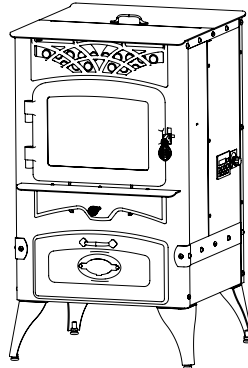




MULTI FUEL PARLOR STOVE

OPERATOR'S MANUAL
Installation and Operation



MF3500G Gold Trim
MF3500S Silver Trim
MF3500B Black

CumberlandStoveWorks.com

CAUTION



SAVE THESE INSTRUCTIONS

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.



WARNING



Please read this entire manual before installation and use of this pellet fuel-burning room heater. Failure to follow these instructions could result in property damage, bodily injury or even death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Do not overfire - If any external part starts to glow, you are overfiring. Reduce feed rate. Overfiring will void the warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause a house fire.

WARNING



HOT! DO NOT TOUCH. SEVERE BURNS MAY RESULT. CLOTHING IGNITION MAY RESULT.



Glass and other surfaces are hot during operation and cool down.

- Keep children away.
- CAREFULLY SUPERVISE children in same room as appliance.
- Alert children and adults to hazards of high temperatures.
- DO NOT operate with protective barriers open or removed.
- Keep clothing, furniture, draperies and other combustibles away.

CAUTION

Tested and approved for shelled field corn and approved pellets. See list of approved fuel pellets. Burning of any other type of fuel voids the warranty.

CAUTION

Check building codes prior to installation.

- Installation **MUST** comply with local, regional, state and national codes and regulations.
- Consult local building or fire officials about restrictions and installation inspection requirements in your area.



OMMF3500
Rev. Date 8/2/07
© Copyright 2007 Ardisam, Inc.
All Rights Reserved. Printed in USA.



TABLE OF CONTENTS

Warranty2

Registration, Service & Maintenance Log3

Warnings & Cautions.....4

 Automatic Safety Features.....5

Introduction.....6

 Burning Solid Fuels6

Specifications8

Unpacking & Assembly.....9

Installation11

 Stove Placement.....11

 Floor Protection Requirements.....11

 Clearance to Combustibles.....12

 Outside Air Connection.....13

 Mobile Home.....13

Venting.....14

 Type of Vent14

 Pellet Vent Installation.....14

 Vent Termination Clearances.....15

 Venting Installation Examples.....15

Operating Instructions16

 Understanding the TRI-X Controller16

 Understanding the Normal Heat Screens.....17

 Startup Sequence of Events.....19

 Shutdown Sequence of Events.....19

 Lighting The Stove20

 Turning the Stove Off21

Normal Care & Maintenance22

Troubleshooting & Repair24

 Ordering Repair Parts.....24

 Troubleshooting Guide.....25

 Understanding the Fault Screens27

Parts28

Wiring Diagram.....35



WARRANTY

LIMITED LIFETIME WARRANTY

Ardisam, Inc., a Manufacturing Company warrants this Cumberland Stove Works Multi-Fuel Parlor Stove to be free from defects in the material or workmanship. For the lifetime of the product, Ardisam will furnish 100% parts and labor to correct any defect caused by faulty material or workmanship. For other warranty repairs, please read the three year warranty listed below. **All repairs made under warranty must have prior approval from Ardisam, Inc. by calling our customer service department at 800-345-6007.**

THREE YEAR WARRANTY

All electrical components such as but not limited to blowers, wiring, vacuum switches, speed controls, control boxes, switches, pilot assembly, valves, thermostats and igniters are covered under Ardisam, Inc.'s three-year warranty program. Our fire pots and labor are also covered under the three year warranty.

THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS – REPAIR AND/OR REPLACEMENT AT ARDISAM, INC.'S OPTION AND EXCLUDES ANY INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH.

This warranty is not transferable and supersedes all other warranties either expressed or implied and all other obligations to liabilities on our part. Ardisam, Inc. does not assume, and does not authorize any other person to assume for us, any liability in connection with the sale of our products. The warranty applies only to products which have not been subjected to negligent use, misuse, alteration, accident or repairs made by anyone not certified by Cumberland Stove Works. This guarantee is void unless the warranty card is properly filled out and returned to Ardisam, Inc., Cumberland, WI, at the time of purchase.



Cumberland Stove Works, A Division of Ardisam, Inc.
1690 Elm Street; P.O. Box 666
Cumberland, Wisconsin 54829
800-345-6007 · Fax (715) 822-2223
E-mail: info@ardisam.com



REGISTRATION, SERVICE AND MAINTENANCE LOG

Record the model number and serial number in the space provided for easy reference. Fill out and mail the registration card located in the parts packet. Warranty is valid only if the completed registration card is received by Ardisam, Inc. within 30 days of purchase.

OWNERSHIP RECORDS		
Dealer's Name:		
Dealer's Address:		
City:	State/Province:	Zip Code/Postal Code:
Model Number:	Serial Number:	
Date of Purchase:		
Notes:		

SERVICE DATE	SERVICE TECHNICIAN	SERVICE DESCRIPTION

WARNINGS AND CAUTIONS

WARNING

INDICATES A HAZARD WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY AND/OR PROPERTY DAMAGE.

- Read this entire manual before you install and use your new parlor stove. Failure to follow instructions may result in property damage, bodily injury, or even death.
- Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid bumps to skin and/or clothing.
- Young children should be carefully supervised when they are in the same room as the stove.
- Clothing and other flammable materials should not be placed on or near this unit.
- Flammable or explosive liquids such as gasoline, naphtha, alcohol, or engine oil must **NEVER** be used in or around stove. These liquids must be stored in a separate room as the open flame in the burner chamber could ignite the fumes of such liquids.
- DO NOT** burn garbage in this unit. The burning of other solid fuels such as cord wood or wood chips in this stove is not permitted. Any fuels not certified by Cumberland Stove Works which are burned in this stove will void the warranty.
- DO NOT** route power cord in high traffic areas. A power surge protector plugged into a grounded 110 volt power source is required.
- DO NOT** install a flue damper in the exhaust venting system of this unit.
- DO NOT** connect this unit to a chimney flue servicing another appliance.
- DO NOT** install in a sleeping room.
- DO NOT** connect to any air distribution duct or system.
- DO NOT** connect directly to a masonry chimney.
- DO NOT** terminate vent in any enclosed or semi-enclosed area, such as; carports, garage, attic, crawl space, under a sun deck or porch, narrow walkway or closed area, or any location that can build up a concentration of fumes such as a stairwell, covered breezeway etc.

CAUTION

INDICATES A HAZARD WHICH, IF NOT AVOIDED, MIGHT RESULT IN MINOR OR MODERATE INJURY AND PROPERTY DAMAGE.

- Proper installation of this stove is necessary for safe and efficient operation. Installing this product improperly may result in a house fire and personal injury. All applicable building codes for your location must be followed. In areas where building codes require additional steps to the installation of this product not included in this manual, the building codes will take precedent and must be followed. Contact your local building inspector to obtain any necessary permits or inspection guidelines before installing the product.
- Contact local building or fire officials about restrictions and installation inspection requirements in your area.
- Contact your local authority (such as municipal building department, fire department, fire prevention bureau, etc.) to determine the need for a permit.
- The Cumberland Stove Works parlor stove is designed to burn dry shelled field corn, approved pelletized fuel such as wood pellets and sunflower pellets.
- A working smoke detector is required and must be installed in the same room as the stove.
- This stove is not intended for use in commercial applications.
- Door and ash pan must be closed and latched during operation.
- Notify your insurance company of parlor stove installation.
- This installation must conform with local codes. In the absence of local codes you must comply with ASTM E1509, (UM) 84-HUD, ULC/ORDC-1482.
- The structural integrity of the manufactured home floor, wall, and ceiling/roof must be maintained.
- Keep combustible materials (such as grass, leaves, etc.) at least 3 feet away from the flue outlet on the outside of the building.
- This stove should not be used as the only source of heat in the house. Power outages and periodic maintenance will result in a total loss of heat.

CAUTION

- Installation and repair of this parlor stove should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. It is imperative that control compartments, burners, and circulating air passageways of the stove be kept clean.
- The operation of exhaust fans such as bathroom fans, attic fans, etc. might starve the parlor stove of combustible air creating a negative pressure in the room. Provide adequate ventilation of the room accompanying the parlor stove. If not, the pressure switch may shut off operation of the parlor stove.
- The moving parts of this stove are propelled by high torque electric motors. These parts can cause severe damage to body parts that get near them. Keep all body parts away from auger and fans while the stove is plugged into an electrical outlet. These moving parts may begin to move at any time the stove is plugged in.
- If the electrical power fails any time when the stove is hot, keep the door closed at all times to prevent harmful gases from entering the room.
- Vent surfaces can get hot enough to cause burns if touched by children. Noncombustible shielding or guards may be required.
- Install vent at clearances specified by the vent manufacturer.
- All venting, whether vertical or horizontal, joints should be made gas tight with recommended sealants.
- According to HUD (Housing & Urban Development) requirements, when installed in a mobile home, this stove must be grounded directly to the steel chassis of the mobile home and bolted to the floor. Direct air access must be provided, use a Fresh Air Kit.
- For use in the United States. Suitable for installation in mobile homes.
- Cumberland Stove Works, manufacturer of this appliance, reserves the right to alter its products, specifications and/or price without notice.

WARNING

IF THE ELECTRICAL POWER FAILS ANY TIME WHEN THE STOVE IS HOT, KEEP THE DOOR CLOSED AT ALL TIMES TO PREVENT HARMFUL GASES FROM ENTERING THE ROOM.

THESE AUTOMATIC SAFETY FEATURES MUST NOT BE BYPASSED.

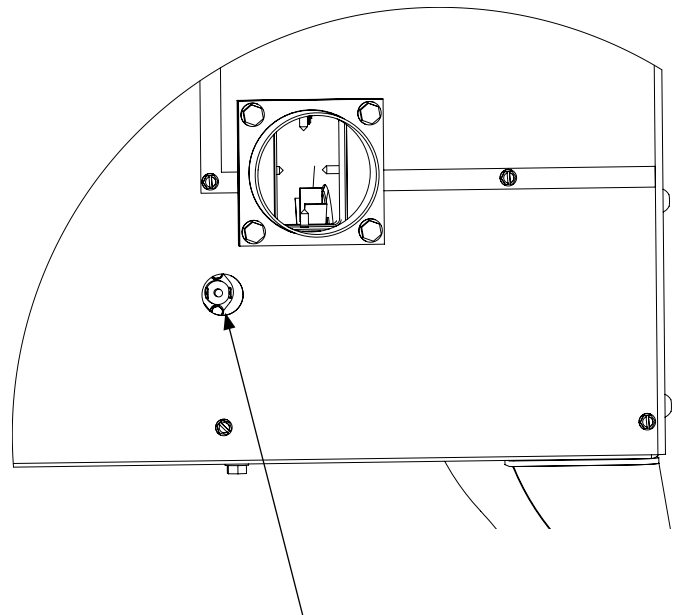
AUTOMATIC SAFETY FEATURES

POWER OUTAGE

During a power outage, the stove will shutdown safely. It will not automatically restart when the power returns. If the stove is still above the proper operating temperature, the room fan will circulate the remaining heat in the stove. See Lighting Instructions.

OVERHEATING

Over Fire Protection: If the stove is being over fired or burning too hot, a high temperature switch will automatically shutdown to avoid damage to components. Allow stove to cool at least one hour before relighting. Reset overtemp button and relight stove. See Lighting Instructions for complete instructions.



Overtemp Reset Hole in Back Panel



INTRODUCTION

Thank you for purchasing a Cumberland Stove Works Multi Fuel Parlor Stove from Ardisam, Inc. We have worked to ensure that the multi fuel burning stove meets high standards for usability and durability. With proper care, your stove will provide many years of service. Please read this entire manual before installation and use. Congratulations on your investment in quality.

BURNING SOLID FUELS

Ashes need to be removed from the stove periodically. See Normal Care & Maintenance section for cleaning procedure.

The parlor stove, due to the nature of solid fuels, will require brief periodic attention. A few moments of adjustment and cleaning from time to time is an important part of burning solid fuels, due to the vast differences in fuel, humidity and outside temperature.

The parlor stove has been designed to burn dry shelled corn, pelletized fuel such as wood pellets and sunflower pellets that meet Association of Pellet Fuel Industries (A.P.F.I.) standards.

There are two pellet types currently approved for the Cumberland Stove. They are dried corn and pelletized wood. These two types are divided into three pellet type selections. They are corn seed and press wood and Natural Wood. The feed rates (auger ON/OFF) for each of these three selections are programmed in 0.001 second (1ms) intervals. The fuel map uses a set of equations that allow pellets to fall into the burn pot and be consumed by the fire at a 99% burning efficiency. The general guideline for pot loading is: The auger increases the pot fill in a nonlinear relationship to the pot consume number. This indirect relationship uses a set of heat transfer equations to vary this rate from 7.01 to 23.60 grams every cycle.

SHELLED CORN

Dry, shelled corn, preferably with 11-14% moisture content.

