

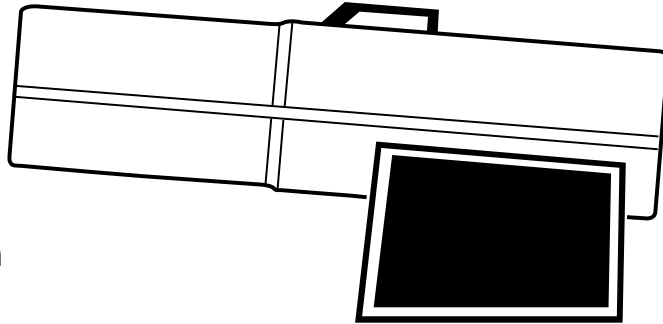
# DESA™

## HEATING PRODUCTS

# PROPANE CONSTRUCTION FORCED AIR HEATER OWNER'S MANUAL

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

**MODELS**  
**BLP155AT**  
**SBLP155AT**  
150,000 Btu/Hr with  
Built-in Thermostat



**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.

**⚠ GENERAL HAZARD WARNING:**

**FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS HEATER, CAN RESULT IN DEATH, SERIOUS BODILY INJURY AND PROPERTY LOSS OR DAMAGE FROM HAZARDS OF FIRE, EXPLOSION, BURN, ASPHYXIATION, CARBON MONOXIDE POISONING, AND/OR ELECTRICAL SHOCK.**

**ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER.**

**IF YOU NEED ASSISTANCE OR HEATER INFORMATION SUCH AS AN INSTRUCTIONS MANUAL, LABELS, ETC. CONTACT THE MANUFACTURER.**

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## SAFETY INFORMATION

### WARNINGS

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

**⚠ WARNING: FIRE, BURN, INHALATION, AND EXPLOSION HAZARD. KEEP SOLID COMBUSTIBLES, SUCH AS BUILDING MATERIALS, PAPER OR CARDBOARD, A SAFE DISTANCE AWAY FROM THE HEATER AS RECOMMENDED BY THE INSTRUCTIONS. NEVER USE THE HEATER IN SPACES WHICH DO OR MAY CONTAIN VOLATILE OR AIRBORNE COMBUSTIBLES, OR PRODUCTS SUCH AS GASOLINE, SOLVENTS, PAINT THINNER, DUST PARTICLES OR UNKNOWN CHEMICALS.**

**⚠ WARNING: NOT FOR HOME OR RECREATIONAL VEHICLE USE.**

The heater is designed for use as a construction heater in accordance with ANSI Z83.7/CGA2.14. Other standards govern the use of fuel gases and heating products for specific uses. Your local authority can advise you about these. The primary purpose of construction heaters is to provide temporary heating of buildings under construction, alteration or repair. Properly used, the heater provides safe economical heating. Products of combustion are vented into the area being heated.

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

Other standards govern the use of fuel gases and heat producing products for specific uses. Your local authorities can advise you about these.

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

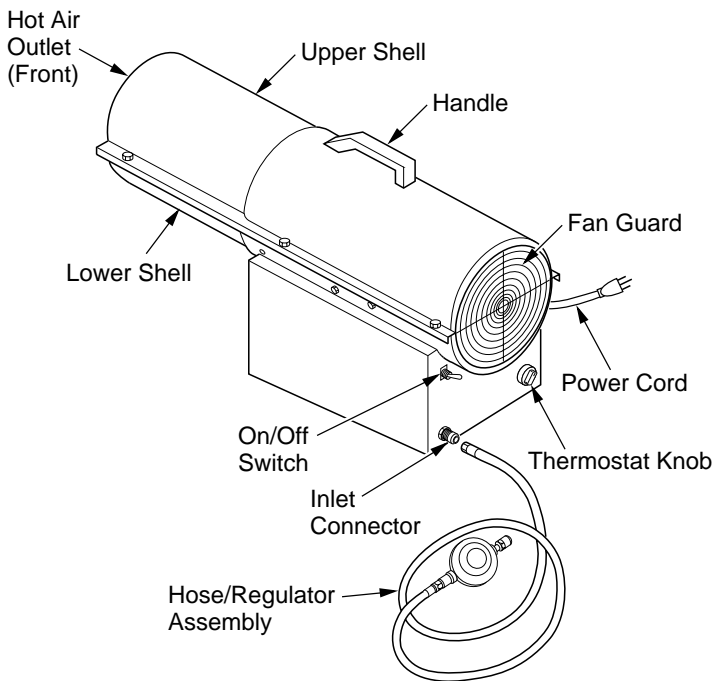
**Propane Gas:** Propane gas is odorless. An odor-making agent is added to propane gas. The odor helps you detect a propane gas leak. However, the odor added to propane gas can fade. Propane gas may be present even though no odor exists.

