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# SEE-THROUGH & SEE-THROUGH TALL MODELS BL-10-ST BL-10-STT BL-12-ST BL-12-STT

BL-12-ST BL-12-STT BL-14-ST BL-14-STT BL-16-ST BL-16-STT



This is a vented decorative gas appliance: not a source of heat; not for use with solid fuel.

## WARNING:

FIRE OR EXPLOSION HAZARD Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

- WHAT TO DO IF YOU SMELL GAS

- •Do not try to light any appliance.
- •Do not touch any electrical switch; do not use any phone in your building.
- ·Leave the building immediately.
- •Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

**INSTALLER:** Leave this manual with the appliance. **CONSUMER:** Retain this manual for future reference

**Installation/Operator's Manual** 

BL\_ST\_10-16\_INSTL\_RevA\_4.08.19

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# INTRODUCTION

Dedication to innovation, honesty, excellence, and hard work ensure that we can provide solutions to each and every one of our customers.

Our team stays up-to-date on all the latest trends and technologies to ensure we can provide customers with the perfect solution for their project. Our passion for excellence paves the way for our world-class products, systems & customer service. Our goal is to revolutionize the fireplace industry not by being the biggest, but by being the best. We push ourselves to do more than we think we are capable of. We are a family first organization, and we strive to be good stewards locally, nationally, and internationally.

Please review this manual carefully before installing your new fireplace.

Blaze Commercial Series See-Through Linear Gas Fireplaces MODELS: BL-10-ST, BL-12-ST, BL-14-ST, BL-16-ST

Blaze Commercial Series See-Through Tall Linear Gas Fireplaces MODELS: BL-10-STT, BL-12-STT, BL-14-STT, BL-16-STT



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# **SAFETY**

### **INSTALLATION GUIDELINES:**

- Acucraft does not install fireplace systems.
- Contact a licensed installer for proper installation.

### Installation and repair should be done by a qualified

service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean.

Instructions are included for removal and re-installation of the glass panels. Only tempered glass is certified for use with this appliance. DO NOT use if any portion or pane of glass is broken, cracked, damaged, or otherwise visually flawed. Contact a technician to replace the damaged panel immediately.

Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

### **INSTALLATION SAFETY CODES:**

These instructions should be used as a guideline only, and do not supersede local codes in any way. Please check with local codes before installation.

In the absence of local codes, use the current National Fuel Gas Code – ANSI Z223.1 (NFPA 54) or CAN/CGA B149 Installation Code.

The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, Part 1 CSA C22.1.

Installed venting must conform to local codes or, in the absence of local codes, to National Fuel Gas Code (AN-SI-Z223.1) or to CAN/CSA-B149.1

### SAFETY STATEMENTS:

Safety is very important and is referenced throughout this manual in different ways. There are two different safety levels that you should be aware of. Warning statements will occur when there is a possibility of bodily harm present. Caution statements will occur when there presents a risk of damange to the unit if the statements are not followed correctly. Below are examples of what the statements look like.



This statement is used when personal injury may result if not followed properly.



This statement is used when equipment damage may result if not followed properly.

# SAFETY



# FIRE & EXPLOSION HAZARD



Gasoline or flammable vapors can ignite or explode. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. Follow lighting instructions provided on the label of the fireplace and in this manual. If the information in these instructions are not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

# VENTILATION

Make sure the appliance has proper ventilation as instructed in this manual. Gas vapors can cause personal injury or loss of life.

## What to do if you smell gas:

- Do not try to light any appliance
- No not touch any electrical switch
- Immediately call gas supplier from a neighbor's phone. Do not use any phone in the building.
- Follow the gas supplier's instructions
- If you can not reach your gas supplier, call the fire department.

# HOT SURFACE HAZARD

The glass on the fireplace will become hot while in use. Hot glass will cause burns. Keep children away from hot surface to avoid burns or clothing ignition. Never touch glass until cooled. If burns occur, seek immediate medical attention.





# **SAFETY**

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

Clothing or other flammable material should not be placed on or near the appliance.

Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at-risk individuals in the house. To restrict access to a fireplace or stove, install an adjustable safety gate to keep toddlers, young children and other at-risk individuals out of the room and away from hot surfaces.

Any safety screen or guard removed for servicing an appliance, including glass panels, must be replaced prior to operating the appliance.

This is a vented decorative gas appliance: not a source of heat; not for use with solid fuel.

## IMPORTANT NOTE TO INSTALLER:

1. This appliance is not intended or designed to be installed in a mobile or manufactured home.

2. If this appliance is installed on carpeting, tile, or any combustible material other than wood flooring, the appliance shall be installed on a metal, concrete, or wood panel extending the full width and depth of the fireplace.

3. The appliance and its main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of  $\frac{1}{2}$  psi. (3.5 k/Pa) The appliance must be isolated from the gas valve supply piping system by closing the equipment shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than  $\frac{1}{2}$  psi (3.5 k/Pa)

Acucraft requires you to build an access panel within 4' of the gas and electric stubs (the ADC100 must also be accessible).

## **COMPONENT ILLUSTRATION BLAZE 10 ST/STT**



## COMPONENT ILLUSTRATION BLAZE 12-16 ST/ STT



# Blaze 10 ST/STT Wiring Diagram



# Blaze 12-16 ST/STT Wiring Diagram



# Positioning the Fireplace

Using a hand truck or other appropriate equipment, that is rated to handle the weight of the fireplace safely move the fireplace into position. Refer to fireplace specifications for weight.





*Note:* The appliance should be positioned in a manner that planned electrical and gas line access is available with adequate clearance for servicing.