- **Corn should contain less than 14% moisture content.** Wet corn will rapidly deteriorate stove components, reduce efficiency and void all warranties. Purchase a moisture tester if in doubt.
- Corn must be clean and free from debris. Never burn corn right from the field. Damage caused by dirty corn is not covered by the product warranty. **Ask for clean filtered corn only.** Stalk parts, excessive fines and cob remnants will clog the auger. Check the corn for foreign objects.
- Store the corn supply in a dry place and keep bags or container sealed to prevent it from absorbing excess

WARNING

NEVER BURN SEED CORN IN THE STOVE. SEED CORN IS TREATED WITH CHEMICAL PESTICIDES THAT ARE HARMFUL OR FATAL IF SWALLOWED, SEED CORN IS DANGEROUS TO HAVE IN THE HOUSE, ESPECIALLY WHERE CHILDREN CAN REACH IT.

NEVER BURN "DEER CORN". IT FREQUENTLY CONTAINS MOLASSES SUGARS.

NEVER BURN CORN WITH A HIGH WAX CONTENT.

DO NOT PLACE SUCH ITEMS AS START PELLETS OR BURN GEL FUELS WITHIN THE PARLOR STOVE INSTALLATION CLEARANCES OR WITHIN THE SPACE REQUIRED FOR LIGHTING AND ASH REMOVAL.

CAUTION

BURNING ONLY THE RECOMMENDED 11-14% MOISTURE CONTENT CORN WILL ASSURE LONGER STOVE LIFE AND LESS FREQUENT CLEANING.

BURNING WOOD PELLETS ACCORDING TO RECOMMENDATIONS WILL ASSURE LONGER STOVE LIFE AND LESS FREQUENT CLEANING.

THE USE OF GRATES OR OTHER METHODS OF SUPPORTING THE FUEL IS NOT AUTHORIZED IN THIS PARLOR STOVE.



moisture. Test the moisture content periodically to ensure the proper dryness.

- There are many varieties of corn grown around the world. Each variety has unique characteristics including the shape and size of the kernel. The stove will burn more consistently with a small to midsize kernel corn. If the kernel size of the corn varies greatly or if you switch sources frequently, you will get a less consistent burn. Therefore, purchasing corn from the same source will help achieve a more consistent burn.

WOOD PELLETS

- As with corn, find a consistent pellet supplier. Pellets will vary in content and burn characteristics from supplier to supplier. A consistent supply of pellets will result in a more consistent and efficient burn.
- Check the pellets for foreign objects. The stove warranty will not cover damage done to the stove due to foreign objects in the fuel supply.
- Store the pellets in a dry place to prevent them from absorbing added moisture.
- To decrease sawdust buildup, the hopper will need to be vacuumed out after every 6-8 bags of wood pellets or more often if the pellets are poor quality. You may have to screen each bag of pellets if sawdust becomes a problem.
- The **press wood pellet** is generally produced out of wood waste such as sawdust and shavings. The raw material is dried, mechanically fractioned to size and extruded under intense pressure into pellets. In the process the raw material is compressed approximately 3.7 times. High quality wood pellets have a moisture content of 3 to 7% and are hydrophilic. The shiny surface of the pellet is caused by partial plasticizing of the lignin in the wood due to high pressure and the evaporation of the water soluble compounds during the production process. The surface protects the pellets from absorbing any significant amount of airborne water vapor under normal atmospheric conditions. However, wood pellets need to be protected from direct water penetration. If exposed to water droplets, from condensation, they will gradually decompose and lose their effectiveness as a fuel. The decomposition involves expanded volume and over time a gradual chemical breakdown.
- The **natural wood pellet** is the woody remains of cherries, edible nuts and any other locally used woody plant that has been classified by the pellet distributor as "natural wood." It should be comparable in size to the press wood pellets which are 1/4 inch to 5/16 inch diameter and about 3/4 inches long. The natural wood pellet should contain less than 10% moisture.



SPECIFICATIONS

Model Number	MF3500
BTU/hour input	45,000 BTU/HR
Heating Capacity	1,200 Sq. Ft. (2)
Electrical Rating (3)	110 Volts, 15 Amp, 60 Hz
Power Consumption	Controller = 5.7 Watts Stove = 430 Watts (continuous)
Fuel Storage Capacity	62 lbs.
Flue Size	3 in.
Width	22 in.
Height	40 in.
Depth	22 in.
Weight	287 lbs.

(1) Heat output will vary, depending on the brand, type and quality of fuel and the moisture content. Consult your dealer for best results.

(2) Based on post 1982 home construction, requiring 35 BTU/Hr. per Sq. Ft.

(3) Install per NFPA 70 and follow all state and local codes, contact licensed electrical contractor for assistance.

Certified per ASTM Standards by Intertek Testing Labs.

GLASS SPECIFICATIONS

This stove is equipped with 5mm ceramic glass. Replace glass only with Cumberland Stove Works ceramic glass (PN 720002).

CAUTION

THIS INSTALLATION MUST CONFORM WITH LOCAL CODES. IN THE ABSENCE OF LOCAL CODES YOU MUST COMPLY WITH ASTM E1509, (UM) 84-HUD, ULC/ORD-C-1482.

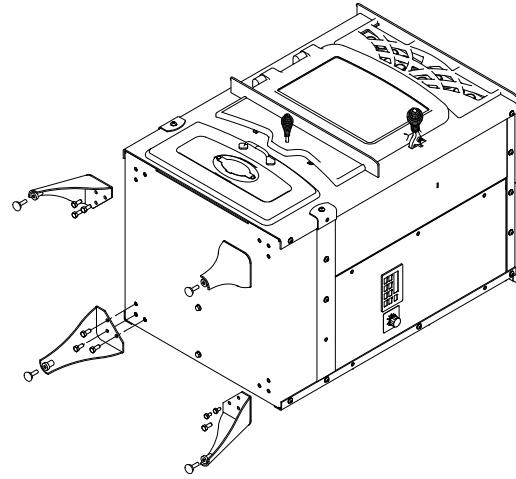
CUMBERLAND STOVE WORKS MANUFACTURER OF THIS APPLIANCE, RESERVE THE RIGHT TO ALTER ITS PRODUCTS, THEIR SPECIFICATIONS AND/OR PRICE WITHOUT NOTICE.

UNPACKING AND ASSEMBLY

The MF3500 parlor stove is bolted to a skid to prevent movement during shipping. To free the stove from the skid you must remove the two hold-down bolts in the base of the unit.

Unpack all hardware located in the units hopper. The following should be included:

- | | |
|----------------------------|-----------------------------|
| (4) legs w/ leveler | hopper lid handle |
| (12) leg bolts | power cord |
| (4) tie-down straps | round vent transition |
| (4) tie-down bolts | gasket for round vent |
| ash shuttle rod | (4) 1/4-20 x 1/2" bolts |
| spring for ash shuttle rod | (2) hopper lid handle bolts |



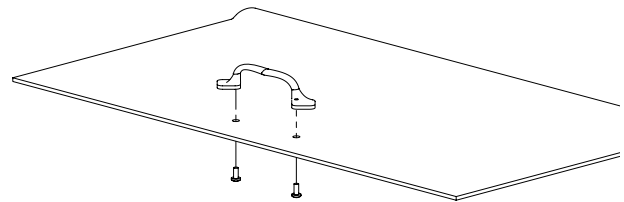
Leg Assembly

MOUNT LEGS

1. Gently tilt the stove on the side opposite of the controller.
2. Assemble the legs using provided (12) leg bolts as shown.

NOTE: If unit is to be used in a mobile home, you must install the (4) tie-down straps to the stove now. Refer to page 13 for instructions.

3. After all bolts have been tightened properly, set the stove back up on its legs.



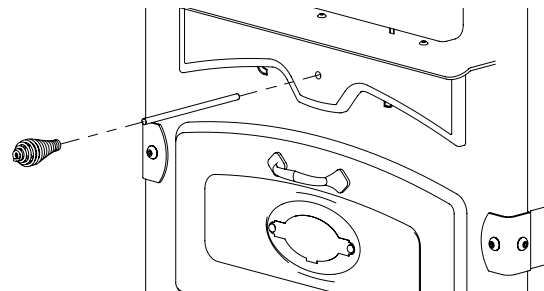
Hopper Door Handle Assembly

MOUNT HANDLE TO HOPPER DOOR

1. Using a Phillips screwdriver, attach hopper handle to hopper door using pre-drilled holes.

ASSEMBLE ASH SHUTTLE ROD

1. Thread spring over non-threaded end of rod.
2. Place threaded end of ash shuttle rod through decorative casting and screw into fire pot.



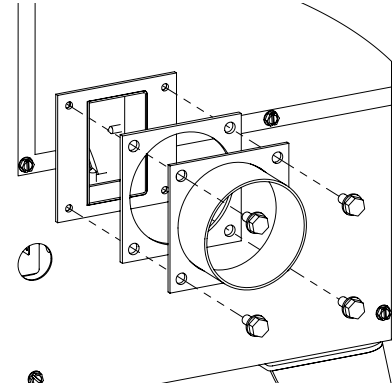
Ash Shuttle Rod Assembly

MOUNT ROUND EXHAUST TRANSITION

1. In the rear of stove, place gasket (730021) over square exhaust hole, then place round exhaust transition (710061) over the gasket.
2. Using (4) 1/4-20 x 1/2" thread cutting bolts (509), tighten exhaust transition together with a 3/8" wrench.

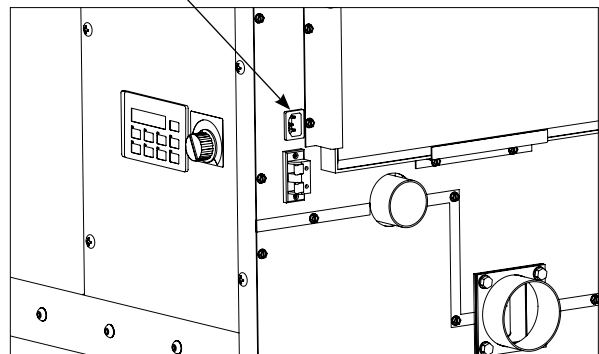
PLUG IN POWER CORD

1. Plug power cord into the back of stove.



Exhaust Transition Assembly

Power Cord Receptacle



INSTALLATION

It is recommended the stove be installed and serviced by authorized professionals who are certified by the National Fireplace Institute (NFI) as NFI Pellet Specialists.

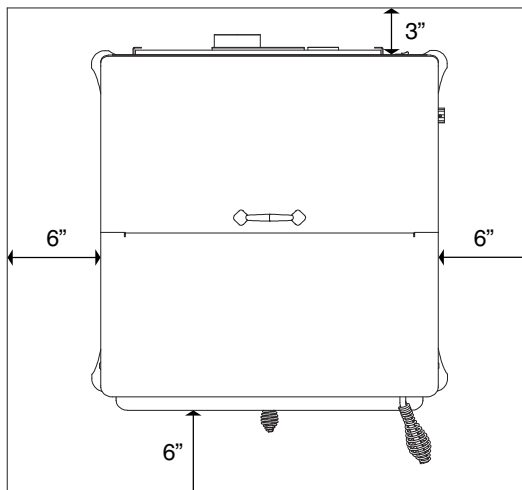
Proper installation of this stove is necessary for safe and efficient operation. Installing this product improperly may result in a house fire and personal injury. All applicable building codes for your location must be followed. In areas where building codes require additional steps to the installation of this product not included in this manual, the building codes will take precedent and must be followed. Contact your local building inspector to obtain any necessary permits or inspection guidelines before installing the product.

STOVE PLACEMENT

Sketch out a plan for installing the stove including dimensions before permanent placement. When determining the location for the stove, wall stud location is critical. You may need to adjust the location of the stove to avoid trying to vent through a wall stud. Before placing the parlor stove, connect the vent and allow for minimum clearance to combustible walls.

FLOOR PROTECTION REQUIREMENTS

The stove must be installed on a noncombustible floor, with proper floor protection, or on a masonry hearth. The hearth or noncombustible floor protector must extend a minimum of 6" in front, 6" from each side, and 3" from back. The minimum floor protector material is 24 gauge sheet metal. The floor protector must extend 2" beyond each side and rear of the T-vent.



PARLOR STOVE FLOOR PAD CLEARANCES

WARNING

READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND USE THIS STOVE. FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.

DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURES AND SHOULD STAY AWAY TO AVOID BUMPS TO SKIN AND/OR CLOTHING.

YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE STOVE.

CLOTHING AND OTHER FLAMMABLE MATERIALS SHOULD NOT BE PLACED ON OR NEAR THIS UNIT.

CAUTION

THIS STOVE SHOULD NOT BE USED AS THE ONLY SOURCE OF HEAT IN THE HOUSE. POWER OUTAGES AND PERIODIC MAINTENANCE WILL RESULT IN A TOTAL LOSS OF HEAT.

CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

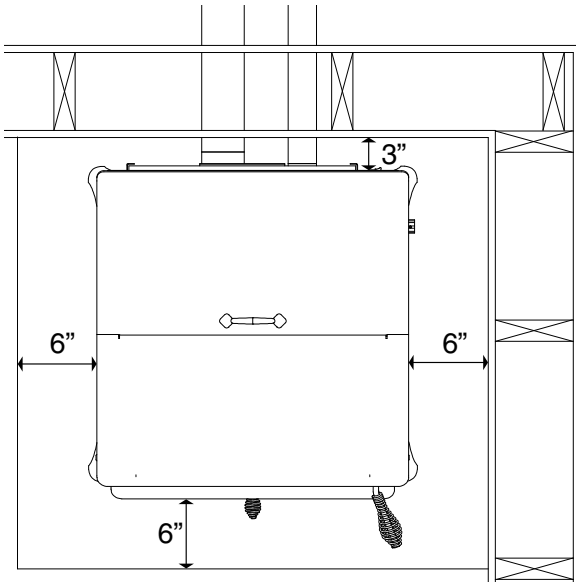
CONTACT YOUR LOCAL AUTHORITY (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, ETC.) TO DETERMINE THE NEED FOR A PERMIT.

KEEP COMBUSTIBLE MATERIALS (SUCH AS GRASS, LEAVES, ETC.) AT LEAST 3 FEET AWAY FROM THE FLUE OUTLET ON THE OUTSIDE OF THE BUILDING.

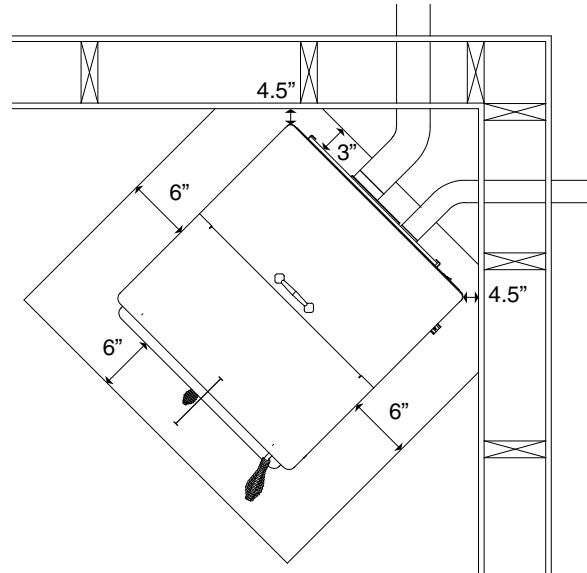
INSTALLATION AND REPAIR OF THIS PARLOR STOVE SHOULD BE DONE BY A QUALIFIED SERVICE PERSON. THE APPLIANCE SHOULD BE INSPECTED BEFORE USE AND AT LEAST ANNUALLY BY A QUALIFIED SERVICE PERSON. IT IS IMPERATIVE THAT CONTROL COMPARTMENTS, BURNERS, AND CIRCULATING AIR PASSAGEWAYS OF THE STOVE BE KEPT CLEAN.

CLEARANCES TO COMBUSTIBLES

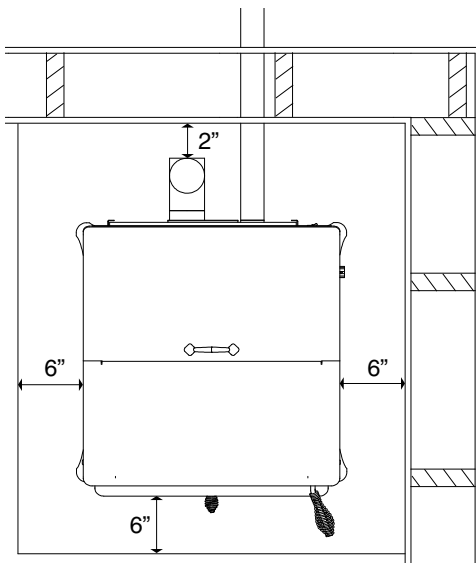
NOTE: These are minimum clearances to combustible walls established by the ASTM testing lab. We recommend that you allow sufficient space to read the TRI-X Controller and to remove the left and right side panels for maintenance purposes.



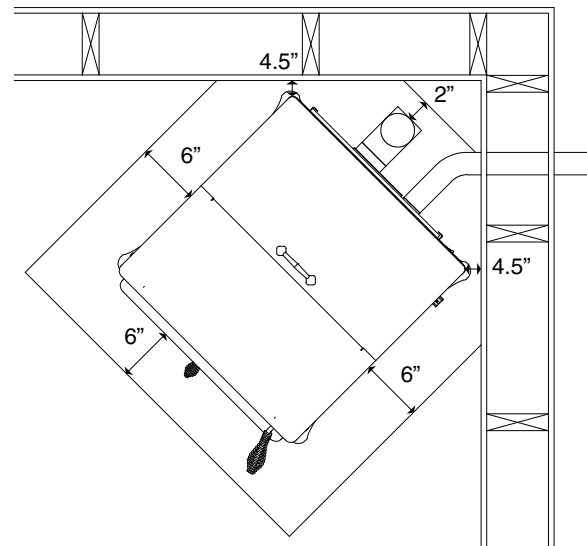
**STRAIGHT INSTALLATION
 THROUGH WALL**



**CORNER INSTALLATION
 THROUGH THE WALL VENTS**



**STRAIGHT INSTALLATION
 INTERIOR VERTICAL VENTS**



**CORNER INSTALLATION
 INTERIOR VERTICAL VENTS**

NOTE: When interior vertical pellet vent is used for installation, the clearance to the back wall is determined by the vent size used. Install vent at clearance specified by the vent manufacturer. Take into consideration any upward turning elbows or T's.

OUTSIDE AIR CONNECTION

Connection to outside the house is **REQUIRED** for mobile home installations. Direct air access must be provided, use a Fresh Air Kit (not included).

Only noncombustible pipe 2" (or greater) in diameter is approved to use for outside air connections (straight or flexible). **PVC pipe is NOT approved and should NEVER be used.**

If the air inlet is connected to the outside, it **MUST** be terminated with a vertical 90° bend (down) or with a wind hood. Failure to do so could result in a burn back during high winds blowing directly up the air inlet during a simultaneous power failure.

Blockage, excessive length, or extra bends in the air intake pipe will starve the stove of combustion air. A 90° bend is equivalent in restriction to approximately 30" of straight inlet pipe.

MOBILE HOME

Installation in a mobile home should be in accordance with the manufactured home and safety standard. Department of Housing and Urban Development (HUD) CITE: 24CFR3280.707 stating this stove must be vented to the outside. In addition to the standard installation instructions, the following requirements are mandatory for installation in a mobile home:

1. Stove must be bolted to the floor. Stove will have four tie-down straps that bolt to the feet and the floor.
2. Stove must have an outside air source.
3. Stove must be electrically grounded to the steel chassis of the mobile home.
4. All vertical chimney vents must have wall supports.
5. All exhaust systems must have a spark arrestor.

WARNING

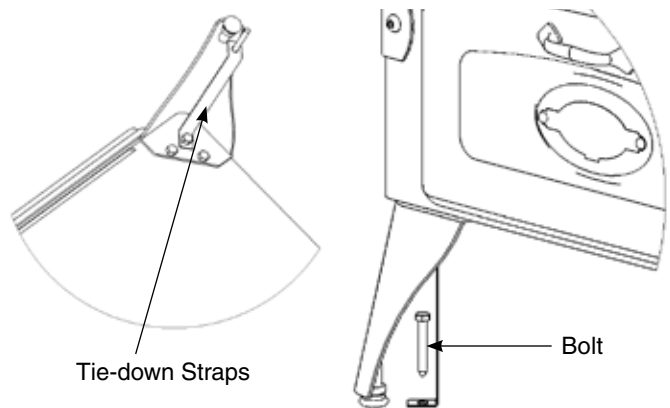
DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.

DO NOT INSTALL IN A SLEEPING ROOM.

CAUTION

THE OPERATION OF EXHAUST FANS SUCH AS BATHROOM FANS, ATTIC FANS, ETC. MIGHT STARVE THE PARLOR STOVE OF COMBUSTIBLE AIR CREATING A NEGATIVE PRESSURE IN THE ROOM. PROVIDE ADEQUATE VENTILATION IN THE ROOM ACCOMPANYING THE PARLOR STOVE. IF NOT, THE PRESSURE SWITCH MAY SHUT OFF OPERATION OF THE PARLOR STOVE.

THE STRUCTURAL INTEGRITY OF THE MANUFACTURED HOME FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.



Mobile Home Anchor & Leg Assembly



VENTING

The following installation guidelines must be followed to ensure conformity with both the safety listing of this stove and to local building codes.

NOTE: *Where passage through a wall, or partition of combustible construction is desired, the installation shall conform to CAN/CSA -8365.*

TYPE OF VENT

Pellet venting pipe (also known as L vent) is constructed of two layers with air space between the layers. This air space acts as an insulator and reduces outside surface temperature of pipe to allow a clearance to combustibles of only 3".

A UL listed 3" or 4" type L pellet vent exhaust system must be used for installation and attached to the pipe connector provided on the back of the stove. Use a 3" to 4" adapter for 4" pipe. A cap must be used at the termination of type L vent chimneys. For elevations above 2,500 feet above sea level, a 4" L is required.

PELLET VENT INSTALLATION

Termination must exhaust above air inlet elevation. Installation **MUST** include three vertical feet of pellet vent pipe.

This will create some natural draft to prevent the possibility of smoke or odor during appliance shutdown and to keep exhaust from causing a nuisance or hazard from exposing people or shrubs to high temperatures.

The installation must include a clean out tee to enable collection of fly ash and to permit periodic cleaning of the exhaust system. 90° elbows accumulate fly ash and soot thereby reducing exhaust flow and performance of the stove. Each elbow or tee reduces draft potential by 30% to 50%. Use no more than 180° of elbows (two 90° elbows, or two 45° and one 90° elbow, etc.) to maintain adequate draft.

Total length of horizontal vent must not exceed 10 feet. The maximum recommended vertical venting height is 12 feet for 3" type L vent. All joints for connector pipe are required to be fastened with at least three screws and all pellet vent connections must be sealed according to manufacturer's recommendations.

The area where the vent pipe goes through to the exterior of the home must be sealed with silicone or other means to maintain the vapor barrier between the exterior and the interior of the home.

WARNING

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.

DO NOT CONNECT DIRECTLY TO A MASONRY CHIMNEY.

DO NOT TERMINATE VENT IN ANY ENCLOSED OR SEMI-ENCLOSED AREA, SUCH AS; CARPORTS, GARAGE, ATTIC, CRAWL SPACE, UNDER A SUN DECK OR PORCH, NARROW WALKWAY OR CLOSED AREA, OR ANY LOCATION THAT CAN BUILD UP A CONCENTRATION OF FUMES SUCH AS A STAIRWELL, COVERED BREEZEWAY ETC.

CAUTION

VENT SURFACES CAN GET HOT ENOUGH TO CAUSE BURNS IF TOUCHED BY CHILDREN. NONCOMBUSTIBLE SHIELDING OR GUARDS MAY BE REQUIRED.

PELLET VENT MUST MAINTAIN A MINIMUM 3 INCH CLEARANCE TO ANY COMBUSTIBLE.

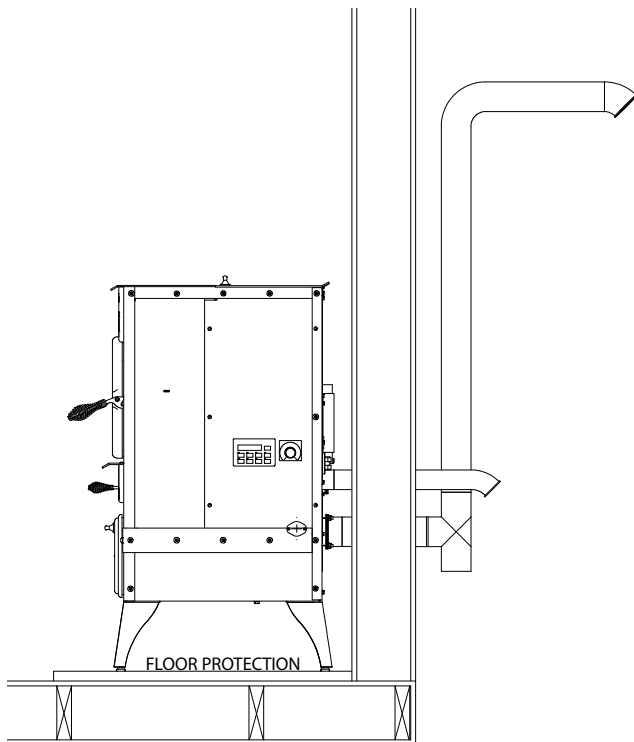
INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.

ALL VENTING, WHETHER VERTICAL OR HORIZONTAL, JOINTS SHOULD BE MADE GAS TIGHT WITH RECOMMENDED SEALANTS.

