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.

- 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.
  • 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.

AVERTISSEMENT. Assurez-vous de bien suivre les instructions données dans cette notice pour réduire au minimum le risque d'incendie ou d'explosion ou pour éviter tout dommage matériel, toute blessure ou la mort.

- Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

- QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:
  • Ne pas tenter d'allumer d'appareils.
  • Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones dans le bâtiment où vous vous trouvez.
  • Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
  • Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.

- L'installation et l'entretien doivent être assurés par un installateur ou un service d'entretien qualifié ou par le fournisseur de gaz.
Important Product Safety Information
Refractory Ceramic Fiber Product

Warning:
The Repair Parts list designates parts that contain refractory ceramic fibers (RCF). RCF has been classified as a possible human carcinogen. When exposed to temperatures about 1805°F, such as during direct flame contact, RCF changes into crystalline silica, a known carcinogen. When disturbed as a result of servicing or repair, these substances become airborne and, if inhaled, may be hazardous to your health.

AVOID Breathing Fiber Particulates and Dust

Precautionary Measures:
Do not remove or replace RCF parts or attempt any service or repair work involving RCF without wearing the following protective gear:

1. A National Institute for Occupational Safety and Health (NIOSH) approved respirator
2. Long sleeved, loose fitting clothing
3. Gloves
4. Eye Protection

• Take steps to assure adequate ventilation.
• Wash all exposed body areas gently with soap and water after contact.
• Wash work clothes separately from other laundry and rinse washing machine after use to avoid contaminating other clothes.
• Discard used RCF components by sealing in an airtight plastic bag. RCF and crystalline silica are not classified as hazardous wastes in the United States and Canada.

First Aid Procedures:
• If contact with eyes: Flush with water for at least 15 minutes. Seek immediate medical attention if irritation persists.
• If contact with skin: Wash affected area gently with soap and water. Seek immediate medical attention if irritation persists.
• If breathing difficulty develops: Leave the area and move to a location with clean fresh air. Seek immediate medical attention if breathing difficulties persist.
• Ingestion: Do not induce vomiting. Drink plenty of water. Seek immediate medical attention.
A. General This boiler is equipped with controls for proper operation. All controls must be in proper working order. Contact a qualified service agency to provide annual maintenance as specified in the Installation, Operating and Service Instructions.

1. Limit A device which automatically interrupts boiler operation when the steam pressure exceeds the set point. See Figure 1. Maximum allowable pressure is 15 psi. Steam pressure can be read on the Pressure Gauge.

2. Low Water Cutoff A device which automatically interrupts boiler operation when the surface of the boiler water falls to the lowest permissible operating level. See Figure 1. The lowest permissible operating level is indicated on a plate adjacent to the gauge glass. The low water cutoff automatically resets when water returns to its normal level. Boiler operation resumes with a call for heat.

3. Blocked Vent Switch See Figure 7. A device which automatically interrupts boiler operation when excessive vent system blockage occurs. Do not attempt to place boiler in operation if control was activated to interrupt boiler operation. Contact a qualified service agency.

CAUTION
Do not reset Blocked Vent Switch unless a qualified service agency has determined and corrected the cause of any blockage in the vent system or chimney.
4. **Flame Rollout Switch** See Figure 2. A device which automatically interrupts boiler operation when flames or excessive heat are present in the vestibule. The control is a single use device. Do not attempt to place boiler in operation if control was activated to interrupt boiler operation. Contact a qualified service agency.

5. **Intermittent Ignition System** See Figure 1. The Electronic Ignition (EI) System consists of:
   a. an ignition module to initiate, monitor and stop burner operation.
   b. a combination gas valve to regulate gas flow to burners.
   c. a pilot burner to provide the ignition source for main burners.

6. **Continuous Ignition System (Standing Pilot)** See Figure 1. The Continuous Ignition System consists of:
   a. a combination gas valve to regulate gas flow to burners.
   b. a constant burning pilot burner to provide the ignition source for main burners.
   c. a thermocouple to sense pilot burner flame and cause combination gas valve to turn off main burner and pilot burner gas flow should pilot burner flame extinguish.