\*Pick fireplace up from bottom.

Determine the location of the appliance to ensure that the combustion air supply and the flue gas/chimney pipe connections are to be made as designed. The appliance is designed to sit either directly on the floor or to sit on a base designed to support the weight of the appliance for proper elevation. If shimming is required to level the appliance due to uneven surfaces, shimming the perimeter of the base is the preferred method. Anchor the appliance adequately to prevent future movement.

## **Clearance to combustibles:**

Top of appliance = 4" Sides of appliance = 2" Back of appliance = 2" Bottom of appliance = 0"

Vent clearance to combustibles: Class A exhaust flue = 2"

**IMPORTANT:** Clearances must be in accordance with local installation codes and the requirements of the gas supplier.

## FRAMING DIMENSIONS:

Measured from the bottom of the unit.

### See-Through Models

MODEL	Α	В	С
BL-10-ST	136"	60"	24"
BL-12-ST	160"	61.5"	30"
BL-14-ST	184"	63.5"	30"
BL-16-ST	208"	65.5"	30"

## See-Through Tall Models

MODEL	Α	В	С
BL-10-STT	136"	66"	24"
BL-12-STT	160"	67.5"	30"
BL-14-STT	184"	69.5"	30"
BL-16-STT	208"	71.5"	30"

### **Framing Clearances**

Top of appliance to bottom of framing material = 4" Sides of appliance to side of framing material = 2" Back of appliance to framing material = 2" Bottom of appliance to framing material = 0"





- The non-combustible backer board should tie into the framing around the unit as shown above.
- The backer board may be fastened to the unit with fasteners that do not penetrate the fireplace more than 1".
- There should NOT be any fasteners in the 3" blacked out area above the fireplace frame.



The shaded area in the drawing above is the non-combustible zone. All finishing material in this area is to only be non-combustible.





Distance to any side adjacent wall must be at least 12" inches from the outside of the glass frame.

Vent terminal locations to intersecting walls, overhangs or eaves, window openings, air intakes, above-ground grade or deck shall maintain the clearances specified as shown below. Vent terminals shall not be recessed into a wall or siding.

# **Installing the Ventilation**

The entire ventilation system, including Class A exhaust flue, fresh air intakes are predetermined on this appliance.

The venting configuration may or may not include any or all of the following components, depending on design: proven draft switch model PDS-1, or ventilation fans.

<u>Exhaust Flue:</u> When installing the UL103HT (Class A) chimney pipe from the fireplace, it must be attached securely to the provided anchor plate. Please consult and follow the manufacturer's instructions included with the chimney pipe and supplied with this manual. If a damper is to be installed in the flue, it must be at a location that meets the manufacturer's specifications, and that is serving only the appliance exhaust.

Below drawing: dimensions are located on subsequent page.

## CAUTION:

<u>Combustion air supply:</u> It is always recommended to minimize any turns or elbows in these supply lines that would cause restriction.

Vent Terminal Locations

Vents terminating above roofs, whether flat or pitched, must be a minimum of 12" higher than the termination, as shown below.



VENT TERMINAL CLEARANCES



			1
		Canadian installations <sup>1</sup>	US installations <sup>2</sup>
A	Clearance above grade, ve- randa, porch, desk or balcony	12 in (30 cm)	12in (30 cm)
В	Clearance to window or door that may be opened	6 in (15 cm) for appliances $\leq$ 10,000 Btuh (3 kW), 12 in (30 cm) for appli- ances > 10,000 Btuh (3 kW) and $\leq$ 100,000 Btuh (30 kW), 36 in (91 cm) for appliances > 100,000 Btuh (30 kW)	6 in (15 cm) for appliances $\leq$ 10,000 Btuh (3 kW), 9 in (23 cm) for appliances > 10,000 Btuh (3 kW) and $\leq$ 50,000 Bruh (15 kW), 12 in (30 cm) for appliances > 50,000 Btuh (15 kW)
С	Clearance to permanently closed window	*	*
D	Vertical clearance to ventilated soffit located above the termi- nal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal	*	*
E	Clearance to unventilated soffit	*	*
F	Clearance to outside corner	*	*
G	Clearance to inside corner	*	*
Н	Clearance to each side of cen- ter line extended above meter / regulator assembly	3 ft (91 cm) within a height 15 ft (4.5 m) above the meter / regulatory assembly	*
1	Clearance to service regulator vent outlet	3 ft (91 cm)	*
J	Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	6 in (15 cm) for appliances $\leq$ 10,000 Btuh (3 kW), 12 in (30 cm) for appli- ances > 10,000 Btuh (3 kW) and $\leq$ 100,000 Btuh (30 kW), 36 in (91 cm) for appliances > 100,000 Btuh (30 kW)	6 in (15 cm) for appliances $\leq$ 10,000 Btuh (3 kW), 9 in (23 cm) for applianc- es > 10,000 Btuh (3 kW) and $\leq$ 50,000 Bruh (15 kW), 12 in (30 cm) for appli- ances > 50,000 Btuh (15 kW)
К	Clearance to a mechanical air supply inlet	6 ft (1.83 m)	3 ft (91 cm) above if within 10 ft (3 m) horizontally
L	Clearance above paved sidewalk or paved driveway located on public property	7 ft (2.13 m) <sup>+</sup>	*
Μ	Clearance under veranda, porch deck, or balcony	12 in (30 cm) ±	*

### Notes:

1) In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code.

2) In accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code.

