page 5).
6. Remove pressure gauge. Replace pressure gauge plug in fuel pump port marked "GAUGE."

### PUMP

#### (Procedure if Pump is Binding)

1. Remove upper shell (see *Upper Shell Removal*, page 8).
2. Loosen hex screw on flange clamp at rear of motor with 5/16" nut-driver (see Figure 13).
3. Turn fan with hand (see Figure 14).
4. If fan turns freely, tighten screw on flange clamp.
5. If fan does not turn freely, replace pump.
6. Replace upper shell.

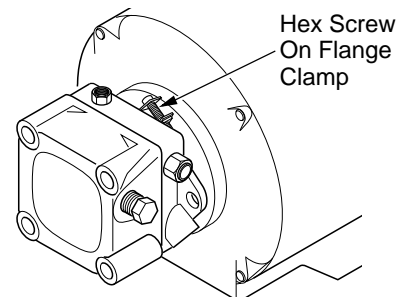


Figure 13 - Location of Screw on Flange Clamp

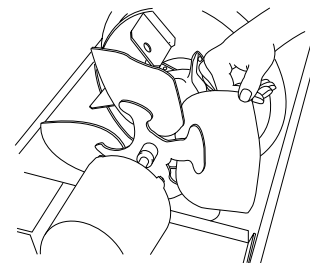


Figure 14 - Turning Fan with Hand

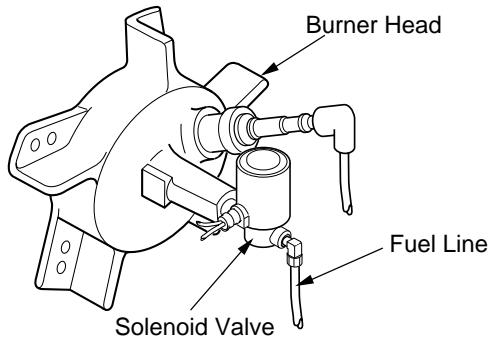
### FUEL LINES

#### (Procedure for tightening fuel lines)

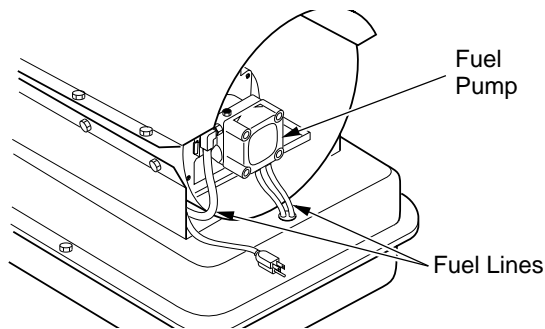
1. Remove upper shell (see *Upper Shell Removal*, page 8).
2. Use an adjustable wrench as a backup on fittings.
3. Use 7/16" wrench and tighten fuel lines at solenoid valve, pump, and fuel filter canister (if equipped) (see Figure 15, page 11).

## SERVICE PROCEDURES

### Continued



**Figure 15 - Fuel Line at Solenoid Valve**

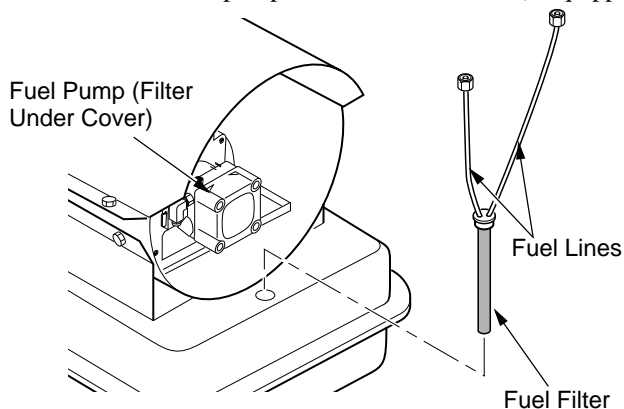


**Figure 16 - Fuel Lines at Pump**

## FUEL FILTERS

### A. Tank Fuel Filter

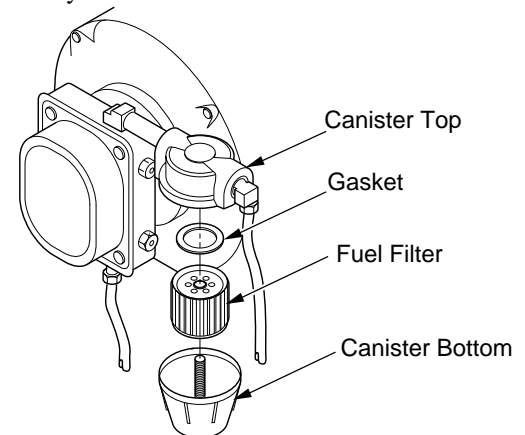
1. Disconnect fuel lines from pump and fuel filter canister (if equipped) with 7/16" wrench (see Figures 17 or 19).
2. Carefully pry fuel filter loose from fuel tank with flat end of screwdriver.
3. Inspect fuel filter for water or dirt.
4. Rinse fuel filter and fuel lines with clean kerosene.
5. Replace fuel filter into fuel tank.
6. Connect fuel lines to pump and fuel filter canister (if equipped).