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

- This product has been approved for use in the Commonwealth of Massachusetts.

- Install and use heater with care. Follow all local ordinances and codes. In the absence of local ordinances and codes, refer to the *Standard for Storage and Handling of Liquefied Petroleum Gas, ANSI/NFPA 58* and the *Propane Gas Installation Code, CAN/CGA B149.2*. This instructs on the safe storage and handling of propane gases.
- Use only the electrical voltage and frequency specified on model plate. The electrical connections and grounding of the heater shall follow the *National Electric Code, ANSI/NFPA 70* or the *Canadian Electrical Code, Part 1*.
- Electrical grounding instructions — This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle or extension cord.
- Use only the hose and factory preset regulator provided with the heater.
- Use only propane gas set up for vapor withdrawal.
- Provide adequate ventilation. Before using heater, provide at least a three-square-foot opening of fresh, outside air for each 100,000 Btu/Hr of rating.
- For indoor use only. Do not use heater outdoors.
- Do not use heater in occupied dwellings or in living or sleeping quarters.
- Do not use heater in a basement or below ground level. Propane gas is heavier than air. If a leak occurs, propane gas will sink to the lowest possible level.
- Keep appliance area clear and free from combustible materials, gasoline, paint thinner, and other flammable vapors and liquids. Dust is combustible. Do not use heater in areas with high dust content.
- Minimum heater clearances from combustible materials:  
Outlet: 8 Ft.      Sides: 2 Ft.      Top: 6 Ft.      Rear: 2 Ft.
- Keep heater at least six feet from propane tank(s). Do not point heater at propane tank(s) within 20 feet.
- Keep propane tank(s) below 100° F.
- Check heater for damage before each use. Do not use a damaged heater.
- Check hose before each use of heater. If highly worn or cut, replace with hose specified by manufacturer before using heater.
- Locate heater on stable and level surface if heater is hot or operating.
- Never block air inlet (rear) or air outlet (front) of heater.
- Keep heater away from strong drafts, wind, water spray, rain, or dripping water.
- Keep children and animals away from heater.
- This heater is equipped with a thermostat. Heater may start at anytime.
- Never move, handle, or service a hot or operating heater. Severe burns may result. You must wait 15 minutes after turning heater off.
- To prevent injury, wear gloves when handling heater.
- Never attach duct work to heater.
- Do not alter heater. Keep heater in its original state.
- Do not use heater if altered.
- Turn off propane supply to heater and unplug heater when not in use.
- Use only original replacement parts. This heater must use design-specific parts. Do not substitute or use generic parts. Improper replacement parts could cause serious or fatal injuries.

## PRODUCT IDENTIFICATION



**Figure 1 - 150,000 Btu/Hr Model**

## UNPACKING

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

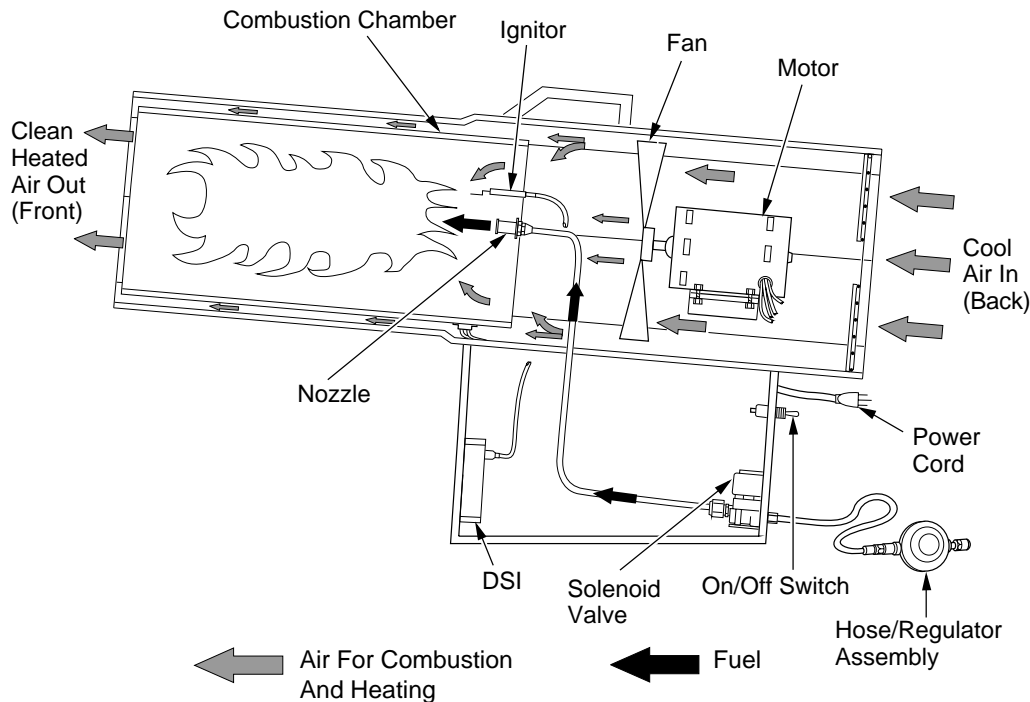
## THEORY OF OPERATION

**The Fuel System:** The hose/regulator assembly attaches to the propane gas supply. The propane gas moves through the solenoid valve and out the nozzle.

