

OWNERS MANUAL

INSTALLATION AND OPERATION OF YOUR WOOD/COAL BURNING HEATING SYSTEM

MODEL NOS. 721 / 722 / 723

A PRODUCT BY:

DAKA Corporation  
INDUSTRIAL PARK  
BOX 90  
PINE CITY, MINNESOTA 55063  
612-629-6737

This Owner's Manual contains important information regarding features, installation, maintenance, preparation and operational safety of your wood/coal burning stove. All customers are urged to read this manual. The information contained is vital to the safe and efficient operation/installation of your stove. Your retailer welcomes any inquires.

This product has been listed by:

B.O.C.A. -Research Report 80-56  
SBCCI - Report No. 8146  
and has been tested by Arnold Greene  
Testing Lab., Inc. to meet or exceed  
standards of ANSI/UL 1482 and ANSI/UL 737.

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OWNER'S MANUAL REVISION

1. Page 9, Section B: Minimum fireplace width for all panels is 31".
2. Page 11, Illustration 5: Rope gasket material is no longer required for adaptor installation.
3. Page 12, Illustration 8: The WHITE power cord wire connects to the capacitor terminal.
4. Page 18, Illustration 15: With the recommended free-standing floor protector, the heat shield is no longer required for the freestanding stove.

Revision 8060

## I. INTRODUCTION

The contents of this Owner's Manual cover all steps necessary for complete installation and operation of your Heating System.

The steps outlined MUST be followed exactly to ensure a safe operational installation as well as to validate your warranty.

All stove owners are urged to read and study the contents of this Owner's Manual since correct installations provide for operational safety.

Your new Heating System has been designed safe and efficient and should use only wood and/or coal as fuel.

This Heating System should not be used in a mobile home.

Any modification to the Heating System will void any and all warranties.

Your wood/coal burning stove has been tested by Arnold Greene Testing Lab., Inc. and found to meet or exceed the standards of A.N.S.I./UL 1482 and A.N.S.I./UL 737. It has also been listed by B.O.C.A. (Report 80-56) and S.B.C.C.I. (Report 8146).

Congratulations on your new stove purchase. The design and outstanding performance of your new stove will permit you to not only save on your home heating costs, but also will provide you a warm home. Thousands of satisfied homeowners have already attested to this.

Happy Heating!

DAKA CORPORATION  
INDUSTRIAL PARK - BOX 90  
PINE CITY MN 55063  
(612) 629-6737

## II. STOVE FEATURES

Prior to installation and operation of your stove, a thorough familiarization with the features and operating controls is suggested.

Please refer to Illustration 1.

1. Boot.
2. Heating vents.
3. Removable Cast door with cast iron or optional glass plates.
4. Handles—right door handle lock.
5. Hearth.
6. Legs for freestanding stove.
7. Heat shield for freestanding stove.
8. Air intake to firebox—locking device.
9. Top panel for fireplace insert—boxed/moulded or flat.
10. Side panel for fireplace insert—boxed/moulded or flat.
11. Cold air return vent.
12. Rheostat or switch control.
13. Power cord.

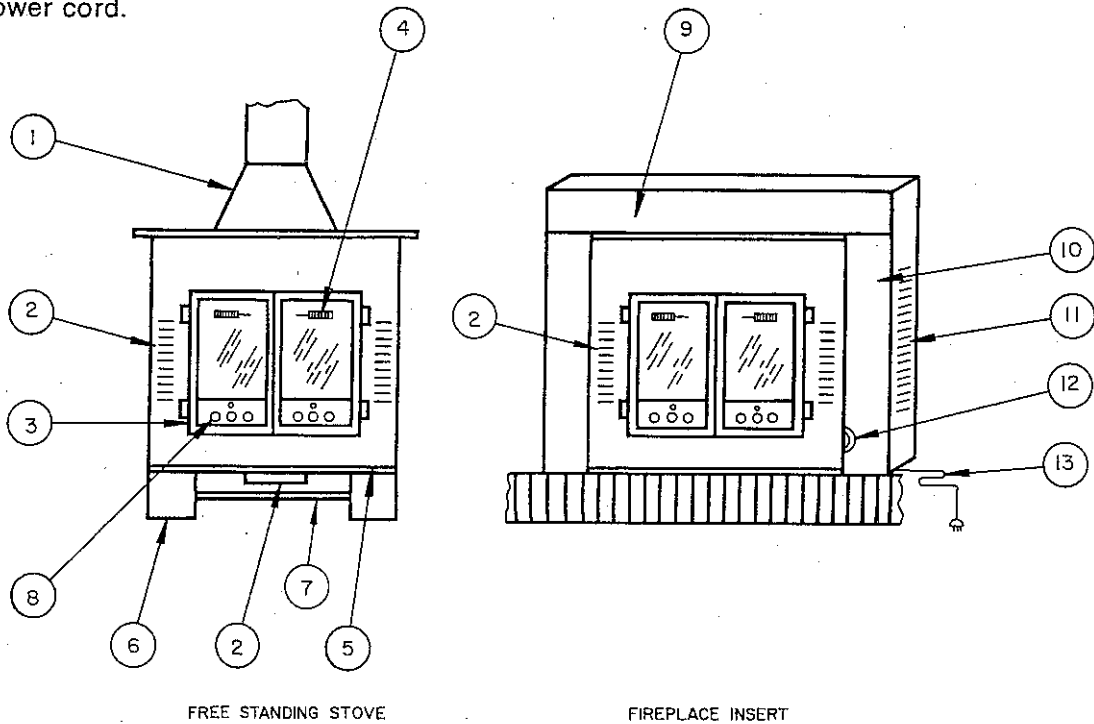


Illustration 1

### III. SAFETY, OPERATIONS AND MAINTENANCE

#### A. SAFETY

While your new wood/coal burning stove has been designed and manufactured with a primary thrust of home-owner safety and burning efficiency, there are certain safety considerations which deserve emphasis.

#### CODES—MINIMUM CLEARANCES

The most frequent cause of wood/coal stove related fires is improper installation. Wood/Coal burning stoves give off considerable amounts of radiant heat and if the stove is located or housed close to a combustible surface, there could be a fire hazard condition.

The minimum clearance codes are clearly identified in each installation section of this Owner's Manual and must be adhered to exactly. Certain communities have Local Codes Compliance Authorities and it is strongly suggested that you discuss your installation plans with that authority. Many Local Code Compliance Authorities welcome the opportunity to check your installation after completion. The minimum clearance codes specified in this manual are the requirements of the National Fire Protection Association (NFPA Code 211).

#### CHIMNEYS

Older masonry chimneys should be thoroughly inspected for holes or weak spots which could allow sparks or hot gasses to escape. A faulty chimney should be corrected prior to installation of your stove.

Certain areas have code requirements which cite the need for a spark arresting shield (¾" mesh) to be mounted on top of the chimney. The shield should be checked monthly since soot and particles contained in smoke can cause the mesh to clog—thus prohibiting the normal draw of the chimney. The spark arresting shield further serves as a rain cap thus avoiding rain, sleet, snow from entering the chimney.

#### CREOSOTE

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire. The chimney and chimney connection should be inspected frequently during the heating season to determine if a creosote

build-up has occurred. If creosote has accumulated, it should be removed to reduce the risk of a chimney fire.

#### HEAT CONDUCTION

Placing combustible materials too close to your stove or chimney can be a fire hazard. Always store firewood a good safe distance from the stove. Likewise, furniture and other combustibles should be kept a safe distance from the stove.

