MP80

SOLID FUEL WOOD FURNACE

For use as an add-on to electric, gas, or oil furnaces or and independent wood furnace when equipped with a blower.

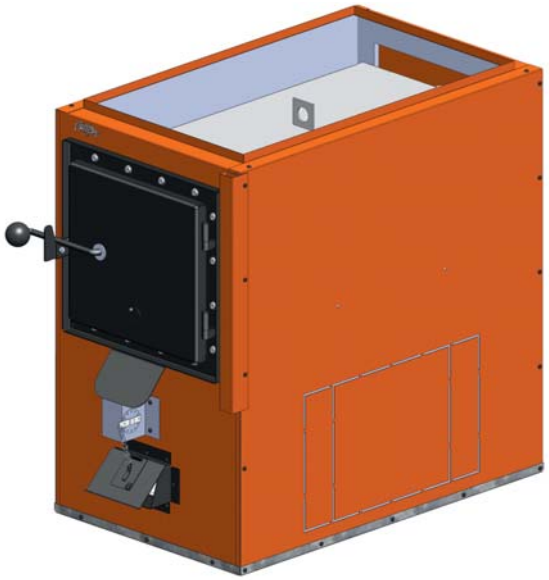
SAFETY INFORMATION

⚠WARNING

IF THE INFORMATION IN THESE INSTRUCTIONS ARE NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH. PLEASE READ ENTIRE MANUAL BEFORE YOU INSTALL AND USE YOUR HEATER.

- **INSTALLATION IS TO BE PERFORMED BY A QUALIFIED INSTALLER**
- This furnace can be very hot when burning.
- Combustible materials, including fire wood, must not be stored within the furnace installation clearances or within the space required for fueling, ash removal, and other routine maintenance operations.
- Children and pets must be kept from touching the heater when it is hot.
- The chimney must be sound and free of cracks. Before installing this unit, contact the local building or fire or other authority having jurisdiction and follow their guidelines.
- Operate only with the doors tightly closed.
- Do not use an elevated grate or otherwise raise the fire.
- This furnace is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods.
- Do not start a fire with chemicals or fluids such as gasoline, engine oil, etc.
- Do not burn treated wood, coal, charcoal, coloured paper, cardboard, solvents or garbage.
- Do not let the furnace become hot enough for any part to glow red.
- Comply with all local codes and regulations.
- Never operate a furnace that has been improperly installed.
- Never operate the furnace unless you are sure the smoke pipe and chimney are in safe condition. Flue gasses may contain carbon monoxide which is poisonous.
- Keep smoke pipe and chimney clean to prevent a chimney fire. Inspect and clean flues and chimney regularly. In the event of a chimney fire turn down all thermostats and close off combustion air. Call a fire department if necessary. Have a clearly understood plan to handle a chimney fire.

CAUTION:
CLEANOUT OF THE HEAT EXCHANGER, FLUE PIPE, CHIMNEY, AND DRAFT INDUCER IF USED, IS ESPECIALLY IMPORTANT AT THE END OF THE HEATING SEASON TO MINIMIZE CORROSION DURING THE SUMMER MONTHS, CAUSED BY ACCUMULATED ASH.



OPERATION & INSTALLATION MANUAL

Installer: Please complete the details on the back cover and leave this manual with the homeowner.
Homeowner: Please keep these instructions for future reference.

Manufactured By

Valley Comfort Systems Inc., 1290 Commercial Way, Penticton, BC, V2A 3H5, Canada
Phone: 250-493-7444 ◆ Fax: 250-493-5833 ◆ www.blazeking.com ◆ info@blazeking.com

Pour la version française de nos manuels S.V.P. vous référez à notre site web: www.blazeking.com

OM-MP80 E V1.16 November 21, 2017

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INTRODUCTION

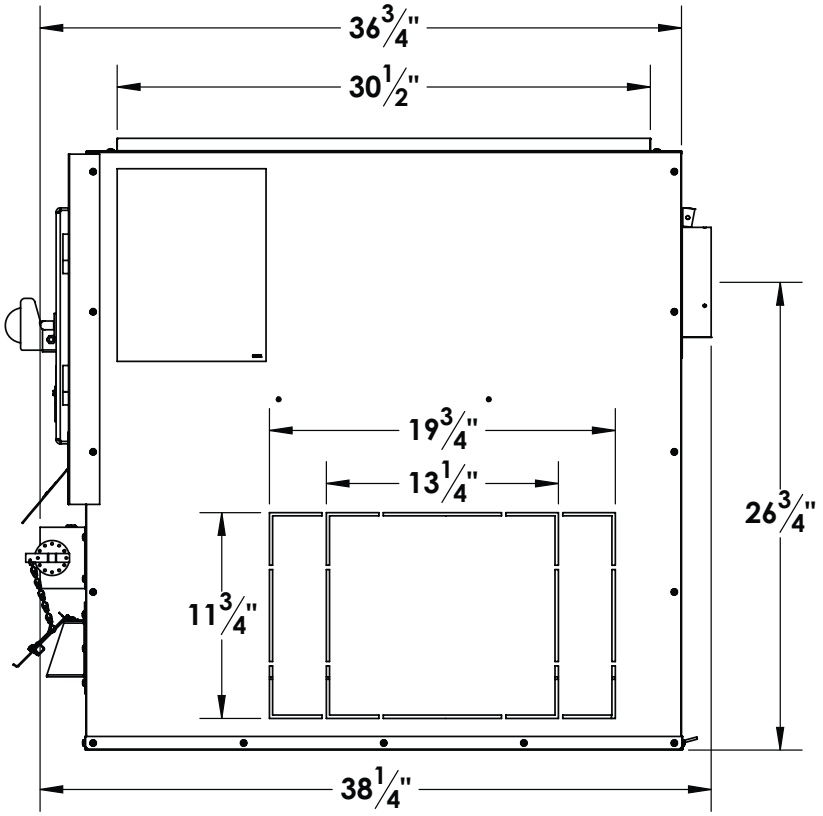
⚠WARNING

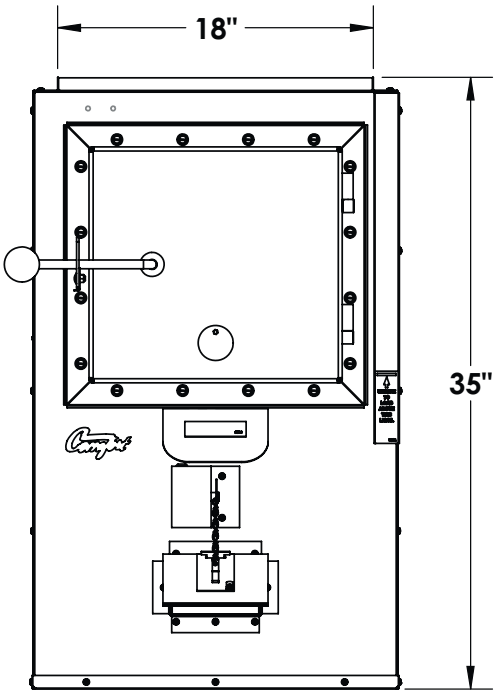
- **THIS APPLIANCE IS HOT WHEN OPERATED AND CAN CAUSE SEVERE BURNS IF CONTACTED.**
- Do not operate appliance before reading and understanding operating instructions. Failure to operate appliance according to operating instructions could cause fire or injury.
- Risk of burns. The appliance should be turned off and cooled before servicing.
- Do not operate without fully assembling all components.
- Do not install damaged, incomplete or substitute components.
- Risk of cuts and abrasions. Wear protective gloves and safety glasses during installation. Sheet metal edges may be sharp.
- Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at risk individuals in the house. To restrict access to an appliance or stove, install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the room and away from hot surfaces.
- Clothing or other flammable material should not be placed on or near the appliance.
- Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
- Ensure you have incorporated adequate safety measure to protect infants / toddlers from touching hot surfaces.
- Even after the appliance is out, the door and/or screen will remain hot for an extended period of time.
- Check with your local hearth specialty dealer for safety screens and hearth guards to protect children from hot surfaces. These screens and guards must be fastened to the floor.
- Any safety screen or guard removed for servicing must be replaced prior to operating the appliance.
- It is imperative that the control compartments, burners and circulating blower and its passageway in the appliance and venting system are kept clean. The appliance and its venting system should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. the appliance area must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- Under no circumstances should this appliance be modified.
- 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.
- Only doors certified with the unit are to be installed on the appliance.
- Keep the packaging material out of reach of children and dispose of the material in a safe manner. As with all plastic bags, these are not toys and should be kept away from children and infants.
- If the appliance is not properly installed, a house fire may result. Do not expose the appliance to the elements (ex. rain, etc.) and keep the appliance dry at all times. Wet insulation will produce an odour when the appliance is used.
- The chimney must be sound and free of cracks. Clean your chimney a minimum of twice a year and as required.
- The appliance is designed to burn natural wood only. Do not burn treated wood, coal, charcoal, coloured paper, cardboard, solvents or garbage.
- Do not start a fire with chemicals or fluids such as gasoline, engine oil, etc.
- Operate only with the doors tightly closed.
- Do not let the appliance become hot enough for any part to glow red.
- Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or too green or freshly cut hardwoods. Burning wet unseasoned wood can cause excessive creosote accumulation. When ignited it can cause a chimney fire that may result in a serious house fire.
- Do not use elevated grate or otherwise raise the fire.
- Do not store the wood within appliance installation clearances or within the space required for re-fueling and ash removal.
- Your appliance requires periodic maintenance and cleaning. Failure to maintain your appliance may lead to smoke spillage in your home.

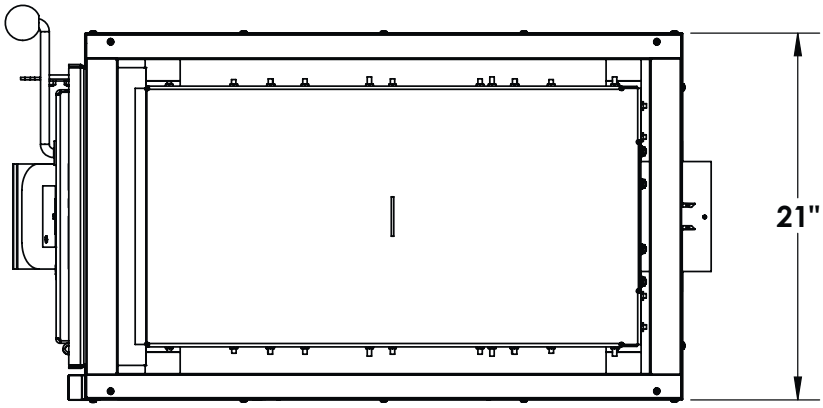
SPECIFICATIONS

Model	MP80
Rating	80,000 Btu. Nominal
Height	35”
Width	21”
Length	36 3/4”
Flue collar	6” I.D.
Flue pipe center to bottom	26 3/4”
Recommended flue draft	.03” water column
Hot air plenum opening	30 1/2” L x 18” W
Fire door opening	12” x 13”
Firebox length	26”
Firebox width	14”
Firebox height	19”
Fire box capacity	4 cu. ft.
Recommended Fuel length	24”
Firebox design features	• Distributed draft system with preheated primary air, via cast liner ports. • Stainless steel baffle system to retain high combustion efficiency.
Construction	• 14 gauge firebox • Cast iron liners • 12 gauge heat exchanger • 20 gauge cabinet • Stainless steel baffle
Shipping Weight	325 lbs.

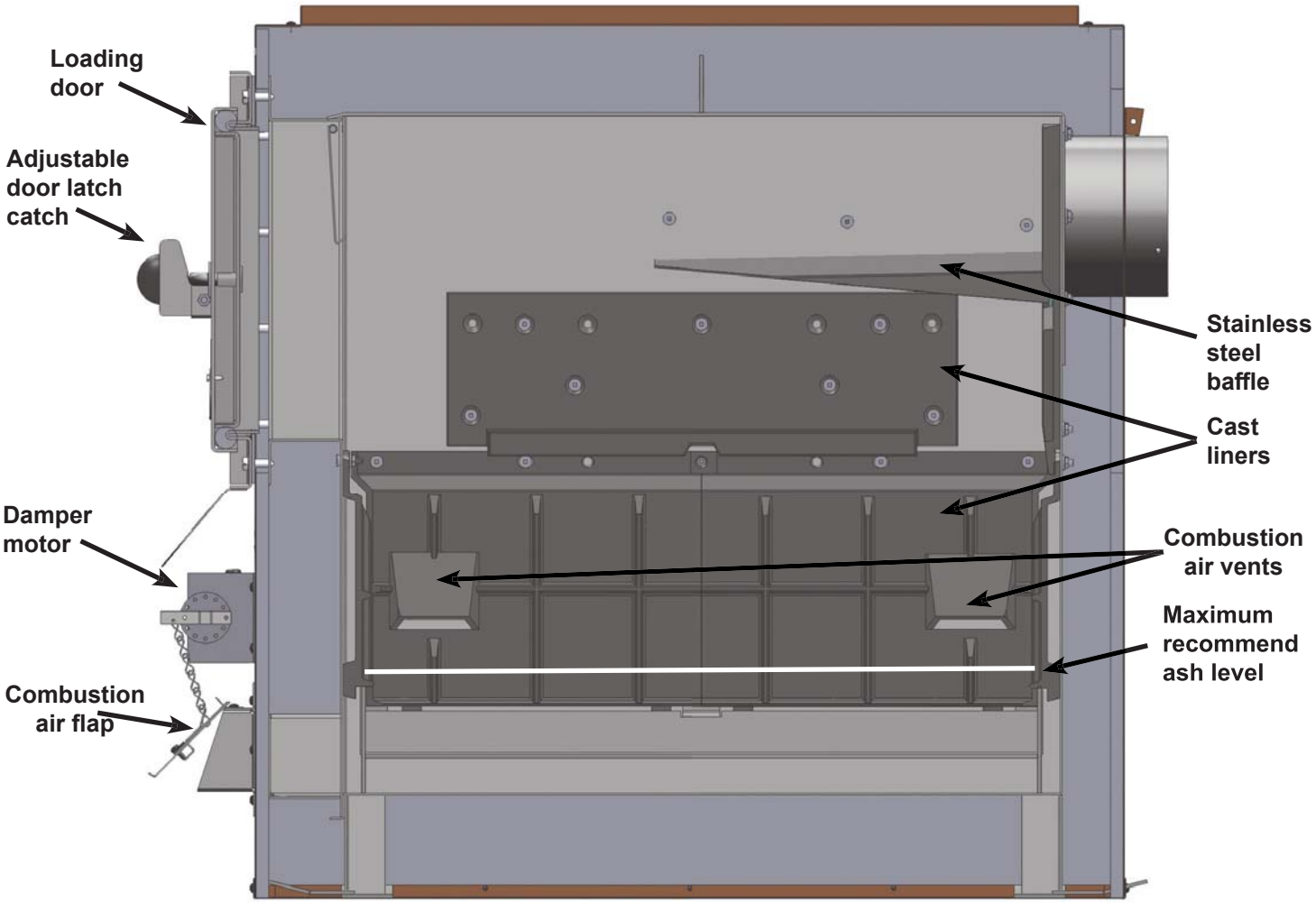
APPLIANCE DIMENSIONS







PRODUCT INFORMATION



Cutaway view

CERTIFICATION LABEL

MODEL MP-80 LISTED SOLID FUEL FURNACE
MADE IN CANADA BY
Valley Comfort Systems Inc.
1290 Commercial Way, Penticton, BC, V2A 3H5