**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 direct spark ignitor (DSI) sends voltage to the spark plug/ignitor. The spark plug/ignitor ignites the fuel and air mixture.

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



**Figure 2 - Cross Section Operational View**

## PROPANE SUPPLY

Propane gas and propane tank(s) are to be furnished by the user.

Use this heater only with a propane vapor withdrawal supply system. See Chapter 5 of the *Standard for Storage and Handling of Liquefied Petroleum Gas, ANSI/NFPA 58*. Your local library or fire department will have this booklet.

The amount of propane gas ready for use from propane tanks varies. Two factors decide this amount:

1. The amount of propane gas in tank(s)
2. The temperature of tank(s)

The chart below shows the number of 100 pound tanks needed to run this heater.

Do not operate this product with any tank smaller than 100 pounds.

Temperature (°F) at tank location	Number of tanks (150,000 Btu/Hr)
32	2
20	2
10	3
0	3
-10	(Use larger tank)
-20	(Use larger tank)

Less gas is vaporized at lower temperatures. You may need two or more 100 pound tanks or one larger tank in colder weather. Your local propane gas dealer will help you select the proper supply system. The minimum surrounding-air temperature rating for each heater is -20°F (-29°C).

## INSTALLATION

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

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

1. Provide propane supply system (see *Propane Supply*, above).
2. Connect POL fitting on hose/regulator assembly to propane tank(s). Turn POL fitting counterclockwise into threads on tank. Tighten firmly using wrench. Tighten regulator with vent pointing down.

3. Connect hose to inlet connector. Tighten firmly using a wrench. **IMPORTANT:** Extra hose or piping may be used if needed. Install extra hose or piping between hose/regulator assembly and propane tank. You must use the regulator supplied with heater.
4. Open propane supply valve on propane tank(s) slowly. **Note:** If not opened slowly, excess-flow check valve on propane tank may stop gas flow. If this happens, close propane supply valve and open again slowly.
5. Check all connections for leaks.

**WARNING:** Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. Bubbles forming show a leak. Correct all leaks at once.

6. Close propane supply valve.

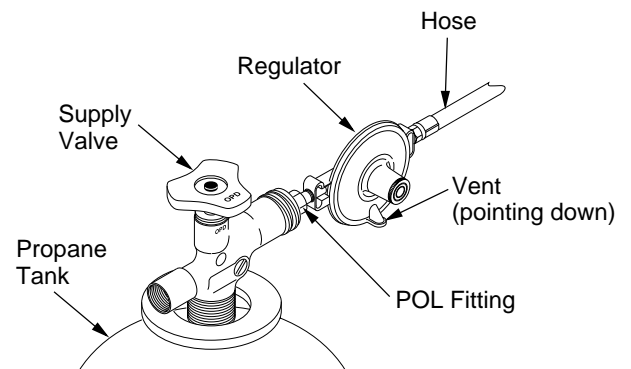


Figure 3 - Regulator With Vent Pointing Down

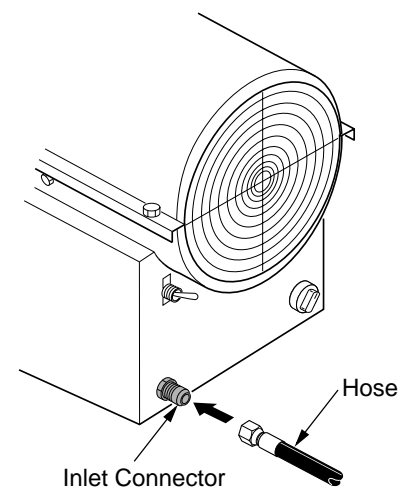


Figure 4 - Hose and Inlet Connector

## 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.**

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.

## OPERATION

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

### TO START HEATER

1. Follow all installation, ventilation and safety information.
2. Locate heater on stable and level surface. Make sure strong drafts do not blow into front or rear of heater.
3. Plug power cord of heater into a three-prong, grounded extension cord. Extension cord must be at least six feet long. Extension cord must be UL listed.

