

Owner's Manual

AirculatorTM **FIREPLACE FURNACE**



Read instructions carefully and
save for future reference.



A. General Fireplace Safety Instructions

Pre-Installation Inspection: (1) Examine the masonry fireplace and chimney prior to installation of the Airculator to determine that they are free of cracks, loose mortar, creosote deposits, other blockage, or other signs of deterioration, and (2) verify that there is a hearth extension extending at least 16" in front of the fireplace and at least 8" to the sides of the fireplace for a fireplace having an opening less than 6 square feet; or extending at least 20" in front and at least 12" to the sides for fireplaces having an opening of 6 square feet or larger.

If evidence of deterioration is noted, the Airculator should not be installed until after repairs have been made to the fireplace.

The chimney should be inspected at least annually prior to the heating season to determine if a creosote buildup has occurred. When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue over a slow burning fire. As a result, creosote residue accumulates in the flue lining. When ignited this creosote makes an extremely hot fire. If creosote has accumulated, it should be removed to reduce the risk of a chimney fire.

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.



B. Safety precautions

1. **The Airculator Fireplace Furnace** has been manufactured from heavy gauge tubing. Care should be taken to avoid strains or injuries when moving it. At least two persons should lift the heat exchanger during all handling operations.
2. **Never use highly flammable materials** such as gasoline, solvent, paint thinner, plastic or paper (other than a small amount of paper to start the fire) in the fireplace. These can quickly burn out of control generating extremely high temperatures which can shatter glass and cause other damage.
3. **Should the fire get out of control**, keep the fan on your Airculator operating. Do not shut it off, as extreme heat can damage the motor. Glass enclosure draft controls and glass enclosures should remain fully open to help avoid metal and glass damage from heat.
4. **Warning! The fan should always be in operation when there is a fire or embers in the fireplace.** In the event of a power outage, hook up the fan box to a battery backup (if purchased) for continual operation. If without a battery backup, remove the fan box from the manifold to protect the fan motor. Just remove the single screw securing the motor box to the manifold and remove the fan box. To replace the fan box, reverse this process.
5. **With finishes other than Satin Black**, you may have a plastic coating on the manifold faceplate which must be removed prior to using your Airculator.
6. **Do not burn your Airculator without the protective log retainer**, as this keeps fire and logs away from the manifold and helps prevent them from falling into the room.
7. **Keep fuel and fire 6" back from fireplace opening to prevent heat damage** to the manifold finish.
8. **Keep all vents free of dust, lint or other obstructions.** Keep children and combustible materials away from the potentially hot surfaces of both the glass enclosure and the manifold.
9. **Do not build large fires.** The Airculator was designed for small to medium sized fires. Large fires are not necessary and can be hazardous.
10. **Do not** run the power cord over the top or in front of the Airculator manifold.
11. **The use of a glass enclosure** with your Airculator Fireplace Furnace is strongly recommended.

C. Using your Airculator Fireplace Furnace

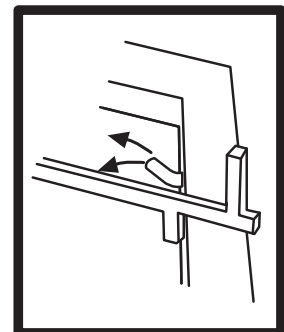
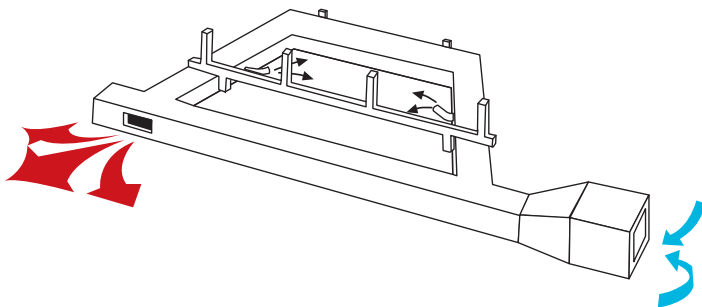
1. **Break-in Period.** Important: During the initial use of your Airculator unit, you may detect smoke and/or odor being ejected from the warm air discharge vent. This condition is the result of the metal preservative vaporizing inside the heat chamber. The smoke and/or odor is not harmful. Depending on the size of your fire, the smoke and odor will last for about 20 to 30 minutes.

