

USER'S INFORMATION MANUAL

Models: R/LUF, R/LHF, R/LBF, R/LBR, & R/LHR
Oil-Fired Furnaces

⚠ WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life. For assistance or additional information, consult a qualified installer or service agency.

⚠ WARNING

Do not store combustible materials, including gasoline and other flammable vapors and liquids, near the furnace, vent pipe, or warm air ducts. The furnace area must not be used as a broom closet or for any other storage purposes. Such uses may result in actions that could cause property damage, personal injury, or death.

⚠ CAUTION

Never burn garbage or paper in the heating system and never leave rags, paper, or any flammable items around the unit.

⚠ CAUTION

Installation and service must be performed by a qualified installer or service agency.

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Congratulations...

...you have one of the most modern oil furnaces made. Your unit has been carefully selected to keep you warm and comfortable during the winter months. It will deliver superb performance with only minimal help from you.

To keep your operating costs low and to eliminate unnecessary service calls, we have provided a few guidelines to help you with your furnace. These guidelines will help you understand how your furnace operates and how to maintain it so you can get years of safe and dependable service.

For your safety – read before operating

This appliance is equipped with an ignition device which automatically lights the burner. **Do not try to light the burner by hand.**

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 oil control which has been under water.

Periodic Inspections

Your oil furnace is designed to give many years of efficient, satisfactory service. However, the varied air pollutants commonly found in most areas can affect longevity and safety. Chemicals contained in everyday household items such as laundry detergents, cleaning sprays, hair sprays, deodorizers, and other products which produce airborne residuals may have an adverse affect upon the metals used to construct your furnace.

It is important that you visually inspect the conditions of the burner and vent from the furnace. A flashlight will be useful for these inspections. Make one inspection prior to the beginning of the heating season and another during the middle. Should you observe unusual amounts of rust, flakes or other deposits, coatings, or corrosion, it is important that you call your authorized dealer at once to obtain a qualified service inspection. Even if no unusual rust or other deposits are observed, **it is recommended that the furnace be inspected and serviced at least once per year by a qualified service technician.**

Manufactured By
A.A.C.
A Lennox International Company
421 Monroe Street
Bellevue, OH 44811

Operating Your Furnace

Lighting Instructions

1. **STOP!** Read the previous safety information.
2. Set the thermostat to the lowest setting. Turn off electric power to the appliance.
3. This appliance is equipped with an ignition device. **Do not try to light the burner by hand.**
4. Check the oil supply valve.
5. Turn on electric power to the appliance.
6. Set the thermostat to the desired setting.
7. The burner should light and the system should be controlled by the thermostat. If the appliance will not operate, call your service technician.

What to do if your unit is not heating properly

If your unit is operating but fails to provide complete comfort, check the following before calling for service:

1. Be sure the thermostat setting is correct.
2. Check to see if the filter is clean.
3. Be sure air can circulate freely throughout your home. Do not block supply registers or return grilles with furniture or rugs.

And if you also have cooling...

4. Keep surface of the outdoor coil free from dirt, lint, paper, or leaves.
5. Check and clean indoor coil if necessary. (This check should be made at the start of each cooling season by your service technician.)

What to do if your unit fails to operate

1. Be sure the main switch that supplies power to the unit is in the "ON" position.
2. Replace any burned-out fuses or reset circuit breakers.
3. Be sure the thermostat is properly set.
4. If the unit still does not start, call your service technician.

Temperature Control

There are many types and styles of thermostats. Yours may look different from the one pictured in Figure 1, depending on the type of thermostat and whether cooling was installed with the system. However, almost all thermostats perform the same basic functions described in the following section.