DO NOT REMOVE THIS LABEL
SERIAL WH [redacted]

Intertek 4011009

CERTIFIED TO / CERTIFIÉE SELON: CSA Std B366.1-11

THIS UNIT MAY BE INSTALLED AS FOLLOWS:
1. AS AN INDEPENDENT FORCED AIR FURNACE EQUIPPED WITH A HAC 900 CFM FAN AS SHOWN IN DIAGRAM "A" BELOW.
2. AS A DOWN STREAM SERIES DUCT ADD-ON TO ANY OF THE FOLLOWING FURNACES:
   A. OIL FURNACE HAVING OIL INPUT, AS SHOWN ON ORIGINAL NAMEPLATE, BETWEEN .81 USGPH & 1.2 USGPH (MAX.). DIAGRAM "B".
   B. A GAS FIRED FORCED AIR FURNACE HAVING A GAS INPUT, AS SHOWN ON ORIGINAL NAMEPLATE, BETWEEN 60,000 MINIMUM AND 120,000 MAXIMUM BTU (17-35 kW) AND A 39-56°C(70-100°F) AIR TEMPERATURE RISE. MINIMUM FAN SIZE OF 900 CFM. DIAGRAM "B".
   C. ELECTRIC FORCED AIR FURNACE RATED AT 10 KW TO 25 KW INPUT. MINIMUM FAN SIZE 900 CFM. DIAGRAM "B".

CHIMNEY REQUIREMENTS:
ALL FUEL CHIMNEY WITH MINIMUM SIZE OF 29 sq. in. (1820 sq. mm.). DO NOT CONNECT THIS FURNACE TO A CHIMNEY SERVING A GAS APPLIANCE.

MINIMUM CLEARANCE:

WOOD CHARGING END	48 in.	(1200 mm)
ONE SIDE	6 in.	(150 mm)
OTHER SIDE (FOR SERVICING)	18 in.	(460 mm)
FLUE (COMBUSTIBLES, ELECTRICAL WIRE AND ELECTRIC FURNACE)	18 in.	(460 mm)
PLENUM & FIRST 6 ft. OF DUCT	2 in.	(50 mm)

MINIMUM INTERCONNECT DUCT SIZE FOR ADD ON USE 12 in. (300 mm) x 18 in. (460 mm).
NOTE - NOT APPROVED FOR PARALLEL OR SPLIT PLENUM (ADD-ON SERIES ONLY APPROVED)
IF INSTALLED ON COMBUSTIBLE FLOOR THE FLOOR MUST BE PROTECTED 18 in. (460 mm) IN FRONT OF WOOD CHARGING END. REFER TO INSTALLATION INSTRUCTIONS

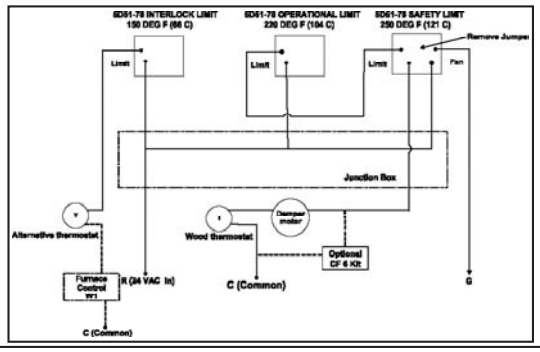
INSTALLED BY [redacted]
ADDRESS [redacted]
DATE [redacted]

OPERATING INSTRUCTIONS:
REFER TO DETAILED MANUFACTURER'S INSTRUCTIONS
1. BURN WOOD ONLY
2. LOAD FUEL CAREFULLY OR DAMAGE MAY RESULT
3. FILL TO BOTTOM OF DOOR ONLY.
4. DO NOT ATTEMPT TO LIGHT A FIRE WHEN THERE IS OIL OR GAS VAPOUR PRESENT.
5. DO NOT USE CHEMICALS OR FLUIDS TO START FIRE.

CAUTIONS:
1. DO NOT CONNECT DUCTWORK SO THAT A REVERSE FLOW IS POSSIBLE.
2. OPERATE OIL /GAS / ELECTRIC FURNACE UNIT PERIODICALLY TO ENSURE THAT IT WILL OPERATE SATISFACTORILY WHEN NEEDED.
3. DO NOT RELOCATE OR BYPASS ANY OF THE SAFETY CONTROLS OF THE ORIGINAL FURNACE INSTALLATION.
4. DISCONNECT ELECTRIC POWER FROM BOTH ADD-ON FURNACE AND ELECTRIC/GAS/OIL UNIT BEFORE SERVICING
5. DO NOT BURN GARBAGE, NAPTHA, GASOLINE OR ENGINE OIL UNDER ANY CIRCUMSTANCES.
6. KEEP THE FIRE DOOR TIGHTLY CLOSED.
7. IN THE EVENT OF A RUNAWAY FIRE OR CHIMNEY FIRE, CLOSE ALL COMBUSTION AIR, THE DAMPER CHAIN CAN BE UNHOOKED FROM THE CAM TO MANUALLY CLOSE THE DRAFT. CALL THE FIRE DEPARTMENT AND BE PREPARED TO EVACUATE THE HOUSE. CORRECT THE PROBLEM BEFORE REFIRING.
8. CLEAN HEAT EXCHANGER, FLUE PIPE AND CHIMNEY REGULARLY TO PREVENT A BUILDUP OF SOOT OR CREOSOTE. APPLIANCE FLUE MUST BE IN GOOD CONDITION.
9. STORE ALL FUEL OR COMBUSTIBLES OUTSIDE OF THE CLEARANCES LISTED AS "CLEARANCE TO COMBUSTIBLES"
10. **IN THE EVENT OF A POWER FAILURE KEEP FIRE LOW - CLOSE DRAFT AIR, REMOVE BLOWER CABINET DOOR AND AIR FILTERS TO ASSIST FLOW - OPEN ALL REGISTERS.**
11. SYSTEM SHOULD BE INSTALLED AND INSPECTED ANNUALLY BY A QUALIFIED PERSON.
12. DISCONNECT POWER BEFORE SERVICING.
13. "MAINTAIN COMBUSTION AIR TO BOTH FURNACES - AIR STARVATION IS DANGEROUS".
14. A FRESH AIR OPENING OF AT LEAST 3.3 mm^2/w (1 1/2 in^2 / 1000btu/h) SHALL BE PROVIDED.

APPROVED ELECTRICAL COMPONENTS:

THERMOSTAT -	WHITE RODGERS : 1E78-140
DAMPER MOTOR -	HONEYWELL: M847A1049B OR WHITE RODGERS 2070-5
FAN LIMIT(3) -	WHITE RODGERS: 5D51-78



CETTE UNITÉ PEUT ÊTRE INSTALLEE COMME INDIQUÉ CI-DESSOUS:
1. FOURNAISE INDEPENDANTE A CIRCULATION D'AIR PULSÉ EQUIPPÉE D'UN VENTILATEUR HAC 900 CFM, COMME DÉMONTRÉ DANS LE DIAGRAMME "A' CI-DESSOUS.
2. SÉRIE FOURNAISE COMBINÉE AVEC CONDUITS EN AVAL, EN COMBINAISON AVEC N'IMPORTE QUELLE DES FOURNAISES SUIVANTES:
   A. FOURNAISE A MAZOUT AYANT UNE CONSOMMATION DE MAZOUT TEL QU'INDIQUE SUR LA PLAQUE SIGNALETIQUE DU FABRICANT ORIGINAL, ENTRE .81 USGPH ET 1.2 USGPH (MAX) DIAGRAMME "B'.
   B. FOURNAISE A GAZ A CIRCULATION D'AIR FORCÉE AVEC UNE CAPACITE entre 60000 BTU Minimum et 120,000 BTU MAXIMUM (17-35 kW) , comme affiché sur la plaque signalétique, avec une augmentation de température de l'air entre 39-56°C(70-100°F). LE VENTILATEUR Doit pouvoir fournir un débit de 900 CFM MINIMUM, DIAGRAMME "B'
   C. FOURNAISE ELECTRIQUE A AIR FORCÉE D'UNE PUISSANCE MINIMUM DE 10 KW A 25 KW, AVEC VENTILATEUR 900 CFM MINIMUM. DIAGRAM "B'.

EXIGENCES REQUISES POUR LA CHEMINÉE:
CHEMINEE POUR TOUT COMBUSTIBLE 29 po. ca. (1820 mm. ca.). NE PAS BRANCHER CETTE FOURNAISE A UNE CHEMINÉE QUI EST DÉJÀ UTILISÉE PAR UN APPAREIL AU GAZ.
EXIGENCES ELECTRIQUES REQUISES: 120 V AC 15 A CRKT. CONTROL DU VENTILATEUR 2000 VA.
DÉGAGEMENTS MINIMUM:

EXTRIMITÉ POUR LE CHARGEMENT DU BOIS	48 po.	(1200 mm)
UN COTE	6 po.	(150 mm)
COTE OPPOSE (POUR L'ENTRETIEN)	18 po.	(460 mm)
TUYAU (MATERIAUX COMBUSTIBLES, FIL ELECTRIQUE ET FOURNAISE ELECTRIQUE)	18 po.	(460 mm)
PLENUM ET 6 PREMIERS PIEDS DE TUYAU	2 po.	(50 mm)

DIMENSION MINIMUM DU RACCORDEMENT DES TUYAUX 12 po. (300 mm) x 18 po. (460 mm). NOTE - PAS APPROUVE POUR PLENUM PARALLELE OU DIVISÉ (SÉRIE DES COMBINÉS APPROUVÉS SEULEMENT). SI INSTALLÉ SUR UN PLANCHER COMBUSTIBLE ON DOIT AJOUTER UN PROTECTION DE PLANCHER MINIMUM 18 po. (460 mm) EN AVANT DE L'APPAREIL SECTION DU CHARGEMENT. VOIR INSTRUCTIONS D'INSTALLATION.

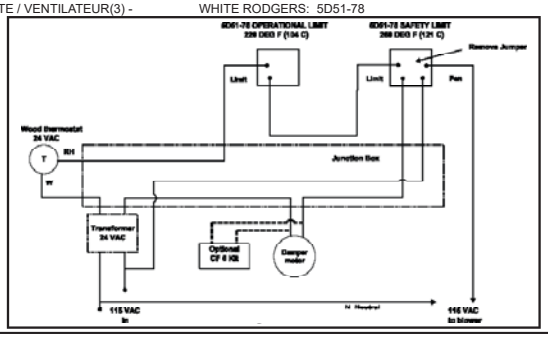
INSTALLEE PAR [redacted]
ADRESSE [redacted]
DATE [redacted]

INSTRUCTIONS DE FONCTIONNEMENT:
VOIR INSTRUCTIONS DÉTAILLÉES DU FABRICANT.
1. BRULER DU BOIS SEULEMENT.
2. CHARGER LE BOIS AVEC PRUDENCE AFIN D'EVITER DES DOMMAGES.
3. NE PAS CHARGER LE BOIS PLUS HAUT QUE LE BAS DE LA PORTE DE CHARGEMENT.
4. NE PAS ALLUMER UN FEU S'IL Y A DES VAPEURS DE MAZOUT, GAZ À PROXIMITE DE LA FOURNAISE.
5. NE PAS EMPLOYER DES PRODUITS CHIMIQUES OU DES FLUIDES POUR ALLUMER LE FEU.