**Figure 17 - Removing Tank Fuel Filter**

### B. For Heaters With Fuel Filter/Canister External To Pump

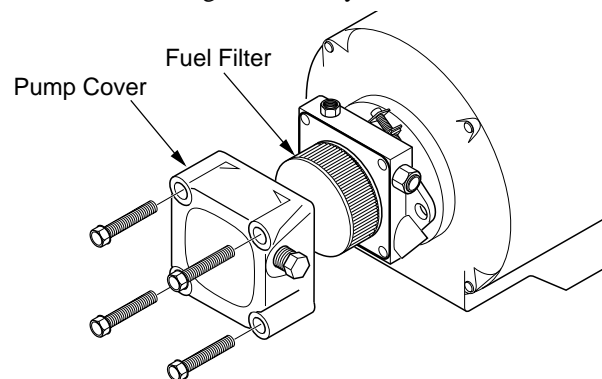
1. Unscrew canister bottom from canister top with adjustable pliers.
2. Remove fuel filter and gasket from canister bottom (see Figure 18).
3. Inspect canister bottom and fuel filter for water droplets or dirt.
4. Rinse canister bottom in clean kerosene.
5. Wipe inside of canister bottom dry with clean cloth.
6. Rinse fuel filter in clean kerosene.
7. Put clean fuel filter and gasket back in canister bottom.
8. Screw canister bottom into canister top.
9. Tighten securely. Check for leaks.



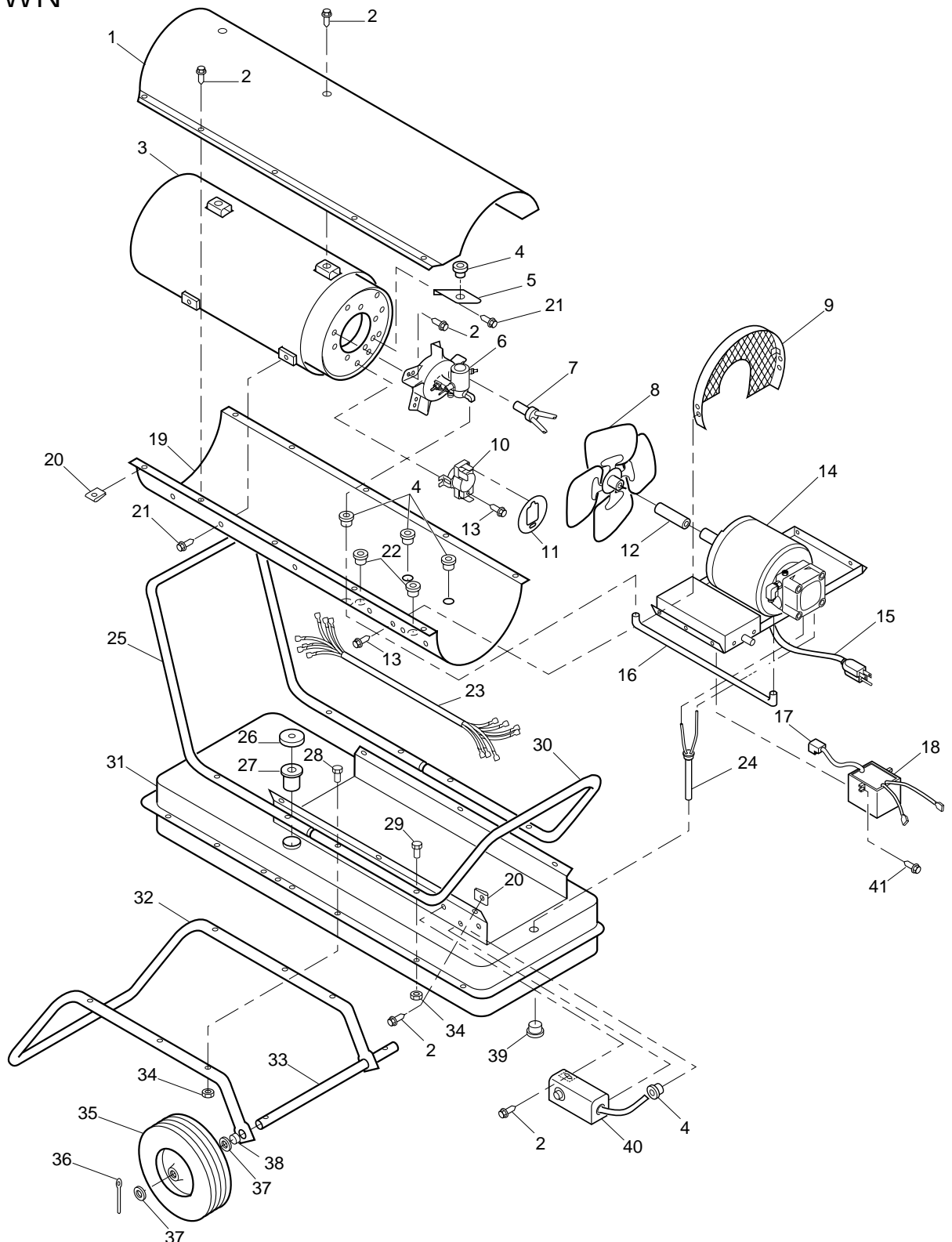
**Figure 18 - Fuel Pump Filter and Canister**

### C. For Heaters With Fuel Filter Internal To Pump

1. Remove pump cover to access filter
2. Rinse and wipe inside of pump cover and dry with clean cloth.
3. Rinse fuel filter in clean kerosene or blow compressed air from inside out.
4. Reassemble. Tighten securely. Check for leaks.



**Figure 19 - Fuel Pump and Filter**

ILLUSTRATED PARTS  
BREAKDOWNB350D  
SB350D  
R350A

## PARTS LIST

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under Repair Service on the back page of this manual.