#### ASHES

While it is always desirable to operate your stove with an inch or two of ashes (helps sustain the burn and insulates coals), periodic removal of all or some of the ashes is required. When removing ashes from the firebox, always place ashes in a metal container with a tight fitting lid. The closed metal container should be placed on a non-combustible floor or on the ground, well away from combustible materials, pending final disposal. Ashes should be retained in the closed container until all cinders have cooled. Ashes can ignite up to 72 hours after removal.

#### OTHER SAFETY MEASURES

- Use smoke detectors around the stove as well as in sleeping areas.
- Keep a fire extinguisher (rated for Class "A" fires) near the stove.
- Check with your home insurance company to be sure your policy covers the installation and use of a wood/coal burning stove.
- Never use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or "freshen up" a fire in your stove. Keep all such liquids away from the stove when it is in use. All fluids of this type give off highly volatile fumes and can and will explode. Likewise do not use artificial logs in your stove.
- Never remove ashes from your stove with the blower running. If you should accidentally lower them below the hearth across the front of the stove, air from the lower hot air register could scatter the ashes and hot embers across your room.

#### B. OPERATIONS

Your new wood/coal burning stove has been designed to extract heat so efficiently that a large fire is not necessary to produce your required heat. A large fire not only wastes energy but also usually results in the home being too warm for comfort.

## HEATING YOUR HOME

When you selected your new wood/coal burning stove, you selected a whole house heating system—not a room heater. In order for the stove to operate in the manner in which it was designed, it is important that doors to rooms e.g. bedrooms, bathrooms, etc. be left open. The principle of convection takes place in your home and cooler air from bedrooms and bathrooms is constantly drawn into the cold air return of the stove while the stove forces the heated air into these rooms.

## BUILDING A FIRE

The following steps should be followed in building a fire in your stove.

1. Unlock and open draft controls on the doors.
2. Open the doors by rotating the right handle up (counter-clockwise). Twist some newspaper into a roll and place paper on the floor of the firebox.
3. Lay several pieces of dry kindling on top of the newspaper.
4. Place three or four pieces of firewood, 3" to 5" in diameter, on the top of the kindling in log holder.
5. Light the newspaper in the front, close and latch the doors. Leave draft controls in open position. The draft system of your stove will start the fire very quickly.
6. When the fire is burning well, adjust the draft knobs so that they are about  $\frac{1}{8}$ " to  $\frac{1}{4}$ " open. This will permit enough air to sustain the burn. This same procedure is to be followed when building a coal fire, substituting coal for wood and *always* use a coal grate.

THE HEAT OUTPUT OF YOUR STOVE IS CONTROLLED BY THE DRAFT SETTING. THE AIR INTAKE DETERMINES THE SIZE OF THE FIRE AND THE ACTUAL AMOUNT OF HEAT RELEASED. AS A RULE, THE WIDER THE DRAFT SETTING, THE HOTTER THE FIRE AND THE SHORTER THE TIME SPAN OF BURN. AFTER YOU HAVE USED YOUR STOVE A FEW TIMES, YOU WILL LEARN WHERE TO SET THE DRAFT CONTROLS TO GET THE DESIRED HEAT OUTPUT.

A variable speed control is included with rear mounted fan systems and a three speed control is included with front mounted fan systems. When the temperature in the heating chamber rises to approximately 100°F, a thermodisc activates the fan system. Experience and usage will permit you to set these controls at desired levels for your comfort.

7. When refueling your stove, first open the draft fully before opening the doors. This permits the smoke and gasses to escape up the chimney. Doors should then be opened SLOWLY so that gasses and smoke cannot be sucked into the room. Add fuel, close the doors, and reposition the draft controls for the desired heat output.
8. Your stove may be operated with the doors open or removed. Your optional fire screen should always be in place when the stove is operated with the doors open or removed. The firescreen is designed to lock in place when installed. NOTE: You should attach the screen for half-hour burns daily. This permits a free flow of air into the firebox and burns off soot and creosote collections.
9. Always use the lograck with slope to rear of stove when burning wood and never burn coal without a coal grate.

## QUALITY AND SELECTION OF WOOD

The following table is a guide to wood selection.

Guide To The Different Burning Qualities of Wood

TYPE OF WOOD	EASE OF STARTING	COAL QUALITIES	AMOUNT OF SPARKS
APPLE	POOR	EXCELLENT	FEW
ASH	FAIR	GOOD	FEW
BEECH	POOR	GOOD	FEW
BIRCH	GOOD	EXCELLENT	MODERATE
CHERRY	POOR	EXCELLENT	FEW
CEDAR	EXCELLENT	POOR	MANY
ELM	FAIR	GOOD	VERY FEW
HEMLOCK	GOOD	LOW	MANY
HICKORY	FAIR	EXCELLENT	MODERATE
LOCUST	POOR	EXCELLENT	VERY FEW
MAPLE	POOR	EXCELLENT	FEW
OAK	POOR	EXCELLENT	FEW
PINE	EXCELLENT	POOR	MODERATE

The Maine Audubon Society recently charted the heat produced by a wood fire. They noted that the heat produced by a wood fire varies greatly with the kind of wood burned. Beech is considered the best wood for a fire. A cord of well-seasoned Beech will produce as much heat as 169 gallons of fuel oil. Sugar Maple and Red Oak produces as much heat as 166 gallons of fuel oil, followed by White Ash, 154, American Elm, 130, White Birch, 124, and White Pine, 94.

## POWER FAILURES

Because of ice storms and the like, power failures occur somewhat frequently during the heating season. In case of a power failure, continue to use your stove as you normally would. The design of the fan system provides for a degree of heating even without power. The motor is designed to withstand high temperatures and will not burn out during a power failure. Always leave the cold air return vents open and unobstructed to permit free flow of return air.

## NIGHTTIME USE

The fire in your stove should last throughout the night with the proper selection of firewood and controlling the rate of burn by using the draft control damper located at the bottom of the doors.

## C. MAINTENANCE

### PAINT ON YOUR STOVE

The paint on your new stove is a high heat resistant type paint and requires curing. It is suggested to build and burn small fires during the first couple of stove burns. The small fires permit the paint to cure and thus prevents damage to the finish.

### CARE OF GLASS DOORS

The glass plates on your stove permit you to enjoy the beauty of the fire while retaining the efficiency of your stove. Although the brand of glass used in the stove doors has well established and recognized heat resistant properties and strength characteristics, it can be broken through improper use.

**NOTE: WHEN REMOVING CAST IRON PANELS, DO NOT UNSCREW THE MOUNTING SCREWS ALL THE WAY OUT. LOOSEN SCREWS ENOUGH TO REMOVE CAST IRON PANELS AND INSERT NEW GLASS PLATES. THEN RE-TIGHTEN.**

To achieve the maximum utility and safety of your glass doors, we advise that you observe the following:

1. Inspect the glass regularly for cracks or breaks. If you detect a crack or break, extinguish the fire immediately and return the door to your stove retailer for glass replacement before further use. If you are unable to obtain glass from your retailer immediately, replace the glass plate with the cast iron door plate which was included in the cast doors when you took delivery of the stove.
2. Do not slam stove doors or otherwise impact the glass. When closing door, make sure that no logs or other objects protrude to impact against the glass.
3. Soot and smoke will cloud the glass panes very quickly when using soft wood such as pine. However, in time, this may burn off or, if you desire, it may be cleaned with a good oven cleaner.
4. When cleaning the door glass, do not clean the glass with materials which may scratch it (such as steel wool) or other sharp objects which may damage the glass. Scratches on the glass can develop into cracks or breaks. The glass can be cleaned with a commercial oven cleaner, providing it does not contain abrasives.
5. Check gasket around glass for signs of deterioration.

