

# OWNERS MANUAL

INSTALLATION INSTRUCTIONS

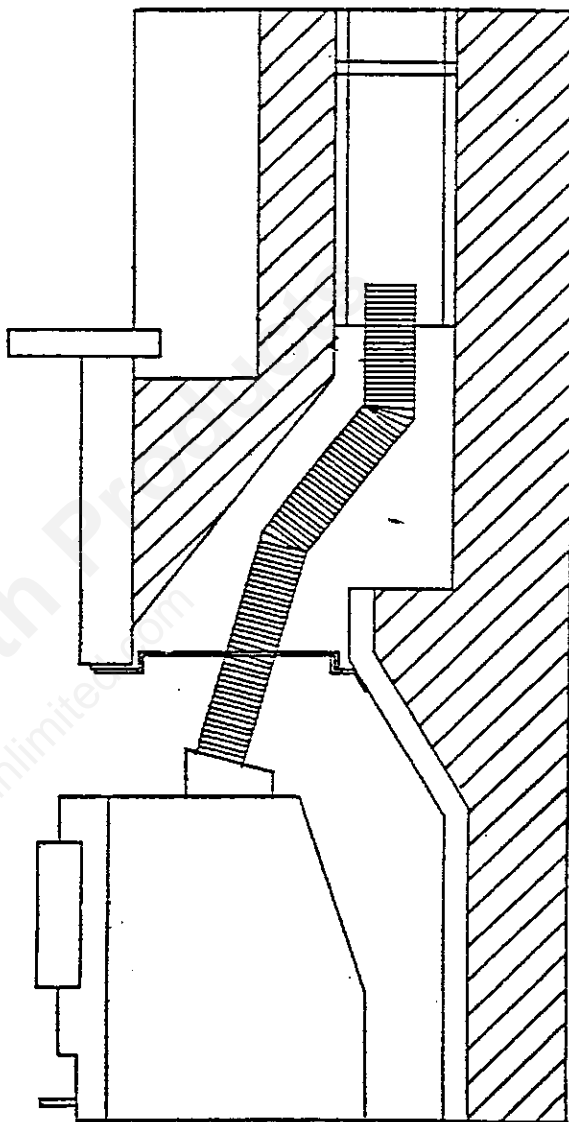
AND

PARTS LISTINGS

FOR

POSITIVE CONNECTION KIT

(43PCK/35762)



**UNITED STATES STOVE COMPANY**  
P.O. BOX 151 • South Pittsburg, TN 37380 • (615) 837-2100

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**INSTALLATION INSTRUCTIONS**  
**PARTS LISTING**  
**AND**  
**OWNERS MANUAL**  
**43PCK/35762**

Remove all parts and check against the Parts Listing to be sure they are included. There are three inner cartons and one plastic parts bag inside your master pack.

Before commencing your installation, clean out your fireplace including the smoke shelf. And it is recommended that you have your chimney professionally cleaned at this time. If you perform this operation yourself, you should insure the ashes are placed in a closed metal container if you've had a recent fire.

**SAFETY TIPS:**

The 43PCK/35762 Positive Connection Kit is designed for installation in masonry chimneys only and must not at any point contact any wooden member or cross member. All parts may have sharp edges. **WEAR GLOVES.** You'll be working with metal and in an environment that is not necessarily clean, so you should wear safety glasses and consider head protection if you're working in a tight place. It is suggested that this kit be professionally installed only. However, if all instructions are followed and if the installation is thoroughly inspected, the work itself is simple enough that a good do-it-yourselfer is quite capable of making a very acceptable installation.

**NECESSARY TOOLS AND EQUIPMENT REQUIRED:**

Safety eye protection, work gloves, flexible tape measure, felt-tip pen, straight edge, spirit level, hack saw, tin snips, ball-pen hammer, screw driver, locking pliers (vise grips), drill motor, 1/4" masonry drill, 1/8" and 1/4" high-speed drills, cold chisel, nylon rope, duct tape, pop rivet gun, and rivets (for optional sheet metal), caulk gun, and at least one tube of high-temp furnace caulk.

**IMPORTANT COMMENTS:**

The universal base plate is designed to accommodate fireplaces constructed to the Masonry Code. However, many fireplaces are not constructed according to code, and it may be necessary for you to make modifications, including additional sheet metal work. If additional sheet metal work is necessary, we strongly recommend you use at least 20-gauge aluminized steel or galvanized steel.

## PRE-INSTALLATION

1. Before installing your Positive Connection Kit, it is necessary to obtain accurate dimensions. This will save time and prevent premature cutting and or modifications. Trail fit your flex pipe to determine the angle, pitch, and necessary clearances you may need to provide.
2. If your smoke shelf protrudes excessively and interferes with the flex, it is suggested you remove at least one course of brick and surrounding mortar. Do not discard your master carton. You will find it comes in handy for use as a cardboard template, which will accurately indicate any trimming that is necessary. (See Illustrations)
3. For complete mechanical integrity your base plate should be attached to the underside of your steel lintel. If your fireplace does not have a lintel plate or bar, we strongly recommend you install one. The rear of the base plate attaches to the inward curving portion of your smoke shelf. (See Illustration) Use the self-tapping screws provided in the kit to attach the base plate to the lintel drilling pilot holes. If your fireplace opening is less than 36", you must trim the base plate. If greater than 36", center the plate for installation. For wider installations, it will be necessary to add sheet metal side skirts to the universal base plate to completely seal off your smoke chamber. Where the base plate extends to the smoke shelf, it may be necessary to do extensive trimming for proper fit-up, as, again, there are many variances of this dimension found in most fireplaces.