#### Extension Cord Size Requirement

Up to 50 feet long, use 18 AWG rated cord.  
51 to 100 feet long, use 16 AWG rated cord.  
101 to 200 feet long, use 14 AWG rated cord.

4. Plug extension cord into a 120 volt/60 hertz, three-hole, grounded outlet.
5. Open propane supply valve on propane tank(s) slowly.  
*Note:* If not opened slowly, excess-flow check valve on propane tank may stop gas flow. If this happens, close propane supply valve and open again slowly.
6. Turn thermostat control knob fully counterclockwise to the "COOLER" position. Turn ON/OFF switch to the ON position. Turn thermostat control knob slowly clockwise until electric motor and fan begin to run. Heater will start in approximately 3 seconds. Adjust thermostat control knob to WARMER or COOLER setting as needed.

*Note:* If heater does not start after 3 seconds, the ignition control will automatically attempt to start heater one time. If heater fails to start on this attempt, the safety control will "lock out" and no further automatic restarts will be attempted. This could occur if air remains in fuel line. If heater fails to start on this attempt, turn ON/OFF switch to OFF position. Wait ten seconds for safety control to reset, then turn ON/OFF switch back to ON position and try to start heater again.

7. **Thermostat Operation Only:** During normal thermostat operation, heater will cycle off when air temperature rises to thermostat setting. When air temperature drops sufficiently below thermostat setting, the electric motor and fan will begin to run. After 15 to 60 seconds, heater burner should automatically ignite and provide heat to maintain temperature setting.

### TO STOP HEATER

1. Tightly close propane supply valve on propane tank(s).
2. Wait a few seconds. Heater will burn gas left in supply hoses.
3. Turn on/off switch to the OFF position.
4. Unplug heater.

## STORAGE

**⚠ CAUTION: Disconnect heater from propane supply tank(s).**

1. Store propane tank(s) in safe manner. See Chapter 5 of *Standard for Storage and Handling of Liquefied Petroleum Gases, ANSI/NFPA 58* and/or *CAN/CGA B149.2*. Follow all local codes.
2. Place plastic cover caps over brass fittings on inlet connector and hose/regulator assembly.
3. Store in dry, clean, and safe place. Do not store hose/regulator assembly inside heater combustion chamber.
4. When taking heater out of storage, always check inside of heater. Insects and small animals may place foreign objects in heater. Keep inside of heater free from combustible and foreign objects.

## MAINTENANCE

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

1. Keep heater clean. Clean heater annually or as needed to remove dust and debris. If heater is dirty or dusty, clean heater with a damp cloth.
2. Inspect heater before each use. Check connections for leaks. Apply mixture of liquid soap and water to connections. Bubbles forming show a leak. Correct all leaks at once.
3. Inspect hose/regulator assembly before each use. If hose is highly worn or cut, replace.
4. Have heater inspected yearly by a qualified service agency.
5. Keep inside of heater free from combustible and foreign objects.

## SERVICE PROCEDURES

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

### 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 or slide 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" hex wrench to loosen setscrew 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. Make sure setscrew is touching back of flat surface on motor shaft (see Figure 8).
7. Place setscrew on flat of shaft. Tighten setscrew firmly (40-50 inch-pounds).
8. Replace fan guard and upper shell.

### IGNITOR

Make sure gap between ignitor electrode and burner nozzle is .13/.15". Access ignitor electrode from inside combustion chamber. No other maintenance is needed for ignitor.