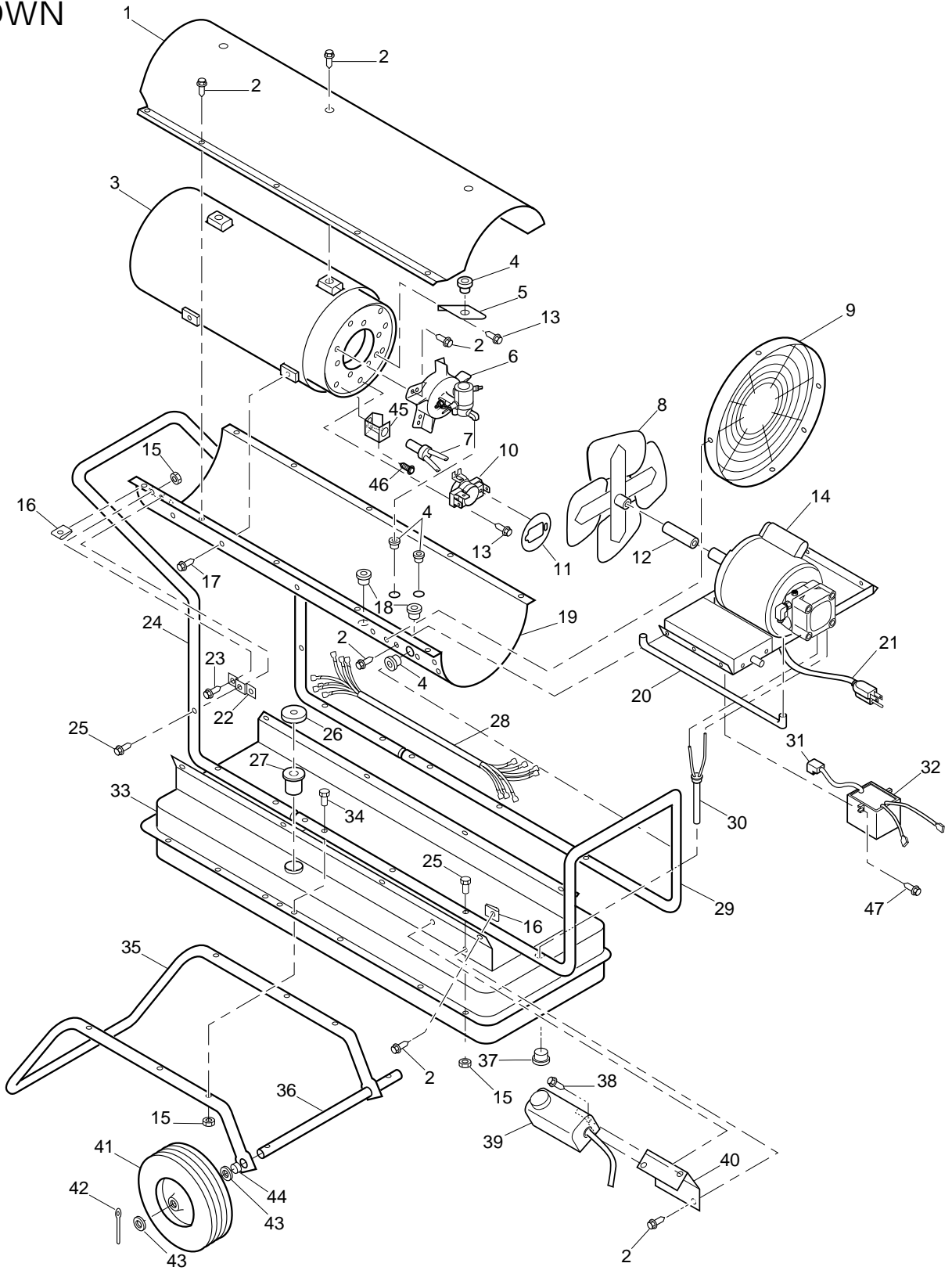
**B350D**  
**SB350D**  
**R350A**

| REF. NO. | PART NO.  | DESCRIPTION                             | QTY. |
|----------|-----------|---|------|
| 1        | 108436-02 | Upper shell model B350D/SB350D (Yellow) | 1    |
|          | 108436-01 | Upper shell model R350A (White)         | 1    |
| 2        | M11084-27 | Screw, #10-16 x 1/2"                    | 15   |
| 3        | M50542-01 | Combustion chamber & shield             | 1    |
| 4        | M30865-02 | Bushing                                 | 7    |
| 5        | M50086    | Air deflector                           | 5    |
| 6        | †         | Burner head assembly                    | 1    |
| 7        | M16656-17 | Photocell assembly                      | 1    |
| 8        | M50121    | Fan                                     | 1    |
| 9        | 108446-01 | Fan guard                               | 1    |
| 10       | M51336-02 | Fan switch                              | 1    |
| 11       | M51160-01 | Fan switch cover                        | 1    |
| 12       | M50278    | Sleeve                                  | 1    |
| 13       | M11084-26 | Screw, #10-16 x 3/8"                    | 13   |
| 14       | †         | Motor & pump assembly                   | 1    |
| 15       | 099896-01 | Power cord                              | 1    |
| 16       | M50295-02 | Fuel line                               | 1    |
| 17       | M50050    | Ignition boot                           | 1    |
| 18       | 102482-04 | Electronic Ignitor                      | 1    |
| 19       | 108437-02 | Lower shell model B350D/SB350D (Yellow) | 1    |
|          | 108437-01 | Lower shell model R350A (White)         | 1    |
| 20       | M11271-8  | Clip nut                                | 16   |
| 21       | M11084-3  | Screw, #12-14 x 1/2"                    | 14   |
| 22       | M50104-02 | Bushing                                 | 2    |
| 23       | 099509-01 | Wire harness                            | 1    |
| 24       | M50115-05 | Fuel line assembly                      | 1    |
| 25       | M50062-03 | Front handle                            | 1    |
| 26       | 097702-01 | Fuel cap                                | 1    |
| 27       | HA2210    | Filler neck screen                      | 1    |
| 28       | HC4-18C   | Screw, 1/4-20 x 2 1/4"                  | 6    |
| 29       | M51043-01 | Screw, 1/4-20 x 1 1/2"                  | 2    |
| 30       | M50062-04 | Rear handle                             | 1    |
| 31       | 098513-05 | Fuel tank                               | 1    |
| 32       | M50063    | Wheel support frame                     | 1    |
| 33       | M18774    | Axle                                    | 1    |
| 34       | NTC-4C    | Hex lock nut, 1/4-20                    | 8    |
| 35       | M50389    | Wheel                                   | 2    |
| 36       | C5-10C    | Cotter pin, 5/32 x 1 1/4"               | 2    |
| 37       | WP-10C    | Flatwasher, 5/8"                        | 4    |
| 38       | M50296    | Wheel spacer                            | 2    |
| 39       | M27417    | Drain plug                              | 1    |
| 40       | 099895-01 | Thermostat                              | 1    |
| 41       | M11084-29 | Screw, #10-16 x 3/4"                    | 2    |