6. When installing glass, be certain that gasket material is attached and tightening should be done in a cross-wise method and only a "firm snug" fit is required. Excessive tightening will crack the glass plate.

**NEVER USE COMMON GLASS FOR REPLACEMENT GLASS. IT CAN AND WILL EXPLODE.**

### CLEANING THE STOVE

1. The stove should not be cleaned with any type of detergent as most all detergents have an oil base and cannot be painted over.
2. The stove should be lightly sanded with fine sandpaper or steel wool, then repainted or touched-up with high temperature black paint.
3. If the stove is located in a moist or damp location, check thoroughly for signs of condensation during times when the stove is not in use. Condensation can cause oxidation (rusting) and should be avoided.
4. When the heating season is over, the stove can be cleaned out completely with a wire brush or cloth to eliminate ash and burned wood smell.

### CHIMNEY

1. The chimney should be cleaned at least annually to remove creosote, soot, leaves, birds' nest, etc.
2. A neglected chimney can eventually cause a draw restriction or can ignite and burn hot enough to cause damage to the chimney.
3. For proper inspection the chimney should be cleaned.
4. A topper or cover should be installed to prevent moisture from entering chimney, to prevent sparks and burning materials from escaping chimney, and to keep birds and foreign materials from entering.

**NOTE: SOME AREAS HAVE CODES WHICH MAY REQUIRE AN APPROVED SPARK ARRESTOR.**

### STOVE CHECK

1. The stove should be pulled from the masonry fireplace annually for a general cleaning around the stove. This can be done prior to the heating season in conjunction with chimney maintenance. This is very important when the optional flue adaptor is not installed on a front mounted motor stove.
  2. Check all seals and gasketing for signs of excessive wear:
    - a) gasket around doors.
    - b) gasketing around glass inserts.
    - c) seals in trim panels (where applicable).
    - d) insulation where adaptor connects to base of chimney flue (where applicable).
- USE ONLY REPLACEMENT MATERIALS OBTAINED FROM YOUR RETAILER.**

















## IV. TOOLS AND HARDWARE REQUIRED FOR INSTALLATION

### Tools Required

	NEEDED FOR:	
	FIREPLACE	FREESTANDING
Furnace Cement (or high temp Silicone)	X	X
Electric Drill	X	X
Drill Bit, Metal, 7/64"	X	X
Drill Bit, Metal, 1/8"	X	X
Drill Bit, Metal, 5/32"	X	X
Drill Bit, Metal, 1/4"		X
Drill Bit, Metal, 1/4"	X	
Flashlight	X	X
Safety Goggles	X	
Hacksaw	X	X
Hammer	X	X
Fiberglass Insulation	X	
Putty Knife	X	X
Dust Mask	X	X
Pliers	X	X
Center Punch	X	X
Ruler	X	X
Screwdriver, 1/4"	X	X
Wrench, 1/4"	X	X
Wrench, 11/32"	X	X
Wrench, 3/8"	X	X
Wrench 7/16" (Two Required)		X
Wrench, 1/2"		X
Wrench, Hex, or Allen, 1/8"	X	X

The following items are included with your stove and will be used for a correct installation.

ILLUSTRATION	DESCRIPTION		Part #
	1/4"x1 1/2" socket set screw	4	5012
	1/4" ID spring lock washer	4	5014
	#6x1" hex washer slotted screw	8	5004
	1/4"-20 finish hex nut	9	5013
	1/4"-20x1" hex head cap screw	5	5010
	#8-32 hex machine screw nut	2	5007
	5/16"-18x1/2" hex head cap screw	2	5009
	1/4"-20x3/4" hex washer slotted screw	2	5011
	#6-8x1" lead screw anchor	8	5005
	#8x1/2" hex head tek screw	27	5008
	#8x1/2" hex head tek screw (green)	1	5015
	#8-32x5/16" rd. slotted mach. screw	2	5006
	Strain Relief	1	4016
	Brass Screws	8	5023

## V. MASONRY FIREPLACE INSERT INSTALLATION

### A. MINIMUM CLEARANCES

Your fireplace insert has been supplied with:

- 1) a standard flat sheet metal trim kit; or
- 2) a modified moulded sheet metal trim kit.

The clearance standards which satisfies the requirements of the National Fire Protection Association (NFPA 211) are as depicted in Illustration 2.

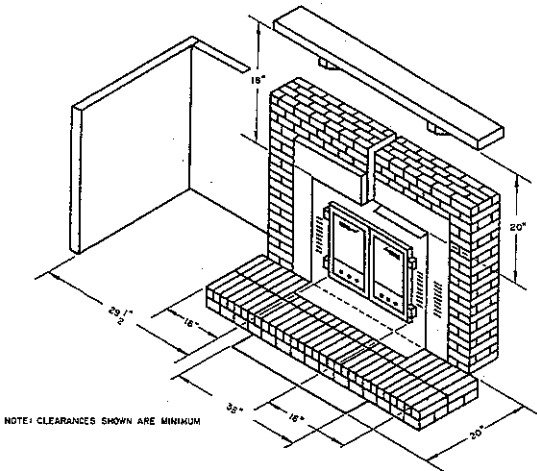


Illustration 2

Your new stove must be installed in a masonry fireplace or approved factory-built fireplace.

The applicable parts of this code are:

1. The chimney must be of masonry construction with an open cross-sectional area of at least 50 square inches ( $7\frac{1}{4}'' \times 7\frac{1}{4}''$  square or 8" diameter round).
2. The hearth must be of masonry construction and must extend a minimum of 16" in front of the fireplace opening and a minimum of 8" to either side of the fireplace opening.
3. There must be a minimum of 8" between the side of the masonry fireplace opening and any combustible materials, or 16" between the firebox opening and any combustible materials. If there is not 20" from the front of the firebox opening to the front of the masonry hearth, a floor protector must be used in front of the hearth to protect combustible materials. The floor protector is to be  $\frac{3}{8}''$  thick asbestos millboard or equivalent and must measure 38" wide. The minimum clearances for the fireplace model are shown in Illustration 2.
4. If your fireplace has wood trim above it, or a wood mantel, it must be located so there is at least 20" between the top of the stove and any part of the trim or mantel including supports.

A moulded trim panel will reduce this distance to 18" (see Illustration 2).

### B. REQUIRED FIREPLACE DIMENSIONS

The minimum and/or maximum fireplace dimensions for the installation of your stove are:

Panel Description	Height	Width	Depth
Regular Flat	26"-39"	37"-63**	14" Min.
Regular Moulded	27"-34"	37"-53"	14" Min.
Short Flat	22"-35"	37"-63**	14" Min.
Short Moulded	22"-30"	37"-53"	14" Min.
Front Mounted Stove:	min. width equals 32", min. depth equals 12".		

\*Larger fireplaces require custom made flat trim panels.

Fireplaces with larger dimensions than maximum(s) indicated on "moulded" panels must use "flat trim panels" which may have to be custom cut in order to cover the fireplace opening.

A minimum of  $2\frac{1}{2}''$  clearance from the side of the stove to the side of the fireplace cavity is required in order to provide adequate area for cold air return.