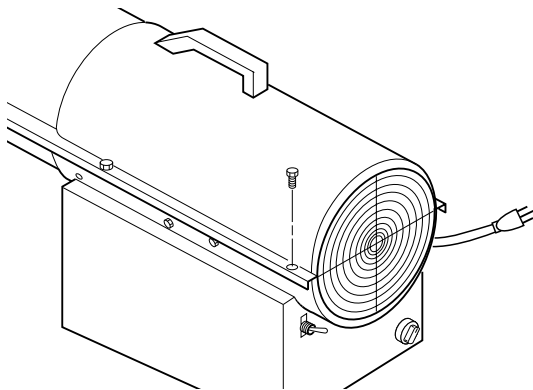


Figure 5 - Upper Shell Removal

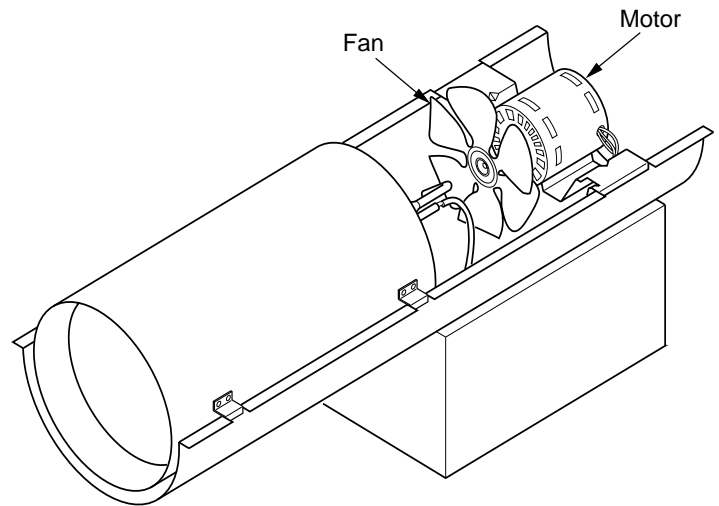


Figure 6 - Fan Removal

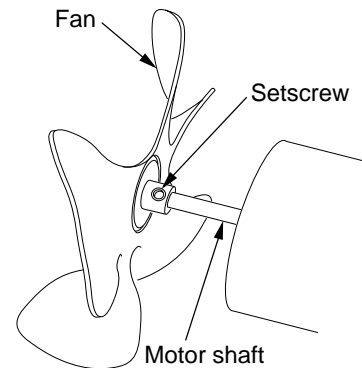


Figure 7 - Fan, Motor Shaft, and Setscrew Location

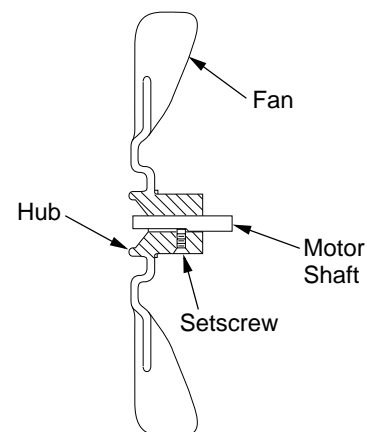


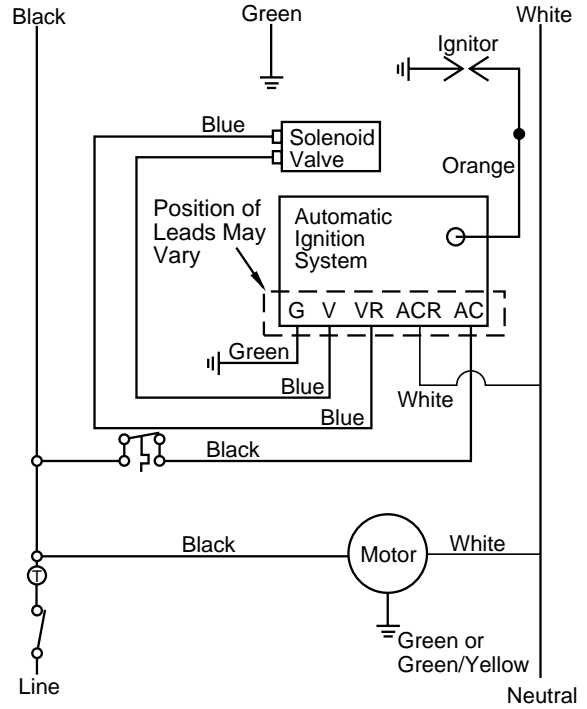
Figure 8 - Fan Cross Section

**SPECIFICATIONS**

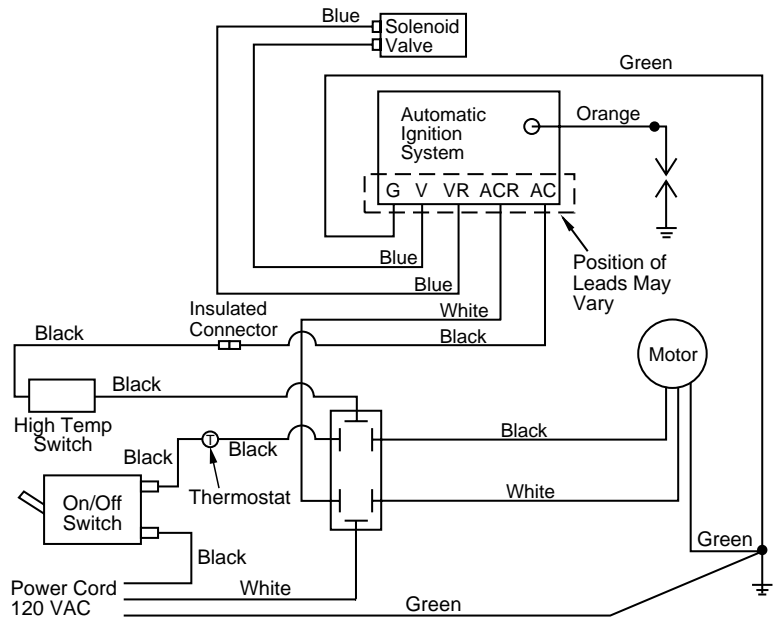
Input Rating (Btu/Hr) ..... 150,000  
 Fuel ..... Propane Vapor Only  
 Fuel Consumption  
     Gallons/Hour ..... 1.6  
     Pounds/Hour ..... 7.0  
 Supply Pressure To Regulator  
     Minimum (for purposes  
     of input adjustment) ..... 10 psi  
     Maximum ..... Tank Pressure  
 Regulator Outlet Pressure  
     (Factory Preset) ..... 12.5" WC  
 Manifold Pressure ..... 9.8" WC  
 Hot Air Output  
     (CFM Approx) ..... 550  
 Motor ..... 3,450 RPM, 1/8 HP  
 Electric Input ..... 120 V/60 Hz  
 Amperage ..... 2.2  
 Ignition ..... Electronic Direct Spark, D.S.I.  
 Spark Plug Gap (Inches) ..... N/A  
 Ignitor Gap (Inches) ..... .13/.15  
 Weight (Pounds)  
     Heater ..... 27  
     Shipping ..... 35  
 Size - L x W x H (Inches)  
     Carton ..... 37.5 x 14.25 x 21  
     Heater ..... 32 x 13.5 x 16.5