†Not available as complete assembly. See page 16.

# ILLUSTRATED PARTS BREAKDOWN

**B600D  
SB600D  
R600A**



## PARTS LIST

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under Repair Service on the back page of this manual.

**B600D**  
**SB600D**  
**R600A**

| REF. NO. | PART NO.  | DESCRIPTION                             | QTY. |
|----------|-----------|---|------|
| 1        | 108396-02 | Upper shell model B600D/SB600D (Yellow) | 1    |
|          | 108396-01 | Upper shell model R600A (White)         | 1    |
| 2        | M11084-27 | Screw, #10-16 x 1/2"                    | 28   |
| 3        | M50543-01 | Combustion chamber & shield             | 1    |
| 4        | M30865-02 | Bushing                                 | 5    |
| 5        | M50157    | Air deflector                           | 5    |
| 6        | †         | Burner head assembly                    | 1    |
| 7        | 104679-01 | Photocell assembly                      | 1    |
| 8        | M50194    | Fan                                     | 1    |
| 9        | 106004-01 | Fan guard                               | 1    |
| 10       | M51336-02 | Fan switch                              | 1    |
| 11       | M51160-01 | Fan switch cover                        | 1    |
| 12       | M50278    | Sleeve                                  | 1    |
| 13       | M11084-26 | Screw, #10-16 x 3/8"                    | 15   |
| 14       | †         | Motor & pump assembly                   | 1    |
| 15       | NTC-4C    | Hex nut, 1/4-20                         | 18   |
| 16       | M11271-8  | Clip nut                                | 18   |
| 17       | M11084-3  | Screw, #12-14 x 1/2"                    | 4    |
| 18       | M50104-02 | Bushing                                 | 2    |
| 19       | 108397-02 | Lower shell model B600D/SB600D (Yellow) | 1    |
|          | 108397-01 | Lower shell model R600A (White)         | 1    |
| 20       | M50295-03 | Fuel line                               | 1    |
| 21       | 099896-01 | Power cord                              | 1    |
| 22       | M50388-02 | Support bracket model                   | 2    |
| 23       | HC4-3C    | Screw, 1/4-20 x 3/8"                    | 4    |
| 24       | M50224    | Front handle                            | 1    |
| 25       | M51043-01 | Screw, 1/4-20 x 1 1/2"                  | 6    |
| 26       | 097702-01 | Fuel cap                                | 1    |
| 27       | HA2210    | Filler neck screen                      | 1    |
| 28       | 099509-02 | Wire harness                            | 1    |
| 29       | M28872-01 | Rear handle                             | 1    |
| 30       | M50115-05 | Fuel line assembly                      | 1    |
| 31       | M50050    | Ignition boot                           | 1    |
| 32       | 102482-04 | Electronic Ignitor                      | 1    |
| 33       | 098513-07 | Fuel tank                               | 1    |
| 34       | HC4-22C   | Screw, 1/4-20 x 2 3/4"                  | 8    |
| 35       | M28140-02 | Wheel support frame                     | 1    |
| 36       | M18774    | Axle                                    | 1    |
| 37       | M27417    | Drain plug                              | 1    |
| 38       | RC1-3C    | Screw, #6-32 x 3/8"                     | 2    |
| 39       | 099895-01 | Thermostat                              | 1    |
| 40       | M25121-02 | Thermostat bracket                      | 1    |
| 41       | M50389    | Wheel                                   | 2    |
| 42       | C5-10C    | Cotter pin, 5/32 x 1 1/4"               | 2    |
| 43       | WP-10C    | Flatwasher, 5/8"                        | 4    |
| 44       | M50296    | Wheel spacer                            | 2    |
| 45       | 104413-01 | Photocell Bracket                       | 1    |
| 46       | M10908-2  | Screw, #6-32 x 3/8"                     | 2    |
| 47       | M11084-29 | Screw, #10-16 x 3/4"                    | 2    |
|          | **        | Internal lockwasher No. 6               | 2    |
|          | NPC-1C    | Nut, 6-32                               | 2    |

†Not available as complete assembly. See page 16.