### C. FIREPLACE PREPARATION

1. Locate furniture and other materials away from the front of the fireplace to allow free access to the fireplace.
2. Cover the hearth and adjacent floor areas with drop cloths to protect from soiling and marring the surfaces.
3. We recommend removal of all movable chimney damper items—i.e., damper plate, push rod.
4. Thoroughly clean the fireplace of ashes and soot.
5. Check the chimney and smoke chamber for excessive buildups of creosote or soot. Also, check for obstructions, such as birds' nest. If the chimney is excessively dirty, clean it, or have someone clean it professionally BEFORE installing or using the stove.

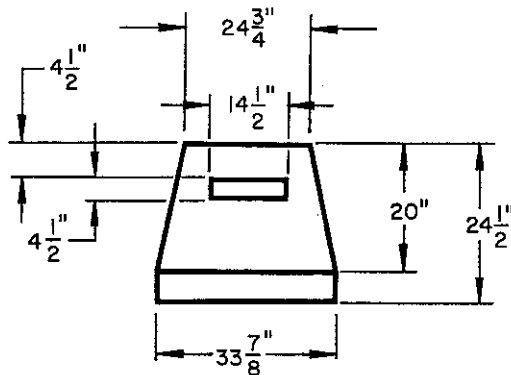
### D. STOVE PREPARATION

1. Remove the stove from the shipping container.
2. Inspect the stove for any obvious physical damage.
3. Check the air draft controls to ensure that they slide freely and will lock into position when the control knobs are tightened.
4. Open cast doors and remove the doors and all contents in the firebox.
5. If you are using the glass plates for the cast doors, remove cast panels. Retain your cast iron panels for future use. When removing cast iron panels, do not unscrew the mounting screws all the way out. When installing

glass plates, be certain that gasket material is attached and tightening is done in a cross-wise method and only a "firm snug" fit is required. (Excessive tightening will crack the glass plate.)

### E. DIMENSIONS OF THE STOVE

The following dimensions are cited as an aid to the correct or desired positioning of the stove within the fireplace (top view).



REGULAR STOVE HEIGHT =  $25 \frac{3}{4}$ "

SHORT STOVE HEIGHT =  $21 \frac{3}{4}$ "

Illustration 3

NOTE: A shorter model stove may have been your selection because of the height of your fireplace opening. All other measurements of the short stove are identical to the regular stove (depicted above). The short stove is  $21 \frac{3}{4}$ " in height.

### REAR MOUNTED MOTOR SYSTEM

NOTE: IF YOU HAVE A REAR MOUNTED MOTOR SYSTEM, FOLLOW STEPS F THROUGH N. IF YOU HAVE A FRONT MOUNTED MOTOR SYSTEM, SKIP STEPS F THROUGH N, AND GO TO STEP O.

Your Rear Mounted/Fan Kit has four basic components:

- motor and fan
- thermodisc
- capacitor
- rheostat

### F. MOTOR AND FAN

The fan is already connected to the motor with the proper clearance.

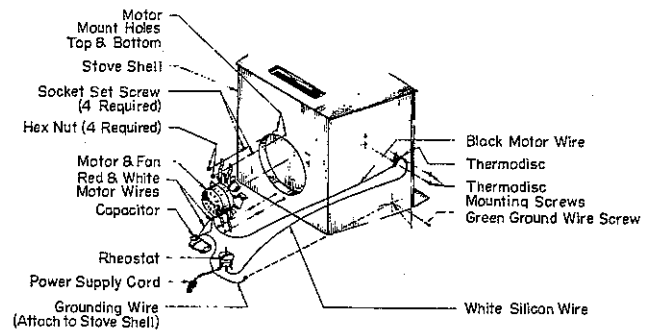


Illustration 4

- See Illustration 4. Thread the four (4) motor mounting bracket holes with the two (2) provided  $\frac{7}{16}$ " self-tapping screws (5011).
- Insert the four (4) socket set screws (5012) until exposed one inch (1") outside of stove shell.
- Place motor mounting brackets onto four (4) socket set screws.
- When facing the back of the stove shell, the three (3) motor wires should be exposed on the lower right side.
- Turn the fan blades inside the shell to check for operating clearance.
- Secure all four socket set screws with lock washers (5014) and nuts (5013).

### G. THERMODISC

- See Illustration 4. Decide which side of the stove you wish to mount the controls (usually determined by the location of the 115V wall receptacle).
- Mount the thermodisc six (6) inches from the top of the stove shell and eight (8) inches from the back with two (2)  $\frac{7}{64}$ " diameter #8 x  $\frac{1}{2}$ " hex head screws. The screw holes must be drilled (recommend a  $\frac{7}{64}$ " drill bit) through the outerwall only.
- Tighten and secure the two (2)  $\frac{7}{64}$ " screws.
- Connect the black motor wire to either thermodisc terminal end.
- Connect the packaged white Silicone wire to the other thermodisc terminal end and leave free hanging at this time.

### H. ADAPTOR

- It is recommended that a disposable dust mask, safety goggles, gloves and suitable clothing be worn for adaptor installation.

2. With a flashlight, check damper location within the fireplace/chimney.
3. We recommend removal of all movable chimney damper items—i.e., damper plate, push rod. This is required so that nothing can fall back which would obstruct the draw of the chimney.
4. Remove the adaptor from packaging carton being careful not to destroy the carton.
5. For adaptor trial fitting, place the empty adaptor carton in the fireplace to use as a support platform.
6. To determine the cutting and bending lines, firmly hold the front and back adaptor panels together with your hands. Push the adaptor up through the damper opening inside the fireplace chimney until the bottom of the adaptor is approximately 27" above the floor of the fireplace (or 23" above the floor for a short model stove). (See Illustration 5.)

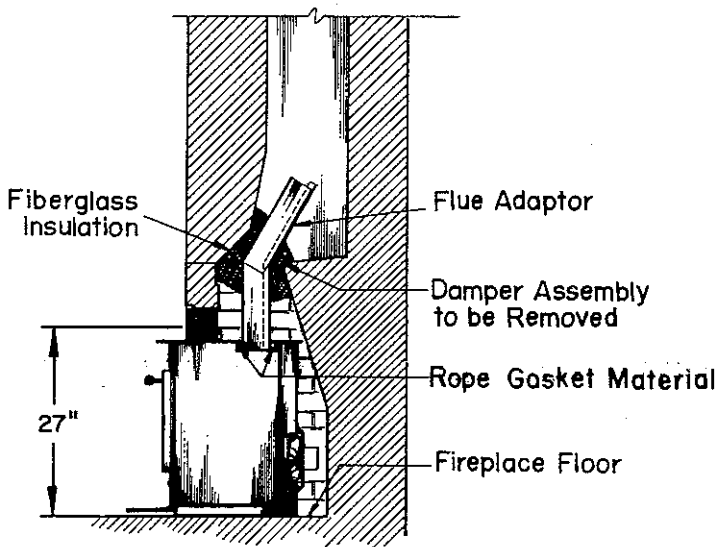


Illustration 5

7. Scribe a line on each side of the front panel where the adaptor must bend to fit up into the fireplace chimney (where the damper was previously located).
8. Remove the adaptor. Cut the front panel along the lines on each side to the corners with a hacksaw and fine-tooth blade. (See Illustration 6.)