B. **Instructions** to place boiler in operation and to turn off boiler are shown on the Lighting or Operating Instruction label posted on the inside of the front removable door. See Figure 3 for front door removal instructions. The Lighting/Operating Instructions are also shown in Figures 4, 5 and 6. The boiler model number is printed on the rating label (see Figure 1).
A. This appliance 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.
- If you cannot reach your gas supplier, call the fire department.

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not 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/INSTRUCTIONS DE FONCTIONNEMENT

1. STOP! Read safety information above (to the left) on this label.
2. Set the thermostat to lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
5. Remove front door.
6. Locate the gas control valve at the end of the gas supply pipe going into the boiler. The gas control is the brown or blue plastic knob located on top of the gas control valve.
7. Rotate gas control knob clockwise from "ON" position to "OFF". Make sure knob rests against stop. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "9" in the safety information above (to the left) on this label. If you don’t smell gas, go to the next step.
8. Rotate gas control knob counterclockwise from "OFF" to "ON". Make sure knob rests against stop. Do not force.
9. Replace front door.
10. Turn on all electric power to the appliance.
11. Set the thermostat to the desired setting.
12. Follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE/COMMENT COUPER L'ADMISSION DE GAZ DE L'APPAREIL

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove front door.
4. Rotate gas control knob clockwise from "ON" position to "OFF". Make sure knob rests against stop.
5. Replace front door.

A. Cet appareil est muni d’un dispositif d’allumage qui allume automatiquement la veilleuse. Ne tentez pas d’allumer la veilleuse manuellement.
B. AVANT DE FAIRE FONCTIONNER, reniflez tout autour de l’appareil pour déceler une odeur de gaz. Reniflez près du plancher, car certaines gaz sont plus lourds que l’air et peuvent s’accumuler au niveau du sol.

QUE FAIRE SI VOUS SENTIEZ UNE ODEUR DE GAZ:
- Ne pas tenter d’allumer l’appareil.
- Ne touchez à aucun interrupteur ; ne pas vous servir des téléphones se trouvant dans le bâtiment.
- Appelez immédiatement votre fournisseur de gaz depuis voisin. Suivez les instructions du fournisseur.
- Si vous ne pouvez joindre le fournisseur, appelez le service des incendies.
C. Ne pouvez ou tournez la manette d’admission du gaz qu’à la main ; ne jamais utiliser d’outil. Si la manette reste coincée, ne pas tenter de la réparer ; appelez un technicien qualifié. Le fait de forcer la manette ou de la réparer peut décélérer une explosion ou un incendie.
D. N’utilisez pas cet appareil s’il a été plongé dans l’eau, même partiellement. Faîtes inspecter l’appareil par un technicien qualifié et replacez toute partie du système de contrôle et toute commande qui ont été plongées dans l’eau.

Figure 4: Operating Instructions, Intermittent Ignition System, VR8204 and VR8304 (except Model IN12) Gas Valves
A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, 
follow these instructions exactly.

B. BEFORE LIGHTING: Smell 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.
- If you cannot reach your gas supplier, call the fire department.

C. Use only 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, do not 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.