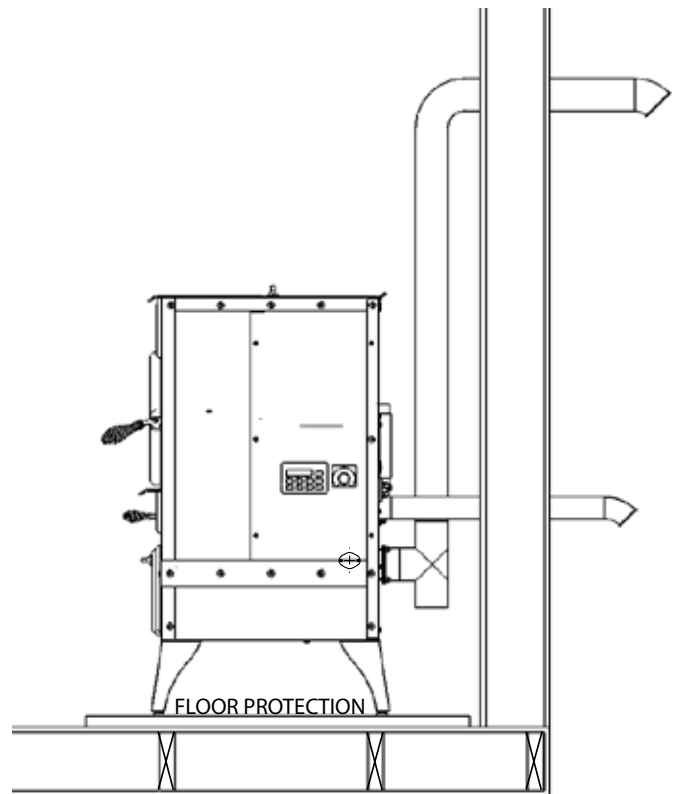
VENT TERMINATION CLEARANCES

CLEARANCE	
4 feet	Clearance below or beside any door or window that opens.
1 foot	Clearance above any door or window that opens.
3 feet	Clearance from any adjacent building.
7 feet	Clearance from any grade when adjacent to public walkways.
2 feet	Clearance above any grass, plants, or other combustible materials.
3 feet	Clearance from any forced air intake of any appliance.
2 feet	Clearance below eaves or overhang.
1 foot	Clearance horizontally from combustible wall.
3 feet	Clearance above the roof.
2 feet	Clearance above the highest point on the roof within 10 feet.

VENTING INSTALLATION EXAMPLES



STRAIGHT INSTALLATION
Outside Vertical Rise, Through Wall Installation



STRAIGHT INSTALLATION
Inside Vertical Rise, Horizontal Termination

OPERATING INSTRUCTIONS

UNDERSTANDING THE TRI-X CONTROLLER

The controller is located on the lower right-hand side of the parlor stove. It uses an advanced microprocessor that allows the owner to burn multiple fuels with the touch of a key. The TRI-X screen will display, for the user, a sequence of stove functions and any faults that may occur during operation. Each key functions with a small light (LED) that indicates stove heat transitions and running status.

ON KEY

Pressing the ON key will begin the startup sequence for the stove. Fuel will feed through the auger feed system after a brief exhaust check. This check assures the burn area is sealed and the flue gases are exiting the building. The draft fan (exhaust) will start as soon as the ON key is pressed. The fan will automatically adjust speed to match the heat requirement. The circulating blower will turn on when the stove heat level has reached 110°F. When this temperature is reached, the dial to the right of the TRI-X controller is used to adjust room blower fan speed. The TRI-X screen shows the stove progress and will come to rest on **[STOVE CONTROLLED BY TEMP KEY {heat level 1 thru 6}]** when the stove is heating normally.

The LED light will illuminate when the ON key is pushed and remains on during normal operation.

OFF KEY

Pressing the OFF key will cause the stove to begin the shut-down sequence. If the OFF key is pushed during normal operation, wait 30 seconds before attempting any re-light of the fire. Once the fire goes out and the stove cools down, the blowers will stop running. During a fault condition, follow the instructions on the TRI-X screen and push the OFF key until the **[SELECT FUEL TYPE USE MODE KEY]** screen appears.

The LED will illuminate when the OFF key is pushed and remains on when the stove is not providing heat.

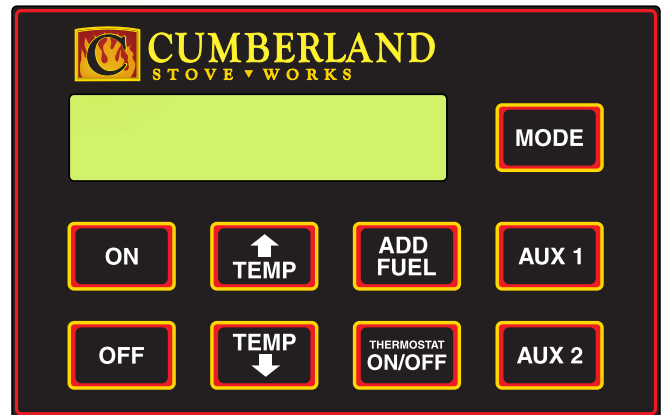
MODE KEY

The type of fuel is selected by pressing the MODE key. All the currently approved fuels can be viewed when scrolling (pressing) the MODE key.

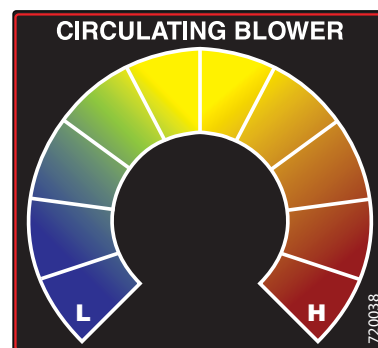
There is no LED with this key.

TEMP UP OR TEMP DOWN KEYS

Pressing the TEMP UP or the TEMP DOWN keys will adjust the amount of fuel and air being delivered to the fire pot. There are six levels of heat from which to choose. Each level has been calibrated to deliver the correct ratio of air and fuel into the fire pot for the selected fuel type.



Controller Faceplate



Circulating Blower Dial Faceplate

The LED flashes during the heat level change. The LED goes dark when the stove heat level is reached.

ADD FUEL KEY

Pressing the ADD FUEL key manually adds fuel to the empty feed auger or momentarily increases the flame. The fuel is added whenever the key is pressed and stops when the key is not pressed.

The LED will illuminate when the key is pushed to indicate that fuel is being added to the fire pot.

THERMOSTAT ON/OFF KEY

Pressing the THERMOSTAT ON/OFF key will swap the screen display between **[STOVE CONTROLLED BY TEMP KEY]** and **[STOVE CONTROLLED BY THERMOSTAT]**. This manual explains the operation of each screen on page 18.

The LED will illuminate when the stove is controlled by the thermostat and remain on until the key is pushed for local control.

AUX 1 KEY

Press AUX 1 to accept the fuel type and begin the startup sequence.

The LED flashes before the fuel type is selected and continues to flash until the stove is producing 120°F room air. The LED goes dark when the stove temperature reaches a minimum of 120°F.

AUX 2 KEY

Not used on the MF3500 stove.

UNDERSTANDING THE NORMAL HEAT SCREENS

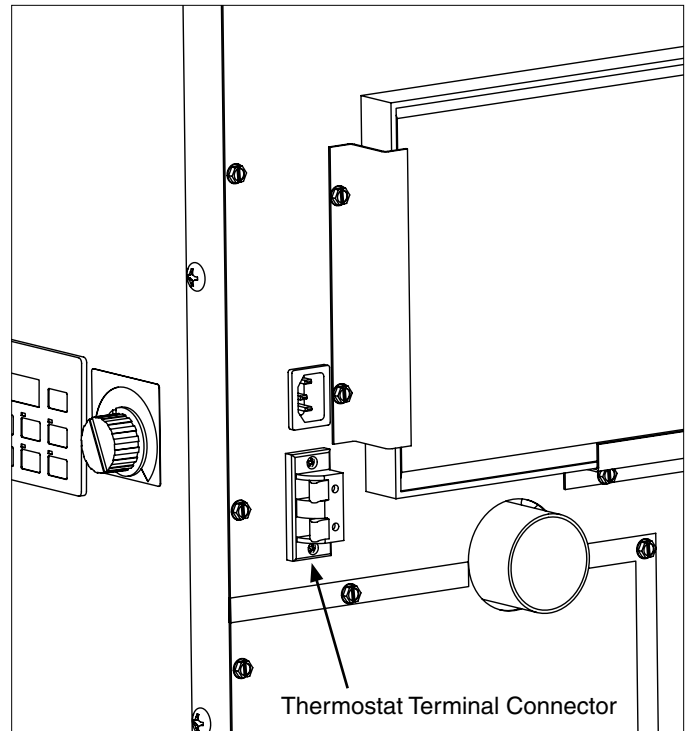
Cumberland
Stove Works

TRI-X
HEAT CONTROL

Start sequence screens.

SELECT FUEL TYPE
USE MODE KEY

The user must push the MODE key to proceed to the next screen. When the key is pushed repeatedly, the controller scrolls through all the approved fuels.





UNDERSTANDING THE NORMAL HEAT SCREENS (CONT.)

CORN AS FUEL
PUSH AUX 1 TO SET

If corn is the fuel of choice, press AUX 1 to load corn settings. Low moisture corn will have the highest BTU content.

NOTE: DO NOT use seed corn because it has a chemical coating that is toxic when burned.

PRESSWOOD PELLET
PUSH AUX 1 TO SET

If pressed wood pellets are the fuel of choice, press AUX 1 to load all of the wood settings. There are three grades of pressed wood pellets (GS1, GS2, GS3). This setting works well with the lower grade pellets. The best grade is GS1 because it is hardwood and contains the least amount of ash and the most BTU's per pound.

NAT'L WOOD PELLET
PUSH AUX 1 TO SET

If natural wood pellets are the fuel of choice, press AUX 1 to load all of the wood settings. There are many types of natural wood pellets sold throughout the USA. This setting works well with GS1 or better. Some other types of natural wood pellets are cherry pits and cocoa beans.

STARTUP CHECK
EXHAUST RUNNING

The POV (Proof of Vacuum) switch has detected vacuum. There is a 15 second delay waiting for the screen to process all the settings after the ON key is pushed.

LIGHT FIRE AND
PUSH THE ON KEY

This screen waits for the ON key to be pushed. It is important to light the fire **before** pushing the ON key because opening the door to light the fire will produce a loss of vacuum fault.

STARTING FIRE
■■■■■■ LEVEL ^

After the fire is lighted and the ON key is pushed the controller displays this message. The timer bar counts down for ten minutes. If after ten minutes and the stove has reached the normal operating temperature, the next screen will be displayed.

^ Indicates BTU Level

LEVEL 1	14,000 BTU
LEVEL 2	16,000 BTU
LEVEL 3	18,000 BTU
LEVEL 4	22,000 BTU
LEVEL 5	35,000 BTU
LEVEL 6	45,000 BTU

STOVE CONTROLLED
BY TEMP KEY ^

The stove is now up to operating temperature. Any of the six heat settings can be selected by pushing the TEMP UP or TEMP DOWN keys. There is a time delay between each level.

^ Indicates BTU Level (see chart above)

NOTE: The heat content of any pellet will vary because of the moisture content and the type of process used to form the pellet.

STOVE CONTROLLED
BY THERMOSTAT

Special terminals are provided to connect the stove to a standard wall thermostat (not included). See page 17 for terminal location. When this key is pushed the stove is now controlled by the "heat call" of the wall thermostat.



STARTUP SEQUENCE OF EVENTS

After the stove is plugged in the wall receptacle, the controller prompts the operator for commands. The parlor stove will start, stop and continue operation at the preset temperature.

TRI-X STEP 1. Select fuel type by pressing the MODE key.

TRI-X STEP 2. Set stove heat cycle by pressing the AUX 1 key.

TRI-X STEP 3. Start the MF3500 Parlor Stove by pressing the ON key.

COMPONENT	OPERATION START	OPERATION END
Exhaust Blower	Starts Immediately.	Will continue until shutdown. Shutdown will occur when the operating temperature is below 90°.
Feed Auger	Auger automatically starts when ON key is pushed.	The auger will continue at the feed rate specified by the HEAT SETTING. NOTE: Safety switches must be activated to continue proper operation.
Room Fan	Room fan starts when stove heats up to 110°F.	Will continue to operate until the stove cools down to below 90°F. This may take several minutes after fire is out.
Automatic Shutdown	If after 15 minutes, the stove has not reached the preset operating temperature, the unit will begin to automatically shutdown.	Should the timer expire before the preset operating temperature is achieved, wait 30 seconds, then simply reset the stove by pressing the OFF key.
Normal Operation	If after 15 minutes the preset operating temperature of 110°F is achieved, normal operation will continue.	Operation will continue until either the stoves control is to the OFF position, or the operating temperature falls below 90°F. At such time the stove will default to the Automatic Shutdown.

SHUTDOWN SEQUENCE OF EVENTS

Once the parlor stove has reached the normal operating temperature and switched to OFF the unit will immediately stop feeding fuel and continue safety shutting down for at least 30 minutes.