ATTENTION:
1. NE PAS RACCORDER DE CONDUITS DE SORTE QU'UN FLUX REVERSIBLE SOIT POSSIBLE.
2. FAIRE FONCTIONNER LA FOURNAISE HUILE/GAZ/ÉLECTRIQUE PÉRIODIQUEMENT AFIN DE VOUS ASSURER QU'ELLE FONCTIONNERA ADÉQUATEMENT LORSQUE NÉCESSAIRE.
3. NE PAS RELOCALISER OU CONTOURNER LES CONTRÔLES DE SÉCURITÉ À L'INSTALLATION DE LA FOURNAISE ORIGINALE.
4. DÉBRANCHER LE COURANT ÉLECTRIQUE FOURNAISE AU BOIS ET ÉLECTRIQUE/GAZ/HUILE AVANT DE FAIRE L'ENTRETIEN.
5. NE PAS BRÛLER DE REBUT, NAPTHA, GAZ, HUILE MOTEUR EN AUCUN CAS.
6. GARDER LA PORTE DE CHARGEMENT HERMÉTIQUEMENT FERMÉE.
7. EN CAS D'UN FEU HORS DE CONTROLE OU UN FEU DE CHEMINEE, FERMER TOUTES LES ENTREES D'AIR DE LA FOURNAISE. POUR FERMER LE REGISTRE D'AIR A LA MAIN, DÉCROCHER LA CHAINE DU VOLET DU REGISTRE APPELER LES POMPIERS ET SE PREPARER A QUITTER LA MAISON, AVANT DE COMMENCER UN AUTRE FEU DANS LA FOURNAISE, CORRIGER LE PROBLEME.
8. NETTOYER REGULIEREMENT LES CONDUITS DE CHALEUR, LES TUYAUX ET LA CHEMINEE AFIN D'EVITER LA FORMATION DE CREOSOTE IL FAUT GARDER LES TUYAUX ET LA FOURNAISE. EN BONNE CONDITION DE FONCTIONNEMENT.
9. REMISER LE BOIS ET TOUT AUTRE MATERIAU COMBUSTIBLE EN RESPECTANT LES DÉGAGEMENTS NOTEES COMME "DEGAGEMENTS MINIMUMS DE MATERIAUX COMBUSTIBLES'.
10. **EN CAS DE PANNE D'ELECTRICITE GARDER LE FEU FAIBLE - FERMER L'ACCES D'AIR. ENLEVEZ LA PORTE DU VENTILATEUR ET LES FILTRES D'AIR POUR AIDER A LA CIRCULATION D'AIR, OUVRIR TOUS LES REGISTRES.**
11. LE SYSTEME DOIT ETRE INSTALLE ET INSPECTÉ TOUS LES ANS PAR UNE PERSONNE QUALIFIEE.
12. COUPER L'ALIMENTATION DU COURANT AVANT DE FAIRE L'ENTRETIEN DE LA FOURNAISE.
13. IL FAUT FOURNIR D'AIR A COMBUSTION AUX DEUX FOURNAISES EN TOUT TEMPS.
14. IL FAUT FOURNIR UNE OUVERTURE D'AIR FRAIS D'AU MOINS 3.3 mm^2/w (1 1/2 po^2 / 1000btu/h)

COMPOSANTS ELECTRIQUES APPROUVÉS:

THERMOSTAT -	WHITE RODGERS: 1E78-140
MOTEUR DU VOLET -	HONEYWELL : M847A1049B OU WHITE RODGERS 2070-5
LIMITE / VENTILATEUR(3) -	WHITE RODGERS: 5D51-78



SAFETY PRECAUTIONS

GENERAL INSTRUCTIONS

⚠WARNING

- **BEFORE INSTALLING THIS APPLIANCE, CONTACT THE LOCAL BUILDING OR FIRE OR OTHER AUTHORITY HAVING JURISDICTION AND FOLLOW THEIR GUIDELINES.**
- **THIS APPLIANCE MUST BE INSTALLED BY A QUALIFIED INSTALLER. FOLLOW THE INSTALLATION DIRECTIONS. DO NOT OPERATE WITHOUT FULLY ASSEMBLING ALL COMPONENTS.**
- **IF THIS APPLIANCE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT.**
- **DO NOT EXPOSE THE APPLIANCE TO THE ELEMENTS (EX. RAIN, ETC.) AND KEEP THE APPLIANCE DRY AT ALL TIMES. WET INSULATION WILL PRODUCE AN ODOUR WHEN THE APPLIANCE IS USED.**
- **THIS APPLIANCE IS HOT WHEN OPERATED AND CAN CAUSE SEVERE BURNS IF CONTACTED. CHILDREN AND PETS MUST BE KEPT FROM TOUCHING THE APPLIANCE WHEN IT IS HOT.**
- **COMBUSTIBLE MATERIAL SUCH AS FIRE WOOD, WET CLOTHING, ETC. PLACED TOO CLOSE CAN CATCH FIRE. OBJECTS PLACED IN FRONT OF THE APPLIANCE MUST BE KEPT A MINIMUM OF 48”(1219 MM) FROM THE FRONT OF THE APPLIANCE.**
- **ALL WIRING SHOULD BE DONE BY A QUALIFIED ELECTRICIAN AND SHALL BE IN COMPLIANCE WITH LOCAL CODES AND WITH THE CURRENT CSA C22.1 CANADIAN ELECTRIC CODE.**

APPLICABLE STANDARDS

Certification Standards and Installation Codes:
UL391-2010
UL 1995-2005/CSA C22.2 NO .236-05
CSA B-139-10
CSA B-365-10
CSA B-366.1-11

SAFETY PRECAUTIONS cont.

DEFINITIONS

Manufacturers Certified Instructions
B-365-10 page 5 Clause 4.2.1
Certified appliances, accessories, components and equipment shall be installed in accordance with the manufacturer's certified instructions and the requirements of this Code, the Manufacturer's instructions shall take precedence.
NOTE: A flue pipe is not considered a component of a certified appliance. (see not to clause 6.4.7).

Add-on Furnace
B-139-10
Add-on---a solid-fuel-burning appliance that is designed to share the heat distribution system connected to an oil, gas, or electric heating appliance and that has controls that are interconnected with the oil, gas or electric heating appliance.

Combination Appliance
B-139-09
Combination appliance---an appliance that is certified to operate with multiple types of fuels.

Be it resolved that because of their nature; Solid fuel burning Combination furnaces and fully assembled Add-on furnaces are to be installed as per the Manufacturers' Certified Instructions.

INSTALLATION INSTRUCTIONS

INSTALLER RESPONSIBILITIES

It is deemed the installer is responsible for the following:

1. The solid fuel burning appliance is in satisfactory condition, suitable for the installation and can be installed to the relevant codes.
2. After installation, the installer must insure all safety functions are operational and the appliance(s) are functioning properly.
3. The installer shall instruct the homeowner on proper and safe operation of the appliance(s) and provide a copy of the owner's manual for review
4. The installer shall review and initial the items on "INSTALLER NOTES" on page 33 of this manual and fill out the contact information at the bottom of the page.

PARTS INCLUDED WITH THE MP80

PARTS INSIDE FIREBOX FOR SHIPPING	
1. Furnace	2. Fan limit controls, bracket and electrical junction box: White-Rodgers 5D51-78 set at 150° F (66 C) White-Rodgers 5D51-78 set at 220° F (104 C) White-Rodgers 5D51-78 set at 250° F (121 C)
3. Thermostat: White Rodgers 1E78-140	4. Poker
5. Ash shovel	6. Owner's manual
7. Insulation hold back strips	

OPTIONAL EQUIPMENT

1. Blower and cabinet for independent use (900 cfm. to 1200 cfm.), see "STAND ALONE INSTALLATION" on page 21.
2. CF6 kit for use in wood counter flow installations (see Fig. "D" on next page).

USAGE

The MP80 may be installed as follows (see Fig.3 "INSTALLATION INSTRUCTIONS cont." on page 11)

1. **An add-on to any of the following furnaces:**
   a. An electric forced air furnace rated at 10 KW to 25 KW with a minimum size fan of 900 cfm. (see "INSTALLATION INSTRUCTIONS cont." on page 17)
   b. A forced air gas furnace with a maximum output of 120,000 btu. and a minimum size fan of 900 cfm. (see "INSTALLATION INSTRUCTIONS cont." on page 19)
   c. An oil furnace having an oil input as shown on the nameplate of not more than 1.2 usgph. and a fan capacity of not less than 900 cfm. (see "INSTALLATION INSTRUCTIONS cont." on page 19)
2. **As an independent forced air wood furnace equipped with a blower of not less than 900 cfm. Capacity** (see "INSTALLATION INSTRUCTIONS cont." on page 20).
3. **NOTE:** When used with a variable speed air handler and heat pump, the air flow must be regulated to fall within the recommended range (900 cfm. to 1200 cfm.)

INSTALLATION INSTRUCTIONS cont.

CERTIFIED FOR INSTALLATION WITH THE FOLLOWING DUCTWORK CONFIGURATION(S) ONLY

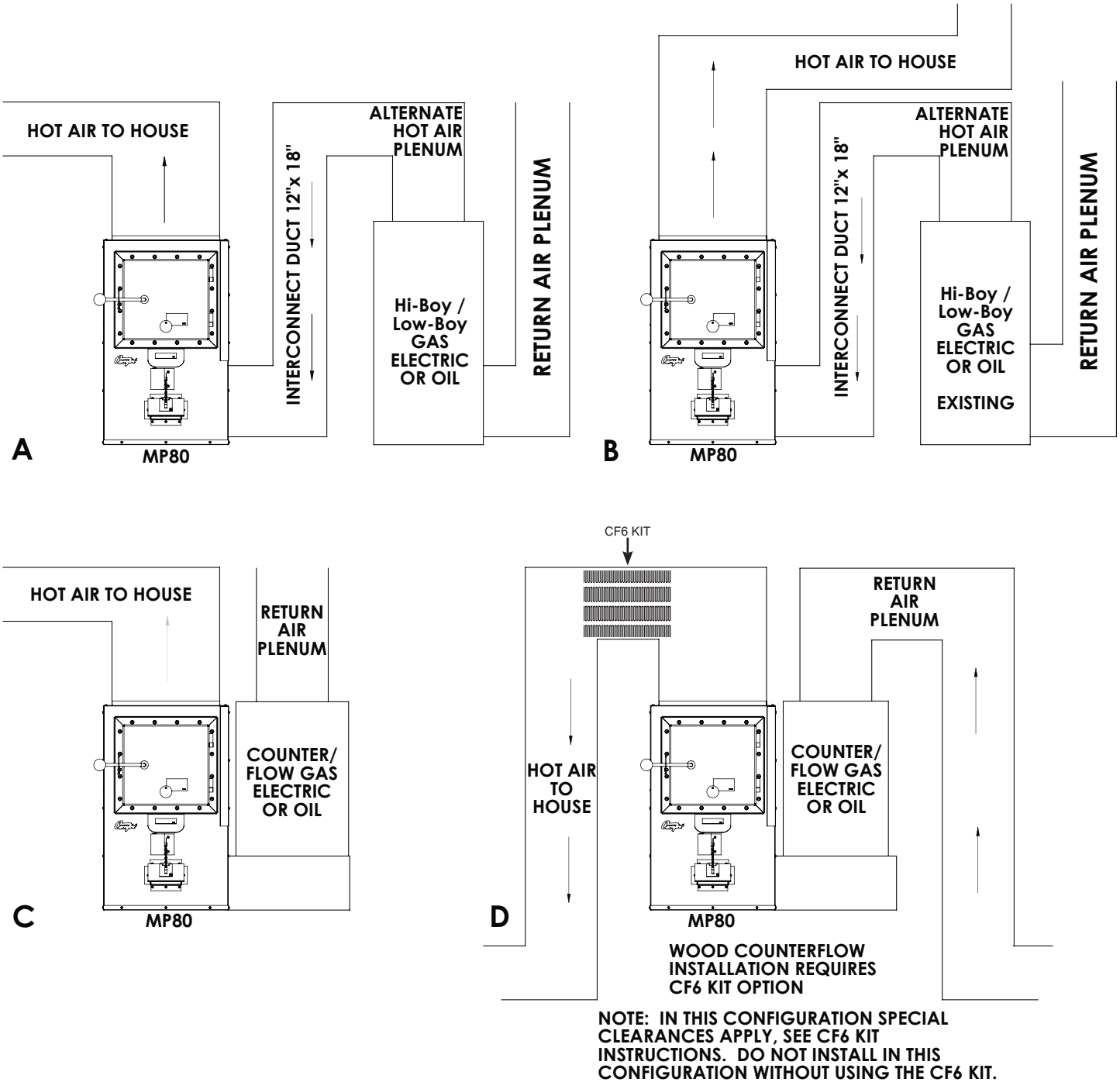


Fig. 3 Typical installation illustration

INSTALLATION INSTRUCTIONS cont.

CLEARANCE TO COMBUSTIBLE MATERIALS / PLENUM AND VENTING INSTALLATION

⚠WARNING

- **ALL PLENUM DUCTING AND VENTING INSTALLATION MUST CONFORM WITH CAN/CSA B365-01. THE WARM AIR SUPPLY DUCT AND THE PLENUM SHALL BE CONSTRUCTED OF METAL. ALWAYS CHECK LOCAL BUILDING AND FIRE CODES, AND AUTHORITIES HAVING JURISDICTION.**
- **ALL PLENUM, DUCTING AND VENTING MUST BE INSTALLED BY A QUALIFIED / LICENSED INSTALLER.**
- **DO NOT USE MAKESHIFT COMPROMISES DURING INSTALLATION. DO NOT BLOCK OR RESTRICT AIR. DO NOT IMPEDE AIR MOVEMENT IN ZONES MARKED "CLEARANCE TO COMBUSTIBLES".**

FLUE / CHIMNEY

⚠WARNING

- **DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE EXCEPT WHEN IN A WOOD / OIL CONFIGURATION**
- **USE CHIMNEY CERTIFIED TO 2100°F (1149°C) FOR WOOD BURNING APPLIANCES, LISTED AS UL 103HT (USA), ULC S629(CANADA) MINIMUM 6" (152 MM) DIAMETER LISTED RESIDENTIAL CHIMNEY. SEE AND FOLLOW CHIMNEY MANUFACTURES INSTRUCTIONS.**
- **CHIMNEY DRAFT GREATER THAN -0.06" W.C. (-15 PA) MAY CAUSE AN UNCONTROLLABLE FIRE AND DAMAGE THE FURNACE.**

Appliance connector shall be 24 ga black iron pipe, 24 ga stainless steel pipe or double wall smoke pipe installed as per B365-10 or manufactures certified instructions. NOTE: double wall pipe requires the use of a stove adapter and a tee to provide for a barometric damper.