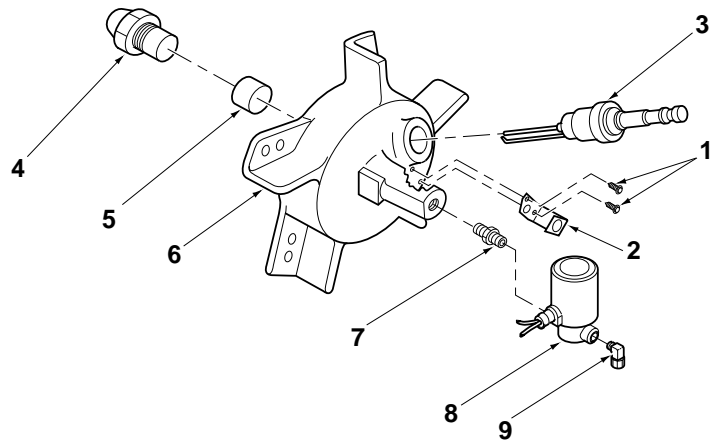
Not shown.

\*\*Standard hardware item

## PART LIST

## Burner Head Assembly 350,000 and 600,000 Btu/Hr

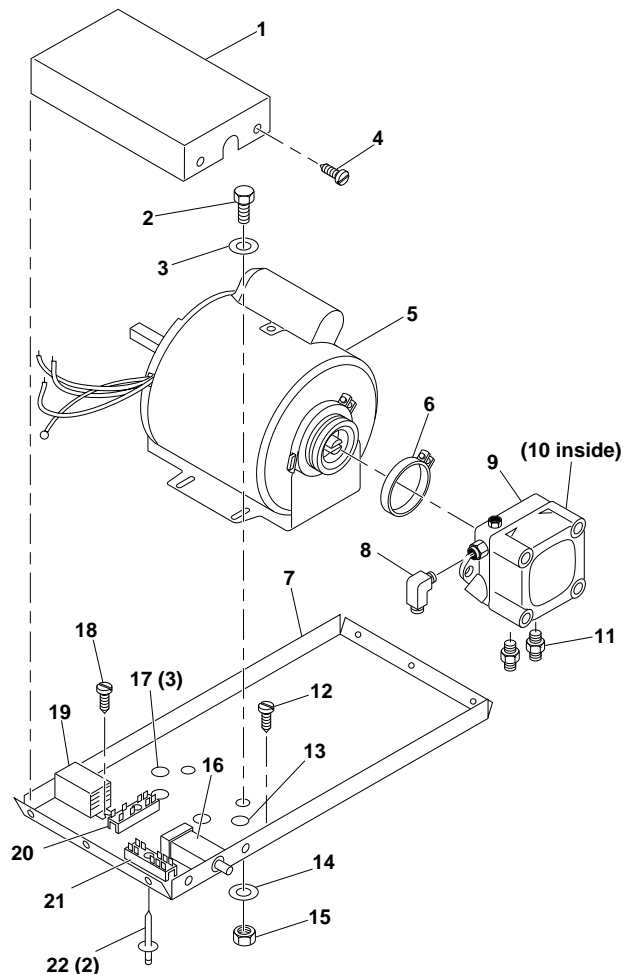
| REF. NO. | PART NO.  | DESCRIPTION                                  | QTY. |
|----------|-----------|--|------|
| 1        | M10908-2  | Screw, #6-32 x 3/8"<br>(350,000 Btu/Hr Only) | 2    |
| 2        | 099229-01 | Photocell bracket<br>(350,000 Btu/Hr Only)   | 1    |
| 3        | HA3012    | Spark plug                                   | 1    |
| 4        | M50112    | Nozzle (350,000 Btu/Hr)                      | 1    |
|          | M30765    | Nozzle (600,000 Btu/Hr)                      | 1    |
| 5        | M51170-01 | Plug   | 1    |
| 6        | M50924-02 | Burner head body                             | 1    |
| 7        | 69246     | Straight nipple                              | 1    |
| 8        | M50077    | Solenoid valve                               | 1    |
| 9        | M50297    | Compression elbow                            | 1    |



## Motor and Pump Assembly 350,000 and 600,000 Btu/Hr Heaters With Fuel Filter Internal To Pump

| REF. NO. | PART NO.  | DESCRIPTION                                     | QTY. |
|----------|-----------|---|------|
| 1        | 097492-03 | Wiring cover                                    | 1    |
| 2        | HF5-5C    | Screw, 5/16-24 x 5/16"                          | 4    |
| 3        | WLE-5     | External lockwasher, 5/16"                      | 4    |
| 4        | M11084-26 | Screw, #10-16 x 3/8"                            | 3    |
| 5        | 099562-01 | Motor (350,000 Btu/Hr)                          | 1    |
|          | 099562-02 | Motor (600,000 Btu/Hr)                          | 1    |
| 6        | M50116    | Flange clamp (holds pump to motor)              | 1    |
| 7        | 099518-05 | Motor support (350,000 Btu/Hr)                  | 1    |
|          | 101552-01 | Motor support (600,000 Btu/Hr)                  | 1    |
| 8        | M50297    | Compression elbow                               | 1    |
| 9        | 098560-02 | Fuel pump                                       | 1    |
| 10       | 110381-01 | Filter element and gasket<br>(inside fuel pump) | 1    |
| 11       | M50113-02 | Straight fitting                                | 2    |
| 12       | M10908-14 | Screw, #8-32 x 3/8"                             | 1    |
| 13       | 101504-01 | Strain relief bushing                           | 1    |
| 14       | **        | Lockwasher, 5/16"                               | 4    |
| 15       | NPF-5C    | Hex nut, 5/16-24"                               | 4    |
| 16       | HA3003    | Flame-out control                               | 1    |
| 17       | 101547-01 | Snap bushing                                    | 3    |
| 18       | M10908-2  | Screw, #6-32 x 3/8"                             | 2    |
| 19       | 097491-01 | Power relay                                     | 1    |
| 20       | 099125-04 | Terminal board                                  | 1    |
| 21       | 099125-05 | Terminal board                                  | 1    |
| 22       | 099157-01 | Rivet   | 2    |