COMPONENT	SHUTDOWN	OPERATION END
Exhaust Blower	Unchanged operation until preset OFF temperature is achieved.	Continues until the operating temperature falls below 90°. May take several minutes, up to an hour.
Feed Auger	Auger stops feeding fuel.	NOTE: Safety switches must be activated to continue proper operation.
Room Fan	Unchanged operation until preset OFF temperature is achieved.	Will continue to operate until the heater cools down to below 90°F. This may take several minutes.
Over Temperature Shutdown	If the heater's HIGH LIMIT sensor detects HIGH HEAT, an automatic shutdown is activated.	It is rare that the HIGH LIMIT temperature is reached. However, should this error occur, let the heater cool down for an hour before attempting to restart.



LIGHTING THE STOVE

Before lighting the stove for the first time, make sure that no shipping items have been left inside the ash pan, the storage hopper, or inside the glass door fire box. The parlor stove is now ready for operation. The sound you may hear when beginning the start sequence is the exhaust fan starting as soon as the ON key is pushed. It is normal to see a small amount of smoke inside the stove during the start cycle. If you see smoke in the room during this starting time there is an unacceptable leak.

LIGHTING PROCEDURE:

- Plug the parlor stove into a standard household wall receptacle. The TRI-X controller will light up and display a sequence of power up messages.
- Fill the hopper with approved solid fuel.
- The first screen that you will see after the controller completes the power up is **[SELECT FUEL TYPE USE MODE KEY]**.
- Press the MODE key until the desired fuel is displayed on the screen.
- Pressing the AUX 1 key accepts the fuel type displayed. After the AUX 1 key is pressed the screen will read **[LIGHT FIRE AND THE PUSH THE ON KEY]**.
- Fill the fire pot with about one cup of starting pellets or wood pellets. If wood pellets are used, squirt about two tablespoons of burn gel on the pellets.

Note: Cumberland Stove Works only approves burn gel and starter pellets when lighting the parlor stove.

- Light the material in the fire pot, close the door and push the ON key.
- The screen will read **[STARTUP CHECK EXHAUST OFF]** for a minimum of 15 seconds. If the doors are sealed properly the message will change to **[STARTUP CHECK EXHAUST RUNNING]**. When this message is displayed it means the stove is in proper working order, all of the doors are sealed and the flue gas is exiting. At this time, the controller will begin the startup sequence. The TEMP UP and TEMP DOWN keys can be pressed to select level one through six (1-6). The level selected during the startup sequence will be the level the stove goes to after the startup sequence.

Note: If the hopper is empty when the stove is started, the feed auger must be primed. Press and hold the ADD FUEL key until fuel is seen dropping into the fire pot. During the startup sequence fuel can be manually fed into the pot by pressing the ADD FUEL key at any time.

WARNING

NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR BUILD UP A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IT IS IN USE.

KEEP CHILDREN, CLOTHING AND FURNITURE AT A SAFE DISTANCE FROM THE STOVE AT ALL TIMES. CONTACT MAY CAUSE SKIN BURNS.

NEVER ADD ANY LIQUIDS TO A BURNING FIRE EXCEPT WATER.

USING MORE THEN THE RECOMMENDED BURN GEL AND/OR PELLETS MAY CAUSE AN OVERFIRED FLAME.

CAUTION

IF SMOKE IS PRESENT IN THE ROOM DURING STARTUP, THERE IS A LEAK IN THE SYSTEM. PRESS THE OFF KEY, ALLOW THE FIRE TO BURN OUT, AND FIX THE LEAK BEFORE CONTINUING. MOST LIKELY THE LEAK IS IN THE EXHAUST PIPING. PLEASE REFER TO THE VENTING INSTRUCTIONS ON PAGE 14 AND SEAL THE VENT PIPE.



Note: The starting sequence will last for 10 minutes. If the fire is not hot enough to bring the stove up to normal operating temperature the stove will turn off and the ON key must be pressed again to recommence the startup sequence. If the ambient air temperature is below 40°F the ON key may need to be pressed a few times before the stove comes up to operating temperature.

TURNING THE STOVE OFF

- The stove can be manually turned OFF at any time.
- Pushing the OFF key turns the stove off using the shutdown controller sequence. The fans will continue to run until the temperature is safe.

NORMAL CARE & MAINTENANCE

CLEANING THE GLASS

When the fire is first started, it will produce some smoke. The smoke might accumulate on the glass surface. Before the fire gets hot, open the door and wipe the glass surface off with a damp rag.

If after constant use, the glass might fill with ash deposits. You must clean the glass after the glass has cooled down. Do not touch the surface with your hands. Take a damp rag and wipe the glass clean. If this does not clean the glass use any non-abrasive liquid spray.

REMOVAL OF CERAMIC GLASS

Open the door and lift off of hinges. If the door is tight, tap gently on the bottom of the door with your hand or rubber hammer. Lay door down on newspaper with glass clips facing you. Loosen the screws and take off the glass clips. Remove the broken glass carefully and discard.

Reverse the above procedure for replacing new glass with new gasket.

FUEL POT REMAINS

The “clinker” is the solid mass that remains unburned in the burner pot. It contains the inorganic parts of the fuel and is safe to use as fertilizer or dispose of in a proper container.

SOOT AND FLY ASH

The products of combustion will contain small particles of fly ash. The fly ash and soot will collect in the exhaust venting system and restrict the flow of flue gasses. Incomplete combustion, such as occurs during startup, shutdown, or incorrect operation of the parlor stove will lead to some soot formation which will collect in the exhaust venting system. The exhaust venting system should be inspected at least once per month (during heavy use) to determine if cleaning is necessary. Corn has a high ash content.

DISPOSAL OF ASHES

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 been thoroughly cooled.

EXHAUST AND CONVECTION AIR FILTER

- Remove air filter and replace regularly
- Clean exhaust vent

CAUTION

DO NOT OPERATE STOVE WITH BROKEN GLASS.

DO NOT SLAM THE DOOR SHUT.

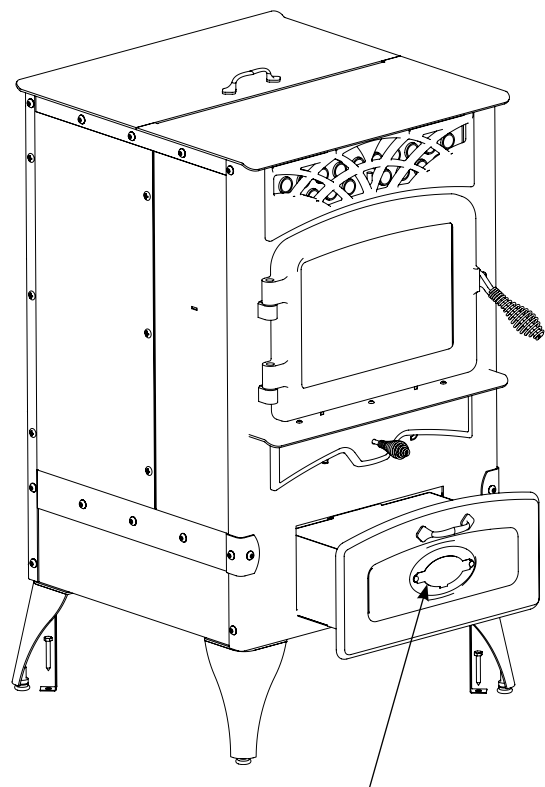
DO NOT STRIKE GLASS.

DO NOT USE ABRASIVE CLEANERS.

DO NOT CLEAN HOT GLASS.

REPLACE CERAMIC GLASS WITH FACTORY AUTHORIZED REPLACEMENT PARTS ONLY.

THE CLINKER WILL REMAIN HOT FOR SEVERAL MINUTES AFTER IT IS PULLED OUT OF THE BURNER POT.



Ash Pan Location

DAILY MAINTENANCE

The surfaces of the stove may be hot. Always wear protective gloves even when the stove is cool to the touch. There are two areas that require daily maintenance; (1) the firebox and (2) the fire pot.

- Remove the top baffle inside the firebox and clean the fly ash and soot on all exposed parts using a steel brush and ash cleaning vacuum. The use of a shop-vac is not recommended. Talk to any authorized dealer for information about an ash cleaning vacuum.
- The fire pot and the area around it are cleaned using the special tool provided with the stove and an ash cleaning vacuum. It is important to remove any unburned pellets that may have fallen behind the burn pot.
- Complete the daily maintenance by checking the seal on the doors. Look for pellets that may have been left behind during loading. Check that each of the door seals are flush with the stove and sealing properly.

WEEKLY MAINTENANCE

- To clean fire pot with cleaning tool, remove fire pot by unscrewing the small spring from the lower cleaning rod. Remove rod and pull out fire pot. Hang on to end of cleaning tool with the hole in it. Scrape the fly ash that has fallen through the holes of the plate in the gap that sits below the fire pot.
- Remove the ash pan and dump the ash into a metal container.
- Cleaning of the exhaust system will depend upon the ash and debris content of your fuel. If your fuel has a high ash content and/or significant debris in it, the exhaust system will require weekly cleaning. Cleaner fuels will allow for monthly cleaning of the exhaust system. If you have installed clean out tees you will need to check for cleanliness.

NOTE: A clean unit burns efficiently and will remain trouble free!

SEASONAL CLEANING

Once every year you must clean out all of the fuel in the hopper, firebox area, ash pan and fire pot area. Corn and any ash can accumulate moisture over the summer months causing the unit to rust and the fuel to mold.

It is recommended that prior to shutting down the unit in the spring it is run on the high setting for about six hours to help clean out the heat exchanger system, venting system and firebox area.

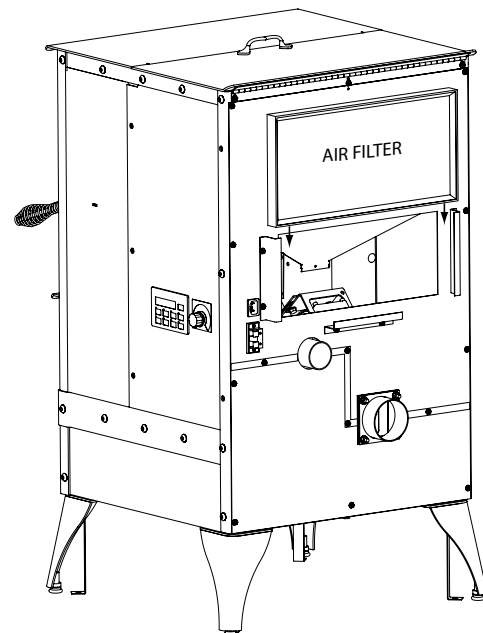
WARNING

WHEN PERFORMING ANY INTERNAL ELECTRICAL MAINTENANCE

- MOVING PARTS INSIDE OF THE CABINET MAY CAUSE INJURY. DO NOT OPERATE UNIT WITH PANELS REMOVED OR OPEN.
- HOT PARTS. DO NOT OPERATE THE UNIT WITH PANEL OPEN.
- RISK OF ELECTRIC SHOCK. DISCONNECT POWER BEFORE SERVICING UNIT.
- IN THE EVENT OF COMPONENT FAILURE, REPLACE WITH THE ORIGINAL FACTORY EQUIPMENT.

CAUTION

THIS IS A MINIMUM REQUIREMENT FOR SOOT AND FLY ASH REMOVAL. ASHES SHOULD BE PLACED IN A METAL CONTAINER WITH A TIGHT FITTING LID. THE CONTAINER SHOULD BE PLACED ON A NON-COMBUSTIBLE FLOOR, WELL AWAY FROM COMBUSTIBLE MATERIALS, PENDING FINAL DISPOSAL. IF ASHES ARE DISPOSED OF BY BURIAL IN SOIL OR OTHERWISE LOCALLY DISPERSED, THEY SHOULD BE RETAINED IN THE CLOSED CONTAINER UNTIL ALL CINDERS ARE NO LONGER WARM.



Air Filter Placement - back view

When the unit is cleaned out, empty the hopper, take the venting apart and clean out the fly ash, rinse and let dry. Inspect the draft blower and clean out all areas such as back heat exchanger and lubricate the auger, auger tube, and fire pot area. (Something like vegetable spray works great to coat the inside of the unit and the moving parts). Clean the glass, doors and outer cabinet so that you are ready for the next heating season. Use of an ash vacuum makes the clean out easier and faster.

TROUBLESHOOTING & REPAIR

At Ardisam, we build quality and durability into the design of our products; but no amount of careful design by us, and careful maintenance by you, can guarantee a repair-free life for your stove. Most repairs will be minor, and easily fixed by following the suggestions in the troubleshooting guide in this section.

The guide will help you pinpoint the causes of common problems and identify remedies.

For more complicated repairs, you may want to rely on your retailer, an authorized service center or Ardisam, Inc. A parts catalog is included in this section.

We will always be glad to answer any questions you have, or help you find suitable assistance. To order parts or inquire about warranty, call or write us at the address found below, under the section ordering repair parts.