CONTROLLING DRAFT

Barometric dampers can be installed to maintain normal operating draft between 0.03" and 0.06" W.C (10 Pa and 15 Pa).

⚠WARNING

- **IF OPERATING DRAFT RANGE IS EXCEEDED IT CAN CAUSE SOLID FUEL FIRE TO BURN OUT OF CONTROL CREATING OVER FIRE CONDITION, SEE "RUN-AWAY OR CHIMNEY FIRE" on page 25.**
- **STRICTLY ADHERE TO ALL IDENTIFIED INSTALLATION CLEARANCES.**

MEASURING DRAFT

Using a manometer with appropriate scale range connect testing tube between manometer and chimney connector. End of testing tube should be inserted in chimney connector so approximately 1" (25 mm) of tube protrudes into and perpendicular to exhaust stream. This measurement shall be taken approximately 12" (305 mm) above elbow/T attached to the furnace flue. Any hole made in the chimney connector for insertion of manometer tube shall be adequately sealed with high temp materials when testing is complete. Chimney draft to be a minimum -0.03" W.C. (-10 Pa) to maximum -0.06" W.C. (-15 Pa).

INSTALLATION INSTRUCTIONS cont.

CLEARANCES TO COMBUSTIBLES These clearances are minimum clearances to combustibles. Always maintain sufficient space for servicing, access to flue pipe etc.	
WOOD CHARGING END (DOOR)	48 in. (1220 mm)
ONE SIDE	6 in. (153 mm)
OPPOSITE SIDE FOR SERVICING	18 in. (458 mm)
SINGLE WALL FLUE TO COMBUSTIBLES INCLUDING ELECTRIC WIRING AND ELECTRIC FURNACE	18 in. (458 mm)
PLENUM AND FIRST 6ft. OF SUPPLY DUCT	2 in. (51 mm)

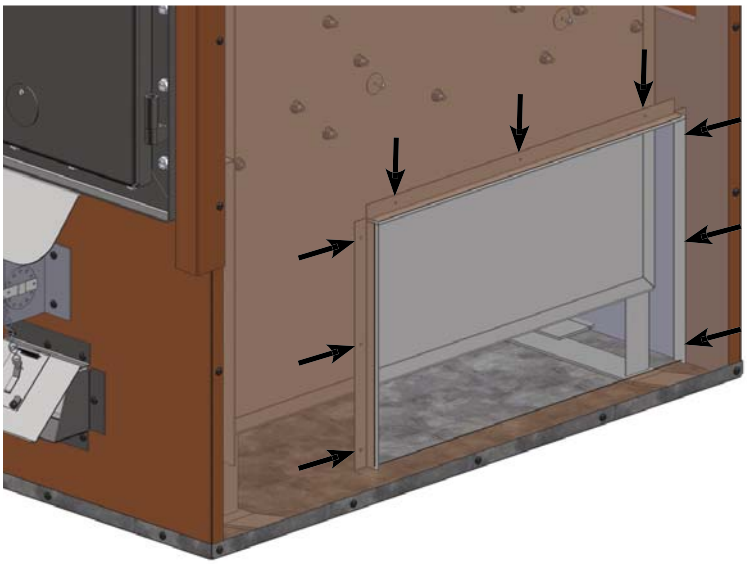
If the furnace sits on a combustible floor, a non-combustible shield must be used underneath the furnace that extends 18 inches out from the charging end and 8 inches on either side of the fuel-loading door. A non-combustible shield is also required underneath the chimney connector and extending at least 2 in. on either side of the chimney connector.
This floor protection is required to prevent sparks from falling onto the combustible floor. See CSA B365-M87. It is not required to be a heat protective covering.

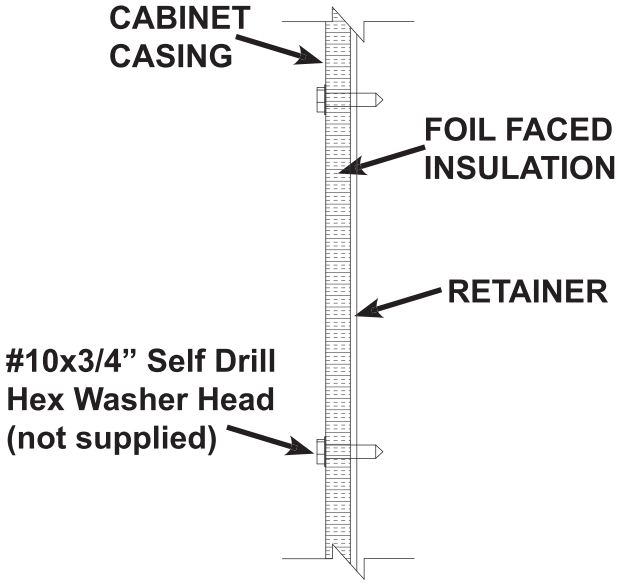
This furnace must be installed in compliance with all local codes and regulations.

INSTALLATION INSTRUCTIONS cont.

NOTE: AFTER INTERCONNECT DUCT OPENING HAS BEEN CUT INTO THE SIDE OF THE MP80, INSULATION MUST BE FASTENED BACK TO THE FURNACE CABINET ALL AROUND THE OPENING. USE THE METAL STRIPS PROVIDED TO HOLD THE INSULATION TIGHTLY AGAINST THE CABINET INSIDE, TO PREVENT THE INSULATION FROM DISLODGING DUE TO BLOWER INDUCED VIBRATION. AS AN ALTERNATIVE TO INSULATION STRIPS, FOIL BACKED ALUMINUM TAPE MAY BE USED TO SECURE THE INSULATION TO THE CABINET.

COMBUSTION AIR





Insure adequate combustion air allowing for all other exhausting type appliances in the dwelling (range hoods, dryers, etc). In airtight houses it is recommended to install a fresh air inlet into the basement room where the furnace is located. Recommended intake size is 1.5 sq in^2 per 1000 BTU's.

OUTDOOR COMBUSTION AIR

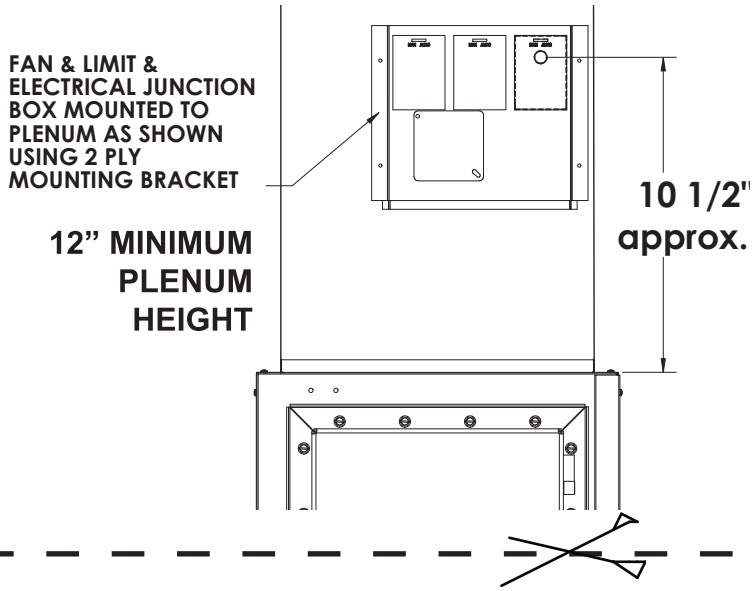
The dwelling must be assessed for depressurization as to not starve the appliance for combustion air. If necessary the pressure in the house may need to be adjusted by supplying make up air directly from the outdoors to allow the appliance to function throughout its operating requirements.

The need for proper venting design and proper appliance selection is fundamental in minimizing smoke spillage and satisfactory safe operation of the appliance

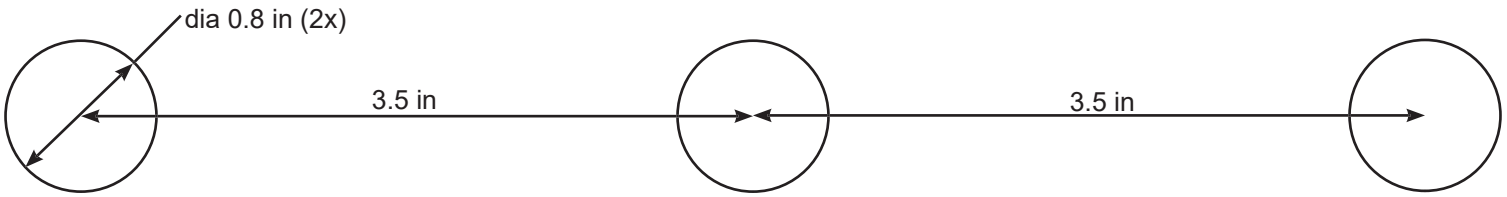
INSTALLATION INSTRUCTIONS cont.

FAN LIMIT INSTALLATION

Using the bracket provided, install the fan limit and junction box assembly onto the warm air plenum, above and to the right of the firebox fuel door, as illustrated. All 120vac wiring must be routed on the outside of the cabinet surface. Installation of wiring must be by a qualified electrician. See specific add on type instructions for wiring diagrams that apply. Wire between the junction box and the damper motor should be routed in the outside channel of the bracket, to the right of the firebox door with clips at each end as required. Clips must not compress leads tightly against the surface.



TEMPLATE FOR DRILLING HOLES—CUTOUT LINES

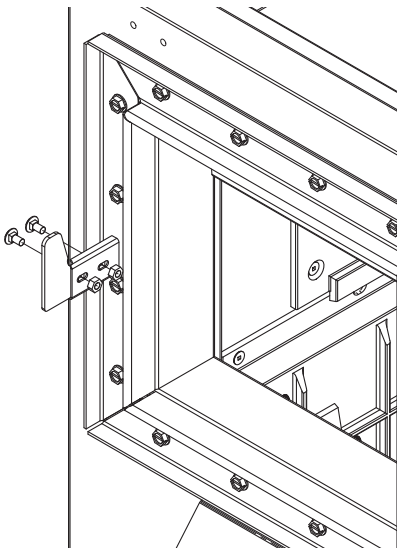


THERMOSTATS

Stand alone wood furnace installations use one thermostat for the wood furnace. Combination systems using your wood furnace in conjunction with an alternate furnace (gas/oil/electric) will use 2 thermostats, one to control the wood furnace and one to control the alternate furnace. The two thermostats are interconnected via the various limit controls, to prevent simultaneous operation of both furnaces when the hot air plenum reaches 150°F. Thermostats should be mounted side by side on an inside wall out of direct sunlight or other heat sources.

DOOR AND LATCH INSTALLATION

Install the firebox door on the frame hinges. Install the door latch catch on to the frame mounting bracket, as shown, using the two 1/4" x 1/2" carriage bolts provided. Adjust the door latch catch for a snug fit of the door against the gasket. The door gasket will "seat" after a short time so the initial adjustment should be snug. Advise the homeowner to check the fit of the door gasket from time to time to ensure a seal all around the firebox door. A loose fitting door will allow entry of excess air and result in higher burn rates with less control.



INSTALLATION INSTRUCTIONS cont.

GENERAL CONSIDERATIONS FOR ADD-ON TO GAS/OIL/ELECTRIC FURNACES

Do not use duct elbows having a inside radius of less than 6 in (150 mm). The furnace duct system and chimney must be in good operating condition before installing the add on unit. Do not relocate or bypass any of the safety controls of the original furnace installation.

External static pressure and pressure loss must be measured on the existing system before the add on appliance is installed. This is achieved by using a combination of a manometer and a velometer to measure the inches of water column or pascals of pressure as well as the velocity of the moving air. These values are then recorded after the installation of the add on as well. If the addition of the add on furnace changes the external static pressure or the air temperature across the gas/oil/electric furnace, than the values must be reset to the manufacturers specifications after the add on is installed to maintain the air flow through the existing furnace. This can be resolved by adjusting fan speeds or sizing of distribution plenums.

All equipment shall be installed in accordance with the instructions of the manufacturer and in a manner acceptable to the authority having jurisdiction by experienced personnel. When required by the authority having jurisdiction, such personnel shall be licensed to perform this service.

ADD-ON TO ELECTRIC FURNACE

The MP80 may be added to an electric furnace with heating capacity between 10KW and 25KW. Minimum blower capacity must be at least 900 cfm. Electric furnaces approved for installation in any position can be inverted and used in a down flow position using an adapter duct between the furnace and the add-on as indicated in Fig.3 (see "INSTALLATION INSTRUCTIONS cont." on page 11). The electric furnace may be located on either side of the MP80 but clearances to combustibles must be maintained.

