

Leisure Line Stove Co

620 Broad st ,Berwick PA 18603

Anthraking 110 & 220K BTU Furnace Manual

refer to markings on the appliance for additional information



SAFETY NOTICE

Please read entire manual before installing your new furnace. Failure to follow these instructions may result in property damage, bodily injury, or even death.

Contact your local building and or fire officials about restrictions and inspection and permit requirements in your area.

BURN ANTHRACITE COAL ONLY

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Parts List

1. Furnace assy w/Jackets and top 110k unit has 20"x 20" standard 220k has 20"x 25" outlet
2. Jacket filler plate for flue outlet (in Ship kit)
3. Flue outlet (110k has 6" 220K has 8") w /gasket (In ash pan)
4. Blank cover for flue outlet w/gasket (In ash pan)
5. 16-1/4-20 x 1 bolts (In ash pan)
6. Feeder Assy w/gaskets installed
7. 110kBTU furnace has a 200# hopper w/320# as option. 220kbtu comes standard with the 320# hopper
8. Blower w/ Coal Trol Thermostat and feeder motor(s) and convection blower(s)
9. High Limit
10. Ash Pan
11. Owner's Manual (in Ship kit)
12. Warranty Registration (in Ship kit)
13. Firestop ring (s) (in Ship kit)
14. Starter Bag(s) (in Ship kit)
15. Flame Diffuser (In ash pan)

Options

1. Filter box w/ filter
2. 320Lb hopper for AK110 standard on the AK220
3. Custom outlet sizes and shapes available for top
4. Custom inlet sizes and shapes available
5. Extra ash pan
6. Ash pan cover

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To ensure a safe installation, it is recommended that this furnace be installed by a qualified installer.

The sheet metal top and sides can be easily removed to reduce the chance of dents or scratches on the painted surfaces.

To remove the sheet metal, first lift off the top section. Now, the sides can be removed by lifting up and out away from the furnace

Place the furnace as close to the chimney as possible while still maintaining the proper clearances. No more than 10 feet of stovepipe should be used, including two or less 90° elbows. All horizontal runs of pipe should have a minimum 1/4 in. rise per foot. All stove pipe must be 24 gauge or thicker black or blued steel. Do not use galvanized or Aluminum pipe! A properly sized barometric damper is also needed. 6" pipe for 110kbtu furnace and 8" pipe for 220kbtu furnace. Type HT (was Class A) / or masonry chimney required for exterior pipe. If a liner is needed for a masonry chimney use an insulated or fill insulation. Should be made of Stainless Steel of at least 316 grade. It is recommended to always check with local code for proper installation.

If no chimney is available a Powervent can be used (SWG5- AF) for both 110kbtu and 220kbtu purchased from a Leisure Line Dealer make sure it is labeled for use with a Leisure Line Product. Instructions will be provided with the Powervent for install.

At least 16 inches (400 mm) in front and 8 inches (200 mm) on either side of the fuel-loading and ash-removal doors. Furnace is to be installed on non-combustible surface. Underneath the chimney connector and extending at least 2 inches (50 mm) on either side of the chimney connector. Non-combustible floor must extend to these dimensions as well.

After selecting the side for the flue, break out the perforated panel at the bottom of the jacket. Install the flue outlet and outlet blank off plate. Install the bottom jacket filler plate under the flue outlet. Re-install the sheet metal jacket by sliding the groove on the bottom of each side panel over the steel lip on the furnace. The gap around the flue outlet can be sealed with fiberglass gasketing such a rope or thick flat gasket. The top sheet metal piece holds the sides in place. Making sure the jacket insulation is properly in place.

Next install the feeder in the back of the unit, the grate(s) can be removed to make this process easier. Using the 4 bolts supplied, tighten just past snug about 80in/lbs. Next install the hopper placing the gasket(s) around hopper opening(s) of the feeder first. Use the ¼-20 bolts with the angle support.