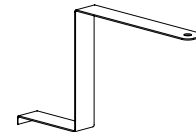
ORDERING REPAIR PARTS

Parts can be obtained from the store where the stove was purchased or direct from the factory. To order from the factory- call, write or e-mail to:

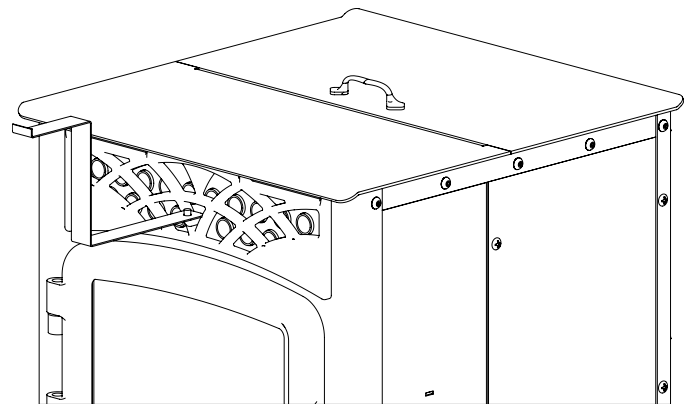
Ardisam, Inc.
1690 Elm Street, Cumberland, Wisconsin 54829
1-800-345-6007 • 1-715-822-2415
E-mail: info@ardisam.com

Please include the following information with your order:

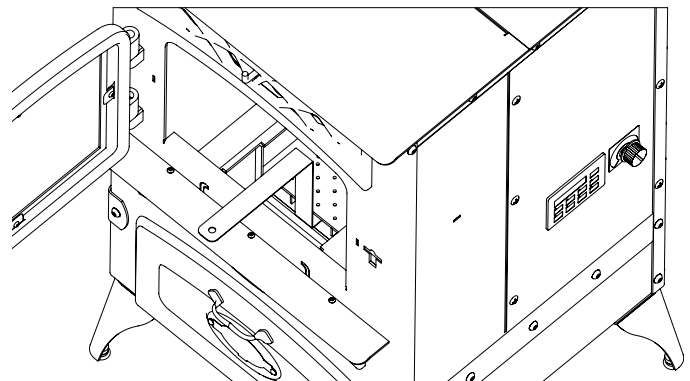
1. Part numbers
2. Part description
3. Quantity
4. Model number and serial number



Cleaning Tool



Actuate The Heat Exchanger
 Cleaning Rod With Hole End of Tool



Clean Under Fire pot With Small Bend End of Tool

TROUBLESHOOTING GUIDE

Unplug stove before performing any maintenance.

WARNING

NEVER SERVICE OR TOUCH THE FEED AUGER WITH THE STOVE PLUGGED IN.

PROBLEM	CAUSE: Too rich air/fuel mixture	
? Fire burns with a lazy, orange flame and/or fuel builds up in the fire pot. Glass may become dirty.	<ul style="list-style-type: none"> ✓ Make sure glass door is shut and sealed tightly. If not, adjust door handle or replace gasket. ✓ Check that ash pan is in place and sitting flat to assure a proper seal. ✓ Check that exhaust fan is running and venting properly. If not, check connection and clean or replace. 	<ul style="list-style-type: none"> ✓ Moisture content above 15%. Allow fuel to dry or mix with wood pellets. ✓ Check inside parlor stove and exhaust pipes for blockage. Tap inside walls of firebox, clean behind side access plates, clean fire pot and firebox vent holes above firebrick panel. ✓ Feed rate is too high for fuel, reduce heat setting. Inadequate combustion air available, add combustion air.
PROBLEM	CAUSE: Fire pot burns out of fuel	
? Fire goes out or parlor stove shuts down. Fuel may stop feeding.	<ul style="list-style-type: none"> ✓ Hopper empty, refill ✓ Auger jams. Remove auger and clean. (Auger jams can be a problem if poor quality fuel is used. Or excessive fines (sawdust, corn cobs or husk) are found in hopper. Auger jams are evident when the auger motor runs but no fuel is delivered. 	<ul style="list-style-type: none"> ✓ The TRI-X controller will instruct to push OFF key until fuel selection is required.
PROBLEM	CAUSE: Auger stops turning	
? Fire goes out or parlor stove shuts down. Fuel may stop feeding.	<ul style="list-style-type: none"> ✓ Feed auger has come loose. Check to see if auger motor is turning and auger is not. <p>NOTE: Feed auger is held to the auger motor by a coupler that is fastened to the feed auger motor. Simply slide the feed auger into the auger housing and rotate until it fits into the coupler.</p> <ul style="list-style-type: none"> ✓ Heat sensor. If the operating temperature is too low the parlor stove will shutdown. 	<ul style="list-style-type: none"> ✓ High limit sensor. Evident when parlor stove is extremely hot. Allow parlor stove to cool for one hour and restart. ✓ Vacuum switch tripped. Caused by exhaust blower not running or venting blocked. Check blower, clean or replace. Clean venting of blockage. ✓ Auger motor not operating. Inspect connection and replace if necessary.
PROBLEM	CAUSE: Automatic shutdown	
? The screen is flashing a fault message.	<ul style="list-style-type: none"> ✓ Read the fault screen and push the OFF key. ✓ Most automatic shutdowns occur because of loss of fire. 	<ul style="list-style-type: none"> ✓ The OFF key must be pushed three times to clear the fault or cycle the power. ✓ The stove is ready for normal operation when the [SELECT FUEL TYPE USE MODE KEY] reads steadily for 30 seconds.



PROBLEM	CAUSE: Loss of vacuum	
? Stove fans are not running.	<ul style="list-style-type: none"> ✓ Make sure glass door is shut and sealed tightly. If not, adjust door handle or replace gasket. ✓ Leaking outside vent. Check the venting system for traces of smoke. ✓ Heated room is under negative pressure, check the make-up air fans and ducts. 	<ul style="list-style-type: none"> ✓ TRI-X controller display screen will instruct what key must be pushed to restart the stove. If fuel type is changed, remember to push the OFF key until the screen reads [SELECT FUEL TYPE USE MODE KEY]. ✓ Hopper empty, refill.

Contact service provider if above remedies fail at 800-345-6007.

WARNING! Negative pressure in a home is a serious issue. If there is a problem, the stove should be installed with a Fresh Air Kit (not included).

UNDERSTANDING THE FAULT SCREENS

STARTUP CHECK EXHAUST OFF

Problem: The ON key has been pushed for start and the POV (Proof of Vacuum) switch has not detected vacuum. There is a 15 second delay waiting for the start cycle to continue before the screen [START CHECK EXHAUST RUNNING] appears.

Remedy: Check for open door or gasket leaks. Restart the stove.

NO FUEL SELECTED USE MODE KEY

Problem: The screen waits for you to push the MODE key. If any other key is pushed on the TRI-X controller, the display will alternate between [NO FUEL SELECTED USE MODE KEY] and [SELECT FUEL TYPE USE MODE KEY].

Remedy: Push MODE key and select the type of fuel in use.

HOPPER OPEN FEED AUGER OFF

Problem: The hopper door has an interlock that stops the auger from operating. This is to assure that no injuries occur with the hopper open.

Remedy: Close hopper door.

Note: *If the door remains open for an extended period of time the fire will go out. Closing the door promptly will eliminate the need to start the fire over.*

COOL DOWN MODE LOSS OF FIRE/OFF

PUSH OFF/ON TO RESTART STOVE

Problem: These two screens are used to instruct you to push the OFF/ON key because the fire has gone out. The common reasons for this are:

- The fuel selected during the startup was not correct and the feed rates are usually too much to sustain a flame.

- The door was open for more than five minutes.
- The hopper has been emptied of fuel.

Remedy: Wait a minimum of 30 seconds, push OFF key until [SELECT FUEL TYPE USE MODE KEY] appears. The normal start sequence will begin.

VACUUM FAULT PUSH OFF/ON KEY

Problem: This message will be displayed if the door is opened or the vacuum in the burn chamber is lost because of a leak or the ash pan is removed for a long period of time.

Remedy: TRI-X controller will instruct you when to push the ON key to return to normal operation.

NOTE: *If this problem persists, check the door seals are in good condition on both the ash door and the glass door.*

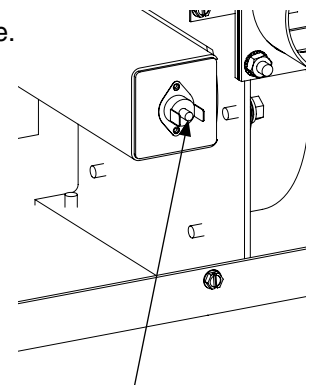
COOL DOWN MODE OVERTEMP SWITCH

RESET OVERTEMP BUTTON / RESTART

Problem: The temperature of the exhaust has exceeded a safe operating level and the stove will shutdown when it has cooled to a safe level.

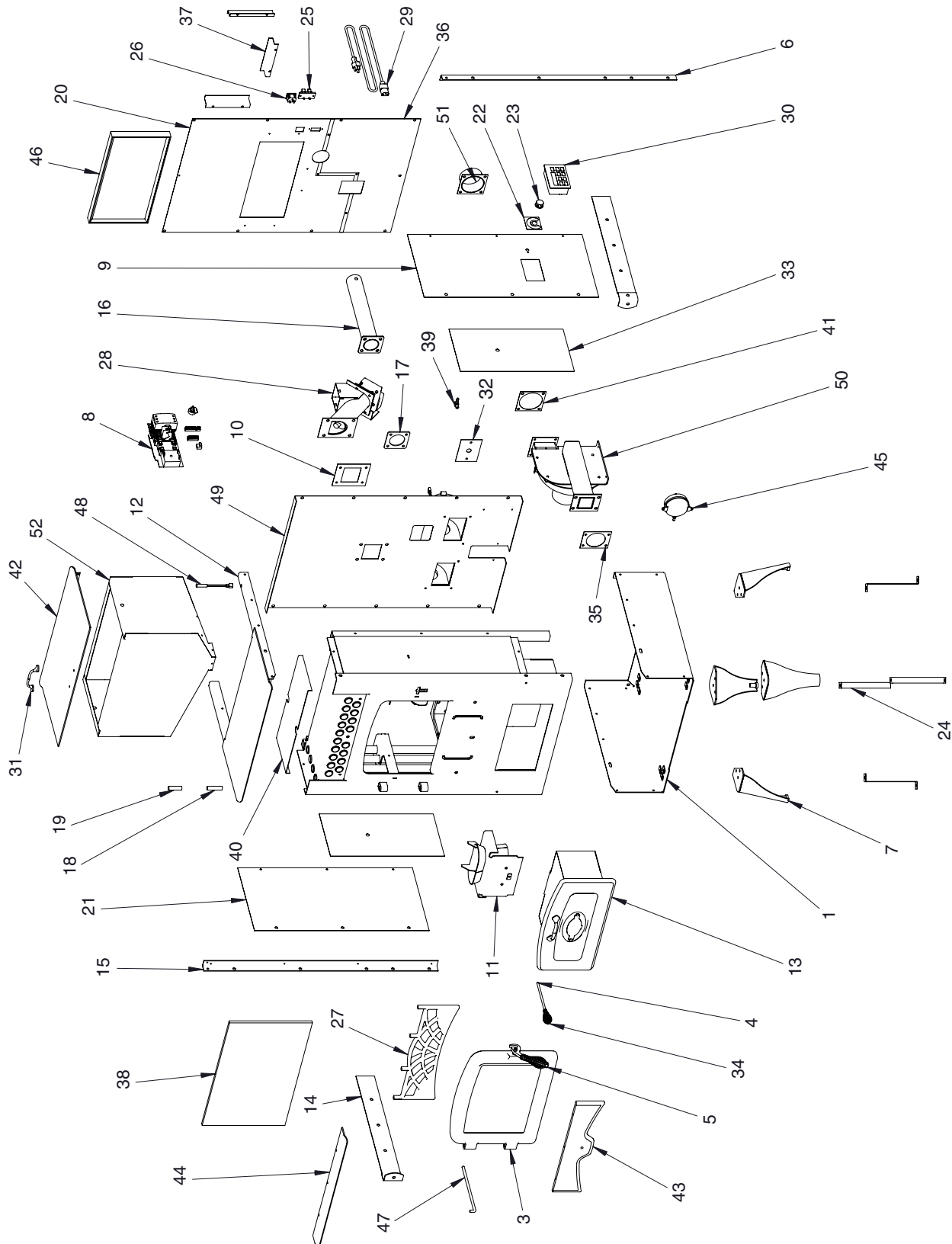
Remedy: The first action that should be taken when seeing the alternating screens is to check all areas around the stove for excessive heat. Causes for exceeding the overtemp limit are as follows:

- Circulating air filter plugged.
- Excessive room temperature.
- Plugged circulating fan.
- Faulty circulating fan.
- Dirty heat exchanger.