LIGHTING INSTRUCTIONS/INSTRUCTIONS D’ALLUMAGE

1. STOP! Read the safety information above on this label.
2. Set thermostat to lowest setting.
3. Turn off all electrical power to the appliance.
4. Remove front door.
5. Locate gas control valve at end of gas 
supply pipe going into boiler. Gas 
control knob is the gray or brown 
plastic knob located on top of gas control valve.
6. Push in gas control knob slightly and turn clockwise 
to “OFF”. NOTE: Knob cannot be turned from “PILOTE” to “OFF
unless knob is pushed in slightly. Do not force.
7. Wait five (5) minutes to 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 do not smell gas, go to next step. NOTE: Vent damper must 
be open during full five (5) minute waiting period.
8. Remove burner access panel.
9. Find pilot by following aluminum 
tube from gas control valve to pilot located 
behind the front burner.
10. Turn gas control knob counterclockwise 
to “PILOTE” position.
11. Push in control knob all the way and hold in. Immediately light pilot with 
match. Continue to hold control knob for about one (1) minute after pilot is lit.
Release knob and it will pop back up. Pilot should remain lit. If it goes out, 
repeat steps 6-11.
- If knob does not pop up when released, stop and 
immediately call your service technician or gas supplier.
- If the knob will not stay lit after several tries, turn gas 
control knob to “OFF” and call your service technician or gas supplier.
12. Replace burner access panel.
13. Turn gas control knob counterclockwise 
to “ON” position.
14. Replace front door.
15. Turn on all electrical power to the appliance.
16. Set thermostat to desired setting.

TO TURN OFF GAS TO APPLIANCE/COMMENT COUPER L’ADMISSION DE GAZ DE L’APPAREIL

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove front door.
5. Replace front door.

Figure 5: Lighting Instructions, Continuous Ignition System, 7000 ERHC Gas Valve
Figure 6: Operating Instructions, Intermittent Ignition System, VR8304 Gas Valves (Model IN12 Only)

OPERATING INSTRUCTIONS/INSTRUCTIONS DE MISE EN MARCHE

1. STOP! Read safety information above on this label.
2. Turn off all electric power to the appliance.
3. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
4. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don’t smell gas, go to the next step.
5. Turn off front door.
6. Rotate handle on manual shut-off valve-clockwise from "OFF" position to "ON" position.
7. Turn off both gas control valves at end of gas supply pipe going into boiler.
8. Rotate gas control knob on BOTH gas valves clockwise from "OFF" position to "ON" position.
9. Wait five (5) minutes to clear out any gas. Then smell for gas near the floor.
10. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don’t smell gas, go to the next step.
11. Turn on all electric power to the appliance.
12. Set thermostat to desired setting.
13. 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/COMMENT COUPER L’ADMISSION DE GAZ DE L’APPAREIL

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove front door.
4. Rotate handle on manual shut-off valve-clockwise from "OFF" position to "ON" position. Rotate gas control knob on BOTH gas valves clockwise from "OFF" position to "ON" position.
5. Replace front door.

1. ARRÊTEZ ! Lisez les instructions de sécurité sur la portion supérieure de cette étiquette.
2. Réglez le thermostat à la température la plus basse.
4. Cet appareil est muni d’un dispositif d’allumage qui allume automatiquement la veilleuse. Ne tentez pas d’allumer la veilleuse manuellement.
5. Enlevez la porte de devant.
6. Placer le robinet d’arrêt et les deux valves de contrôle de gaz à la fin de le tuyau d’alimentation de gaz entrant dans la chaudière.
7. Tournez la poignée manuelle robinet sens horaire de ON position à OFF position.
8. Tournez le bouton de commande de gaz sur les deux robinets de gaz sens horaire de ON position à OFF position.
9. Attendre cinq (5) minutes pour laisser échapper tout le gaz. Répétition tout autour de l’appareil, y compris près du plancher, pour déceler une odeur de gaz. Si vous sentez une odeur de gaz, ARRÊTEZ ! Passez à l’étape 8 des instructions de sécurité sur la portion supérieure de cette étiquette. Si n’y a pas d’odeur de gaz, passez à l’étape suivante.
10. Tournez le bouton de commande de gaz sur les deux robinets de gaz sens antihoraire de OFF position à ON position. Ne Forcez pas.
11. Tournez la manivelle sur manuel robinet sens antihoraire de OFF position à ON position.
12. Replacez la porte de devant.
14. Réglez le thermostat à la température désirée.
15. Si l’appareil ne se met pas en marche, suivez les instructions initiales « Comment couper l’admission de gaz de l’appareil » et appelez un technicien qualifié ou le fournisseur de gaz.
User Maintenance

WARNING

Service on this boiler should be undertaken only by trained and skilled personnel from a qualified service agency. Inspections should be performed at intervals specified in Installation, Operating and Service Instructions and this manual. Maintain manuals in a legible condition.