- \*For clearances not specificed in ANSI Z223.1/NFPA 54 or CSDA B149.1, one of the following shall be indicated:
  - a) A minimum clearance value determined by testing in accordance with Clause 5.25.5, or;
  - b) A reference to the following footnote:
  - "Clearance in accordance with local installation codes and requirements of the gas supplier."

<sup>+</sup>A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

<sup>±</sup> Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

# **DUCT REQUIREMENTS**

## **Ducting Requirements**

- The gas appliance and flue system must be vented directly to the outside of the building, and never be attached to a chimney serving a separate solid fuel or gas-burning appliance. Each direct vent gas appliance must use its own separate flue system.
- In addition to the requirements listed here, follow

the requirements provided with the vent.

## **Ducting Clearances**

- The vent must maintain the required clearance to combustible materials to prevent a fire. Do not fill air spaces with insulation.
- Minimum Vent Configurations (elbow directly off fireplace)
- The flue should have a minimum of a 4 ft. straight run.
- Clearances are in accordance with local installation codes and requirements of the gas supplier.

Minimum Clearance Above Flue	2"
Minimum Clearance to Sides & Below Flue	2"

## **Ducting Firestop**

• A firestop is required whenever the vent penetrates a wall, floor, or ceiling (passes through framing members)

## **Approved Ducting**

- Acucraft provides ICC Excel Factory Built ducting. Further installation instructions can be found at: www.icc-rsf.com. These units are approved to use UL103HT ducting.
- Note: If ducting is not purchased from Acucraft, no Flue anchor plate will be mounted to the unit. You will need to purchase and mount the anchor plate for the ducting that you are purchasing.

## **Ducting Installation**

- Slide the duct sections together, use screws provided with flue (3 screws at each joint).
- No silicone is required
- Wall supports are required at a minimum of every 8 feet.

The Intake runs are approved for up to 50 feet with an quantity of 4, 90 degree elbows. This is not the case with all instances. You must have venting scenario approved by Acucraft Fireplace Systems.

The Flue and Heat-relief runs is approved for up to 100 feet with a quantity of 2, 90 Degree Elbows. A quantity of 4 elbows are approved for runs of 50 feet or less.

You must have your venting scenario approved by Acucraft Fireplace Systems

## **B-Vent Heat Relief**

The heat relief needs to be certified B vent. Venting maximum run follows the same guidelines as the flue. For all other installation requirements refer to manufacturer recommendations.

# Installing the Media

# 

Always wear protective equipment when dealing with open flames. Failure to follow this warning may result in serious injury.

This fireplace burner requires a layer of media to cover the burner tube, allowing proper dispersion of the gas flow and propagation of the flame. This should be spread evenly across and completely covering the round burner located inside of the square burner tray, as shown below.

First, ensure the pilot shield is in place and flat as shown in the image below:



Left Image: With Air Shield Right Image: Without Air Shield



Next, carefully place media over top of round burner located inside of square burner tray, allowing media to fill void alongside tube and to cover over top of tube with ¼" glass media, as shown below:



Media should be a consistent depth of 1/2" thick across the burner tube and media tray. Larger media such as rocks or logs over the burner tray may cause obstructed flame, and increased soot. Photos above of exposed burner and media tray are for reference. All of the burner and media tray should be covered. The media trays on either side should be filled with the desired media, glass, stones, etc.



# **NARNING**

Always wear protective equipment when dealing with hot surfaces. Failure to follow this warning may result in serious injury.

Place Inner Glass Panel into track as shown.

Place middle frame assembly into opening, push tight up to permanent glass frame.

Place bolts in spaces provided to attach middle frame assembly to firebox.

Place outer glass panel into track as shown.

Place outer frame (removable trim) into position and bolt into position.

Completed dual pane glass assembly.



# **Connecting the Gas Valve & Ignition System**

## **IMPORTANT:**

All connections and components should be made and installed by qualified persons only and checked and tested for leaks prior to wiring of valve module.

Gas supply should be connected as shown below.



\*Shut off supplied by other.

The stubbed gas line port and electrical pass through port are located on the side of the unit. The ignition system must be just outside of the fireplace. Location not to exceed 5' length of ignition cable from the burner itself. Other components may be remotely located.

Please refer to the specific component installation manuals for the electronic gas valve, intermittent pilot module, pilot assembly, and transformer supplied with this fireplace and written by the manufacturer.

- Connect the ignition cable and other wiring to the valve and direct intermittent pilot module.

NOTE: These illustrations are not to scale and are for reference only.

## Directions for Connecting a Gas Pressure Test Gauge

The gas control valve (shown to the right) has two test ports for testing input (line pressure) and output (manifold) pressure. Loosen the pressure tap screw on either test port and place a 5/16" i.d. rubber or plastic tube over the tapered test port. Connect the tube to the test gauge.

WARNING: The pressure tap screw must be tightened after testing to prevent gas leakage.



# **Draft Switch**

## **Mechanical Installation**

## INSTALLATION OF DRAFT SWITCH

The Draft Switch is for indoor installation only. The

Draft Switch must be installed in a vertical position with the pressure connection pointing down. Secure the switch by using the mounting holes as shown. After installation connect the tubing from the probe onto the port marked accessible through the small of the plastic enclosure. Connect tubing to the NEGA-TIVE (-) port on the Draft Switch.

Factory wiring comes with three wires that are already crimped onto the Draft Switch. The purpose of these wires is to provide a point in which you can extend the length of the wire by using wire nuts and additional wire (not provided).