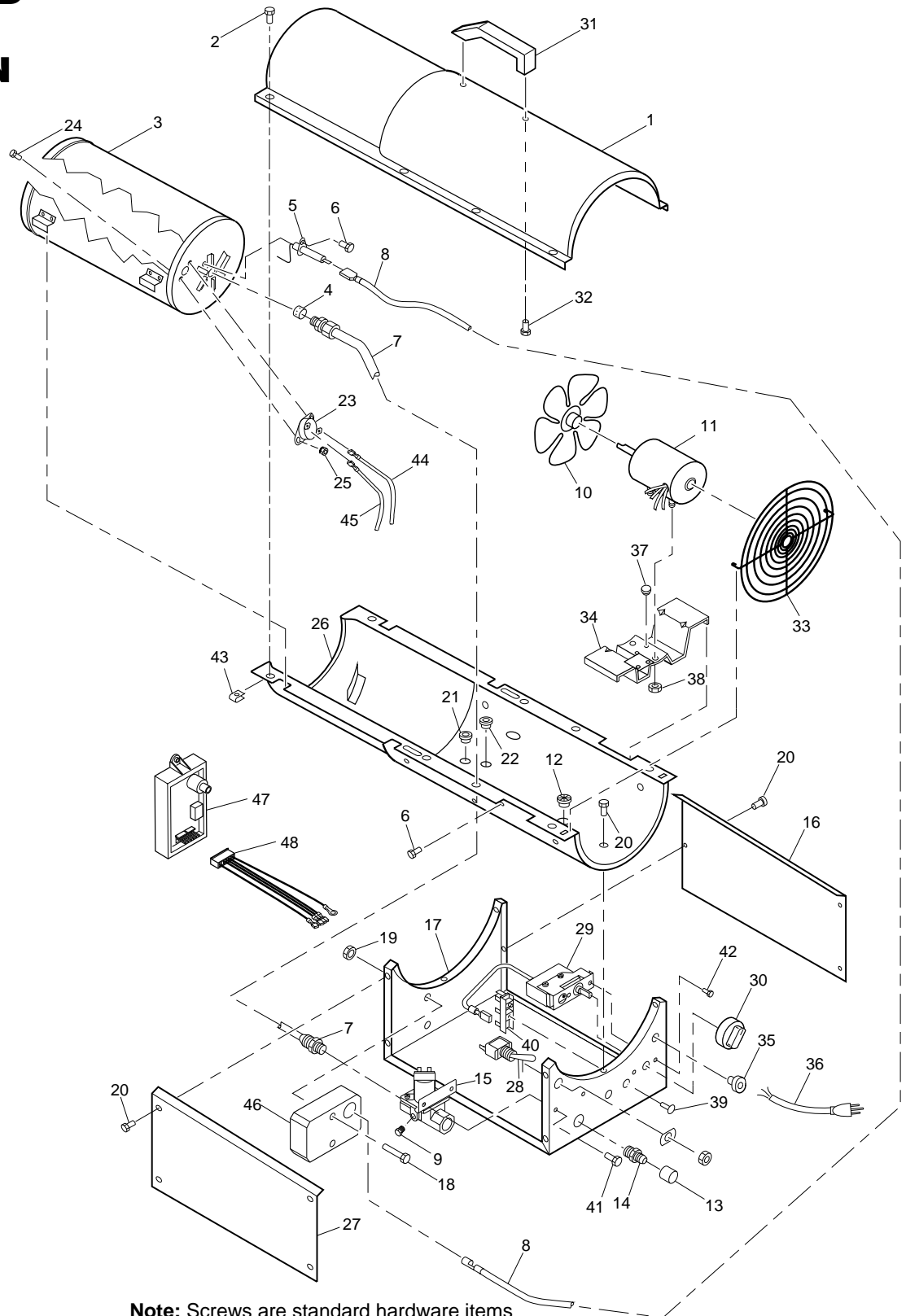
**WIRING DIAGRAMS**

Electrical Ladder Diagram



Electrical Connection Diagram



**ILLUSTRATED  
PARTS  
BREAKDOWN**MODELS  
BLP155AT  
SBLP155AT

**Note:** Screws are standard hardware items

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



# PARTS LIST

## MODELS BLP155AT SBLP155AT

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under *Replacement Parts* on page 10 of this manual.

KEY NO.	PART NUMBER	DESCRIPTION	QTY.	KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	098511-116	Upper Shell (Replacement Part Will Be Black)	1	31	M51104-01	Handle	1
2	M15823-27	Screw, #10-16 x 1/2"	8	32	M11084-29	Screw, #10-16 x 3/4"	2
3	**	Combustion Chamber Kit	1	33	097964-03AA	Fan Guard	1
4	099138-01	Nozzle	1	34	101206-01	Motor & Relay Support Brkt Assy	1
5	099133-01	Ignitor	1	35	M11143-1	Strain Relief Bushing	1
6	M11084-38	Screw, #8-18 x 3/8"	2	36	098219-17	Power Cord	1
7	099334-01	Fuel Tube Kit	1	37	M50631	Rubber Bumper	2
8	097806-02	Ignitor Cable	1	38	NTC-4C	Lock Nut	2
9	098276-01	Plug 1/8 NPTF Hex	1	39	099157-01	Break Mandrell Rivet, 3/16"	1
10	M51153-01	Fan	1	40	099125-01	Terminal Board	1
11	105336-01	Motor	1	41	M12461-25	Screw, #10-32 x 1/4"	2
12	097776-01	Universal Bushing	1	42	M10908-1	Screw Hex TPG "F" 6-32 x .25	2
13	078978-01	Sleeve Cap	1	43	M11271-8	Clip Nut	8
14	M51572-02	Male Connector	1	44	101480-10	High Temperature Wire Assy	1
15	103015-01	Solenoid Valve	1	45	101480-11	High Temperature Wire Assy	1
16	098450-03	Side Cover	1	46	110287-01	DSI Control No. 2003-19	1
17	099161-10	Base	1	47	110287-01	DSI Control No. 2003-45	1
18	M12461-7	Screw, #6-32 x 1"	2	48	110267-01	DSI Wire Harness (2003-45 Only)	1