Mount fan extension box to fan using ¼-20 bolts and nuts supplied . If you are installing the cold air return box assemble to the fan assembly now. Filter is removable by sliding it to the front or rear after removing holding tab, Select what side of the hopper you want the thermostat module mount it to the bottom of the hopper using supplied self drilling screws (The holes can be predrilled to make it easier.) keeping it about 1.5"- 2 " from back of furnace. Try to keep metal shavings from falling into module box. Feeder motor(s) and combustion blower(s) can be wired at this time using blue wire nuts supplied. Red wires are for feeder gear motor, Blue wires are for the combustion blowers. If you are wiring a 220kbtu the red w/white trace and blue w/white trace are for 2nd feeder Route the conduit neatly and out of the way. Next install the convection fan to the furnace

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using ¼-20 bolts with fender washers. Plug convection fan into control module. All plenums installed to the furnace to be constructed of metal only. The warm-air supply-duct system to be constructed of materials with a minimum temperature rating of 250°F.

Install the thermostat in the room you want the temperature to be the most consistent run the supplied thermostat cable the best route possible factory cable is 25ft optional cables can be purchased 35' 50' 75' and 100'. Or you can use cat 5 Ethernet cable make sure it is straight through configuration. See Coal-Trol user manual for further information. Or more info can be found at manufactures website. www.automationcorrect.com

Specs for AK 110

48" high x 29" wide x 51" deep

Standard hopper capacity 200# optional 320# available

Side flue 6"

Weight assembled 600# empty

Specs for AK 220

48" high x 29" wide x 58" deep

Hopper capacity 320# standard

Side Flue 8"

Weight assembled 800# empty

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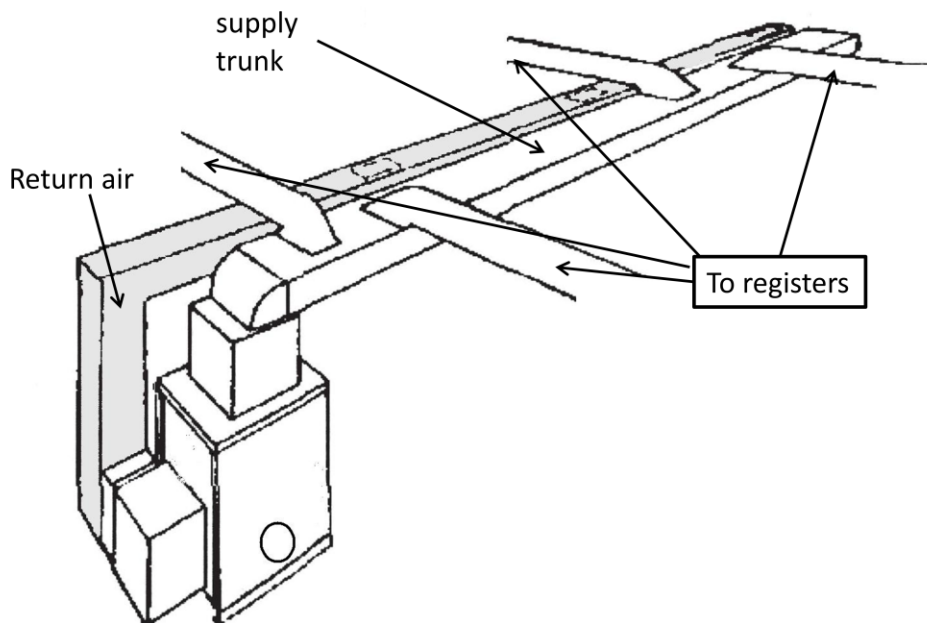
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Typical duct layout

Figure 1



This is to be used as example only, if necessary consult an HVAC professional for correct install instructions

If using the cold air return box separate instructions will be supplied with the box .

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General Operating Instructions

Lighting the furnace for the first time

Use only quality anthracite coal. Rice size is recommended, buckwheat can be substituted if rice is not available. **Do not use wood pellets or any other fuel besides Anthracite coal of proper size.**

1. **Caution there will be situations where there will be hot temperatures capable of causing severe burns. Please wear a good heavy pair of gloves when necessary. Leather welder gloves work well. Also there will be fumes and some smoke while the paint cures it should be minimal but may be necessary to open doors or windows while this happens.**
2. Set set-point temp on thermostat to 5 or 10 degrees below room temp to get the FR to 0
3. Install ashpan
4. Install firestop ring at the end of the grate
5. Place starter bag on grate
6. Put desired amount of coal in the hopper
7. Make sure to cover the starter bag with coal
8. Light starter bag, not important to get a flame just as long as it has embers.
9. Close fire door
10. Turn on switch to Coal-Trol module
11. After about 10 minutes knock starter ring into ashpan it can be removed later after it cools
12. Refer to Coal-Trol manual for further setup, now is the best time to set the Min and Max fire
13. Check the furnace to make sure things are operating as they should.
14. Check draft with draft meter. Or use instructions supplied with barometric damper if type with calibrated scale. Draft should be set to between -0.03 to -0.05 between barometric damper and unit.
15. Combustion air if found necessary to adjust is done by limiting the inlet air to the combustion blower(s). If the blower is equipped with a block off plate use it as a shutter and block off as necessary to see desired readings on the gauge. If not already equipped with a block off plate foil tape can be used as an alternative.
16. Enjoy the heat while saving money and using an American fuel burned in an American Product