## **INSTALLATION OF STACK PROBE FOR PDS 1:**

A stack probe is used with the Draft Switch. The Draft Switch monitors the pressure inside the stack and signals the control to shut down the appliance if insuffcient draft exists inside the stack. The probe must be installed between the appliance and the exhaust fan.



PDS Must best accessible for maintenance.

# **Draft Switch**

For all installations, the stack probe must be placed so the flow through the stack is perpendicular to the tip of the probe. Locate the probe at least the distance "A" away from any elbows or tees in the stack. The distance "A" is designed as at least three (3) vent diameters;  $A \ge 3$  \*V (see figure below). To prevent condensation from entering the probe or Draft Switch when installed on a horizontal stack, the probe must be installed above the centerline of the stack. For fireplace installations, the stack probe should be installed as close to the exhaust fan as possible.



the probe.

# Chimney Fan Dimensions & Capacities

Model			RS 009 RS 012 RS 014 R						
Discharge			Horizontal						
Fan Type				Axial	Vane				
Motor Type			Totally	enclosed, Var	iable speed, (	Class H			
Voltage		VAC		1x120V	@ 60 Hz				
Amperage		Amps	0.5	1.2	1.4	3.9			
RPM				16	00				
CFM		@0.0 Ps	450	950	1400	1950			
Motor Output		hp/kW	1/30 / .025	1/10 / 0.08	1/7 / 0.1	1/3 / 0.25			
\A/-:		lbs / kg	29/13	37 / 17	47 / 21	61 / 28			
Weight		kg	13	17	21	28			
	А	in / mm	10.2 / 259	11.5 / 292	13.1/334	16.0 / 407			
	BxB	in / mm	11.7 / 296	14.3/364	16.6 / 422	18.8 / 478			
Dimensions	С	in / mm	10.8 / 275	13.5/344	15.5 / 395	17.4 / 441			
	D	in / mm	3.0 / 75	3.3 / 85	3.9 / 100	3.9 / 100			
	E	in	9.4 / 238	11.6 / 294	13.5/342	15.4 / 391			
Deting		Interm.		575°F/	300°C				
		Cont.		482°F/	250°C				

## Sound Data

Model	Lw dB (measured in accordance with ISO 3744)										
	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)			
RS009	54	50	47	43	38	31	25	21			
RS012	64	60	55	52	48	42	34	30			
RS014	75	69	65	62	57	51	44	41			
RS016	81	76	72	69	64	58	52	47			





- 1. Junction Box
- 2. Conduit / Cord
- 3. Motor
- 4. Motor Housing
- 5. Cooling Plates
- 6. Bird Screen
- 7. Base Plate
- 8. Locking Nut
- 9. Inlet
- 10. Axial Vane
- 11. Hinges
- 12. Capacitor
- (Inside Junction Box)

# **Chimney Fan**

### Step 1: Prepare fan location

The steel chimney adapter (SCA) slides right into the chimney, where the long collar engagement ensures safe anchoring.

## Step 2: Preparation of fan

Locate the installation brackets in the grooves on the underside of the fan base, using the bolts and nuts supplied to secure the brackets. Note that the bolts shall be installed from the bottom side in the two inner holes.

Adjust the final position of the installation brackets ensuring that there is a small gap between the brackets and the flue wall/adapter throat. Tighten the nuts. If the brackets touch the flue wall, it may create some vibration noise.

### Step 3: Attaching the fan

The chimney fan is now ready for installation on the top of the chimney. It is not necessary to bolt the fan to the chimney.





# **<u>A</u>CAUTION**

Under conditions with extremely strong winds surrounding the top of the chimney, the chimney fan must be secured by steel wires supplied with the fan.



## Wall Mounting of Chimney Fan

When mounting the chimney fan on a wall, the installation instructions for installation on a steel chimney should be followed. Use of the adapater SCA can make the installation easier.

To ease installation, detach the fan base by removing the bolts holding the hinges together. Center the fan base over the outlet and bolt the base onto the wall with the hinges pointing upwards.

After mounting the base securely, attach the fan motor housing by reassembling the fan hinges. Seal with high temp silicone all around the edges.



# Chimney Fan



A safety device that prevents the heating appliance operation, in case of a power failure or inadequate draft situation, must be installed.

# **Termination of Venting System**

In order to achieve optimal performance and energy consumption for the RS Fan the duct must be installed as shown below and the distances observed. From the last elbow to the termination point the distance has to be 3 times the diameter of the flue. For example if you using 12in flue ( $12 \times 3 = 36in$ ). So the distance from the last elbow to the fan termination point should be 36 inches.



A venting system that terminates in the sidewall of a structure shall terminate at least 3 ft (0.9 m) above any air inlet to the structure that is within 10 ft (3 m) of the termination point.

**Exception No. 1:** This requirement shall not apply to the combustion air intake of a direct vent appliance.

**Exception No. 2:** This requirement shall not apply to the separation distance between the circulating air inlet and the vent discharge of a listed outdoor appliance.

The flue gas outlet of an appliance other than a direct vent appliance shall terminate at least 4 ft (1.2 m) below, 4 ft (1.2 m) horizontally from, or 1 ft (0.3 m) above any door, window, or gravity air inlet of the structure. The outlet also shall terminate at least 1 ft (0.3 m) above grade.

The combustion air inlet and flue gas outlet of a direct vent appliance or the flue gas outlet of an appliance other than a direct vent appliance shall terminate at least 1 ft (0.3 m) from the soffit of the roof of the structure and at least 3 ft (0.9 m) from an inside corner of an L-shaped structure.