2. **General Operating Information.** Your Airculator Fireplace Furnace draws cool floor or hearth level air into the fan box, sends it through the heat chamber and circulates warm air throughout your room.

The unique "Air Jets" provide additional air (oxygen) to the bed of the fire. The "Air Jets" aid in starting and maintaining a hotter fire. This increases the available heat delivered to your room.

The stream of the warmed air from your Airculator will reach out into the room and create air circulation so that more even temperatures will occur. As the Airculator runs, temperatures around the room will continue to improve. The constant recirculation of cool air to warm air provides even warmth to your room.

3. **Fan/Blower Operation.** The fan must always be operating when there is a fire or embers in the fireplace. *The fan motor uses only about 10 watts of power, while producing up to 6500 watts per hour (20,000 BTUs) of useable heat for your home.*
4. **Too Much Heat.** If the room gets too warm, lower the fan speed, reduce the amount of wood or coal you are using, or arrange the fire so that it does not have as great a contact with the back heat chamber of the Airculator. With some familiarization and operating experience, you can adjust the heat output of the Airculator to suit your individual requirements, but allow the fan to operate whenever fire or embers are in the fireplace.





D. Preparing for Installation

Before beginning installation of your new Airculator Fireplace Furnace, the following steps should be taken:

1. Make sure fire is completely out.
2. Remove obstructions such as mesh curtains, glass enclosures, etc., from the fireplace opening.
3. Remove grate, ashes and unburnt wood or fuel particles from the firebox.
4. Record manifold model number. Also record separate manifold & fan box manufacturing codes on page 7 of this booklet for future reference. You will need these numbers to order replacement parts. (Note: the manifold model number and manufacturing code should already be entered on page 7. The fan box manufacturing number is on the back of the fan box.)
5. Check parts. Your Airculator is shipped in two packages. Please verify that you have all of the parts listed below:

Package A:

1. Heat Chamber with Aluminum Manifold and Faceplate Insert
2. Log Retainer
3. Leveling Bolts and Nuts (2 each)

Package B:

1. Fan Box
2. Small Phillips Head Screw (1)
3. Low Voltage AC. Adaptor Power Supply

6. The only tool needed to install your Airculator is a #2 Phillips screwdriver.

Remember: Manifold face plates with optional finishes may be covered with protective tape. The tape must be removed prior to using your Airculator.

E. Installation

1. The Airculator fan box can be installed as a right-hand unit or left-hand unit, depending on the convenience of an electrical outlet. If you prefer to place the fan box on the right side of the hearth, make sure the manifold heat outlet is on the left side of the hearth. If you prefer to place the fan box on the left side of the hearth, make sure the manifold heat outlet is on the right side of the hearth.
2. Place the heat chamber part of the Airculator in the fireplace. Be sure the entire front assembly is placed on the hearth outside of the firebox.
3. If you have a recessed fire bed, use the two height adjustment bolts provided. The Airculator will adapt to a firebox drop 2-1/4" with the height adjustment bolts. Place nuts on bolts and adjust nut position so the distance from the head of the bolt to the head of the nut equals the fireplace drop. Place the threaded end of each bolt up thru the two bolt receptacles at the back heat chamber corners. Adjust nut up or down as necessary to support the heat chamber. For fire box drops in excess of 1" bricks should also be placed under the unit for maximum heat production.
4. Connect the motor box to the manifold using the one Phillips head screw. Orient the fan box so that the rotary switch is towards the top near corner of the fan box. The manifold should be pushed towards the fireplace so that the rear of the manifold is tight against the fireplace opening.
5. If using a glass enclosure, minimize motor box vibration and insure a tight seal between the glass enclosure and the Airculator by placing a small amount of fiberglass insulation between the glass enclosure and the Airculator. Manifold height raises glass enclosures 2-1/2".
6. Insert the log retainer as shown in the illustration.
7. Connect the power supply plug to the receptacle at the end of the fan box and the power cord to the nearest power outlet. A three speed rotary switch activates the unit.