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Safety Instructions and Information

Important Warning Statements

Your Stove comes with one Carbon Monoxide Detector, It is recommended that there be one outside each sleeping area and at least one per floor, read your CO manual completely before lighting stove

IMPORTANT: This carbon monoxide alarm is designed to detect carbon monoxide from ANY source of combustion. It is NOT designed to detect smoke, fire, or any other gas. **WARNING:** Carbon monoxide alarms are not smoke alarms. This carbon monoxide alarm is not a substitute for installing and maintaining an appropriate number of smoke alarms in your home. This carbon monoxide alarm will not sense smoke, fire, or any poisonous gas other than carbon monoxide even though carbon monoxide can be generated by fire. For this reason you must install smoke alarms to provide early warning of fire and to protect you and your family from fire and its related hazards. **CAUTION:** This alarm will only indicate the presence of carbon monoxide at the sensor. Carbon monoxide may be present in other areas.

General Carbon Monoxide Information

Carbon monoxide is a colorless, odorless and tasteless poison gas that can be fatal when inhaled. CO inhibits the blood's capacity to carry oxygen. Periodically review this alarm manual and discuss your CO alarm emergency procedure with all the members of your family. Never ignore a CO alarm. A true alarm is an indication of potentially dangerous levels of CO. CO alarms are designed to alert you to the presence of CO before an emergency – before most people would experience symptoms of CO poisoning, giving you time to resolve the problem calmly. Determine if anyone in the household is experiencing symptoms of CO poisoning. Many cases of reported CO poisoning indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the building or calling for assistance. Also, young children and household pets may be the first affected. You should take extra precautions to protect high-risk persons from CO exposure because they may experience ill effects from CO at levels that would not ordinarily affect a healthy adult.

Symptoms of CO Poisoning

The following common symptoms are related to CO poisoning and should be discussed with ALL members of the household.

Mild Exposure:

Slight headache, nausea, vomiting, fatigue (often described as "flu-like" symptoms).

Medium Exposure:

Severe throbbing headache, drowsiness, confusion, fast heart rate.

Extreme Exposure:

Unconsciousness, convulsions, cardio-respiratory failure, death.
If you experience even mild symptoms of CO poisoning, consult your doctor immediately!

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Warning!!

Improper installation, adjustments, alterations, service, or maintenance of your Leisure Line Stove or Power Venter can cause property damage, personal injury or loss of life.

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

Proper permits and inspections should always be obtained.

If applicable, please make sure you notify your insurance company before placing your stove into service.

Stove must be placed on a non-combustible surface.

UL ratings on all Leisure Line stoves and Power Venters are dependent on sufficient clearance as defined on the label on the rear of your stove and in this manual.

All stoves must utilize a Barometric Draft Control such as the Field Controls Type RC Barometric Damper, the weights should be adjusted to obtain a **-.03"** to **-.05"** water column negative pressure in the flue pipe at the stove outlet. Draft should be checked using a draft meter or manometer. Over fire pressure can be checked by drilling a small **¼"** hole in front of furnace usually below top hinge on bottom door. It should be **-.02** to **-.03** water column no lower than **-.01**. Combustion air is pre-determined by blower size and should be correct from the factory, if it is necessary combustion air can be reduced using a metal plate covering part of the intake side of the combustion blower. **Caution!!** Do not increase blower size for increased firing for any reason

Utilize a magnetic thermometer to ensure that stove body temperature does not exceed **500* F.**

If fans are installed in the storage area they should not create negative pressures in the room where the solid fuel-burning appliance is located.