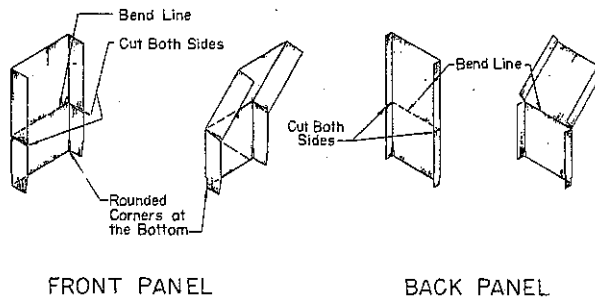


Illustration 6

9. To check out line angles, place the front panel back up into the damper opening. Bend the front panel along the cut lines until the flange is flush with the damper opening wall.
10. Remove the front panel. Cut and bend the sides of the back panel to conform with the front panel. (See Illustration 6.)
11. Secure the two panels together with the packaged screws being sure to use all screws (#8 x 1/2" hex head screw, number 5008) to assure structural integrity.
12. Push the adaptor back up into fireplace damper opening until the bottom is approximately 27" above the fireplace floor (23" for short model stove). Tightly pack fiberglass insulation around the outside of the adaptor completely filling any open space. CAUTION: If paper backed bat insulation is used, be sure to remove all paper. Be sure to pack insulation very tightly.
13. Install adaptor gasket into recessed area of the rectangular flue vent on stove top. Position stove and slide back into fireplace to correct depth aligning the stove flue opening with the installed adaptor.
14. CAUTION: Be careful not to cut the two remaining loose motor wires (red and white) while moving stove into fireplace. Before sliding stove into place, pull these two wires around the control side of the stove for later connection (recommend you tape these wires to the side of stove until time for connection).
15. With any "lever-arm", reach up through the inside of the stove shell, and grasp the left and right side of the adaptor (use inserted screws for leverage); pull the adaptor down into the rectangular flue vent on stove top.

The adaptor will slide (seal) into this flue vent. Seal the adaptor by placing a generous bead of black furnace cement (or high temperature black Silicone) around the connection both outside and inside the stove. This completes the adaptor installation.

## I. POWER CORD AND STRAIN RELIEF

1. See Illustration 7. Place the power cord through the appropriate trim panel opening by threading the three (3) power cord wires through the opening from front to back of trim panel.

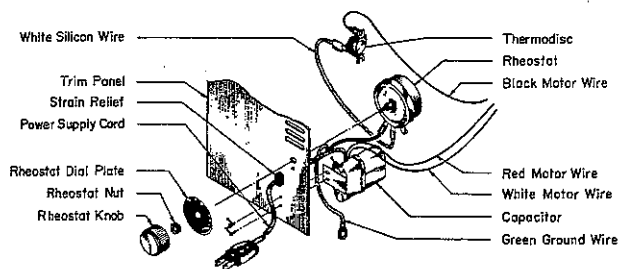


Illustration 7

2. Snap the strain relief onto power cord six (6") inches back from the end of cord wires, but in front of trim panel. Now secure strain relief into trim panel opening with a pair of pliers.

## J. GROUNDING THE SYSTEM

**WARNING:** For your personal safety and the protection of the stove, the electrical components must be properly grounded.

1. See Illustration 4. Secure the power cord green wire two and one-half (2½") inches from the bottom of stove shell and four (4") inches from the front with the 7/64" diameter green #8 x 1/2" hex head screw. Drill a 7/64" diameter hole through the outerwall only.
2. Slip the 7/64" green screw through the terminal at the end of the power cord green wire, and attach it to the side of the stove.

## K. CAPACITOR

1. Remove the capacitor cap from the capacitor. Thread the two (2) remaining motor wires (red and white) and one (1) of the black power cord wires through the capacitor cap from outside to inside the cap.
2. Attach the capacitor cap to the back of the trim panel (use existing holes) with the two (2) #8-32 x 5/16" round head slotted screws (5006) and #8-32 hex screw nuts (5007).
3. Connect the red motor wire to the capacitor terminal with red dot. Connect the white motor wire and the black power cord wire to the other terminal. (See Illustration 8.)

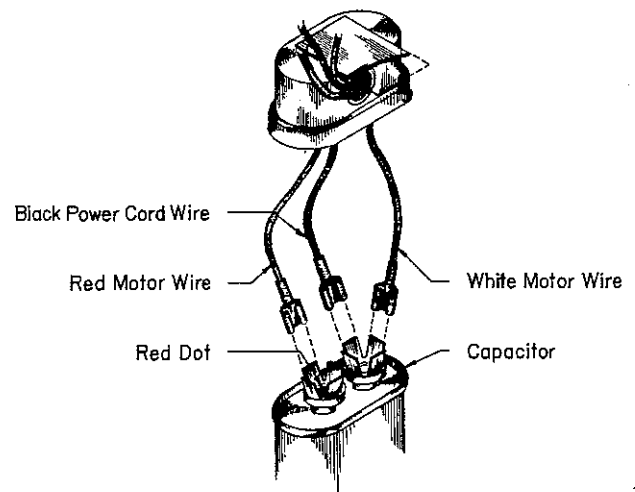


Illustration 8

4. Snap the capacitor onto the attached capacitor cap.

## L. RHEOSTAT

1. See Illustration 7. Remove the nut from the threaded shaft of the rheostat.
2. Insert the shaft from the back side through the formed hole in the trim panel placing the tab in the down position (the tab should fit through lower small hole).
3. Slide rheostat dial plate onto rheostat shaft.
4. Replace the nut and tighten the rheostat to the trim panel.
5. Slip rheostat knob on rheostat shaft aligning extreme left position to zero (0) on the scale.
6. Connect the white Silicone wire from the thermodisc to the center terminal of the rheostat. Connect the remaining black power cord wire to the other rheostat terminal, which is LEFT of the center terminal.

## M. TESTING THE ELECTRICAL EQUIPMENT

1. See Illustration 7. Make sure all wiring is properly connected, and that the fan blade and motor is turning free from any obstruction.
2. A summary of the proper wiring is as follows:

COMPONENT	WIRE COLOR	CONNECTED TO:
Motor	1) Black	Thermodisc
	2) Red	Capacitor (red dot)
	3) White	Capacitor (other terminal)
Thermodisc	1) White	Rheostat (center)
POWER CORD	1) Green	Ground (stove)
	2) Black	Capacitor
	3) Black	Rheostat (left center)

3. The thermodisc is the heat sensor for the stove. When the thermodisc's metal face reaches approximately 100°F, the blower fan system will activate.
4. To test the electrical system, remove the two wires (black and white) from the thermodisc terminals and tape them together with electrician's tape.
5. Plug the power cord into a 115-120 V AC receptacle. The blower fan should begin to operate. Turn the rheostat knob all the way to the left (0) and the fan should be at its lowest speed. Turn the knob all the way to the right (100) and the fan should be at its fastest speed.
6. Air should be pulled through the fan cavity in rear of the stove and exhausted from both side vents.
7. If the blower fan did not operate properly, check for proper wiring.
8. Unplug the power cord, and reconnect the two wires to the thermodisc terminals.

## N. TRIM PANELS

There are two styles of trim panels available for your Rear Mounted Motor stove: 1) Flat trim panels which are approximately  $\frac{1}{16}$ " thick and fit flat against the front face of the masonry fireplace. 2) Boxed or moulded trim panels which are approximately  $2\frac{1}{2}$ " in depth.

Determine which style trim panels you have with your stove. If you have the flat trim panels, for panel installation, proceed through the following steps below. If you have the boxed or moulded panels, please proceed to Step P for installation of these trim panels.