Overtemp Reset Button

MAIN ASSEMBLY PARTS



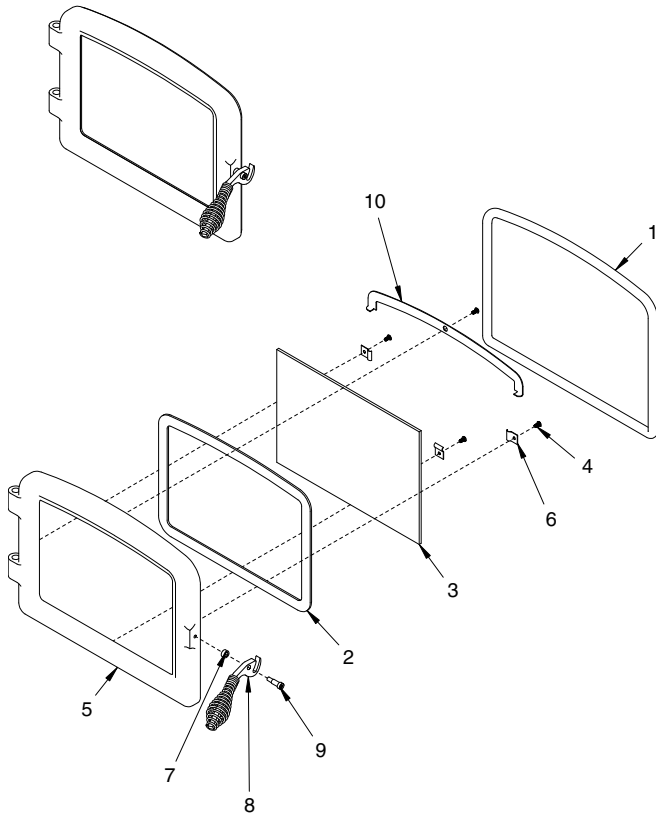


MAIN ASSEMBLY PARTS

KEY #	PART #	DESCRIPTION
1	710042	BASE
--	710020	FIREBOX
3	710000	GLASS DOOR ASSEMBLY
4	700076	ROD, FIREPOT CLEANING
5	710064	DOOR HANDLE ASSEMBLY
6	700109	ANGLE, RIGHT HOPPER SUPPORT
7	710008	FOOT
8	710051	ELECTRICAL PANEL ASSEMBLY
9	700137	PANEL, RIGHT SIDE
10	730010	GASKET, CHUTE
11	710026	FIRE POT
12	710052	TOP COVER
13	710053	ASH PAN ASSEMBLY
14	700147	PANEL, STRAP
15	700149	ANGLE, LEFT HOPPER SUPPORT
16	710057	INTAKE PIPE
17	730020	GASKET, INTAKE FLANGE
18	720003	PIN, DOWEL
19	720010	PIN, DOWEL
20	700156	PLATE, STOVE BACK
21	700155	PANEL, LEFT SIDE
22	720038	DECAL, CIRC. FAN SPEED
23	720039	KNOB, CIRC. BLOWER SPEED
24	700136	PANEL, FLOOR STRAP
25	720043	TERMINAL BLOCK, COMPRESSION
26	720044	AC INLET-OUTLET, SNAP-IN
27	700170	GRILL
28	710067	AUGER W/GEAR ASSEMBLY
29	720045	POWER CORD
30	730013	CONTROLLER
31	730006	HANDLE, ASH DOOR
32	700185	PLATE, DUCT COVER
33	700189	PLATE, VERTICAL BAFFLE
34	720053	SPRING, CLEANING ROD
35	730015	GASKET, INBOARD AUGER

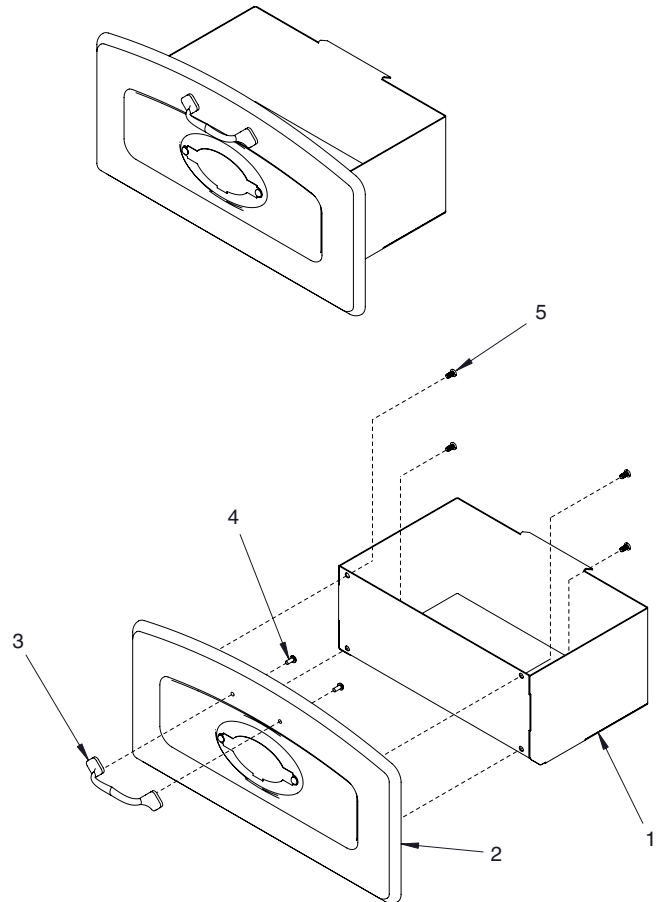
KEY #	PART #	DESCRIPTION
36	700193	PLATE, LOWER STOVE BACK
37	700195	PANEL, FILTER BRACKET
38	730031	INSULATION, HOPPER
39	720034	FITTING, BARBED HOSE
40	700202	PANEL, UPPER BAFFLE
41	730021	GASKET, EXHAUST VENT
42	710072	HOPPER COVER ASSEMBLY
43	700163	SHELF BASE, MACHINED
44	700144	PANEL, SHELF
45	720020	SWITCH, VACUUM
46	730008	FILTER, CIRCULATING AIR
47	700206	ROD, HEAT EXCHANGER CLEANING
48	710073	HOPPER SWITCH ASSEMBLY
49	710071	CIRCULATING AIR DUCT ASSEMBLY
50	710070	EXHAUST MANIFOLD ASSEMBLY
51	710061	ROUND VENT
52	710065	HOPPER
--	8932	NUT 1/4-20 HKPSBW ZN
--	725017	NUT 1/4-20 HKPSBW ZN
--	1501A	BOLT 5/16-18 X 3/4 HH GR5 ZN
--	503	BOLT 5/16-18 X 1-1/2 HH
--	63118	BOLT 1/4-20 X 1/2 HHCS GR5 ZN
--	725005	SCREW 1/4-20 X 1/2 TRUSS HD TORX
--	725000	BOLT 10-24 X 3/8 TBHMS GR2 BLK ZN F-T
--	725012	BOLT 8-32 X 3/8 PPHMS GR2 ZN F-T
--	725007	SCREW SLHH SHEET METAL
--	725010	GLIDE, ADJUSTABLE 5/16-18 X 1
--	509	BOLT 1/4-20 X 1/2 SLHWH ZN F-T T/C
--	725015	SCREW 1/4 X 2 LAG HH
--	725013	SCREW #6-20 X 3/4 PPH ZN
--	700034	STUD 10-24 X 3/4 STNLS FT
--	725016	SCREW #14 X 1/2 PTH BLK ZN
--	53611	NUT 5/16-18 H GR5 ZN

GLASS DOOR PARTS



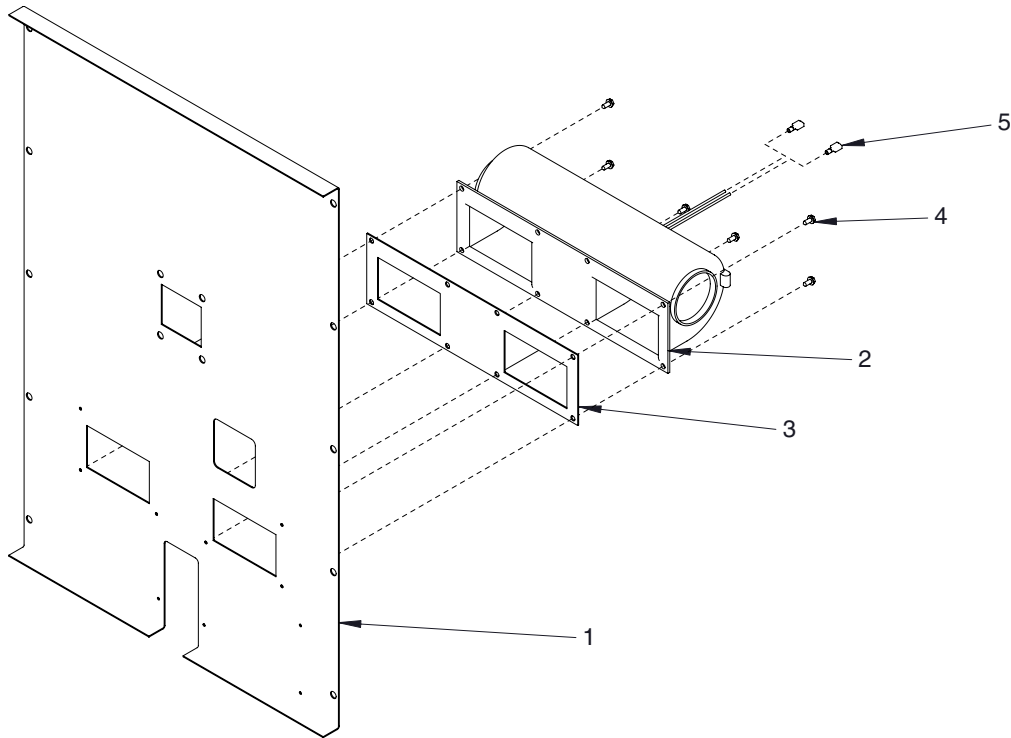
KEY #	PART #	DESCRIPTION
1	720000	GASKET, GLASS DOOR
2	720001	GASKET, MAIN DOOR GLASS
3	720002	GLASS
4	725000	BOLT 10-24 X 3/4 TBHMS GR2 BLK ZN F-T
5	700000	DOOR, MAIN
6	700200	CLIP, GLASS
7	700113	SPACER, DOOR LATCH
8	710064	DOOR HANDLE ASSEMBLY
9	725011	BOLT 1/4-20 X 7/16 SH BLK ZN SHLDR
10	700223	PANEL, AIRWASH

ASH PAN PARTS



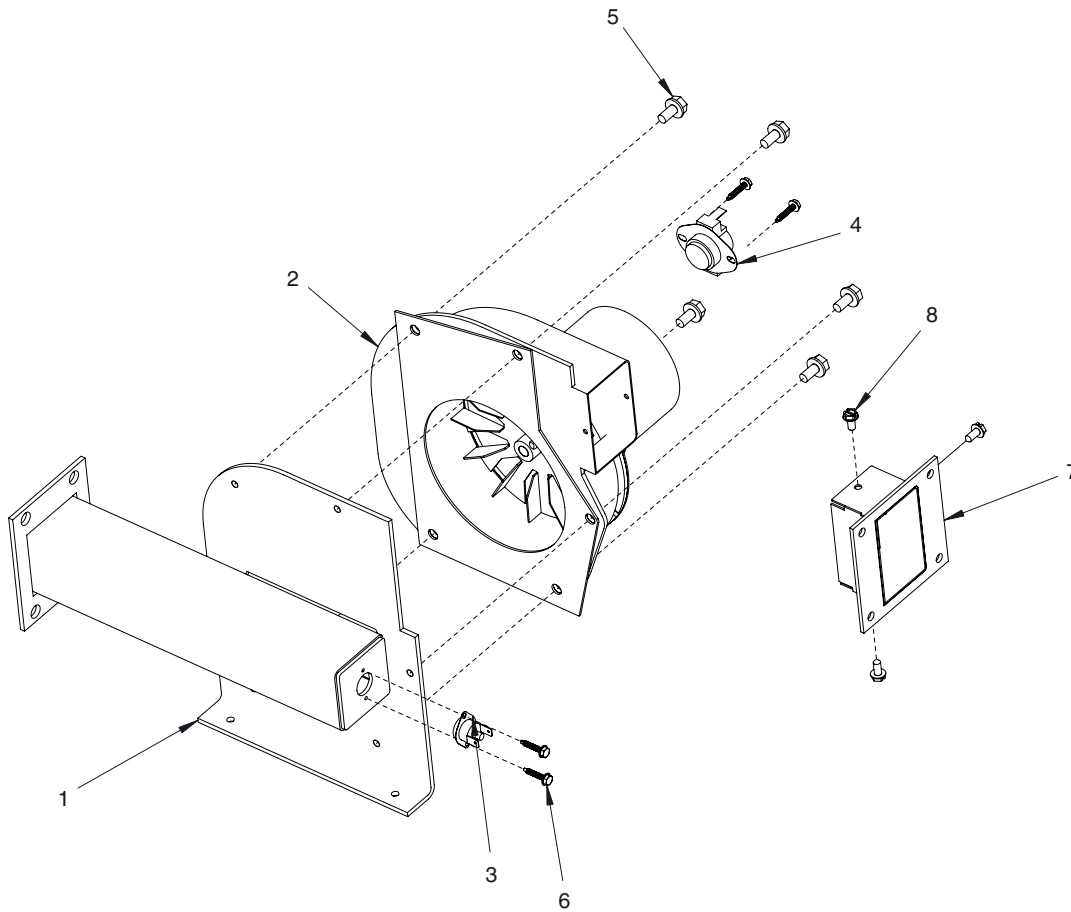
KEY #	PART #	DESCRIPTION
1	710035	ASH PAN
2	710055	ASH DOOR ASSEMBLY
3	730006	HANDLE, ASH DOOR
4	725012	BOLT 8-32 X 3/8 PPHMS GR2 ZN F-T
5	725000	BOLT 10-24 X 3/8 TBHMS GR2 BLK ZN F-T