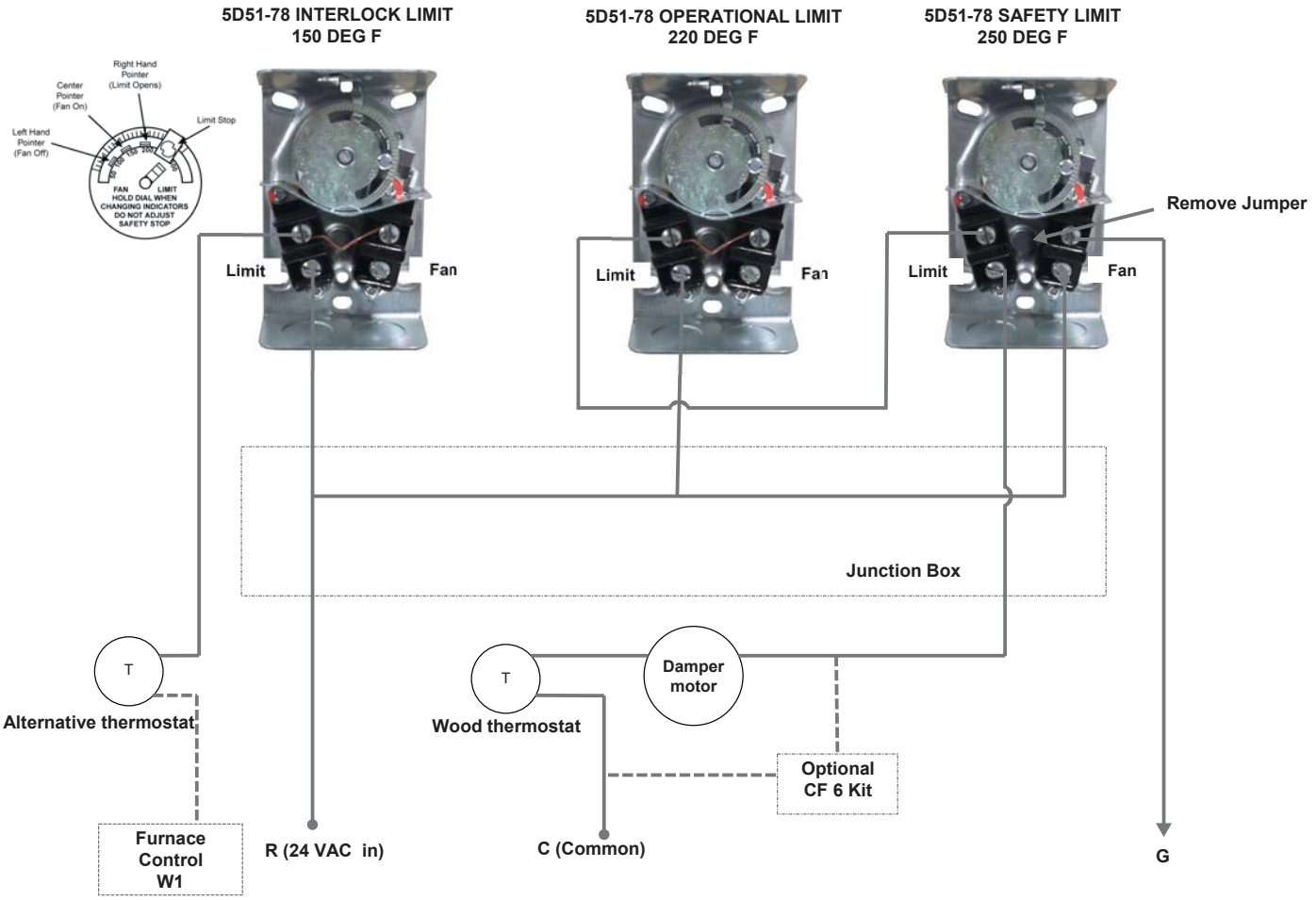
AN INTERLOCK LIMIT SWITCH MUST BE INCLUDED IN THE CONTROL CIRCUITRY PREVENTING THE ELECTRIC FURNACE FROM OPERATING WHEN THE SYSTEM OUTPUT PLENUM TEMPERATURE IS ABOVE 150°F. TYPICAL WIRING DIAGRAM FOLLOWS: (see Fig. 21 "INSTALLATION INSTRUCTIONS cont." on page 17). IF YOUR ELECTRIC FURNACE DOES NOT HAVE AN R AND G CONNECTION (see Fig. 22 "INSTALLATION INSTRUCTIONS cont." on page 19)

⚠WARNING

- **ALL 120 VOLT ELECTRICAL MUST BE INSTALLED AS PER INSTRUCTIONS AND ELECTRICAL CODES.**
- **INSTALLATION REQUIRES WIRING BY A CERTIFIED ELECTRICIAN. ALL WIRING TO CONFORM TO CSA 22.1.**
- **FAILURE TO COMPLY MAY RESULT IN ELECTRIC SHOCK, FIRE, PROPERTY DAMAGE OR PERSONAL INJURY.**
- **THE ELECTRICAL INSTALLATION MUST SATISFY ALL RELEVANT ASPECTS OF CSA 22.1 AND IN PARTICULAR CAN /CSA-C22.2 NO. 0-M91, NO. 3.**
- **DISCONNECT POWER FROM BOTH ELECTRIC FURNACE MODULE AND WOOD FURNACE BEFORE SERVICING.**
- **ALL LOW VOLTAGE CONNECTIONS MUST BE MADE WITH LVT (LOW VOLTAGE THERMOSTAT) WIRE WITH 18 ga CONDUCTORS.**
- **ALL WIRING BRINGING 120V OR GREATER TO THE MP80 AND ITS MODULES, SHALL BE AS SPECIFIED IN ELECTRICAL CODE BUT MUST HAVE WIRE INSULATION VALUE OF NO LESS THAN 194°F (90°C).**
- **MAINTAIN MINIMUM 18" (457 mm) CLEARANCE BETWEEN ALL FURNACE EXHAUST COMPONENTS AND ELECTRICAL WIRING CARRYING 120V OR GREATER.**
- **MAINTAIN A MINIMUM OF 4 FEET (1219 mm) CLEARANCE BETWEEN CONDUCTORS CARRYING 120V OR GREATER AND THE FRONT OF THE FURNACE.**

INSTALLATION INSTRUCTIONS cont.

Fig. 21 ELECTRICAL CONNECTIONS WOOD/ELECTRIC WITH R AND G CONNECTIONS



INSTALLATION INSTRUCTIONS cont.

ADD-ON TO GAS FURNACE

The MP80 may be connected to a gas furnace having a maximum rated input of 120,000 BTU. Minimum blower capacity must be at least 900 cfm. A counter flow gas furnace may be used with an interconnect duct as indicated in Fig.3 (see "INSTALLATION INSTRUCTIONS cont." on page 11. A regular up flow gas furnace may be used and connected as per Fig.3 (see "INSTALLATION INSTRUCTIONS cont." on page 11). The MP80 can be located on either side of the gas furnace. Minimum interconnect duct size is 12" x 17" with minimum 6" inside radius elbows. Do not, under any circumstances, connect the MP80 flue to a chimney that also vents the gas furnace. The wood furnace requires a chimney approved for solid fuel use. Maintain clearances to all combustibles. Refer to general instructions portions of this manual also.

THE OPERATION OF THE GAS FURNACE MUST BE VERIFIED FOR ACCEPTABLE OPERATION, BEFORE AND AFTER INSTALLATION OF THE ADD ON, BY A GAS FITTER WHO IS RECOGNIZED BY THE REGULATORY AUTHORITY. DO NOT CONNECT TO ANY FURNACE THAT HAS NOT BEEN CERTIFIED INITIALLY AS COMPLYING WITH CGA STANDARD CAN1-2.3 OR ITS PRECEDENTS. DO NOT CONNECT TO ANY FURNACE THAT IS NOT EQUIPPED WITH AN AIR CIRCULATION BLOWER.
DO NOT CONNECT, UNDER ANY CIRCUMSTANCES, TO A CHIMNEY SERVING A GAS FURNACE OR OTHER GAS APPLIANCE. THE INSTALLATION OF THE GAS FURNACE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CSA B365, AND IF CHANGES ARE MADE TO THE INSTALLATION OF THE GAS FURNACE, INCLUDING CLEARANCES FOR SERVICING, THESE SHALL COMPLY WITH CSA B149.1.

ADD-ON TO OIL FURNACE

The MP80 may be connected to an oil furnace having a rated input of up to 1.2 USGPH. Minimum blower capacity must be at least 900 cfm. A regular up flow oil furnace may be used and connected as per Fig.3 (see "INSTALLATION INSTRUCTIONS cont." on page 11). The MP80 can be located on either side of the oil furnace. Minimum interconnect duct size is 12" x 17". The wood furnace requires a chimney approved for solid fuel use. Maintain clearances to all combustibles. Refer to general instructions portions of this manual also.

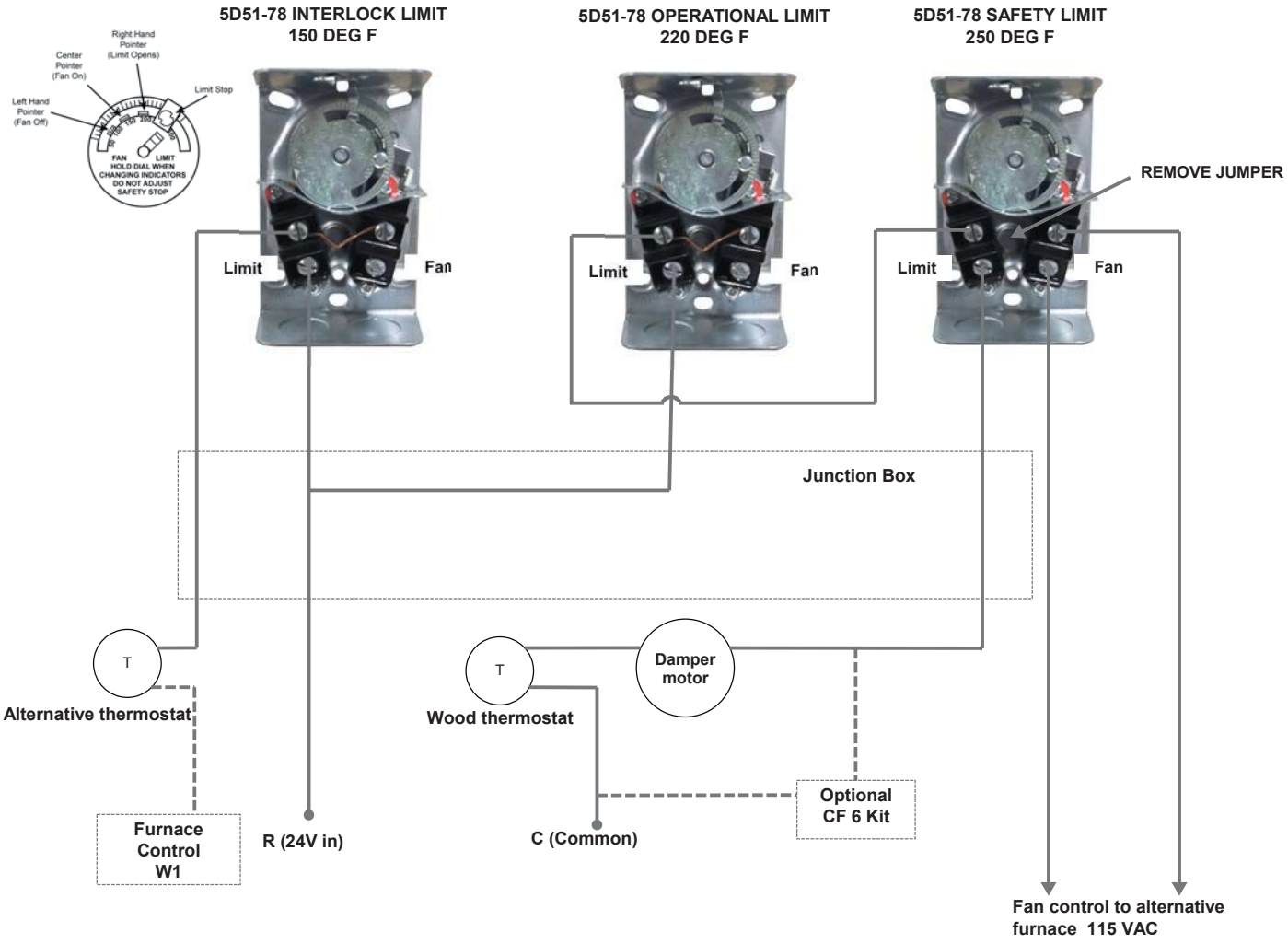
NOTE: Careful attention must be used when adding an MP-80 add-on furnace to an existing oil furnace if the existing oil furnace is using an AHST 1700 deg stainless steel chimney as it can not be used by the wood furnace, you must either upgrade the existing chimney to a S-629 compliant 2100 deg chimney or add a separate chimney for the wood furnace.

If changes are made to the installation of the oil furnace these changes must comply with CSA Standard B139.

WHEN INSTALLING AN MP80 TO AN EXISTING GAS, OIL, OR ELECTRIC FURNACE AN INTERLOCK LIMIT SWITCH MUST BE INCLUDED IN THE CONTROL CIRCUITRY PREVENTING THE GAS FURNACE FROM OPERATING WHEN THE SYSTEM OUTPUT PLENUM TEMPERATURE IS ABOVE 150°F. TYPICAL WIRING DIAGRAM FOLLOWS:
(See Fig. 22 on next page.)

INSTALLATION INSTRUCTIONS cont.

Fig. 22 ELECTRICAL CONNECTIONS WOOD/OIL WOOD/GAS (WOOD/ELECTRIC)
This Figure is not a physical representation of your electrical connections. Limit switches and relays may be laid out differently than shown. The words and letters marked on the switches and relays should be followed and connections made to the proper locations.