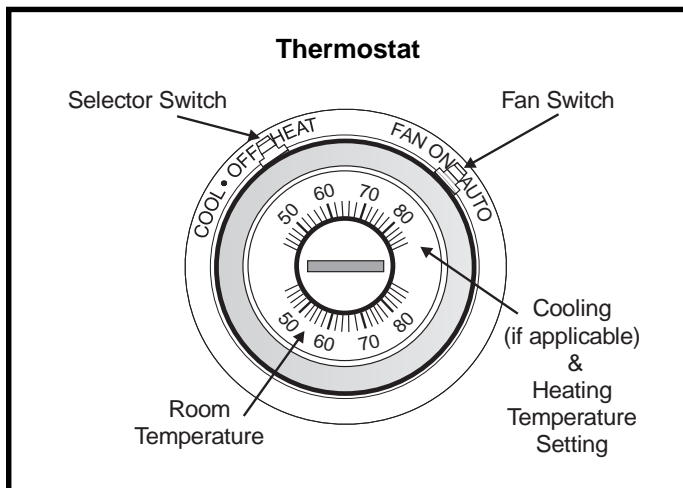


Figure 1

Thermostat Operation (when you have heating only)

The thermostat is the only control you'll need to set, as the furnace is completely automatic. Just set the temperature to the desired comfort level.

Thermostat Operation (when you have heating and cooling)

There are two switches located on the thermostat. One switch controls the heating and cooling functions. The other switch is for "FAN" operation, either continuous or automatic. On the thermostat is the temperature range for the heating temperature and the cooling temperature desired.

To put the system into operation, push the switch to either "HEAT" or "COOL" position.

After you have chosen the type of operation you desire, move the thermostat dial or lever to select the temperature you would like the system to maintain.

Fan Operation

You may wish to increase your comfort by setting your system for continuous air circulation of the indoor air. The fan switch on the thermostat permits you to do this (see Figure 1).

With the switch in the "ON" position the fan will operate continuously. "AUTO" position gives fan operation only when the unit is in either heating or cooling.

Maintenance Of Your Furnace

There are routine maintenance steps you should take to keep your unit operating efficiently. This will assure longer life, lower operating costs, and fewer service calls. The steps given in this publication are easy to follow and are not time consuming. Certain service and maintenance procedures require the skill of a trained service person who has specialized tools and training for their use. Please call your dealer for service. **Personal injury can result if you are not qualified to do this work.**

Cleaning/Replacing the Filter

⚠ WARNING

Always turn off the power to your furnace before removing the doors or filters. Failure to turn the power off could result in property damage, personal injury, or death.

It is very important to clean or replace the air filter regularly. A dirty air filter can sharply increase the operational costs of your unit...in some cases it can double the cost. **The air filter should be inspected at least every 6 weeks and cleaned or replaced as required.**

The unit may contain either a disposable filter or a permanent filter. The type of filter may be indicated on a label attached to the filter. If a disposable filter is provided, replace with the same type and size as the original filter. If a permanent filter is provided, clean filter and place back in furnace. To clean a permanent filter, shake filter to remove excess dirt and/or use a vacuum cleaner. Wash filter in soap or detergent water and replace after filter is dry.

If your air distribution system has a central return air filter-grille, you do not need a filter in your furnace. Be sure to clean the filter-grille as recommended above.

Dirty filters are the most common cause of inadequate heating or cooling performance. A clogged filter will not permit adequate

airflow. This can cause heat exchanger failure or cooling coil freeze-up along with the accompanying costly service calls.

The dealer may have changed the filter size, so the information provided in Table 1 may not apply to your installation.

Always measure the original filter and replace with the same size and type.

Factory-Supplied Filters	
Models	Size
R/LUF	16" x 25"
R/LBF, R/LBR (57/72, 84/95)	18" x 19"
R/LBF, R/LBR (112/125)	19" x 21"
R/LBR (140/168)	20-1/8" x 22-7/16"
R/LBR (168/196)	24-5/8" x 24-3/8"

Models R/LHF and R/LHR are not equipped with factory-supplied filters. The filters for these units are supplied in the field.

Table 1

Upflow Units

To replace the filter in an upflow unit, refer to the following directions and Figure 2.