### FLAT TRIM PANELS

1. Each of the two (2) side panels must be at-

tached to the fireplace front with two (2) screws equally spaced. The top panel must also be attached to the fireplace front with four (4) screws equally spaced.

2. Position the side panels flush against the sides of the stove. The panels should fit just behind the lip of the stove face; flush to the stove sides. Slide stove slightly for proper fit.
3. The side panels should be attached with two (2) #6 x 1" hex washer slotted screws approximately 4" in from outer panel edge. These screws should be placed into the fireplace mortar rather than brick, stove, tile or other material.
4. Mark trim panels and mortar joint for drilling locations.
5. Drill holes in trim panels with  $\frac{1}{4}$ " metal bit, and in the masonry joint with a  $\frac{1}{4}$ " masonry drill kit.
6. Insert #6-8 x 1" lead screw anchors into drilled mortar joint holes.
7. Secure but do not tighten side panels with hex washer slotted screws.
8. The gold trim strips (9370) fit between the side and top panels.
9. Measure for the gold strips from the edge of the stove to the outer edge of the side panel.
10. Cut the gold strips to correct measurements with a fine-toothed hacksaw blade.
11. Slide the gold strips over the top of the side panels. Slide the top trim panel through the gold strip so it aligns with the outer edge of one side panel.
12. Mark the extended end of the top panel in line with the outside edge of side trim panel. Also, mark the top trim panel and mortar joints for proper drilling locations of four (4) 6 x 1" hex washer slotted screws.
13. Cut the top trim panel with a fine-toothed hacksaw blade, and drill the panel and mortar joint holes as done with the side panels.
14. Insert #6-8 x 1" lead screw anchors. Slide the top trim panel through the gold strips. Insert four (4) hex washer slotted screws.
15. Secure and tighten the top and slide trim panels.

YOU ARE NOW READY TO LOAD YOUR REAR MOUNTED MOTOR STOVE WITH THE PROPER FUEL AND FIRE IT UP. (FIRST BURNS SHOULD BE SMALL BURNS.)

## FRONT MOUNTED MOTOR SYSTEM

The motor/fan and thermodisc are pre-assembled and ready to be attached to your front mounted motor system.

We recommend the use of an optional flue adaptor with your front mounted motor stove but it is not necessary. The purpose of the flue adaptor for the front mounted motor stove is to allow a straight path for the burn-off material to escape the stove. This prevents less creosote build-up. There is no need to use insulation around the adaptor and chimney fit for the front mounted motor stove. If you are installing the optional adaptor, please see adapter installation instructions Section V, Step H.

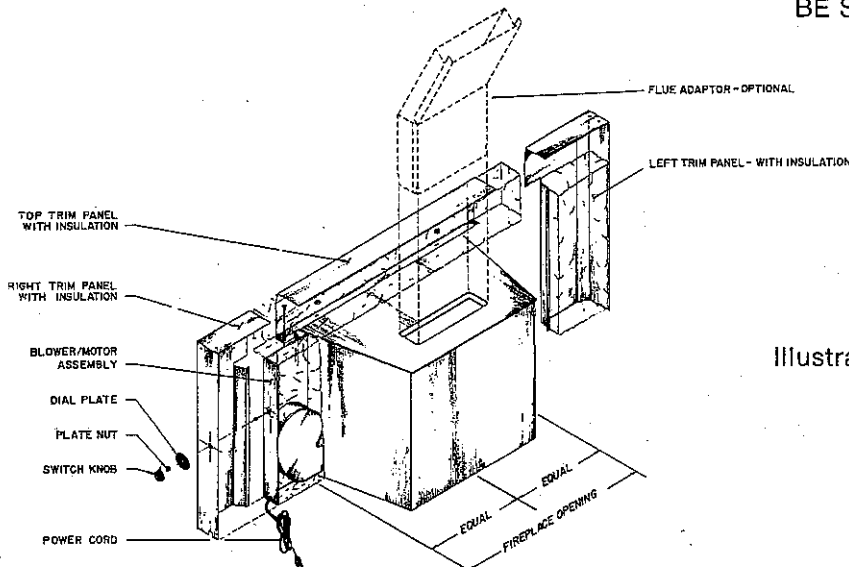
### O. POSITIONING OF STOVE

1. Place the stove on the fireplace hearth and center it with the fireplace opening.
2. Slide the stove back into fireplace leaving the front of the stove 12-15 inches out from the fireplace front face (brick, stone, tile, etc.)

### P. TRIM PANELS

**NOTE:** If you have boxed or moulded trim panels and a *rear mounted motor stove*, please proceed with panel installation as detailed here in this step. Disregard the following Step 3 for mounting the motor panel since the motor is in the *rear* and not the *front* of the stove.

1. The front mounted motor stove trim panels are provided with insulation. Place the insulation into the two (2) side and one (1) top panels.
2. See Illustration 9. Attach the top trim panel to the stove top by securing the two (2) screws through the formed holes.



3. Attach the motor panel housing (on the right side of stove) to the top trim panel with the one (1) screw through the formed hole.
4. The right side trim panel will be installed over the motor panel housing as illustrated. The left edge of the panel will fit directly behind the back of the stove face.
5. Make sure the motor blower switch shaft mounted on the motor panel housing (not present on rear mounted motor units) slips through the formed hole on the side of the trim panel.
6. Adjust the side trim panel so the four (4) pre-drilled holes in the top panel match those four (4) holes in the side trim panel. Make sure the power cord from the motor panel is extended through the horseshoe opening at the bottom right side of the panel.
7. Insert the four (4) screws and tighten to complete the right trim panel attachment.
8. Place the switch dialplate onto the switch shaft extending through the right panel. Screw the dialplate nut onto the shaft and tighten. Slide the switch knob onto the switch shaft and secure.
9. Attach the left trim panel in the same manner as the right trim panel. In attaching the left panel, there will be no motor panel housing, switch knob or power cord.

### Q. FINAL POSITIONING OF STOVE

1. Slide the stove back into your fireplace so the trim panels are centered and flush against the fireplace exterior.

**YOU ARE NOW READY TO LOAD YOUR FRONT MOUNTED MOTOR STOVE WITH THE PROPER FUEL AND FIRE IT UP. (FIRST BURNS SHOULD BE SMALL BURNS.)**

Illustration 9

## VI. FREESTANDING INSTALLATION

### A. MINIMUM CLEARANCES

Certain conditions for installation exist in the typical home which dictate the clearances required for a safe freestanding installation.

These conditions are:

- 1) Wall Installation
  - a) Combustible Walls
  - b) Metal Wall Protector
  - c) Brick Wall Protector
- 2) Corner Installation
  - a) Combustible Walls
  - b) Metal Wall Protector
  - c) Brick Wall Protector
- 3) Straight-Up Steel Chimney Installation
- 4) Through-the-Wall and Up Installation.

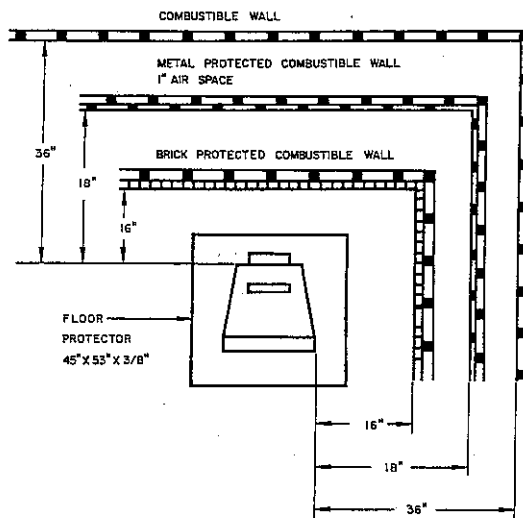
The Minimum clearance codes vary with the conditions of installation and should be studied carefully prior to installation of your Freestand-

ing Stove. These clearance codes are identified in Illustrations 10, 11, 12, 13 and 14.