19	099432-01	Hex Nut, #6-32	2	<b>PARTS AVAILABLE—NOT SHOWN</b>			
20	111084-26	Screw, #10-16 x 3/8"	13		M9900-170	Wire Assembly (2003-45 Only)	1
21	M50104-05	Shorty Bushing	1		103402-03	Wiring Decal (2003-45 Only)	1
22	M50104-01	Shorty Bushing	1		103402-01	Wiring Decal (2003-19 Only)	1
23	101481-07	Thermal Limit Switch	1		079231-01	Service Center List	1
24	097968-05	Screw, #4-40 x 1/2"	2		103017-04	General Information Decal	1
25	097384-04	Hex Nut, #4-40 Captive Washer	2		LPA3070	Regulator & Hose Assembly	1
26	098511-129	Lower Shell (Replacement Part Will Be Black)	1		LPA4020	Fuel Gas Connector	1
27	098447-03	Side Cover	1		099504-01	Warning Decal	2
28	098226-01	On/Off Switch	1		103021-01	Thermostat Decal	1
29	097657-03	Built-in Thermostat	1		097650-01	Tradename Decal	2
30	104905-01	Thermostat Knob	1		111632-06	Model Data Decal	1

\*\* Not a field replacement part.

## ACCESSORIES

Purchase accessories and parts from your nearest dealer or service center. If your dealer or service center can not supply an accessory or part, either contact your nearest Parts Central (listed in the separate Authorized Service Center booklet) or call DESA Heating Products at 1-866-672-6040 for referral information. You can also write to the address listed on the back page of this manual.

**Regulator: LPA2100**

**External Capillary Thermostat: HA1210**

## TECHNICAL SERVICE

You may have further questions about this heater. If so, contact DESA Heating Products' 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 Heating Products' Technical Service web site at **[www.desatech.com](http://www.desatech.com)**.