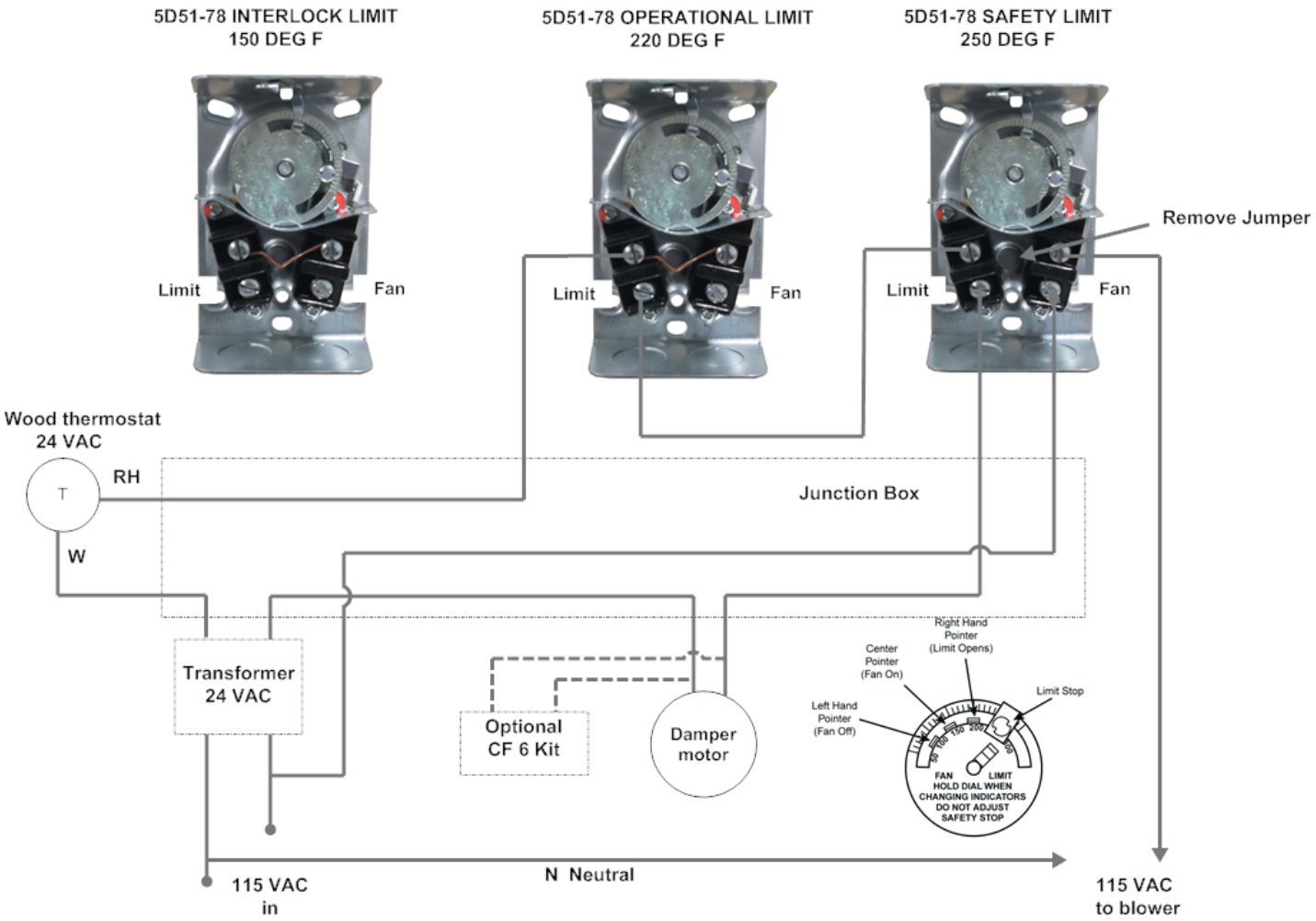
WIRING DIAGRAM FOR THE CONNECTION OF THE MP80 TO AN ALTERNATIVE GAS OR OIL FURNACE WITH 120 VAC FAN CONTROL.

INSTALLATION INSTRUCTIONS cont.

INDEPENDENT WOOD FURNACE

When installed with a blower cabinet mounted on either side, the MP80 becomes an INDEPENDENT wood only furnace. The blower must have a minimum 900 cfm. capacity (1/3 hp.). In this configuration the interlock limit is not used. Figure 23 shows the electrical connections.

Fig. 23 ELECTRICAL CONNECTIONS INDEPENDENT WOOD



When installing in a stand-alone configuration with an add-on blower only 2 out of the three limit switches are used. The middle limit is the Operating Limit and the right limit switch is the Safety Limit. The left limit is only for use with an alternate furnace.

NOTE: SPECIAL RETURN AIR CONSIDERATIONS MUST BE TAKEN INTO ACCOUNT FOR WOOD ONLY INSTALLATIONS AS PER "B-365" (ALL RETURN AIR DUCT MUST BE METAL ONLY)

STAND ALONE INSTALLATION

When the MP80 is used as an independent furnace a blower with a minimum of 900 cfm and a maximum of 1200 cfm is required. The VB1000 blower is built by Valley Comfort for the following models: Blaze King Apex CBT, Valley Comfort MP80 & VC120 Wood Furnace (Stand Alone Applications)

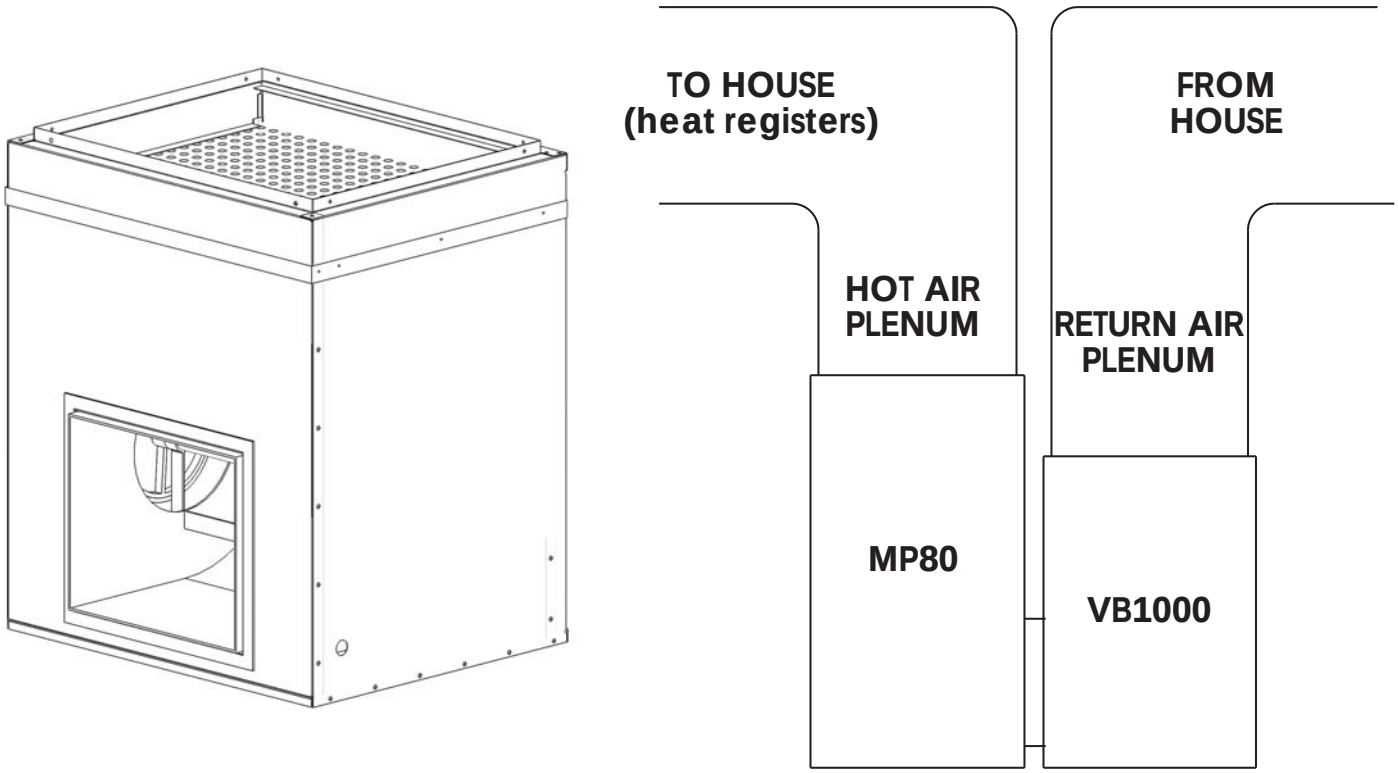


Fig. 24

- 1/3 HP 110V Motor
- Adjustable from 900 cfm to 1200 cfm
- 20ga Steel Cabinet Construction
- High Quality Baked Enamel Finish
- Complete with 24" X 20" Air Filter
- 24 Volt Transformer is included with the VB1000 Blower

Inlet Duct size: 22" x 17 15/16"

OPERATING INSTRUCTIONS

AIR SETTINGS

The high output (when there is a heat demand) is set in the factory at 1 1/2" and should only be altered by the installer. The low output (standby) can be adjusted with the screw on the primary air blade (see fig 25) situated underneath the loading door. It controls the gap **"A"**. The bigger the gap, the more combustion air enters into the firebox, the higher the low burn.

Every installation is different because of draft, kind of wood being used and geographic location. Adjust the flap in a way that it maintains a fire overnight on standby but not using high amounts of wood.

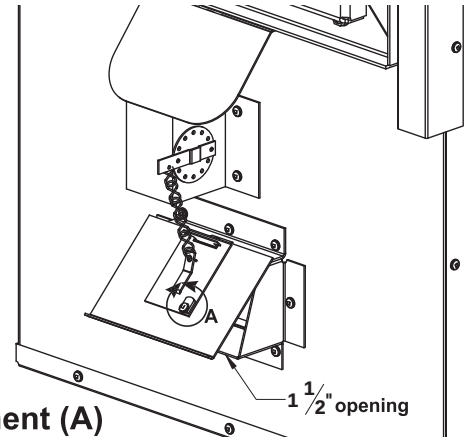


Fig. 25 Low output adjustment (A)

NOTE: WOOD QUALITY AND MOISTURE CONTENT IS OF UTMOST IMPORTANCE WHEN IT COMES TO SATISFACTORY OVERNIGHT BURNS. BASICALLY DRY HARDWOOD 20"-24" IN LENGTH.

IMPORTANT: FILL FIREBOX TO BOTTOM OF LOADING DOOR ONLY (see arrows)

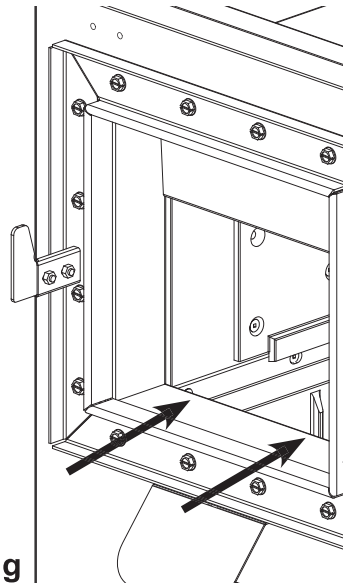


Fig. 26 Wood loading

THERMOSTATS

If your furnace is operating as a combination unit remember both units will not fire at the same time. If the wood furnace is to be your main source of heat, set the wood thermostat at your desired room temperature and set the thermostat from your alternate furnace approximately 5° F (3°C) lower.

NOTE: IF THE ALTERNATIVE FURNACE IS RUNNING AND THE WOOD FURNACE IS STARTING TO HEAT UP AFTER RE-LOADING, THE ALTERNATE FURNACE WILL SHUT OFF AUTOMATICALLY.

OPERATING INSTRUCTIONS cont.

FAN OPERATION

The blower will be turning on and off automatically based on the heat output off the wood furnace. At 155°F in the plenum the fan will turn on and at 105°F it will turn off.

If the fan turns on regularly in standby mode (no call for heat) adjust the low output so less heat will be produced at low (see "OPERATING INSTRUCTIONS" on page 22, **Fig. 25**).

PLEASE NOTE: The limit /safety switches have an auto / manual switch. Normal operation is set to AUTO.

CONTROL SYSTEM - SUMMER FAN / AUTO

A manual fan switch has been added to the fan speed / limit control located on the furnace plenum. This will provide air circulation during the summer time when the furnace is not being used.

SWITCH ON "**MAN**" = MANUAL FAN OPERATION
SWITCH ON "**AUTO**" = AUTO FAN OPERATION
(PLENUM TEMPERATURE DEPENDANT)

DO NOT HAVE THE SWITCH ON "MAN" ANYTIME A FIRE IS GOING.

OPERATING SOUNDS AND SMELLS

Expansion / contraction noises during heating up and cooling down cycles are normal and to be expected. When first installed, the furnace brick and metal are cold and must become hot before the appliance will function well. During the break-in period (the first 2 or 3 fires) create only small, hot fires using kindling; this will allow the cast liners to cure. The paint may also smell a little for the first few fires as it cures and you may wish to open a door or window to alleviate the smell. There are many different ways to start a fire, review the hints and warnings in this section to ensure the fire is started properly.