The flue gas outlet terminal of a direct vent application with an input of 50,000 Btu/hr (0.35 gal/hr) or less shall be located at least 9 in. (230 mm) from any door, window, or air inlet to the structure. The vent terminal of a direct vent appliance with an input over 50,000 Btu/hr (0.35 gal/hr) shall be located at least 1 ft (0.3 m) from any door, window, or air inlet to the structure. Regardless of input, the flue gas outlet terminal shall also terminate at least 1 ft (0.3 m) above grade.

The exit terminals of mechanical draft systems shall not be less than 7 ft (2.1 m) above grade when located adjacent to public walkways.

Any air inlet and any flue gas outlet of any appliance shall terminate at least 5 ft (1.6 m) from the vent outlet of a supply tank.

## **Electrical Installation**

Turn off electrical power before servicing. Contact with live electric components can cause shock or death.

All electrical wiring must be in accordance with requirements of authority having jurisdiction or, in absence of such requirements, with National Electrical Code NFPA 70 — latest edition. If an external electrical source is utilized, system must be electrically grounded in accordance with requirements of the authority having jurisdiction or, in the absence of such requirements, with the National Electrical Code NFPA 70 — latest edition.

# Chimney Fan

# Start-Up and Configuration

## SYSTEM TESTING

Before any adjustments are made to the system, follow these procedures:

1. Turn the chimney fan ON and make sure that it is operating. Increase and decrease the speed of the fan by adjusting the fan speed control to make sure it is operating properly.

2. Turn the fan OFF and make sure the pressure switch opens, so the power to the circuit, it controls, is disconnected.



Check other heating appliances (water heater, furnace, fireplace etc.) for proper operation while the chimney fan is operating. Make sure no flue gases are spilling out as this can lead to carbon monoxide poisoning.

## **Maintenance**

## PRIOR TO CLEANING

Remove butterfly nut or screw from each hinge prior to cleaning.



## CARE AND CLEANING

The Chimney Fan System is designed for prolonged use. The fan should be inspected at least once a year when the chimney is inspected. Fuel residues and other deposits should be removed from the fan blades and the bottom of the motor housing.

The top of the fan is hinged and can be opened in order to ease the cleaning.

# 

Do not open the motor housing unless power to the chimney fan has been disconnected.



# **Chimney Fan**

## Maintenance (cont.)

## CHIMNEY CLEANING INTERVALS

It is extremely important to keep the chimney flue clean from products of combustion and deposits. Unburned oil residues can cause a chimney fires.

Cleaning intervals depend on the use of the appliance. The more the appliance is used, the more often the chimney flue needs cleaning. As there are no firm guidelines for cleaning intervals, have the chimney inspected on a regular basis (every quarter or so) to determine what the interval should be. Then follow this interval.

No matter how much used, a chimney flue should be cleaned and inspected at least once every year.

**NOTE:** The chimney should be cleaned by a trained professional. We recommend using a "Certifed Chimney Sweep" certified by Chimney Safety Institute of American. You can find a Certified Chimney Sweep at www.csia. org or www.ncsg.org or by calling

(317) 837-5362 or (317) 837-1500.

## **Troubleshooting**

OBSERVATION	PROBLEM	SOLUTION
There is no power going to the fan	- The circuit breaker may be off	- Check the circuit breaker
	- Fan speed control is off	- Turn fan speed control
	- Bad electrical connections	- Check and correct problem
There is power to the fan but it is	- Bad electrical connections	- Check and correct problems with
not operating	<ul> <li>The fan speed control's low voltage setting is too low</li> </ul>	connections. Pay special attention to the wiring in the junction box
	- The fan speed control is bad	<ul> <li>Increase the setting with the plastic screw on the fan speed control's front plate</li> </ul>
		- Replace the fan speed control
There is power to the fan but it hums and does not turn	<ul> <li>The motor run capacitor may be bad.</li> </ul>	- Check capacitor and replace if necessary
	- Creosote may stick	- Clean fan
There is airflow noise from the draft hood	<ul> <li>The fan is oversized and running too fast</li> </ul>	- Reduce the fan speed
Mechanical noise can be heard	- Foreign matter may be stuck	- Remove foreign matters
	- Motor bearings may be worn out	- Replace bearings

# **PRODUCT SPECIFICATIONS**

### **IMPORTANT:**

This fireplace system consists of several components that are designed specifically for this appliance. No parts on this appliance may be substituted or replaced with anything other than original components. Replacement parts as listed below can be obtained by contacting Acucraft Service by phone or email.

Acucraft Customer Service Contact Information:

- Phone: (763) 263-3156
- Email: service@acucraft.com

COMPONENT DESCRIPTION	INSTALL INFORMATION PAGE(s)
Flue / Venting	18-20
Media	21
Glass Panels	22
Gas Valve & Ignition Module	23
Draft Switch	24-25
Chimney Fan	26-30

### WARNING:

Failure to position the parts in accordance with this manual or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

# **PRODUCT SPECIFICATIONS**



	BLAZE SERIES DIMENSIONS											
MODEL	А	В	С	D	Е	F	G	Н	I	J	K	L
BL-10-ST	120"	123"	132"	56"	24"	12"	9"	12"	36"	66"	24"	27"
BL-10-STT	120"	123"	132"	62"	24"	12"	9"	12"	36"	66"	30"	33"

	BLAZE SERIES SPECIFICATIONS												
MODEL	FLUE	HEAT RELIEF	COMBUS- TION AIR INTAKE	GLASS COOLING INTAKE	GLASS COOLING FAN	FLUE FAN	BTU'S	NG ORIFICE	LP ORIFICE	APPROX WEIGHT LBS			
BL-10-ST	10"	12"	10"	12"	RS16	RS9	160,000	G	#27	2000			
BL-10-STT	10"	12"	10"	12"	RS16	RS9	160,000	G	#27	2200			