In all cases, if your Freestanding Stove is to be installed on a combustible floor, a non-combustible pad must be placed below it to protect the floor from radiant heat and burning material from the stove.

The pad must meet the following minimum specifications:

1. The floor protector must be  $\frac{3}{8}$ " thick minimum asbestos millboard or equivalent material having a "K" factor of .070 and be non-combustible.
2. The floor protector must be at least 45" x 53" x  $\frac{3}{8}$ ".
3. The stove must be positioned on the pad so there is a minimum of 16" from the front of the stove to the front of the pad and a minimum of 8" from the side of the firebox opening and the side of the pad.



NOTE: CLEARANCES SHOWN ARE MINIMUM.

Illustration 10

### WALL INSTALLATION

#### CLEARANCE DIMENSION REQUIREMENTS SUMMARY

Condition	Back of Stove to Wall	Side of Stove to Wall	Wall Protector Height	Wall Protector Width
Combustible Wall—No Protector	36"	36"	N/A	N/A
Combustible Wall—1" Air Space and Metal Wall Protector	18"	18"	60"	45"
Combustible Wall—Common Face Brick Protector	16"	16"	60"	54"



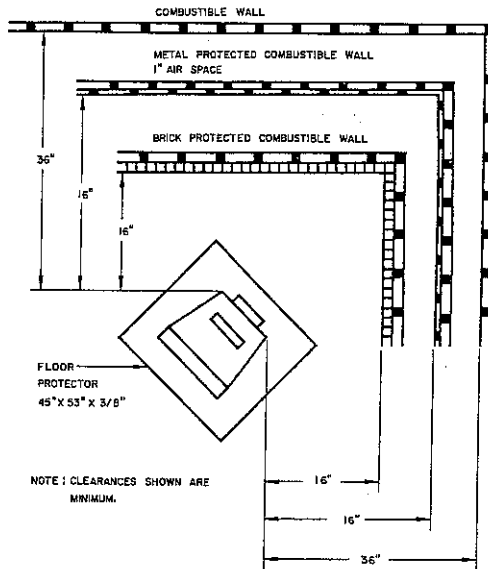


Illustration 11

**CORNER INSTALLATION**

**CLEARANCE DIMENSION REQUIREMENTS SUMMARY**

Condition	Back of Stove to Wall	Side of Stove to Wall	Wall Protector Height	Wall Protector Width
Combustible Wall—No Protector	36"	36"	N/A	N/A
Combustible Wall 8 1/2" Air Space and Metal Wall Protector	16"	16"	60"	45"
Combustible Wall—Common Face Brick Protector	16"	16"	60"	54"

**B. TYPICAL WALL PROTECTOR**

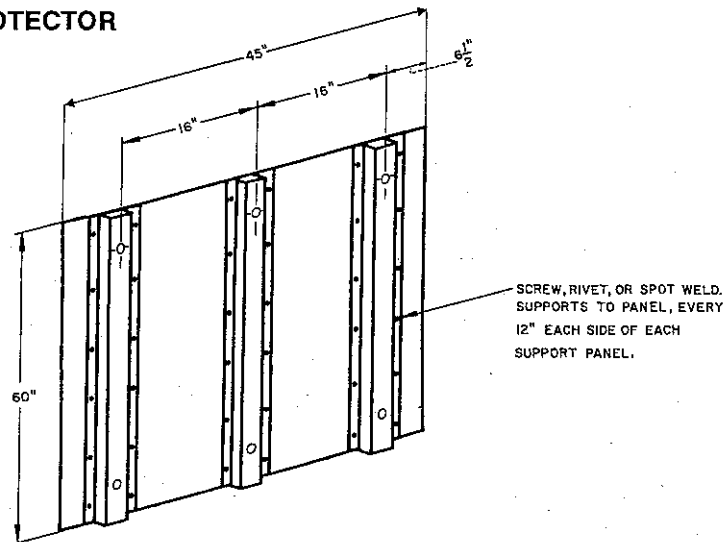


Illustration 12

### C. STRAIGHT-UP FREESTANDING INSTALLATION

In the event a masonry chimney is not available or feasible, a listed Class "A" all fuel pipe must be used. This pipe can be either double wall filled with asbestos (or other non-combustible material) or ventilated triple wall pipe. Once you start using insulated pipe, you must use it throughout the rest of your job up to and including the chimney cap. Different brands of insulated pipe *must not* be intermixed. BE SURE TO CHECK CLEARANCES TO COMBUSTIBLE SURFACES AND FOLLOW YOUR PIPE MANUFACTURERS DIRECTIONS COMPLETELY.

Your chimney height is critical to creating the proper draft and preventing downdrafts during windy weather conditions. It also provides safe clearance to your roof. The code requires at least 3' minimum height above the roof within 10' measured horizontally from the chimney pipe. If the roof ridge is further than 10' from the chimney, the proper height can be calculated by using the following formula:  $(\text{Roof Slope} \times \text{Distance to Ridge}) + 2 = \text{Required Height}$ . Guy wires are required for chimneys taller than 5' above the roof.

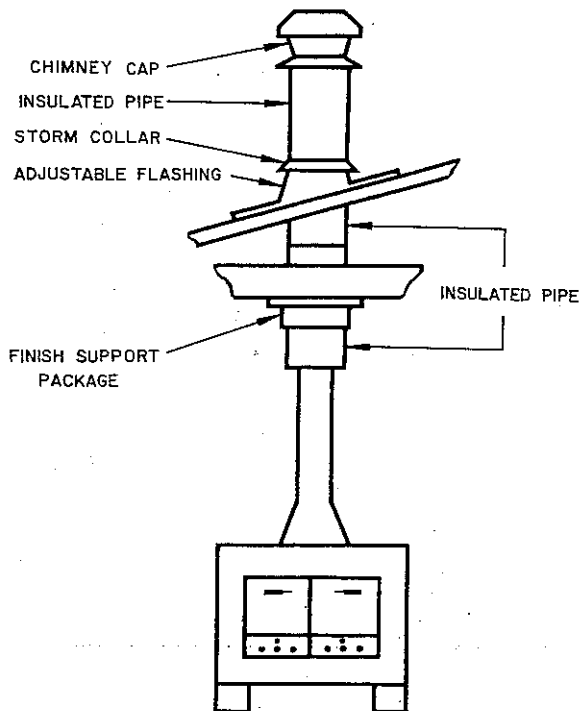


Illustration 13

### D. THROUGH THE WALL AND UP INSTALLATION

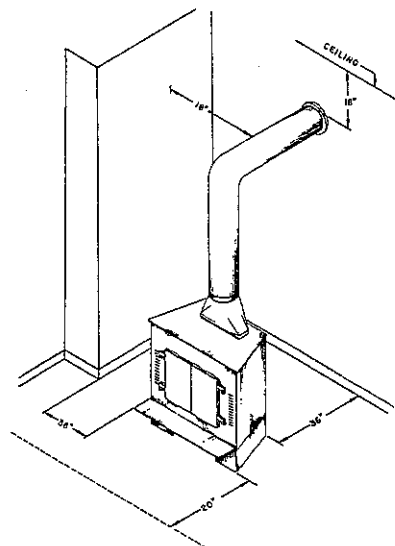


Illustration 14

### E. STOVE PIPE

Your stove pipe, the connecting link between your heating unit and your chimney, plays a major role in the installation and operation of your wood stove. Careful consideration of stove placement relative to the chimney will help reduce the length of the stove pipe, which will in turn reduce the collection of creosote and resultant fire hazards. The crimped ends of the stove pipe must be installed toward the stove to prevent leakage of creosote to the outside surface of the pipe. Each pipe joint *must* be securely fastened with the self tapping screws. The following dimensions are suggested:

*Standard Black Pipe (not galvanized)*  
8" diameter pipe 24 gauge

*Stainless Steel Pipe*  
26 gauge

### F. PREPARING THE STOVE FOR INSTALLATION

1. Remove the stove from the shipping container.
2. Inspect the stove for any obvious physical damage.
3. Check the air draft controls to ensure that they slide freely and will lock into position when the control knobs are tightened.
4. Open cast doors and remove the doors and all contents in the firebox.
5. If you are using the glass plates for the cast doors, remove cast panels. When installing glass plates, be certain that gasket material is attached and tightening is done in a cross-wise method and only a "firm snug" fit is required.
6. See Illustration 15. Latch the doors of your stove and tip forward and lay face down.

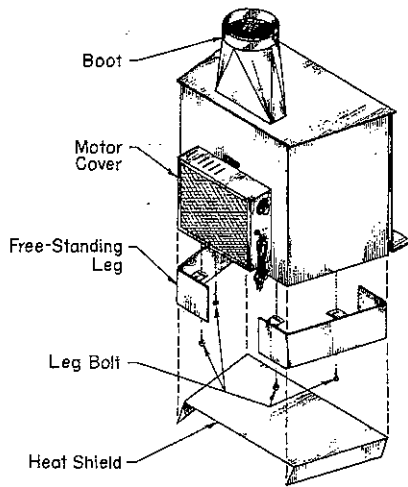


Illustration 15

7. The freestanding legs have connecting tabs on the side and rear. Place the legs against the stove bottom, center the legs for proper location. Mark stove bottom through connecting tabs for drilling location.
8. Drill four (4)  $\frac{3}{16}$ " holes in the stove bottom. Attach legs with the four (4) slotted screws.
9. Position the heat shield within the inner perimeter of the legs as shown in the illustration. The shield will free stand approximately 3" from floor.
10. Stand the stove back upright on its legs.

#### G. MOUNTING BOOT

1. See Illustration 15. Install boot gasket into recessed area of the rectangular flue vent on stove top.
2. Securely insert the boot into the flue vent.
3. Seal the boot with a generous bead of black furnace cement or black RTV high temperature Silicone around the metal connection of the boot and the rectangular opening on the stove top. Apply this cement on the outside and inside of the stove.

#### H. PREPARING THE STOVE LOCATION

1. Select your installation location based on the previously described specifications and conditions.
2. Place the protective floor pad into position.
3. Place your stove on the pad making sure all the minimum clearance requirements are met.
4. Install your stovepipe and/or chimney per the manufacturer's instructions adhering to the previously described specifications and conditions.

#### I. MOUNTING THE MOTOR/FAN AND CONTROLS

The mounting of the motor/fan assembly and controls of your freestanding stove are *EXACTLY* the same as the procedure for a rear mounted motor stove as described in Section V, Steps F through M with only four *EXCEPTIONS*:

1. With the installation of the stovepipe and/or chimney for the freestanding stove, you will not install a flue adaptor as described in Section V, Step H.
2. The thermodisc for your freestanding stove is mounted on the back of the stove eleven (11) inches from the top and one and one-half ( $1\frac{1}{2}$ ) inches from the right back edge of the stove. In contrast the thermodisc for the rear mounted motor stove is attached on the side of the stove.
3. A rear mounted motor stove has the rheostat, capacitor and power cord mounted on the trim panel. With a freestanding stove, you mount these controls within the provided motor cover. The motor cover has all of the necessary mounting holes pre-drilled.
4. To ground a freestanding stove, attach the power cord green wire to the interior side plate of the motor cover (see Illustration 16) with the  $\frac{7}{64}$ " green #8 x 2 hex head screw.

For the mounting of the motor/fan, thermodisc, power cord and strain relief, capacitor and rheostat, please see Section V, Steps F through M.

**BE SURE TO TEST THE ELECTRICAL EQUIPMENT. (SEE ILLUSTRATION 16 TO CHECK FOR PROPER WIRING.)**

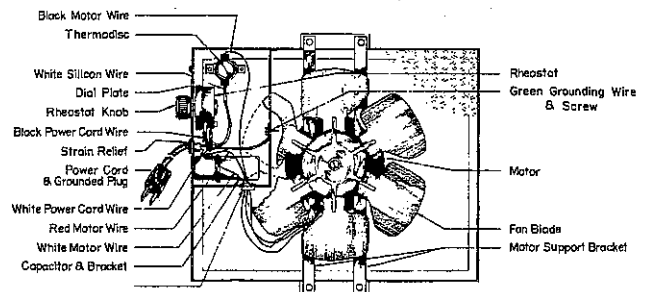


Illustration 16

**YOU ARE NOW READY TO LOAD YOUR FREE-STANDING STOVE WITH THE PROPER FUEL AND FIRE IT UP. (FIRST BURNS SHOULD BE SMALL BURNS.)**

## VII. REPLACEMENT PARTS

	Part #
Motor Cover	6002
(Flue) Boot	6003
Leg Set (left & right)	2270
Capacitor	4003
Capacitor Bracket	4013
Thermodisc	4002
Rheostat	4004
Rheostat Knob	4006
Rheostat Dial	4015
(Flue) Adapter, Front Piece	2240
(Flue) Adapter, Rear Piece	2250
Complete Blower Assembly, Including:	2900
Capacitor	
Capacitor Bracket	
Thermodisc	
Rheostat	
Wood Grate	2260
Coal Grate	6006
Spark Screen	6005
Heat Shield	6004
Strain Relief	4016
Glass Door Plates	6015

## VIII. WARRANTY AND REGISTRATION

### Warranty Applies to Original Purchaser Only

#### A. STOVE SHELL AND DOORS

For FIVE YEARS from the date of purchase, when the stove is installed and operated in accordance with the instructions in the Owner's Manual, DAKA will repair or replace this stove shell or doors if defective in material or workmanship, at no charge, exclusive of transportation charges. Installation charges are not covered under warranty.

#### B. BLOWER MOTOR

##### 1. Rear Mounted Blower Motor Stove

For FIVE YEARS from the date of purchase, when the stove is installed and operated in accordance with the instructions in the Owner's Manual, DAKA will furnish a replacement motor for any defective blower motor. DAKA will pay for labor charges only for the first year after date of purchase.

#### C. COMPONENT PARTS

For ONE YEAR from the date of purchase, DAKA will furnish replacement parts for any defective thermodisc, rheostat assembly and capacitor. DAKA will pay for labor charges only for the first 90 days, customer must pay for labor charges from 91st day after date of purchase.

#### D. PARTS NOT COVERED

This warranty does not cover the following:

- Brass Knobs
- Ornaments
- Optional Equipment
- Wood/Coal Grate
- Glass
- Gaskets
- Trim Panels
- Motor Covers
- Spark Screen

This warranty does not cover damage caused by improper installation or abuse.