Outside combustion air may be necessary if:

1. The solid-fuel-fired appliance does not draw steadily, smell, experiences smoke roll-out, burns poorly, or back-drafts whether or not there is combustion present.
2. Any of the above symptoms are alleviated by opening a window slightly on a calm day.
3. The house is equipped with a well-sealed vapor barrier and tight fitting windows and/or has any powered devices which exhaust house air.
4. There is excessive condensation on windows in the winter.
5. A ventilation system is installed in the house.

There are kits available from many suppliers run duct from outside air source as close to combustion blowers as possible. Kits are available from most hearth shops and HVAC companies.

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."

Inspect flue pipes, Joints and seals regularly to ensure flue gases are not drawing into and circulated by the air circulation system .

Cleaning of the heat exchanger, flue pipe, and chimney / powervent system must be done at the end of every season to prevent corrosion during the summer months caused by accumulated ash.

Because of this product being new you are welcome to call us directly with any questions, or concerns 570-752-1811

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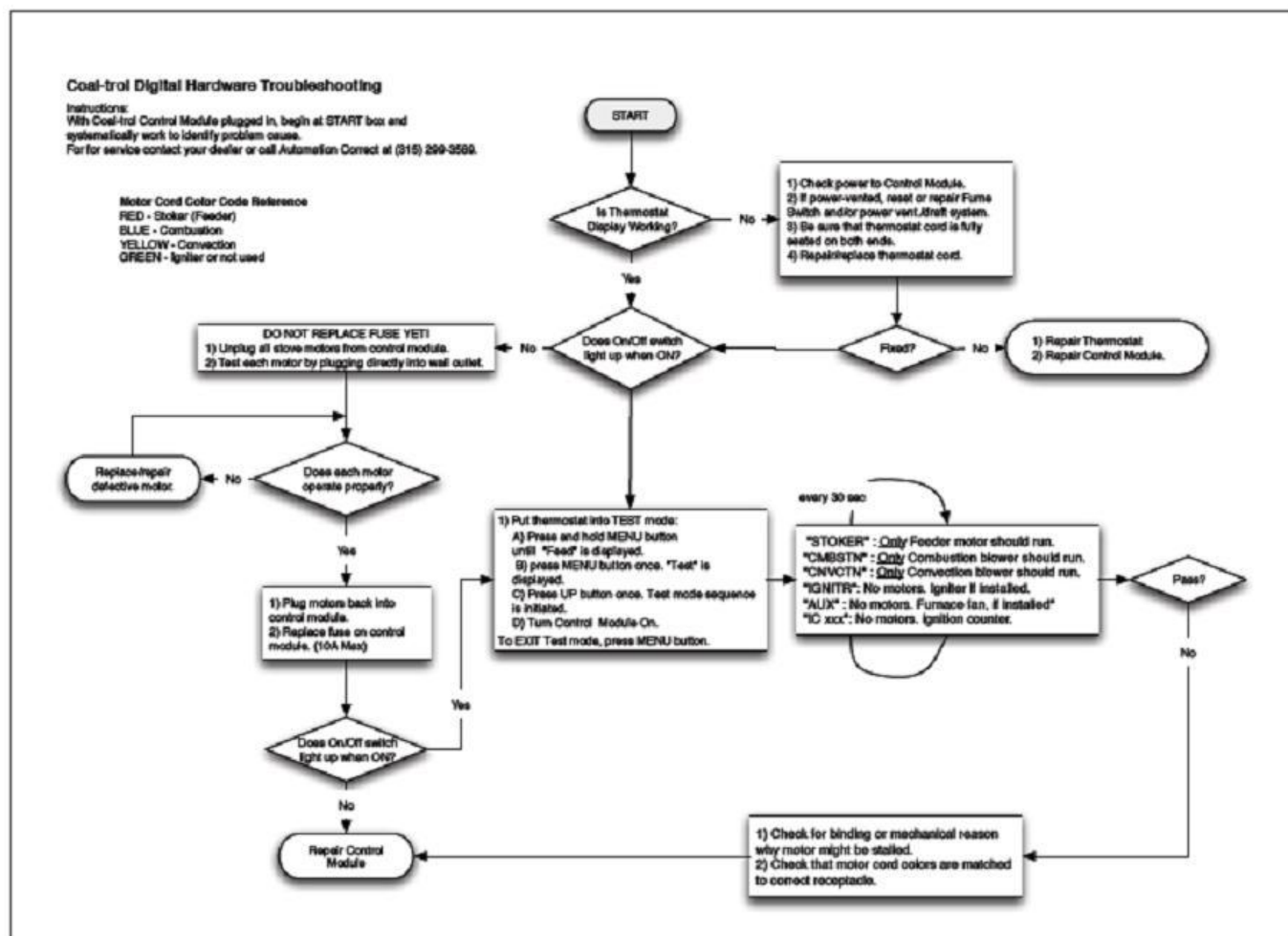
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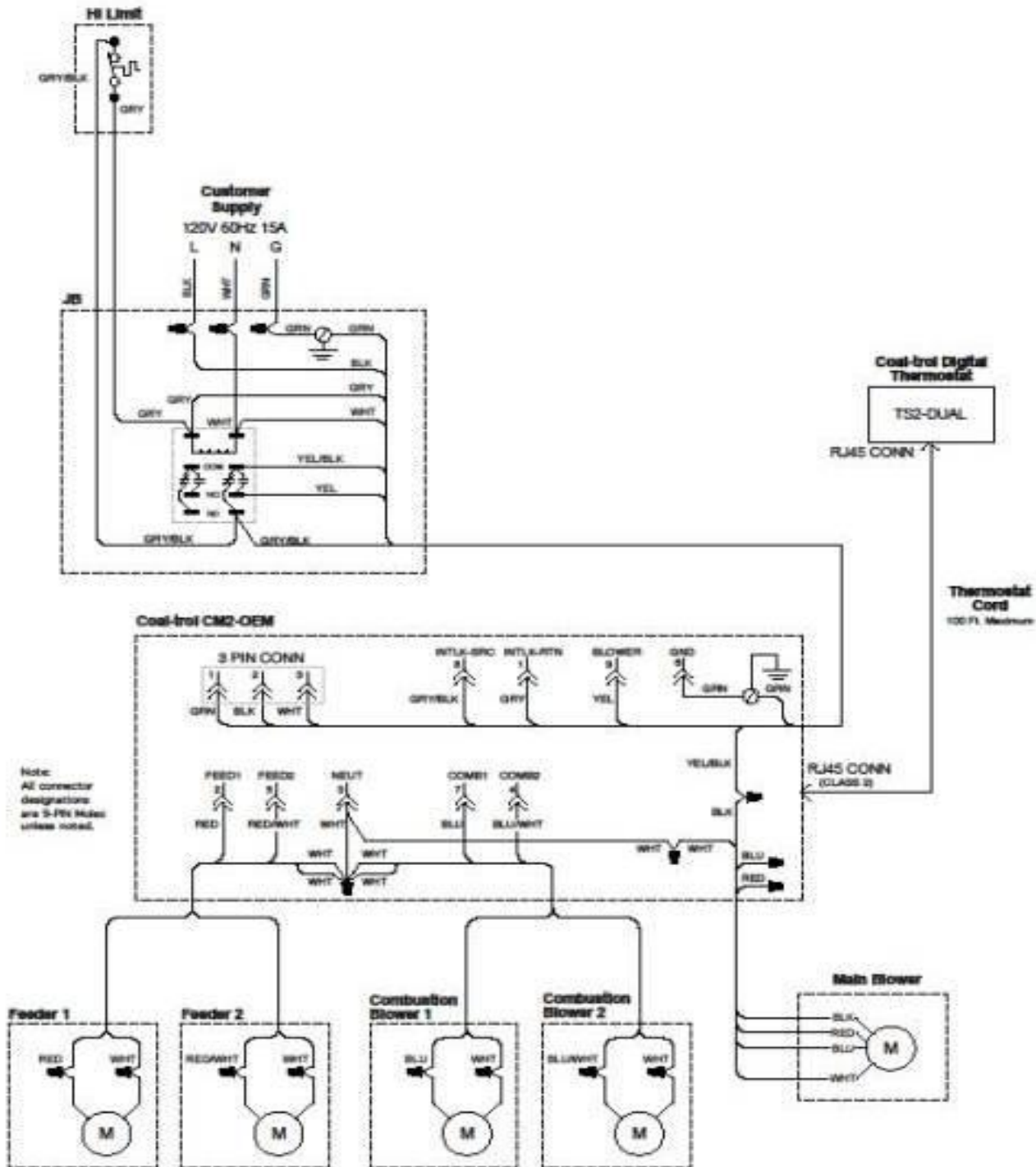
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