# **PRODUCT SPECIFICATIONS**

# BLAZE 12-16 ST/STT



	BLAZE SERIES DIMENSIONS												
MODEL	A	В	С	D	E	F	G	Н	I				
BL-12-ST	144"	147"	156"	57.5"	8"	78"	48"	24"	27"				
BL-12-STT	144"	147"	156"	63.5"	8"	78"	48"	30"	33"				
BL-14-ST	168"	171"	180"	59.5"	8"	90"	50"	24"	27"				
BL-14-STT	168"	171"	180"	65.5"	8"	90"	50"	30"	33"				
BL-16-ST	192"	195"	204"	61.5"	9"	102"	51"	24"	27"				
BL-16-STT	192"	195"	204"	67.5"	9"	102"	51"	30"	33"				

### BLAZE SERIES SPECIFICATIONS

MODEL	FLUE	HEAT RE- LIEF	COMBUS- TION AIR INTAKE	GLASS COOLING INTAKE	GLASS COOLING FAN	FLUE FAN	BTU'S	NG ORIFICE	LP ORIFICE	APPROX WEIGHT LBS
BL-12-ST	10"	DUAL 8"	DUAL 8"	DUAL 8"	DUAL RS12	RS12	175,000	L	#21	2300
BL-12-STT	10"	DUAL 8"	DUAL 8"	DUAL 8"	DUAL RS12	RS12	175,000	L	#21	2500
BL-14-ST	12"	DUAL 10"	DUAL 8"	DUAL 10"	DUAL RS14	RS12	200,000	N	#17	2700
BL-14-STT	12"	DUAL 10"	DUAL 8"	DUAL 10"	DUAL RS14	RS12	200,000	N	#17	2900
BL-16-ST	12"	DUAL 12"	DUAL 8"	DUAL 12"	DUAL RS16	RS12	225,000	Q	#14	3100
BL-16-STT	12"	DUAL 12"	DUAL 8"	DUAL 12"	DUAL RS16	RS12	225,000	Q	#14	3300

### MINIMUM CLEARANCES TO COMBUSTIBLES:

Unit to back wall of enclosure: 2 inches Unit to sidewall of enclosure: 2 inches Unit top to enclosure top: 4 inches

NOTE: The chimney flue for the appliance should never be connected to another chimney flue in any way.

# **OPERATION GUIDE**

## FOR YOUR SAFETY, READ BEFORE OPERATING

## WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY, OR LOSS OF LIFE

A. This appliance has a pilot. It is equipped with an ignition device which automatically lights the burner. Do **NOT** try to light the burner by hand.

B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- 1. STOP! Read the safety information above on this label.
- 2. Turn off all electric power to the appliance.

3. This appliance is equipped with an ignition system which automatically lights the burner. Do NOT try to light the burner by hand.



KNOB SHOWN

• If you cannot reach your gas supplier, call the fire department.

C. Only use your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water

## **OPERATING INSTRUCTIONS**

4. Push in gas control knob slightly and turn clockwise.

to "OF

to "OFF" Note: Knob cannot be turned to "OFF" position unless knob is pushed in slightly. Do not force.

5. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in safety information above on this label. If you don't smell gas, go to the next step.

6. Turn gas control knob counterclockwise to "ON"



- 7. Replace control access panel
- 8. Turn on all electric power to appliance

9. If the appliance will not operate, follow the instructions "To Turn Off Gas to Appliance" and call your service technician or gas supplier

## TO TURN OFF GAS TO APPLIANCE

- 1. Turn off all electric power to the appliance if service is to be performed.
- 2. Remove control access panel

3. Push in control knob slightly and turn clockwise

to "OFF" Note: Knob cannot be turned to "OFF" position unless knob is pushed in slightly. Do not force.

4. Replace control access panel

# **OPERATION GUIDE**

# **Basic Sequence of Operation**

Listed below is a sequence of operation when the fireplace is functioning properly. If you are experiencing problems with the fireplace not operating normally, see the Troubleshooting section.

- 1. The fireplace control switch is turned on.
- 2. Control Board proves and engages fan.

3. Pressure switch sends signal to control board proving draft.

4. Control board closes AUX output, energizing ignition control.

5. The pilot spark igniter will discontinue sparking after flame has been proven.

6. The pilot will then send gas to the burner as well

as Ignite gas and prove the flame is burning.

7. Operation normal.

# Turning gas off to the appliance

Please check with local codes.In the absence of local codes, use the current National Fuel Gas Code – ANSI Z223.1 (NFPA 54) or CAN/CGA B149 Installation Code.