Keep boiler area clear and free of combustible materials, gasoline and other flammable vapors and liquids.

Do not place any obstructions in boiler room that will hinder flow of combustion and ventilation air.

A. General Housekeeping (Continuous)
   1. Keep boiler area clear and free of combustible materials and obstructions to the free flow of combustion and ventilation air to the boiler.
   2. Do not store or use gasoline or other flammable vapors or liquids in the vicinity of the boiler or any other appliance.
   3. Do not store or use sources of hydrocarbons in the vicinity of the boiler. Sources of hydrocarbons include bleaches, cleaners, chemicals, sprays, paint removers, fabric softeners, cat litter and refrigerants.

B. Flush Low Water Cutoff (Weekly, or more frequently if needed).
   Applicable to McDonnell & Miller 67 float low water cutoff only. Follow instructions on Blow-Down Card affixed to Jacket adjacent to low water cutoff.

C. Inspect Vent System (Monthly). See Figure 7. Follow instructions TO TURN OFF GAS TO APPLIANCE (see Figure 4, 5 or 6) and contact a qualified service agency if any of the following conditions are found:
   1. Collapsed vent pipe
   2.Disconnected or loose joints
   3. Sags in horizontal runs
   4. Corrosion or other deterioration
   5. Broken or loose supports
   6. Blocked vent switch not attached to draft hood.

D. Inspect Pilot and Main Burner Flame (Monthly).
   1. Adjust thermostat to lowest setting.
   2. Remove front removable panel. See Figure 3.
   3. Locate Pilot Observation Port. See Figure 2.
   4. Check pilot burner flame.
      a. Intermittent Ignition (EI), see Figure 9. The pilot burner produces three (3) flames. The center flame should be steady, medium hard blue enveloping 3/8 to ½ inch of sensing probe. If flames are yellow and lazy, follow instructions TO TURN OFF GAS TO APPLIANCE (see Figure 4 for Models IN3I through IN11 or Figure 6 for Model IN12) and contact a qualified service agency.
      b. Continuous Ignition (Standing Pilot), Models IN10 - IN12. See Figure 8. Pilot burner produces three (3) flames. The center flame should be steady, medium hard blue enveloping 3/8 to ½ inch of thermocouple. If flames are yellow and lazy, follow instructions TO TURN OFF GAS TO APPLIANCE (see Figure 5) and contact a qualified service agency.
   5. Adjust thermostat to highest setting.
   6. Check main burner flames. See Figure 10 or 11. Flame should have clearly defined inner cones with no yellow tipping. Orange-yellow streaks caused by dust should not be confused with true yellow tipping. If yellow flames are observed, follow instructions TO TURN OFF GAS TO APPLIANCE (see Figure 4, 5 or 6) and contact a qualified service agency.
   7. Adjust thermostat to normal setting.

Figure 7: Typical Vent System Installation
E. Schedule Inspection by Qualified Service Agency (Annual or at Beginning of Heating Season). For continued safe operation a qualified service agency must provide a more detailed inspection of burners, heat exchanger and vent system, and provide maintenance as specified in Installation, Operating and Service Instructions.

NOTICE
This boiler contains controls which may cause the boiler to shut down and not restart without service. If damage due to frozen pipes is a possibility, the heating system should not be left unattended in cold weather; or appropriate safeguards and alarms should be installed on the heating system to prevent damage if the boiler is inoperative.

All Independence® Series Repair Parts may be obtained through your local U.S. Boiler wholesale distributor. Should you require assistance in locating a U.S. Boiler distributor in your area, or have questions regarding the availability of U.S. Boiler products or repair parts, please contact U.S. Boiler Company Customer Service at (717) 481-8400 or Fax (717) 481-8408.