Side Return

To replace the filter in a furnace with an external filter rack or cabinet on either side of the furnace cabinet:

1. Turn off the power to unit.
2. The filter(s) may be removed by sliding toward the front. Replace in a reverse procedure.

Bottom Return

To replace the filter in a furnace with a bottom return air:

1. Turn off the power to unit.
2. Remove lower front panel by lifting up and pulling out.
3. The filter(s) may be removed by sliding toward the front. Replace in a reverse procedure.

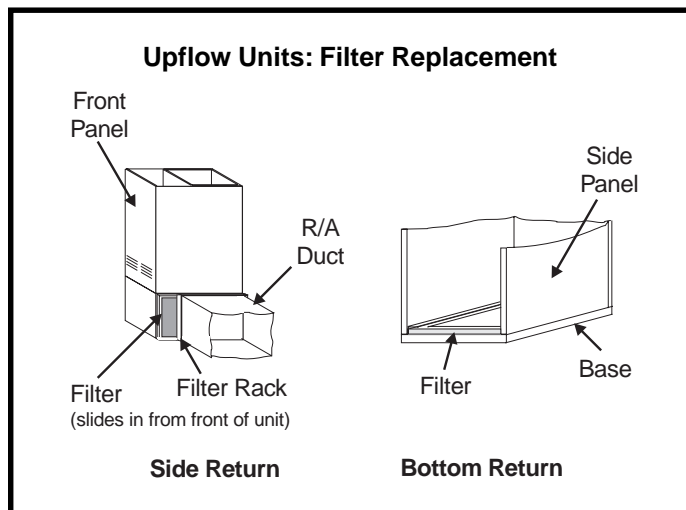


Figure 2

Basement Units

To replace the filter in a basement unit (see Figure 3):

1. Turn off power to unit.
2. Remove lower rear panel by lifting up and pulling out.
3. The filter(s) may be removed by sliding out through the rear of the furnace. To reinsert, place filter on the two filter supports and slide into unit.

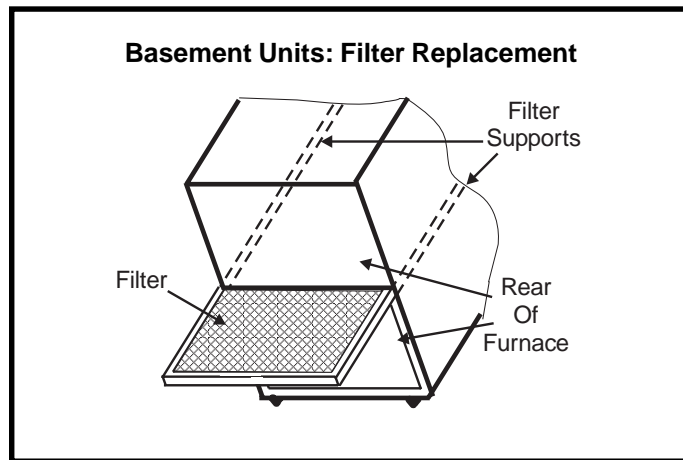


Figure 3

Restore power to the furnace after the door or panel has been replaced and check furnace for proper operation. If the unit does not operate, call your dealer for service.

Lubrication

Lubrication of the bearings in the circulating air blower motor and the combustion blower motor is not recommended.

Combustion and Ventilation Air

Adequate air must reach your furnace to provide for proper and safe operation. **Any obstruction of this airflow can cause an unsafe condition which may result in death or permanent injury. Lethal carbon monoxide gas can be produced if combustion air is restricted.**

Furnaces located in a closet, alcove, or utility room must have provision for adequate air supply by means of upper and lower grilles in the door, or by the introduction of outside air, or both. National codes and local code requirements are generally alike. However, local codes take precedence.

Venting and Furnace Support

Venting of this furnace must comply with our published instructions. If the installer has not followed these requirements, you should request the installer to comply as soon as possible.

Make sure all flue product materials external to the furnace are clear and free of any obstruction, slope upward, and have no holes or leaks.