**Step (1)** Slide your Fireplace Insert into the opening to the correct depth (prior to installing the trim kit) and measure the distance from the interior lip of your lintel to the center line of the flue outlet. Make note of this dimension and keep it handy for reference, when fitting the flexible connector.

**NOTE:** The depth to which your Fireplace Insert can be installed in the fireplace opening may well be determined by the configuration of the smoke dome and smoke shelf of your fireplace itself. The easiest way to determine this dimension is to place the flexible duct pipe connector up into your chimney, securing it in place with rope, tape or clamp, (See Bending Instructions), slide the Fireplace Insert into the fireplace opening and make note of the proper point of alignment of the flex pipe and the insert adaptor.

## BENDING INSTRUCTION (WEAR GLOVES)

To achieve the desired bend(s), first determine the center point of the proper "bend" location and mark the flex-pipe with a felt-tip pen or crayon at that point. Next, wrap the area to be bent with rope six inches above, and six inches below, and secure with tape. This will prevent crushing or distorting the flex-oval. **CAUTION: IMPORTANT NOTE:** Though this connecting pipe is flexible, it will not stand too severe a bend. Most fireplaces will require a slight "S" configuration to this flexible pipe. Bend to the approximate degree required by placing on a floor and pulling upwards while holding down with foot pressure at the center point of the rope-wrap. Repeat the process for the return bend.

Next, drill the securing holes in the flex pipe. (See Illustration) Install the pin and check for fit. Remove the pin and set aside.

**Step (2).** Remove the Fireplace Insert and set aside.

**Step (3).** If you have a mechanical, cast iron or steel damper installed in your fireplace, it should be removed. If it cannot be removed, it should be permanently opened and braced or locked in the open position.

**Step (4).** You may now work the flexible pipe up past the damper, the damper shelf, the smoke shelf, and up into the area covered by the first flue tile. If possible, slide as far up as is necessary to keep out of the way. Using duct tape or wire, secure the flexible pipe so that it will clear the Insert and adaptor/boot.

**Step 5.** Install the flue adaptor (connector boot) which converts your rectangular opening to oval. (See Illustrations)

If holes are not pre-drilled in the top of your insert, use the adaptor/boot as a template to mark and drill holes with the drill bit provided in the kit, as illustrated. If your Insert has been pre-drilled at the factory, remove the self-tapping screws, and determine the correct angle for your adaptor/boot. (**NOTE:** Determine if your flue will require a forward or rearward thrust, as this adaptor is reversible).

**Step 6.** Now, slide the Insert into its proper position in the fireplace. Remove your duct tape or wire from the flexible connector, and note the dimensions as follows:

- A. From the inside lip of your fireplace lintel to the front of the flexible stainless steel connector.
- B. From the rear of your flexible stainless steel connector to the smoke shelf at the rear of your fireplace.

These dimensions will be needed later to determine the placement of the anchor plate to the universal base plate adaptor (this is the plate with the oval hole, which is meant to be installed atop the universal base plate). (See Illustration)

### INSTALLATION

At this time, it may be necessary to construct a cardboard template:

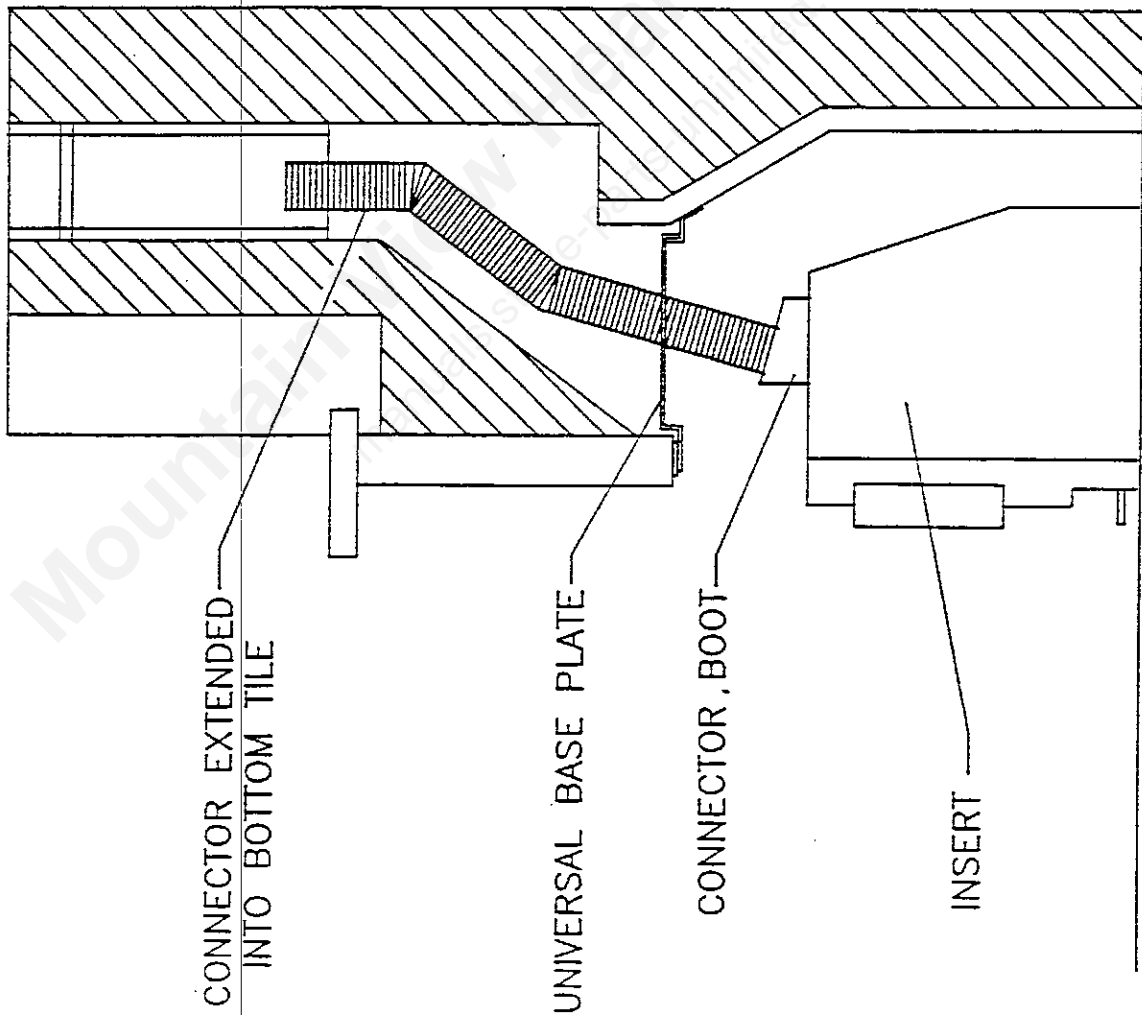
- 1) First, obtain a piece of cardboard (use the outer carton). Measure the width of your fireplace opening (again at the lintel) and determine the center line. Transfer the center line to the center of your cardboard template. (See Illustration)
- 2) Next, determine the depth of your fireplace top, using a spirit level and a tape measure. Measure the distance from the rear of the lintel plate to the smoke shelf at the rear of your fireplace. This is most accurately determined by placing the spirit level up against the underside of your lintel, keeping it level and extending it to the rear and touching your smoke shelf. Measure the distance at that point and note this is the depth of your fireplace where your lintel plate extension, universal base plate, and rear extension, if required, must be fitted. Transfer to your template. (See Illustration) Also, it will be helpful to scribe that location on the smoke shelf.
- 3) Measure the width at the back of the smoke chamber at the same height as the lintel (as determined in the previous step), and center that measurement onto the cardboard template. Most fireplaces at the point where this installation needs to be made are shaped much the same as shown in the illustration. You are now to lay out your cardboard template to conform to this dimension. Do this with your straight edge and a pencil.
- 4) Cut the template to size, and set it aside.

- 5) It is now time to assemble for trial fit and/or trimming all components of the positive connection plate. (See Illustration) Place your cardboard template on top of this assembly and trace around it with a felt pen. Trim to size with hack saw or large metal snips.
- 6) Install this assembly, (See Illustration), being careful to install the front (lintel end) first, and supporting the rear. You may find it simpler, depending upon the room in which you have to work, to disassemble the three components and install the lintel base plate first. If you are unable to use the rear extension, then use the alternate method by mounting the angle iron bracket to the proper position at the top of the rear of the smoke chamber. Regardless of the method used, be sure and use the masonry anchors to secure your universal base plate extension or angle iron support.
- 7) Once the base plate and all components are firmly anchored in place, withdraw the flexible pipe downward (after having set the anchor plate on the top of the base plate, loosely). At this point, you will be able to determine the precise location of the anchor plate relative to the positioning of the flexible connector and its fit-up or alignment with the Fireplace Insert.
- 8) Using four of the screws, nuts and washers provided, secure the anchor plate into its proper position.
- 9) Caulk all joints with high-temp sealant.
- 10) Carefully slide the Insert into the opening (with the trim removed). **NOTE:** If your trim kit is of the old style, it may be necessary for you to order the optional trim adaptor for use with positive or direct connection kits. This kit may be ordered from United States Company at the below address: Order Part Number 43 PCTAK.

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- 11) Once the Fireplace Insert is installed to the proper depth, pull down on the flexible connector and position it into the flue adaptor.
- 12) Carefully install the locking pin and you are ready for final fit-up of the exterior trim kit and brass surround (if supplied).



CONNECTOR EXTENDED  
INTO BOTTOM TILE

UNIVERSAL BASE PLATE

CONNECTOR, BOOT

INSERT

SPIRIT LEVEL

B