\*\* Standard hardware item



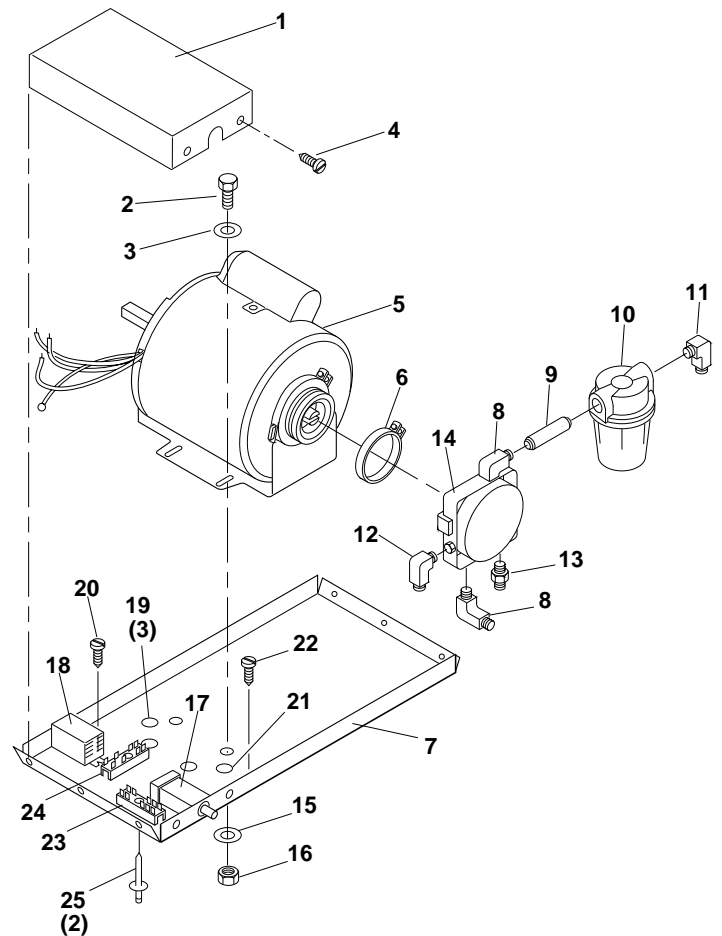


## PART LIST

**Motor and Pump Assembly 350,000 and 600,000 Btu/Hr  
For Heaters With Fuel Filter/Canister External To Pump**

| REF. NO. | PART NO.  | DESCRIPTION   | QTY. |
|----------|-----------|---|------|
| 1        | 097492-03 | Wiring cover  | 1    |
| 2        | HF5-5C    | Screw, 5/16-24 x 5/16"  | 4    |
| 3        | WLE-5     | External lockwasher, 5/16"  | 4    |
| 4        | M11084-26 | Screw, #10-16 x 3/8"  | 3    |
| 5        | 099562-01 | Motor (350,000 Btu/Hr)  | 1    |
|          | 099562-02 | Motor (600,000 Btu/Hr)  | 1    |
| 6        | M50116    | Flange clamp<br>(holds pump to motor)                                       | 1    |
| 7        | 099518-05 | Motor support (350,000 Btu/Hr)  | 1    |
|          | 101552-01 | Motor support (600,000 Btu/Hr)  | 1    |
| 8        | 57413     | Street elbow  | 2    |
| 9        | M17499-2  | Pipe nipple   | 1    |
| 10       | 098102-01 | Fuel filter assembly  | 1    |
|          | 098103-01 | Filter element (inside fuel filter<br>assembly, includes rubber<br>gaskets) | 1    |
| 11       | M50114-02 | 90° Male elbow  | 1    |
| 12       | M50297    | Compression elbow   | 1    |
| 13       | M50113-02 | Straight fitting  | 1    |
| 14       | 098560-01 | Fuel pump   | 1    |
| 15       | **        | Lockwasher, 5/16"   | 4    |
| 16       | NPF-5C    | Hex nut, 5/16-24"   | 4    |
| 17       | HA3003    | Flame-out control   | 1    |
| 18       | 097491-01 | Power relay   | 1    |
| 19       | 101547-01 | Snap bushing  | 3    |
| 20       | M10908-2  | Screw, #6-32 x 3/8"   | 2    |
| 21       | 101504-01 | Strain relief bushing   | 1    |
| 22       | M10908-14 | Screw, #8-32 x 3/8"   | 1    |
| 23       | 099125-05 | Terminal board  | 1    |
| 24       | 099125-04 | Terminal board  | 1    |
| 25       | 099157-01 | Rivet   | 2    |