CIRCULATING AIR DUCT PARTS



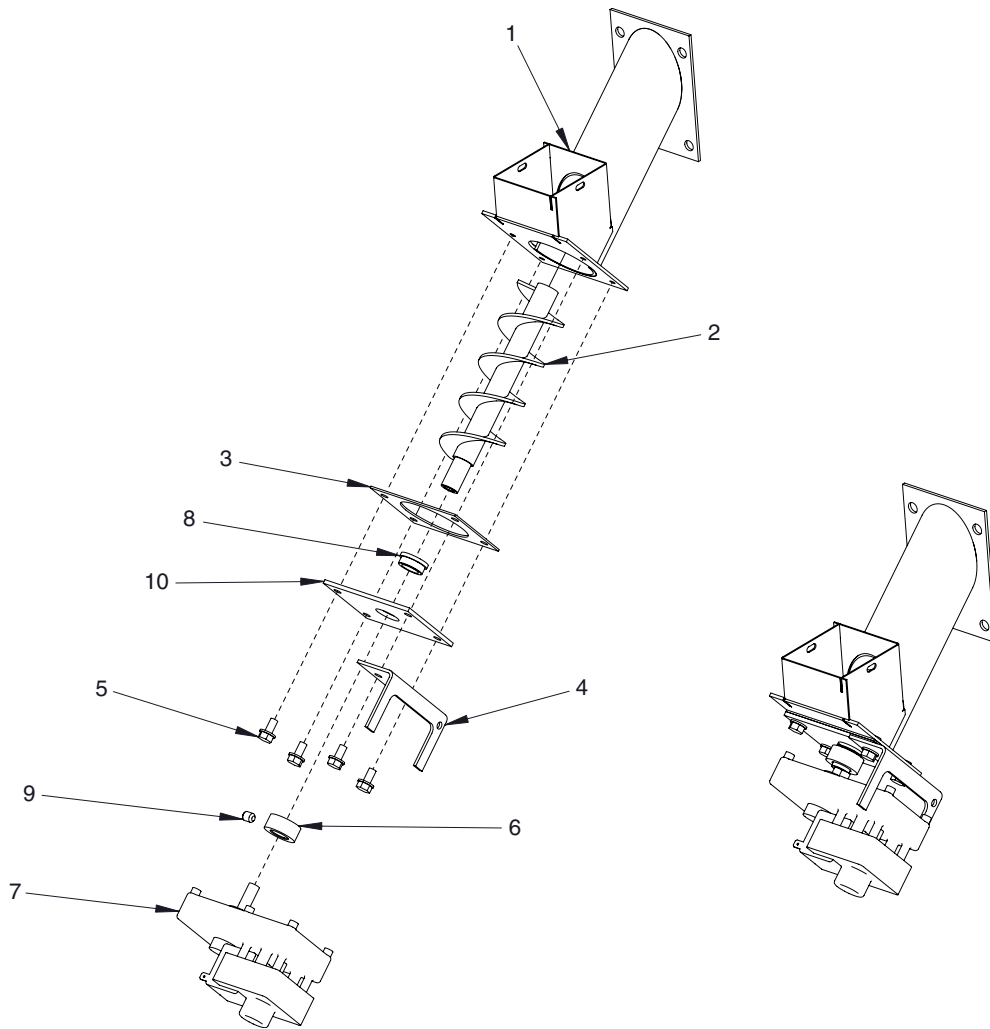
KEY #	PART #	DESCRIPTION
1	700194	PANEL
2	720011	BLOWER
3	730014	GASKET
4	725007	SCREW #10 X 3/8 SLHH ZN
5	720063	DISCONNECT, FULLY INSULATED FEMALE .250 X .032

EXHAUST PARTS



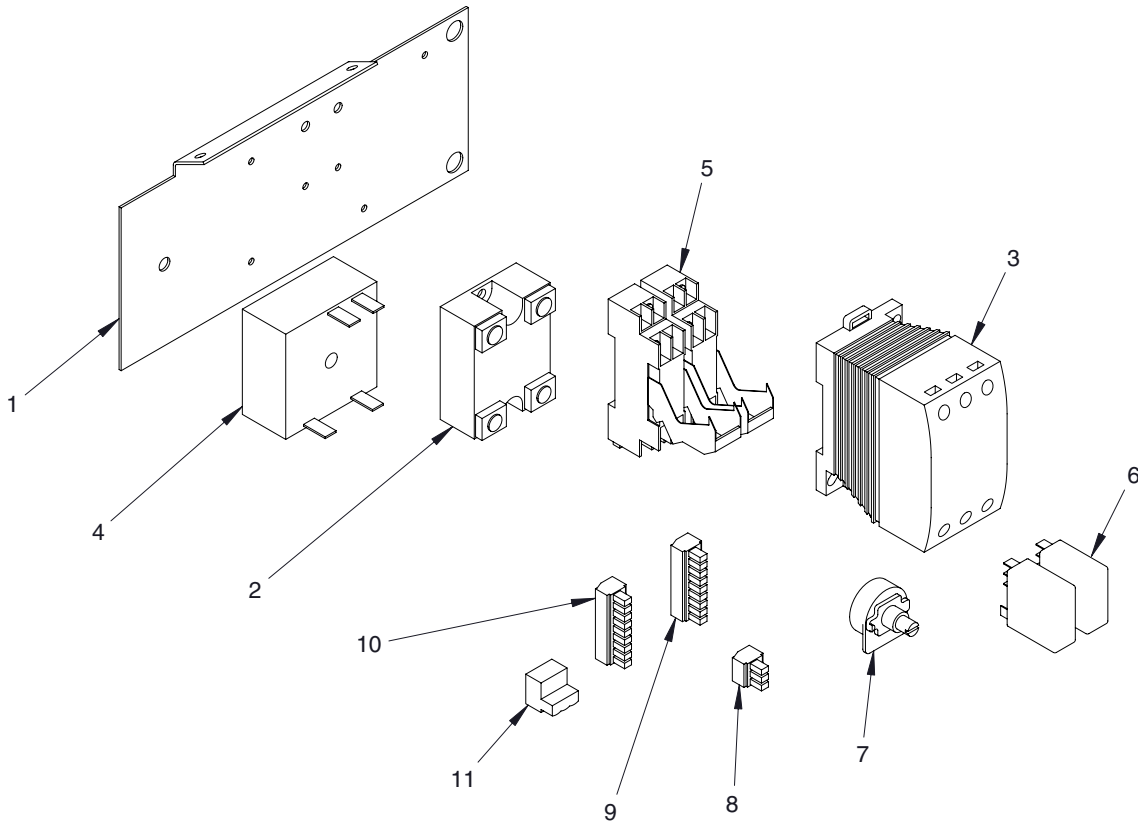
KEY #	PART #	DESCRIPTION
1	710069	EXHAUST MANIFOLD
2	720005	BLOWER, COMBUSTION
3	720050	SWITCH, ROLLOUT LIMIT
4	720015	SWITCH, SNAP DISC
5	509	BOLT 1/4-20 X 1/2 SLHWH ZN F-T T/C
6	725014	SCREW 6-20 X 3/4 SHHSD ZN
7	710060	SQUARE VENT
8	725007	SCREW #10 X 3/8 SLHH ZN

AUGER PARTS



KEY #	PART #	DESCRIPTION
1	710066	AUGER HOUSING
2	710009	AUGER
3	730015	GASKET, INBOARD AUGER
4	700120	PANEL, TORQUE ARM
5	509	BOLT 1/4-20 X 1/2 SLHWH ZN F-T T/C
6	700033	COLLAR, AUGER COUPLING
7	720006	GEAR MOTOR
8	730022	BUSHING, AUGER
9	K1038	SET SCREW 5/16-18 X 3/8 SCPF BLK
10	700025	PLATE, INBOARD AUGER

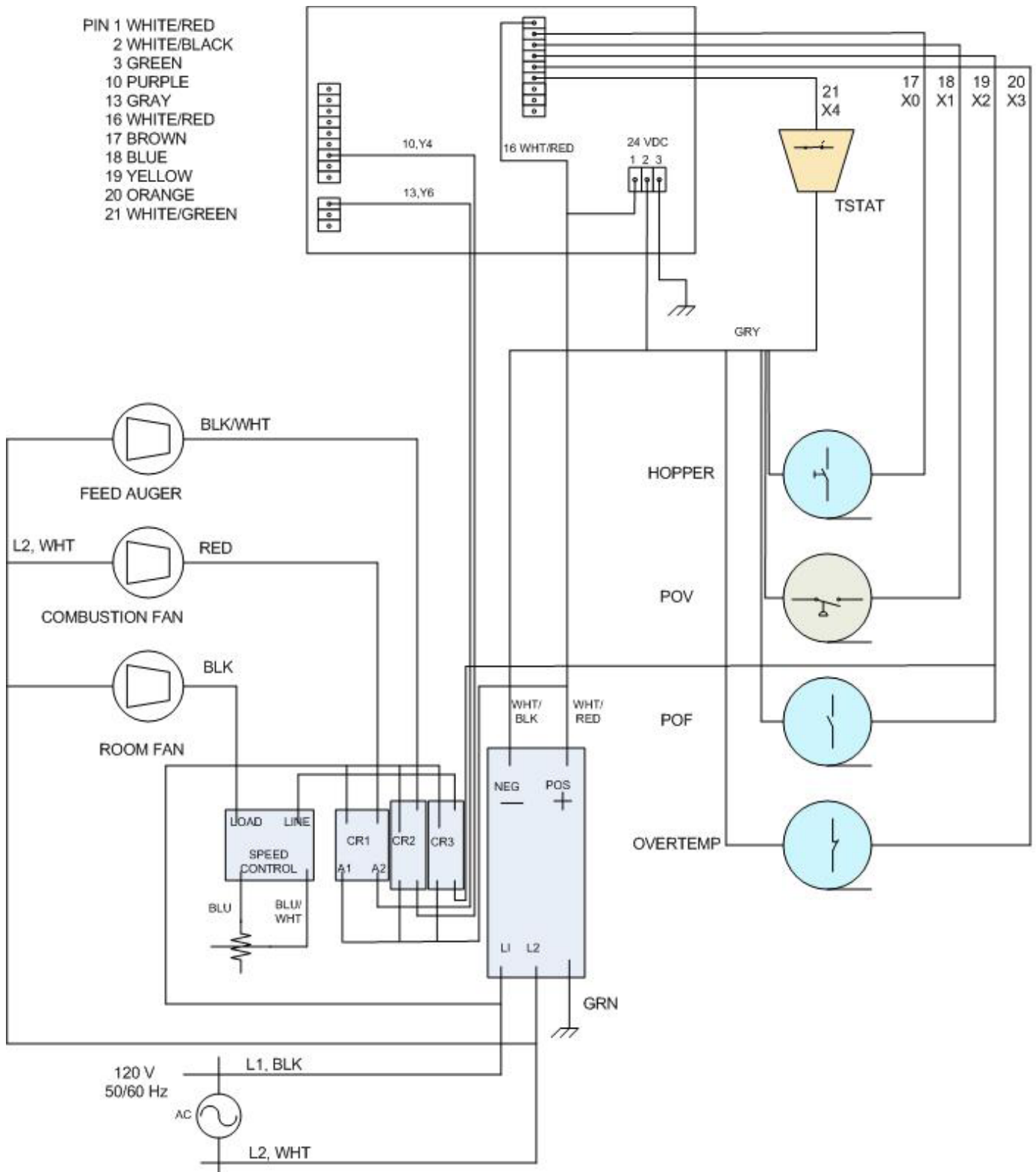
ELECTRIC PANEL PARTS



KEY #	PART #	DESCRIPTION
1	700134	PANEL, ELECTRICAL
2	720012	RELAY, SOLID STATE
3	720013	POWER SUPPLY, 24VDC 7.5 W
4	720036	CONTROL, AC PHASE
5	720017	SOCKET, MECHANICAL RELAY
6	720022	RELAY, MECHANICAL
7	720065	POTENTIOMETER
8	720067	PLUG, COMPONENT 13-15
9	720068	PLUG, COMPONENT 4-12
10	720069	PLUG, COMPONENT 16-24
11	720070	PLUG, COMPONENT 1-3

WIRING DIAGRAM

- PIN 1 WHITE/RED
- 2 WHITE/BLACK
- 3 GREEN
- 10 PURPLE
- 13 GRAY
- 16 WHITE/RED
- 17 BROWN
- 18 BLUE
- 19 YELLOW
- 20 ORANGE
- 21 WHITE/GREEN





Visit www.ardisam.com and discover more innovations that will benefit you throughout the year.



Cumberland Stove Works, Division of Ardisam, Inc.
1690 Elm Street; P.O. Box 666
Cumberland, Wisconsin 54829
800-345-6007 · Fax (715) 822-2223
E-mail: info@ardisam.com