# Lighting the Ignition System



# TROUBLESHOOTING

PROBLEM	SOLUTION
Appliance does not light within 20 seconds.	If the appliance does not light within 20 seconds, the gas valve will lock out automatically. Turn off switch, wait 10 seconds, and try turning it on again.
	If there is still no ignition, turn off switch and visually inspect wiring harness for loose connections and check to be sure the gas supply is connected and all valves are open.
	If the appliance still does not ignite, check the spark igniter to be sure it is operating correctly. It should have a visible spark and make a click- ing sound as it sparks.
	If no spark is seen, verify that all connections are tight and secure at the ignition control module. If it still fails to ignite, the draft proving sys- tem may not be activating. Contact a qualified technician to verify that the venting is clear, the exhaust fan is operational, and that the draft proving system is functioning properly. The system will not start the ignition sequence until draft is proven.
Spark Igniter is working, but does not ignite the flame.	It will stop sparking after 11 seconds as a safety, and will then lock out the gas valve. Turn off the switch and try again. If it is still sparking with no ignition, contact a qualified technician.
The appliance ignites, but shuts down shortly after ignition.	The flame sensor may not be registering proper flame strength. Turn the appliance on and visually inspect the spark ignition sequence. If the igniter is still sparking after the flame is burning, it may indicate that the flame sensor rod is not making proper contact with the flames. The flame sensor must be located directly in the flame to get the proper signal. A DC current is created by the flame on the rod that must be present to prove there is a flame or the valve will lock out. If the flame is not making direct contact with the flame sensor, contact a qualified technician to make necessary adjustments.
	If the flame sensor appears to be red hot and within the flames, yet the igniter keeps sparking, the sensor is not sensing the flame proper- ly and the valve will lock out after 11 seconds. Verify that all electrical connections to the ignition module are tight and secure. If it still does not stay lit, contact a qualified technician.
The flames appear light and lazy on the burner.	Visually compare flame to those shown in the Installing the Media section of this manual. There may be a reduction in gas pressure or a blockage to the venting. Contact a qualified technician to diagnose.

### Sequence of Operation

The sequence of operation flow chart is shown in the figure below.



### Stages

Flashes 1 - if damperprove does not close 90 seconds after auxin, go into alarm for 30 seconds, followed by a full retry

Flashes 2 - if initial pdsprove does not close 180 seconds after damperprove, go into alarm for 30 seconds, followed by a full retry

Flashes 3 - if pds loses proof for 15 seconds after initial pdsprove, auxouts de-energize, stay in alarm until pdsprove returns and auxout will re-energize

Flashes 4 - if at any point after auxout proves the damperprove is removed, the board immedialy goes into alarm for 30 seconds, followed by a full retry

Flashes 5 - \*must have sw3 on\* if pds is proved prior to auxin, board will go into alarm and no further states can be achieved until proof is removed

### Start 1. A call for heat from the appliance energizes the ADC100 inputs at terminals 9 and 10.

- 2. If a damper is connected, it begins to open. Once open, the damper prove contact closes (Terminals 16 and 17).
- 3. The ADC100 begins to ramp up the fan.
- The Proven Draft Switch closes when adequate draft is achieved and ADC100 adjusts fan to speed setting on the potentiometer.
- The ADC100 control releases the appliance for operation by closing dry contact between terminals 22 and 23 (and terminals 29 and 30).

### Operating Manual Mode:

Sequence 1. Fa

Sequence

- 1. Fan runs at a constant speed and can be adjusted during normal operation using the potentiometer.
  - 2. If the Proven Draft Switch opens, a 15 second timing cycle starts.
  - 3. If the Proven Draft Switch has not been made within 15 seconds, the auxiliary out contact opens and an alarm condition exists.
  - 4. If the Proven Draft Switch closes, the control automatically resumes normal operation at set speed.

## \*If further assistance is needed contact Acucraft service department Phone: (763) 263-3156 Email: service@acucraft.com

# TROUBLESHOOTING

# **Gas Valve & Ignition Module**

### CHANGE INSERT ORIFICES (See Fig. 7)

- 1. Disconnect pilot tubing from the pilot burner and remove insert orifice. Sometimes a light force is required to remove the orifice.
- Cut off old compression fitting.
   NOTE: When replacing an orifice, cut off old compression fitting and replace with a new compression fitting. Never use old compression fitting as it may not provide a gastight seal.
- 3. Square off end of pilot tubing and remove all burrs.
- 4. Insert new compression nut over pilot tubing and slide out of the way.
- 5. Insert new orifice into pilot burner and push pilot tubing into the pilot burner until it bottoms.
- 6. While holding tubing all the way in, slide compression fitting into place and engage threads. Turn until finger tight.
- 7. Using a wrench, tighten compression fitting one turn beyond finger tight.



### GAS LEAK TEST:

1. Ensure that gas supply is turned on at the appliance service valve.

any time work is done on a gas system.

- 2. Paint pipe connections upstream of pilot burner with rich soap and water solution. Bubbles indicate gas leak.
- 3. If leak is detected, tighten pipe connections.
- 4. Stand clear of main burner while lighting to prevent injury caused from hidden leaks which could cause flashback in the appliance vestibule. Light main burner.
- 5. With main burner in operation, paint pipe joints (including adapters) and gas control inlet and outlet with rich soap and water solution.
- 6. If another leak is detected, tighten adapter screws, joints, and pipe connections.
- 7. Replace part if leak cannot be stopped.

### ADJUST PILOT FLAME

The pilot flame should envelop 3/8 to 1/2 in. [10 to 13 mm] of the thermocouple or thermopile tip. To adjust pilot flame:

- 1. Remove pilot adjustment cover screw from gas control.
- 3. Always replace pilot adjustment cover screw and tighten firmly after completing adjustment to ensure proper operation.