F. Building a fire

Materials Needed: Matches Kindling
Newspaper Wood – preferable dry and seasoned

1. Open glass enclosure doors and/or wire mesh curtains fully. (Ignore references to glass enclosures if using mesh firescreens only.)
2. Open the chimney damper fully. This should remain open permanently as a safety precaution.
3. If the temperature outside is below freezing (32°) or the fireplace does not draw air up the chimney, do the following: Make a cone from newspaper, light it and hold it up the opened chimney. This preheats the flue air and prevents cold air from coming down the chimney and blowing smoke in to the room when the fire is lit.
4. Open the glass enclosure draft control. Make sure ashes and debris are not blocking the openings.
5. Build the fire as far to the back of the fireplace as possible to prevent glass enclosure damage. Flames should never be allowed to contact the glass enclosure or firescreen mesh as this can cause discoloration.
6. Crumple some newspaper and put it on the floor between the Air Jets. Your firebox need not be totally free from ashes. (When coals are produced, an accumulation of ash up to the base of the Airculator helps the coals stay hotter longer.)
7. Start the fire gradually with some small amounts of dry kindling. Add larger pieces of wood to achieve a medium, well-controlled fire. Even if your wood is semi-dry or wet, Airculator's Air Jets will help you make the most of your fuel.
8. Light the paper under the kindling. When kindling ignites, turn the motor on and, if necessary, put your hand over the Airculator discharge for one minute. This causes more air to flow through the Air Jets and create a greater "forge" effect. Your Airculator come with a three speed control. Use a higher speed when starting your fire.
9. Add wood and after the fire is going, close your wire mesh screen. You may close the glass enclosure (with the back-up screen closed), providing the fire is small. For maximum heating efficiency, always keep the fan motor on.

Note: Do not make a large fire using an Airculator! Three small logs are ideal. Small to medium sized fires are not only preferable, but necessary to insure the proper heat temperature for the Airculator. Large fires can be hazardous to you and your property.

10. When you retire from your fireplace area, make sure your fire is under control and the screen and glass enclosure are closed as well as the glass enclosure draft control. Damper should remain open 24 hours after the fire has died down.

G. Preventing Damage & Care and Maintenance

1. To prevent discoloration of glass and metal, never allow flames to come in contact with the glass enclosure, fireplace screen or Airculator manifold.
2. Use the log retainer provided to avoid damage caused by logs or other fuels rolling into the glass enclosure or fireplace screen.
3. Protect yourself and your family by avoiding high temperature fires created by the use of highly flammable materials or unusually large fires which can cause firescreen damage and/or loss of glass temper and possible shattering of the glass. Never clean glass enclosures while they are hot.

H. Cleaning instructions

It is recommended that the interior area of the fan box be vacuumed every six months or more often if conditions warrant (if there are pets, etc.). To clean, unplug the unit and vacuum at the air intake louver to remove dust from the fan box.

Firebox:

Airculator operates at maximum capacity when surrounded by hot burning materials such as coals. Therefore, it is recommended that a bed of ashes be allowed to accumulate to the base of the Airculator.

Manifold:

The Airculator manifold is aluminum anodized in high quality black finish for durability and attractiveness. To clean, use only a damp cloth. Never use abrasive cleaners or any abrasive pad.

Faceplate Insert:

Satin Black finish (standard) – A special finish has been applied over steel. To clean, use a dust cloth, never any abrasive cleansers or pads. For special finishes see individual instructions furnished with the faceplate.

Fan Motor:

No maintenance or lubrication is required.

I. Replacement Parts

Replacement parts should be ordered from your dealer. Use this form for your convenience in ordering. When ordering parts, specify the item number, description, model number and manufacturer code. When replacing parts, use only manufacturer's specified parts or the equivalent.

Manifold Model No. _____

Manifold Mfg. Code _____

Fan Box Mfg. Code _____

Complete the following to order parts:

Item No. _____ QTY. _____

Description _____

Item No. _____ QTY. _____

Description _____

If Faceplate: Finish ☐ All Satin Black ☐ Other _____

Name _____

Street Address _____

City _____

Phone or E-mail _____

Item	Description	Qty
1.	Fan Box	1
2.	Main Heat Chamber	1
3.	Aluminum Manifold	1
4.	Face Plate Insert	1
5.	Air Deflector	1
6.	Log Retainer Grate	1
7.	Sheet Metal Screws	2
8.	Height Adjustment Bolts	2
9.	Height Adjustment Nuts	2
10.	Low Voltage Power Supply with 6' cord	1