LIGHTING THE FIRE

⚠WARNING

- **ALWAYS OPERATE THIS APPLIANCE WITH THE FIREBOX DOOR CLOSED AND LATCHED EXCEPT DURING START UP AND RE-FUELING. ALWAYS WEAR GLOVES TO PREVENT INJURY. DO NOT LEAVE THE FIRE UNATTENDED WHEN THE DOOR IS UNLATCHED AS UNSTABLE WOOD COULD FALL OUT OF THE FIRE CHAMBER CREATING A FIRE HAZARD TO YOUR HOME. INSTALLATION REQUIRES WIRING BY A CERTIFIED ELECTRICIAN. ALL WIRING TO CONFORM TO CSA 22.1.**
- **NEVER LEAVE CHILDREN UNATTENDED WHEN THERE IS A FIRE BURNING IN THE APPLIANCE.**
- **DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.**
- **DO NOT OPERATE WITH FLUE DRAFT GREATER THAN -0.06" W.C. (-15 Pa).**
- **DO NOT STORE FUEL OR OTHER COMBUSTIBLE MATERIAL WITHIN MARKED INSTALLATION CLEARANCES OF THE APPLIANCES OR WITHIN THE SPACE REQUIRED FOR FUELING, ASH REMOVAL, AND OTHER ROUTINE MAINTENANCE OPERATIONS.**
- **INSPECT AND CLEAN FLUES AND CHIMNEY REGULARLY.**
- **HOT SURFACES - DO NOT TOUCH DURING OPERATION.**
- **FREQUENTLY EXAMINE DOOR SEAL / GASKET, REPLACE IF WORN. FAILURE TO SHUT DOOR TIGHTLY AND IGNORING LEAKING GASKET CAN RESULT IN EXTREME OVER FIRING CONDITIONS.**
- **RISK OF FIRE OR EXPLOSION - DO NOT BURN GARBAGE, GASOLINE, DRAIN OIL, NAPHTHA, ENGINE OIL OR OTHER FLAMMABLE LIQUIDS.**

OPERATING INSTRUCTIONS cont.

INSPECTION OF FLUES AND CHIMNEYS

IMPORTANT:

- **ESTABLISH A ROUTINE FOR THE STORAGE OF FUEL, CARE OF APPLIANCE, AND FIRING TECHNIQUES.**
- **CHECK DAILY FOR CREOSOTE BUILD UP UNTIL EXPERIENCE SHOWS HOW OFTEN CLEANING IS NECESSARY.**
- **BE AWARE THAT THE HOTTER THE FIRE, THE LESS CREOSOTE IS DEPOSITED, AND THAT WEEKLY CLEANING MAY BE NECESSARY IN MILD WEATHER, EVEN THOUGH MONTHLY CLEANING MAY BE ENOUGH IN THE COLDEST MONTHS.**
- **HAVE A CLEARLY UNDERSTOOD PLAN TO HANDLE A CHIMNEY FIRE.**

⚠WARNING

INSPECT FLUE PIPES, FLUE PIPE JOINTS, AND FLUE PIPE SEALS REGULARLY TO ENSURE THAT SMOKE AND FLUE GASES ARE NOT DRAWN INTO, AND CIRCULATED BY THE AIR CIRCULATION SYSTEM.

⚠WARNING

- **THE FLUE PIPE AND CHIMNEY MUST BE INSPECTED FREQUENTLY AND CLEANED REGULARLY TO REMOVE ACCUMULATED CREOSOTE AND ASH. UNDER CERTAIN CONDITIONS OF USE, CREOSOTE BUILD UP MAY OCCUR RAPIDLY. THE APPLIANCE, FLUE PIPE AND CHIMNEY MUST BE MAINTAINED IN GOOD CONDITION.**
- **CLEANOUT OF THE FLUE PIPE, CHIMNEY, AND DRAFT INDUCER (IF USED), IS ESPECIALLY IMPORTANT AT THE END OF THE HEATING SEASON TO MINIMIZE CORROSION DURING THE SUMMER MONTHS CAUSED BY ACCUMULATED ASH.**

ASH REMOVAL

Ashes should be cleaned out when they reach a depth of 4" in the firebox. Leave approximately 1" of ashes in the bottom of the firebox. Dispose of ashes in an airtight, metal container and store it outside and away from combustibles. **COMBUSTION AIR VENTS MUST NOT BE OBSTRUCTED (see diagram "PRODUCT INFORMATION" on page 6)**

MAINTENANCE

RUN-AWAY OR CHIMNEY FIRE

⚠WARNING

A CHIMNEY FIRE CAN PERMANENTLY DAMAGE YOUR CHIMNEY SYSTEM. THIS DAMAGE CAN ONLY BE REPAIRED BY REPLACING THE DAMAGED COMPONENT PARTS. CHIMNEY FIRE DAMAGE IS NOT COVERED BY THE LIMITED WARRANTY.

CAUSES:

1. Using incorrect fuel, or small fuel pieces which would normally be used as kindling.
2. Leaving the door ajar too long and creating extreme temperatures as the air rushes in the open door.
3. Improperly installed or worn gaskets.
4. Creosote build up in the chimney.

SOLUTIONS:

1. Do not burn treated or processed wood, coal, charcoal, coloured paper or cardboard.
2. Be careful not to over fire the appliance by leaving the door open too long after the initial start-up.
3. Replace worn, dried out (inflexible) gaskets.
4. Have chimney regularly cleaned.

WHAT TO DO IF A RUN-AWAY OR CHIMNEY FIRE STARTS:

1. Close the draft fully (lowest position) by shutting off thermostat, and make sure firebox is closed tightly.
2. Call the local fire department.
3. Examine the chimney, attic and roof of the house, to see if any part has become hot enough to catch fire. If necessary spray with a fire extinguisher or water from a garden hose.
4. Do not operate the appliance again until you are certain the chimney has not been damaged.

CREOSOTE FORMATION AND REMOVAL

When wood is burned slowly, it produces tar and other organic vapors which combine with expelled moisture to form creosote. These vapors condense in the relatively cooler chimney flue of a slow burning fire and when ignited, make an extremely hot fire. Check your chimney from creosote and soot build-up daily, until a safe frequency for cleaning is established. The chimney connector and chimney should be inspected at least twice monthly during the heating season to determine if a creosote build up has occurred. Be aware that the hotter the fire, the less creosote is deposited, and weekly cleaning might be necessary in mild weather, even though substantially longer period without cleaning may be sufficient in colder months. Also note that small intense fires are preferable to large smoldering ones to reduce the amount of creosote deposited.
If accumulation is excessive, clean the chimney. You may want to call a professional chimney sweep to clean it. Both the chimney and the appliance have to be cleaned at least once a year or as often as necessary.
Have a clearly understood plan to handle a chimney fire.

MAINTENANCE cont.

CHIMNEY MAINTENANCE

The most efficient method to sweep the chimney is using a hard brush. Brush downwards so soot and creosote residues will come off the inner surface and fall to the bottom of the chimney where they can be removed easily.

The chimney must be checked regularly and if creosote has accumulated, it must be removed without delay. Cleaning on a monthly basis should be sufficient during the coldest months.

Smoke Flue Inspection:

- The smoke flue should be inspected regularly during the heating season.
- If possible, the smoke flue should be dismantled and cleaned.
- The flue should be inspected for possible damage.
- If it is in good condition, put the flue back in place; otherwise, it must be replaced.

FIRE EXTINGUISHERS AND SMOKE DETECTORS

All homes with a solid fuel burning appliance should have at least one fire extinguisher in a central location, known to all, and at least one smoke detector in the room containing the appliance. If it sounds an alarm, correct the cause but do not de-activate or relocate the smoke detector.

SELECTING WOOD

⚠WARNING

- **THIS APPLIANCE IS DESIGNED TO BURN NATURAL WOOD ONLY. DO NOT BURN TREATED WOOD, COAL, CHARCOAL, COLOURED PAPER, CARDBOARD, SOLVENTS OR GARBAGE.**
- **HIGHER EFFICIENCIES AND LOWER EMISSIONS GENERALLY RESULT WHEN BURNING AIR DRIED SEASONED HARDWOODS, AS COMPARED TO SOFT WOODS OR TOO GREEN OR FRESHLY CUT WOODS.**
- **BURNING WET UNSEASONED WOOD CAN CAUSE EXCESSIVE CREOSOTE ACCUMULATION. WHEN IGNITED IT CAN CAUSE A CHIMNEY FIRE THAT MAY RESULT IN A SERIOUS HOUSE FIRE.**

Use dry seasoned wood, split and stacked and protected from rain for at least 24 months with a moisture content of 13% or lower. It takes a great deal of energy to evaporate the moisture contained in green wood and that energy will not be heating your house. Also, green or wet wood will greatly increase creosote problems. The only accurate method to determine moisture content in wood is to use a moisture meter. If fans are used in the wood storage area near the appliance, they should be installed so as not to create negative pressures in the room where the solid fuel burning appliance is located.

Never burn salt-water driftwood. It is very corrosive and will damage the firebox. Burning salty wood also voids the warranty.

This controlled combustion firebox has been designed for high efficiency and long burn times. The proper time to add more wood is when the last charge has been reduced to a glowing charcoal bed. There will be very little smoke at this stage in the burn cycle.

Both hardwood and softwood burn equally well in this appliance but hardwood, which is denser, will weigh more per cord and burn a little slower and longer.

Firewood should be split and stacked in a manner that air can get to all parts of it and covered in early spring to be ready for burning that fall.

MAINTENANCE cont.

The only accurate way to determine wood moisture is to purchase a moisture meter. Always split your wood and take a moisture reading from inside the block. This will give an accurate reading of moisture content. Wood should be cut at least 20-24" long, this will provide the longest burn time.

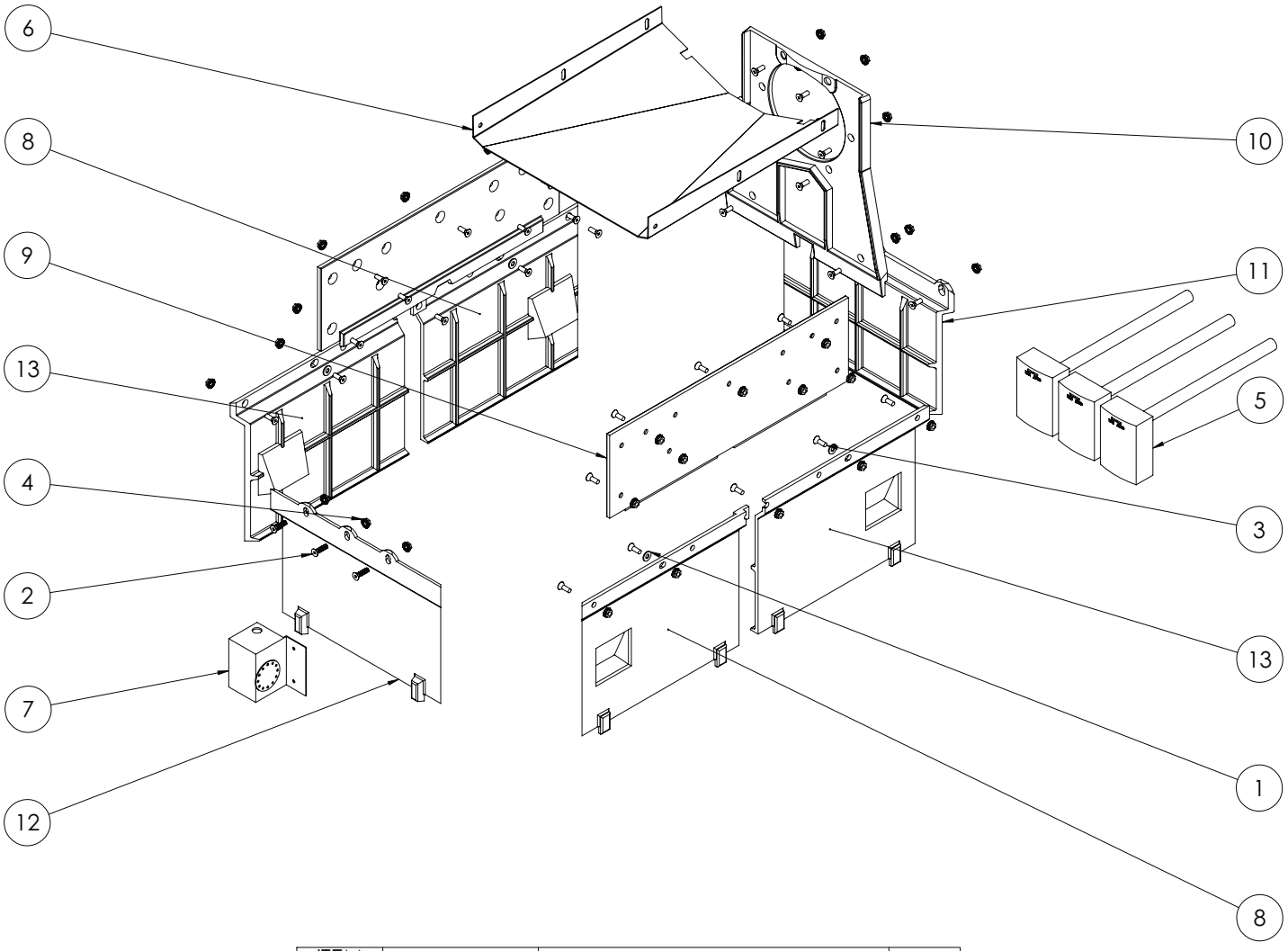
⚠WARNING

- **BURNING YOUR APPLIANCE WITH THE FIREBOX DOOR OPEN OR AJAR CREATES A FIRE HAZARD THAT MAY RESULT IN A HOUSE AND OR CHIMNEY FIRE.**
- **FREQUENTLY EXAMINE ALL DOOR SEALS / GASKETS, REPLACE IF WORN. FAILURE TO SHUT FIREBOX DOOR TIGHTLY AND IGNORING LEAKING GASKETS CAN RESULT IN EXTREME OVER FIRING CONDITIONS.**
- **DO NOT PROP COMBUSTION AIR DOOR OPEN MANUALLY**

At the end of each burning season inspect the firebox door gasket ensuring that it is not worn or loose. Replace with proper fiberglass rope. The purpose of door gasketing is to seal the firebox. If the door is not sealed, air leaks into the firebox, creating a quick burning fire. This situation is not desirable for overnight or extended burns.