FIG. 7 - CHANGING INSERT ORIFICES

# TROUBLESHOOTING

# **Gas Valve & Ignition Module**

FIG. 9 EXAMPLES OF UNSATISFACTORY PILOT FLAMES

		Service
	A	WARNING
		FIRE OR EXPLOSION HAZARD CAN CAUSE PROPERTY DAMAGE, SEVERE INJURY, OR DEATH Perform Gas Leak Test anytime work is done to the
		system.
		_
1.	•	ame goes out during normal operation, but rly adjusted, recheck Mounting and Location
	instructi	ons.
2.		unting and location instructions are followed continues to go out, verify pilot shield is

- 2. If but i pilot continues to go out, verny p installed.
- 3. Check pilot flame characteristics.
- Check the pilot flame with the main burner operating. •
- Ensure the pilot flame continuously covers the tip of • the thermocouple or thermopile, the spark gap and 3/8 to 1/2 in. (10 to 13 mm) of the ground rod.
- Ensure the pilot flame is blue (a yellow tipped flame • is acceptable on LP systems), soft and steady. See Fig. 9 for examples of possible pilot flame problems and their causes.
- If pilot burner is damaged, replace it with an identical • pilot burner and mount and position in the same location and orientation.



# MAINTENANCE & CARE

Always use proper precautions and turn off fireplace before performing any maintenance.

Do not clean appliance when hot.

We recommend the fireplace to be cleaned and inspected by a certified technician after 3-6 months of operation. The technician will be able to assess the fireplace and recommend a cleaning schedule. If the fireplace is not going to be cleaned by a technican, ensure to clean the tempered glass with a basic household glass cleaner on average every 3 months to a year (depending on frequency of use). Never use abrasive cleaners or glass cleaner that contains ammonia, as it may etch the tempered glass.

Examination and inspection of the appliance, venting system, and all components including the burner, should be performed annually by a qualified service technician.

Examination and visual check of the burner & flame should be performed periodically to ensure proper operation. If the flame deviates greatly from the standard or if any portion of the burner has a large gap between flames, the burner orifices may need cleaning. Contact a qualified technician to diagnose, correct, and clean the burner orifices as needed.

Replacement of worn, broken, or non-functioning components should be left to a qualified service technician.

If glass panels suffer any type of impact, immediately cease use of fireplace until a qualified technician can assess the integrity of the panels and determine if they need replacement before continued use.

The area around the appliance must be kept clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

Keep combustion and ventilation air flows unobstructed.

# WARRANTY

### \*ALL WARRANTIES EFFECTIVE DATE OF SHIPMENTS\*

### **The Warranty**

Acucraft warrants the gas appliance to be free from defects in materials and workmanship at the time of manufacture. On all gas appliances, there is a **lifetime warranty** on the firebox. There is a **five-year warranty** on the main burner. A **one-year warranty** is given to the pilot burner, gas control valve, glass media and logs, and other gas components.

### **No Warranty**

Acucraft does not warrant any finish or plating on the system or any part thereof. Glass and refractory lining are exempt from warranty as well.

### **Remedy and Exclusions**

The coverage of this warranty is limited to all components of the gas appliance manufactured by Acucraft. If the components of the gas appliance covered by this warranty are found to be defective within the time stated. Acucraft, at its option, will replace or repair defective components of the gas appliance manufactured by Acucraft at no charge, and may also choose pay for reasonable labor costs incurred in repairing components requiring approval prior to work commencing. This warranty covers only parts and labor as provided above. In no case shall Acucraft be responsible for materials, components, or construction which are not manufactured or supplied by Acucraft, or for the labor necessary to install, repair or remove such materials, components or construction. All replacement or repair components will be shipped F.O.B. back to Acucraft. A warranty credit will be issued upon receipt and testing of defective parts.

### **Qualifications to the Warranty**

The gas appliance warranty outlined above is further subject to the following qualifications:

(1) The gas appliance must be installed in accordance with Acucraft installation instructions and local building codes. The warranty on this Acucraft gas appliance covers only the component parts manufactured by Acucraft. The use of components manufactured by others with the Acucraft gas appliance could create serious safety hazards, and may result in the denial of certification by recognized national safety agencies, and could be in violation of local building codes. This warranty does not cover any damages occurring from the use of any components not manufactured or supplied by Acucraft.

(2) The Acucraft gas appliance must be subjected to normal use. The gas appliances are designed to burn gas only. Burning conventional fireplace fuels such as wood, coal or any other solid fuel will cause damage to the gas appliance, will produce excessive temperatures and will result in a fire hazard.

### Limitations on Liability

It is expressly agreed and understood that Acucrafts sole obligation, and purchaser's exclusive remedy under this warranty, under any other warranty, expressed or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above.

In no event shall Acucraft be responsible for any incidental or consequential damages caused by defect in its products, whether such damage occurs or is discovered before or after replacement or repair, and whether or not such damage is caused by Acucraft negligence. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The duration or any implied warranty with respect to this Acucraft gas appliance is limited to the duration of the foregoing warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above may not apply to you.

### Investigation of Claims against Warranty

- -Acucraft reserves the right to investigate any and all claims against this warranty and to decide upon method of settlement.
- Acucraft is not responsible for work done without consent.
- Acucraft shall in no event be responsible for any warranty work done without first obtaining Acucrafts written consent.
- Resellers have no authority to alter this warranty.
- Acucraft employees and resellers have no authority to make any warranties nor to authorize any remedies in addition to or inconsistent with those stated above.

### How to Register a Claim against Warranty

In order for any claim under this warranty to be valid, Acucraft must be notified of the claimed defect by emailing service@acucraft.com, as soon as reasonably possible after the defect is discovered. Claims against this warranty must include the date of installation, and a description of the defect.

In order to validate your warranty you must complete the warranty form at www.acucraft.com/warranty within thirty (30) days of receiving your fireplace. Without a warranty validation you will not be able to submit any warranty claims for your Acucraft appliance.



# FIRE IS OUR PASSION

www.acucraft.com

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