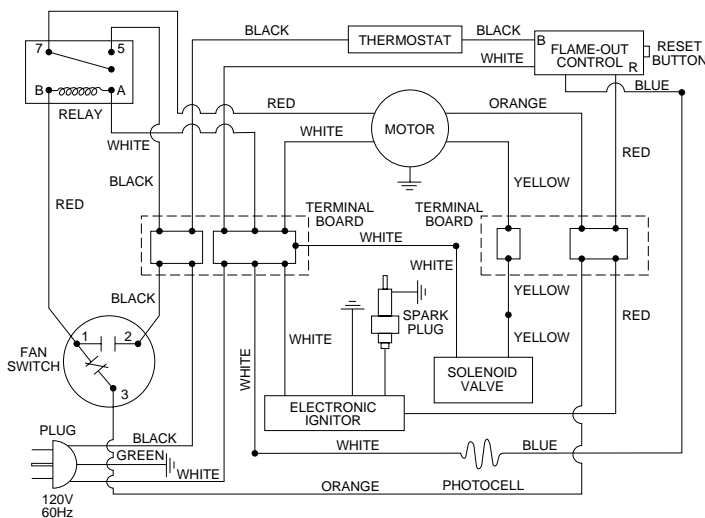
\*\* Standard hardware item



## SPECIFICATIONS

|                                      | 350,000 Btu/Hr                      | 600,000 Btu/Hr |
|--------------------------------------|-------------------------------------|----------------|
| Output Rating (Btu/Hr)               | 350,000                             | 600,000        |
| Fuel                                 | Use only kerosene or No. 1 fuel oil |                |
| Fuel Tank Capacity<br>(U.S. Gallons) | 30                                  | 36             |
| Fuel Consumption<br>(Gallons Per Hr) | 2.5                                 | 4              |
| Electric Requirements                | 120V/60 Hz                          | 120V/60 Hz     |
| Amperage (Normal Run)                | 7.1                                 | 11             |
| Motor RPM                            | 1725                                | 1725           |
| Fuel Pump Pressure (PSI)             | 100                                 | 110            |
| Spark Plug Gap                       | .075"                               | .075"          |
| Weight (approx. lbs.) Dry            | 180                                 | 285            |
| With Full Fuel Tank                  | 390                                 | 550            |

## WIRING DIAGRAM



## MAINTENANCE KITS

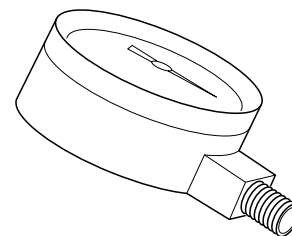
| Kit               | Part Number |
|-------------------|-------------|
| Flame-Out Control | HA3003      |
| Spark Plug        | HA3012      |

## ACCESSORY

Purchase this heater accessory from your nearest dealer or service center. If they cannot supply this accessory, either contact your nearest Parts Central or DESA International 1-866-672-6040 for information. Parts Centrals are listed in the Authorized Service Center booklet supplied with heater.

### FUEL PRESSURE GAUGE - 110380-01

Special tool to check fuel pump pressure



## TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting. If so, contact DESA International's Technical Service Department at 1-866-672-6040. When calling please have your model and serial numbers of your heater ready.

You can also visit DESA International's Technical Services web site at [www.desatech.com](http://www.desatech.com).

## REPLACEMENT PARTS

*Note:* Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

### PARTS UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA International's Technical Service Dept. at 1-866-672-6040.

When calling DESA International, have ready:

- your name
- your address
- model and serial numbers of your heater
- how heater was malfunctioning
- purchase date

Usually, we will ask you to return the part to the factory.

### PARTS NOT UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA International at 1-866-672-6040 for referral information. Parts dealers are listed in the Authorized Service Center booklet supplied with heater.

When calling DESA International, have ready:

- model and serial numbers of your heater
- the replacement part number

# OWNER'S REGISTRATION FORM

Complete registration form and mail or complete on-line registration at [www.desatech.com](http://www.desatech.com) within 30 days after purchase.

Brand: \_\_\_\_\_ (Reddy Heater, Master, Remington, etc.)  
 Model: \_\_\_\_\_ (R60, HD15, etc.)  
 Date Purchased: \_\_\_\_\_ Note: Keep receipt for warranty verification.  
 Serial Number: \_\_\_\_\_ 7 or 9 digit number located on product or identification tag.  
 First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Country: \_\_\_\_\_  
 Phone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ E-Mail: \_\_\_\_\_

Please answer the following questions to register your product with DESA International:

1. Who will heater be used by?  Individual  Business
2. Will you use your heater in more than one location?  Yes  No
3. Where will the product be used? (You may select more than one.)  Workshop  Barn  Residential Construction  
 Commercial Construction  Garage  Factory  Recreation  Warehouse  Utility Shed/Outbuilding  
 Other \_\_\_\_\_ (Specify)
4. Cost of product (excluding sales tax)? \$ \_\_\_\_\_
5. Maintenance/service work will be performed by:  Self  Service Center  Other \_\_\_\_\_
6. If you bought this product yourself, did you plan to purchase this type of product before going into the store?  Yes  No
7. Type of store where product was purchased?  Hardware  Propane Dealer  Natural Gas/Utility Co.  Home Center or Builder's Supply  
 Farm/Ag. Supply  Auto Parts  Warehouse Club  Industrial/Contractor Supply  Rental Store  
 Discount Store  HVAC Dealer  Other \_\_\_\_\_
8. What is your primary source of heat?  Propane (LP Gas)  Natural Gas  Kerosene  Diesel  Electric  Other \_\_\_\_\_
9. What motivated you to buy this product?  Sudden Cold Weather  Replace Older Model  D.I.Y. Home Project  Emergency Back-Up Heat  
 Heater on Sale  Construction Project  Hard to Heat Location  Other \_\_\_\_\_
10. How did you learn about this product brand?  Advertisement  Relative or Friend  Co-Worker  Store Representative  
 Store Display  Previously Owned a Heater  Other \_\_\_\_\_ (Specify)
11. What other brands did you consider?  None  Master  Remington  All-Pro  Dayton  Universal  Mr. Heater  L.B. White Tradesman  
 John Deere  Dyna-Glo  Dura-Heat  Paulin  Coleman  Vogelzang American  Other \_\_\_\_\_
12. Who selected the product?  Male  Female  Both
13. Level of Education of Purchaser:  High School  Vocation/Technical School  Some College  Completed College  Graduate School
14. Age of Purchaser:  Under 20  20 - 29  30 - 39  40 - 49  50 - 59  60 or Over
15. Buyer's total annual household income:  Under \$19,999  \$20,000 to \$34,999  \$35,000 to \$49,999  
 \$50,000 to \$74,999  \$75,000 to \$99,999  \$100,000 and Over
16. What is the population of your area?  Under 10,000  10,000 to 25,000  25,000 to 50,000  50,000 to 100,000  
 100,000 to 250,000  Over 250,000