Refer to your Valley Comfort dealer regarding gasket replacement.

REPLACEMENT PARTS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	0003SS	Washer 1/4" Flat SS	4
2	0036	Bolt 1/4"-20 x 1" FLT.HD PHOS	3
3	0037	Bolt 1/4"-20 x 3/4" FLT.HD PHOS	35
4	0038	Nut 1/4" Flanged (For liner bolts)	38
5	0517	Fan Limit Adjustable	3
6	8008	Stainless Steel Baffle	1
7	dmpmtr	Damper Motor	1
8	KS10	VC95 & MP80 Cast Piece	2
9	KS13	VC95 & MP80 Cast Piece	2
10	KS6	VC95 & MP80 Cast Piece	1
11	KS8LH	VC95 & MP80 Cast Piece	1
12	KS8RH	VC95 & MP80 Cast Piece	1
13	KS9	VC95 & MP80 Cast Piece	2

WARRANTY

BLAZE KING WOOD LIMITED WARRANTY

Blaze King and Valley Comfort's respective brands extend the following warranty for wood fired appliances purchased from an authorized Blaze King / Valley Comfort dealer and installed in the United States of America or Canada. Warranty starts with date of purchase by the original owner (End User) except as noted for replacement parts.

Warranty Period		Components Covered	
Parts	Labor	Wood	
1 Year		X	All parts, materials and surface finishes (flaking and peeling) Subject to Conditions, Exclusion, and Limitations listed.
2 Years		X	Fan assemblies and motors, thermal sensors, catalytic thermometer, bi-metallic thermostat assembly, door handle metal components.
5 Years	2 Years	X	Firebox & Heat Exchanger, Bypass Door Steel Components
6 Years		X	Catalyst Combustor (see Conditions, Exclusions, and Limitations)
1 Year		X	Other Replacement Parts
See Conditions, Exclusions, and Limitations			

WARRANTY cont.

Blaze King Wood Limited 5 Year Warranty

Blaze King is the manufacturer of the Blaze King line of heating products. At Blaze King, our commitment to the highest level of quality and customer service is the most important thing we do. Each Blaze King stove is built on a tradition of using only the finest materials and is backed by our limited warranty to the original purchaser. With Blaze King, you're not just buying a stove; you're buying a company with years of unequalled performance and quality.

Limited Six (6) Year Warranty:
The CATALYTIC COMBUSTOR is under warranty by Blaze King for six (6) years from the date of original retail purchase. The purchaser shall pay the following share of the then current retail price for the combustor: The first three (3) years no charge, 4th year 60%; 5th year 70%, 6th year 80%. The Combustor must be returned to your dealer along with a completed COMBUSTOR FAILURE REPORT and original proof of purchase document.

Limited (5) Year Warranty:
Under this warranty, Blaze King covers the stove body and accessories against defects in materials and workmanship, for part repair or replacement for the first five (5) years *** to the original purchaser. This Warranty covers: All Steel firebox components against defects in material and workmanship. Please see the exclusions and limitation section below as certain restrictions and exclusions apply this warranty.

Limited Two (2) Year Warranty:
Under this warranty, Blaze King covers, fan assemblies and modular thermostat against defects in materials and workmanship, for part repair or replacement and limited labor for the first two (2) years to the original purchaser. Please see the exclusions and limitation section below as certain restrictions and exclusions apply to this warranty.

Limited One (1) Year Warranty:
Under this warranty, Blaze King covers all parts and materials against defects in materials and workmanship including exterior paint finishes, for part repair or replacement and limited labor for the first year to the original purchaser. Please see the exclusions and limitation section below as certain restrictions and exclusions apply to this warranty.

How the Warranty Works
1. All warranties by the manufacturer are set herein and no claim shall be made against the manufacturer on any oral warranty or representation. All claims under this Limited Warranty must be made in writing by your dealer.
2. Any stove or part thereof that is repaired or replaced during the Limited Warranty period will be warranted under the terms of the Limited Warranty for a period not exceeding the remaining term of the original Limited Warranty or six (6) months, whichever is longer.
3. For any part or parts of this stove, which in our judgment show evidence of defects, Blaze King reserves the option to repair or to replace the defective part(s) through an accredited distributor or agent, provided the defective part is returned to the distributor or agent, transportation prepaid, if requested.
4. If you discover a problem that you think may be covered by the Limited Warranty, you MUST REPORT it to your Blaze King dealer WITHIN 30 DAYS from the date the problem was first detected, giving them proof of purchase and the date of purchase. The dealer will investigate the problem and work with Blaze King to determine whether the problem:
a) Is covered by the Limited Warranty or
b) Can be fixed in your home or does the product need to be returned to Blaze King for repair.
5. If Blaze King determines that the stove needs to be returned to Blaze King for repair, the customer has the responsibility and the expense of removing it from their home and shipping it to Blaze King. If the problem is covered by the Warranty, Blaze King will repair or replace the item at their discretion and the customer will be responsible for return shipping and re-installation in their home.
6. If the problem is not covered by the Limited Warranty, the customer will be responsible for all repair costs, as well as all storage, shipping and the cost of removing and re-installing the stove.
If you are not satisfied with the service provided by the Blaze King dealer, write to Blaze King at the address listed on the last page of the Owner's Manual. Include a copy of the original purchase invoice and a description of the problem.

WARRANTY cont.

Exclusions and Limitations:

1. This Warranty does not cover tarnish, discoloration or wear on the plated surfaces Painted finishes will change color after initial firing and will continue to change through the lifetime of the stove. This is normal occurrence for all high temperature coatings.
2. This Warranty does not cover gasket material or firebrick.
3. Blaze King strongly recommends installation by a certified installer. Failure to comply may adversely affect coverage under the terms of this warranty. This Limited Warranty covers defects in materials and workmanship only if the product has been installed in accordance with local building and fire codes; in their absence refer to the owner's manual. If the product is damaged or broken as a result of any alteration, wilful abuse, mishandling, accident, neglect, or misuse of the product, the Limited Warranty does not apply.
4. The stove must be operated and maintained at all times in accordance with the instructions in the Owner's Manual. If the unit shows signs of neglect or misuse, it is not covered under the terms of this Warranty policy. Performance problems due to operator error will not be covered by the Limited Warranty policy.
5. Some minor expansion, contraction, or movement of certain parts and resulting noise, is normal and not a defect and, therefore, is not covered under this Limited Warranty.
6. Misuse includes over-firing. Over-firing can be identified later by warped plates and paint pigment being burnt off. Over-firing this appliance can cause serious damage and will nullify the Limited Warranty.
7. The Limited Warranty will cover glass thermal breakage only and will not cover misuse of the stove glass, including but not limited to:

a) Glass that is struck, has surface contaminates or has had harsh or abrasive cleaners used on it.
b) If the door is slammed or is closed while wood in the firebox is protruding out the stove opening thus striking the glass.

8. This warranty does not cover products made or provided by other manufacturers and used in conjunction with the operation of this stove without prior authorization from Blaze King The use of such products may nullify the Limited Warranty on this stove. If unsure as to the extent of this Limited Warranty, contact your authorized Blaze King dealer before installation.
9. Blaze King will not be responsible for inadequate performance caused by environmental conditions.
10. The Limited Warranty does not cover installation and operational related problems such as use of downdrafts or spillage caused by environmental conditions. Environmental conditions include but are not limited to nearby trees, buildings, roof tops, wind, hills, mountains, inadequate venting or ventilation, excessive offsets, negative air pressures or other influences caused by mechanical systems such as furnaces, fans, clothes dryers etc.
11. The Limited Warranty does not cover damage caused by burning salt-saturated wood, corrosive driftwood, chemically treated wood or any fuel not recommended in the Owner's Manual (use cord wood only).

The Limited Warranty is void if:

a) The stove has been operated in atmospheres contaminated by chlorine, fluorine or other damaging chemicals.
b) The stove is subject to submersion in water or prolonged periods of dampness or condensation.
c) Any damage to the unit, combustion chamber or other components due to water, or weather damage which is the result of, but not limited to, improper chimney/venting installation.
d) Salt air in coastal areas or high humidity can be corrosive to the finish; these environmental conditions can cause rusting. Damage caused by salt air or high humidity is not covered by the Limited Warranty.

12. Exclusions to the Limited Warranty include: injury, loss of use, damage, failure to function due to accident, negligence, misuse, improper installation, alteration or adjustment of the manufacturer's settings of components, lack of proper and regular maintenance, alteration, or act of God.
13. The Limited Warranty does not cover damage caused to the stove while in transit. If this occurs, do not operate the stove and contact your courier and/or dealer.
14. The Limited Warranty does not extend to or include paint, door or glass gaskets or firebricks damage caused by normal wear and tear, such as paint discoloration or chipping, worn or torn gaskets, chipped or cracked firebrick, etc.
15. The Limited Warranty does not include damage to the unit caused by abuse, improper installation, or modification of the unit.
16. Damage to plated surfaces caused by fingerprints, scratches, melted items, or other external scores and residues left on the plated surfaces from the use of abrasive cleaners or polishes is not covered in this warranty.
17. Blaze King is free of liability for any damages caused by the stove, as well as inconvenience expenses and materials.

WARRANTY cont.

The Limited Warranty does not cover incidental or consequential damages.
18. The Limited Warranty does not cover any loss or damage incurred by the use or removal of any component or apparatus to or from the Blaze King stove without the express written permission of Blaze King and bearing a Blaze King label of approval.
19. Any statement or representation of Blaze King Products and their performance contained in Blaze King advertising, packaging literature, or printed material is not part of the Limited Warranty.
20. The Limited Warranty is automatically voided if the stove's serial number has been removed or altered in any way. If the stove is used for commercial purposes, it is excluded from the Limited Warranty.
21. No dealer, distributor, or similar person has the authority to represent or warrant Blaze King Products beyond the terms contained within the Limited Warranty. Blaze King assumes no liability for such warranties or representations.
22. Blaze King will not cover the cost of the removal or re-installation of the stove, hearth, facing, mantels, venting or other components.
23. Labor to replace or repair items under this Limited Warranty will be covered per our warranty service fee reimbursement and labor rates are set per component schedule. Labor rates vary from location to location and as such total labor costs may not be covered. Please consult with your dealer or service technician for any additional charges such as travel time or additional labor charges that may apply.
24. For parts of the Blaze King woodstove or fireplace insert warranted beyond the first year, the five year limited warranty will have the same obligations as described in this document, provided, however that the purchaser shall pay the following percentage of the then current retail cost of the repair or the replacement, according to the year after purchase in the which the defect is brought to the attention of Blaze King.*** During the 2nd year----purchaser pays 20%.
3rd year ----purchaser pays 40%. 4th year -----purchaser pays 60%. 5th year---- purchaser pays 80%.
25. If a defect or problem is determined by Blaze King to be non warrantable, Blaze King is not liable for travel costs for service work. In the event of in-home repair work, the customer will pay any in-home travel fees or service charges required by the Authorized Dealer.
26. At no time will Blaze King be liable for any consequential damages which exceed the purchase price of the unit. Blaze King has no obligation to enhance or modify any stove once manufactured (example: as a stove model evolves, field modifications or upgrades will not be performed).
27. This Limited Warranty is applicable only to the original purchaser and it is non-transferable.
28. This warranty only covers Blaze King Products that are purchased through an authorized Blaze King dealer.
29. If for any reason any section of the Limited Warranty is declared invalid, the balance of the warranty remains in effect and all other clauses shall remain in effect.
30. The Limited Warranty is the only warranty supplied by Blaze King, the manufacturer of the stove. All other warranties, whether express or implied, are hereby expressly disclaimed and the purchaser's recourse is expressly limited to the Limited Warranty.
31. Blaze King and its employees or representatives will not assume any liability for damages, either directly or indirectly, caused by improper usage, operation, installation, servicing or maintenance of this stove.
32. Blaze King reserves the right to make changes without notice. Please complete and mail the warranty registration card and have the installer fill in the installation data sheet in the back of the manual for warranty and future reference.
33. Blaze King is responsible for stocking parts for a maximum of seven (7) years after discontinuing the manufacture or incorporation of the item into its products. An exception to this would be if an OEM supplier is not able to supply a part.

INSTALLER NOTES

INSTALLER MUST CLEARLY INITIAL EACH STATEMENT BELOW:

I CERTIFY THAT THE HOME OWNER HAS BEEN INSTRUCTED ON HOW TO USE AND OPERATE THIS NEW COMBINATION SYSTEM:

YES ◯

I CERTIFY THAT ALL CLEARANCES ARE AS REQUIRED OR BETTER:

YES ◯

I CERTIFY THAT FAN SETTINGS, DAMPER SETTINGS AND BAROMETRIC DAMPER IF EQUIPPED HAVE BEEN SET TO START UP VALUES:

YES ◯

I CERTIFY THAT ALL CONTROLS HAVE BEEN TESTED AND ARE OPERATING PROPERLY:

YES ◯

I CERTIFY THAT I HAVE INSTRUCTED THE HOMEOWNER ON PROPER FIREWOOD HANDLING:

YES ◯

Installer: Please complete the following information

Dealer Name & Address:_____

_____

Installer (print): _____

Installer (sign): _____

Phone #: _____

DateInstalled:_____

Serial No.: _____

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