It is important that the outside area where the vent terminates is kept clear of any obstructions which might block or impede the venting of the furnace.

Should any unusual conditions be observed during your inspections, call your authorized service dealer at once.

Return Air

Check that all return air duct connections are tight and sealed to the furnace cabinet and that all return air grilles or registers are located outside the space containing the furnace.

Limited Warranty

August 1, 1997

This warranty gives you specific legal rights and you may have other rights which vary from state/province to state/province.

Warrantor: Armstrong Air Conditioning Inc., 421 Monroe St., Bellevue, OH 44811

Armstrong Air Conditioning Inc. products are available under the following names: AirEase, Armstrong Air, American Aire, Concord

Subject to the limitations stated in this warranty, we warrant to the first buyer for use the residential heating, cooling or heat pump unit, when installed, operated and maintained as required by this warranty, to be free of defects in workmanship or material for a period of five years (one year for commercial equipment) from the time of installation. We will replace any defective component without cost or expense to you except for the costs of delivery and labor for removal and replacement of the defective component.

The R/LUF, R/LHF, R/LHR, R/LBF, AND R/LBR series furnaces carry a limited lifetime heat exchanger warranty. Limited lifetime warranty applies to the original owner in private owner-occupied residences. All other applications or when the residence is sold carry a 20-year limited warranty from date of installation, subject to proof of purchase.

Warranty Begins

The warranty period begins when the installation is complete and the product is ready to operate. You must be able to verify this date whenever a warranty claim is made. Original bill of sale, installer's invoice or other similar document will suffice. If the beginning date cannot be verified, we will consider warranty coverage to begin six months after the date the product was shipped from our factory.

Limitations on Implied Warranties

Implied warranties of merchantability or, to the extent applicable, fitness for a particular purpose are limited to five years, the same duration as the basic limited written warranty provided herein. Some states/provinces do not allow limitations on how long an implied warranty of merchantability or fitness lasts, so the above limitations or exclusions may not apply to you.

Only Warranty

This written Limited Warranty is the only warranty made by the warrantor; this warranty is in lieu of and excludes all other warranties, express or implied. The warrantor does not authorize any person to provide any other warranty or to assume for it any further obligation in connection with the warranted product.

What is NOT Covered

1. Cabinets or cabinet pieces.
2. Normal maintenance items such as filters, fan belts, fuses or other consumable items.
3. Damage caused by misuse, failure to maintain properly, accidents or acts of God.
4. External wiring, piping, venting or attachment of accessory products not integral to our product, including without limitation, humidifier, air cleaner, vent damper, thermostat or other mechanical devices not manufactured by the warrantor.
5. Products that have been operated in a corrosive atmosphere where a concentration of acids, halogenated hydrocarbons or other corrosive elements causes deterioration to metal surfaces or integral components. NOTE: Operation in a corrosive atmosphere is considered abuse and voids this warranty.
6. Products that have NOT been installed in accordance with our published installation instructions, applicable local, state/provincial or national codes, ACCA published standards.
7. Products that have NOT been installed by competent, qualified installers.
8. Products that have been moved from their original place of installation.

Warranty on Replacement Components

Any replacement component furnished by us will assume the remaining (unused) portion of the Limited Warranty.

Consequential Damages

The warrantor shall not be responsible for any consequential damages caused by any defect in the product. Some state/provinces do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

NOTE: After the first year, in the event that a gas or oil heat exchanger is no longer being manufactured by the warrantor, the warrantor will allow a credit equal to the then current wholesale price of an equivalent heat exchanger towards the purchase of a new Armstrong gas or oil furnace.

This product must be installed, used and cared for in accordance with the instruction manual. You are responsible for required periodic maintenance or service, such as changing or cleaning of air filters and lubrication or cleaning of components. Failure to properly install, operate or maintain your unit voids this warranty.

Owner Record

Model # _____ Serial # _____ Installation Date _____

INSTALLED BY:

Dealer _____

Address _____

Telephone # _____ License # _____