17. Store where product was purchased:  
 Name: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_

18. In choosing this product, how important were the following:

|                               | Not                   | Somewhat              | Very                  |                                  | Not                   | Somewhat              | Very                  |
|-------------------------------|-----------------------|-----------------------|-----------------------|----------------------------------|-----------------------|-----------------------|-----------------------|
| Availability                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Size                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Price                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Prior Brand Experience           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Brand Name                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Built-In Thermostat              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Overall Quality               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Ease of Operation                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Heat Output (Btu/Hr Rating)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Special Features                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Variable Heat Output (Btu/Hr) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Salesperson's Recommendation     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Made in USA                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Friend/Relative's Recommendation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Warranty                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Portability                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Local Service                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Quiet Operation                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Value for Price               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                                  |                       |                       |                       |

19. This question will allow us to better understand the demographic profile of our customers. Which of the following best describes you? (not required)  
 African American  Asian American  Mexican  Puerto Rican  Cuban  Other Hispanic  White  Other \_\_\_\_\_

TAPE

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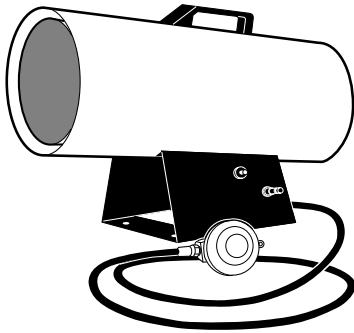
---

Postage  
Required

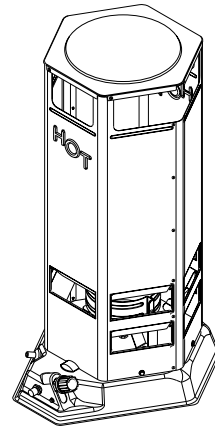
**DESA**<sup>™</sup>  
INTERNATIONAL  
2701 Industrial Drive  
P.O. Box 90004  
Bowling Green, KY 42102-9004

TAPE

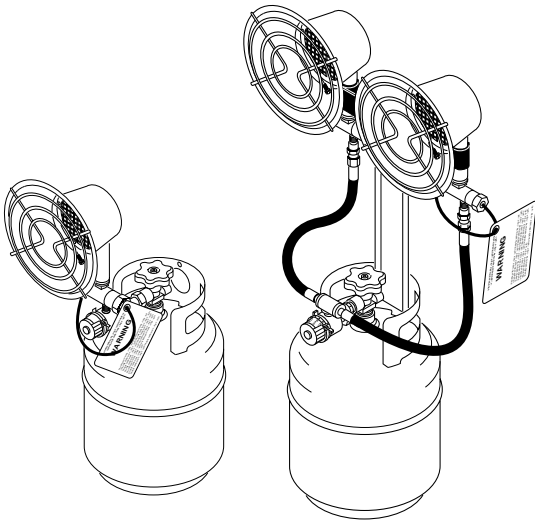
# OTHER OUTDOOR HEATING PRODUCTS



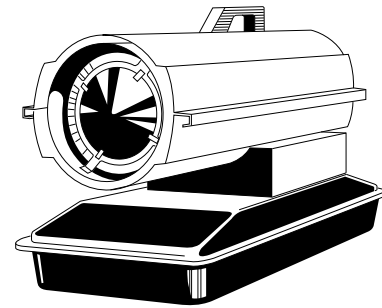
**PROPANE/LP FORCED AIR HEATERS**



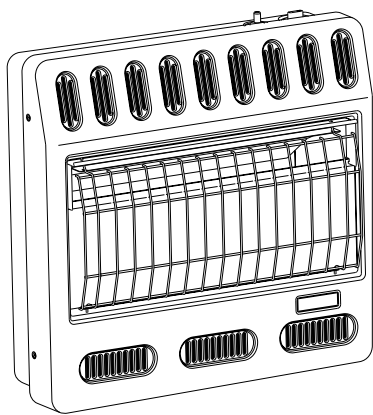
**PROPANE/LP CONVECTION HEATERS**



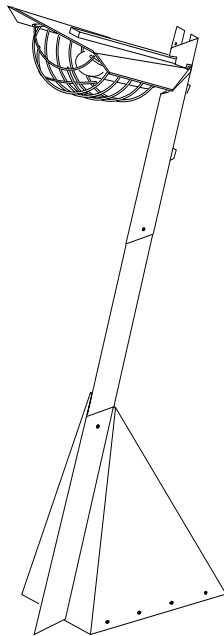
**PROPANE/LP TANK TOP HEATERS**



**PORTABLE KEROSENE/DIESEL FORCED AIR HEATERS**



**PROPANE/LP AND NATURAL GAS GARAGE HEATERS**



**PROPANE/LP PATIO HEATERS**



**PROPANE/LP AND NATURAL GAS CHIMENEAS**

# 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 one (1) year 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. Each Service Center is independently owned and operated. Repairs not covered by the warranty will be billed at standard prices. We reserve the right to amend these specifications at any time without notice.

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.

For more information about this warranty, write:

**DESA**<sup>™</sup>  
**INTERNATIONAL**  
2701 Industrial Drive  
P.O. Box 90004  
Bowling Green, Kentucky 42102-9004  
[www.desatech.com](http://www.desatech.com)



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110098-01  
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08/02

For more information, visit [www.desatech.com](http://www.desatech.com)