## REPLACEMENT PARTS

**⚠ WARNING: Use only original replacement parts. This heater must use design-specific parts. Do not substitute or use generic parts. Improper replacement parts could cause serious or fatal injuries. This will also 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), either contact your nearest Parts Central or call DESA Heating Products' Technical Service Department at 1-866-672-6040. When calling DESA Heating Products, have ready:

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

In most cases, 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), either contact your nearest Parts Central or call DESA Heating Products for referral information at 1-866-672-6040. When calling DESA Heating Products, have ready:

- model number 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 Heating Products:

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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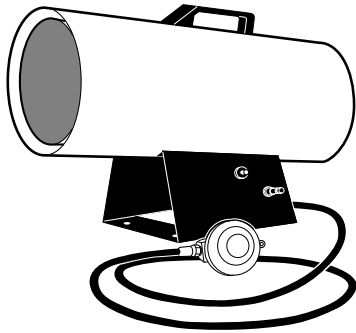
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Postage  
Required

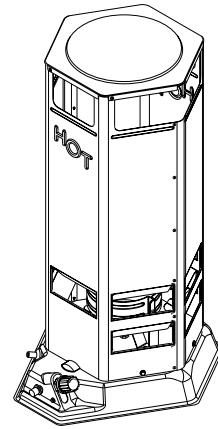
**DESA**<sup>TM</sup>  
**HEATING PRODUCTS**  
2701 Industrial Drive  
P.O. Box 90004  
Bowling Green, KY 42102-9004

TAPE

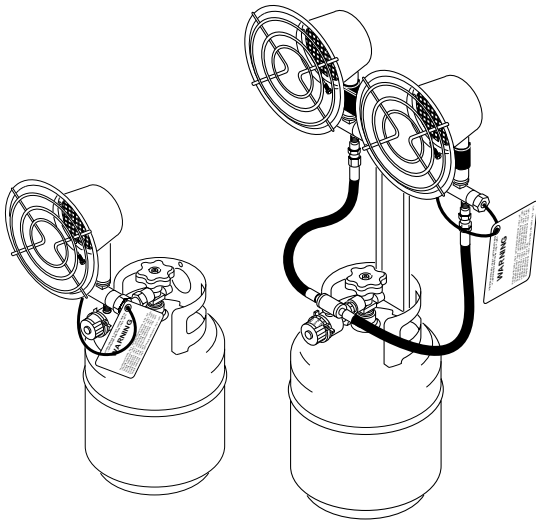
# OTHER OUTDOOR HEATING PRODUCTS



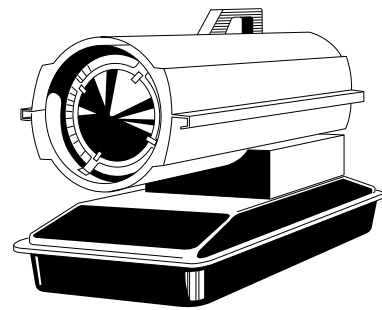
**PROPANE/LP FORCED AIR HEATERS**



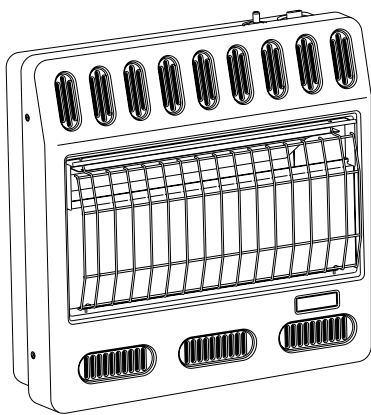
**PROPANE/LP CONVECTION HEATERS**



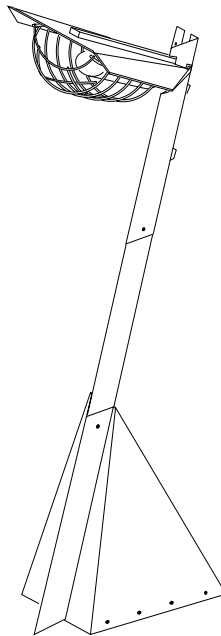
**PROPANE/LP TANK TOP HEATERS**



**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

## KEEP THIS WARRANTY

Model _____
Serial No. _____
Date of Purchase _____

## LIMITED WARRANTY

DESA Heating Products 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 Heating Products 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.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

## 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 Heating Products will repair or replace the heater without charge.

## REPAIR SERVICE

Return your heater to your nearest authorized service center. Repairs not covered by the warranty will be billed at standard prices. Each Service Center is independently owned and operated. We reserve the right to amend these specifications at any time without notice.

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:



2701 Industrial Drive  
P.O. Box 90004  
Bowling Green, KY 42102-9004  
ATTN: Customer Service Department



103014 01

NOT A UPC

103014-01  
Rev. L  
08/03

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