INSTALLATION INSTRUCTIONS:
FOR CONVERTING OVER TO A 4" x 6-5/8" DIRECT VENT APPLIANCE FROM A FACTORY-BUILT 8" CLASS-A ALL FUEL METAL CHIMNEY OR A MASONRY CHIMNEY

VERY IMPORTANT

It is very important to read not only these installation instructions, but the instructions furnished with the appliance that is connected to this AmeriVent Direct Vent System. If you fail to follow all of the relevant instructions you may create a safety or a fire hazard. This will void the warranty for the Vent System and possibly for the appliance, as well as your insurance protection. You must be very careful to follow the appliance manufacturers Installation Instructions in regard to the requirements for both specific and general venting installations as well as clearance to combustible materials. These requirements may well vary from one appliance manufacturer to another, and from one individual appliance to another.

APPLICATIONS OF THE AMERIVENT DIRECT VENT SYSTEM

The restrictions, limitations and instructions found in these Installation Instructions for AmeriVent Direct Retro Conversion Kits are intended to apply solely to 8" Class 'A' All Fuel Factory Built Chimneys and Masonry Chimneys. This venting system has been tested by Warnock Hersey. It is very important to make sure that the manufacturer's installation instructions, as well as the appliance rating label, confirms that a AmeriVent Direct Retro Conversion Kit System is approved for use on the specific brand and model of appliance you have selected.

INSTALLATION PRECAUTIONS

This AmeriVent Direct Vent System has been engineered, designed, and tested for use with a specific list of approved direct vent gas appliances. If any of the following conditions or actions exist the AmeriVent warranty will be voided, and serious fire, health, or other safety hazards may result.

1. Any modification of the Direct Vent System not authorized by the AmeriVent Engineering Staff.
2. Installation of any damaged Direct Vent Pipe Section or component.
3. Installation in the vent system of any component part not manufactured or approved by AmeriVent.
4. Any Vent System Installation other than as instructed by AmeriVent and the appliance manufacturer.

Note: It is very important to consult the local building codes and requirements before starting the installation.
The existing All Fuel Metal or Masonry Chimney must be inspected by a professional installer or a certified chimney sweep prior to converting to AmeriVent Direct Vent. The existing chimney system must be in serviceable condition, and THE DIRECT VENT CONVERSION DESCRIBED HEREIN APPLIES ONLY TO FACTORY-BUILT METAL CEILING-SUPPORTED TYPE SYSTEMS AND MASONRY THROUGH-THE-WALL TYPE SYSTEMS. NOTE: YOU CANNOT INSTALL A CONVERSION KIT IN A THROUGH-THE-WALL TYPE FACTORY-BUILT METAL CHIMNEY.

General:

The AVD Retro Conversion Kit can be applied to two different applications: through an existing factory-built 8" class-A all fuel metal chimney (Kit A) or a masonry chimney (Kit M).
*Purchase of a 4" and a 7" chimney re-liner kit is also required for both kits.

1) **Through an existing 8" class-A metal chimney;** Kit A contains a black Conversion Adapter (4DCNA) and an unpainted large Cap Adapter (4DCAA). Insert a UL listed 4" aluminum flex pipe and 7" aluminum flex pipe (co-axially) through the center of the existing 8" class-A metal chimney from the top of the chimney. Connect both adapters at the crimped end to the 4" flex pipe then fasten the 7" flex pipe to the Cap Adapter and Conversion Adapter w/ the fittings that come w/ the 7" flex pipe kit (7RLK25/35). Attach the Cap Adapter to the top of the chimney and the black Conversion Adapter to the ceiling support box. Fasten your direct vent pipe to the black Conversion Adapter and a termination cap to the unpainted Cap Adapter on your roof.
2) **Through an existing masonry chimney;** Kit M contains a black Conversion Adapter (4DCNA), an unpainted small Cap Adapter (4DCAB), a black Face Plate (4DFPB), and a square flashing. Cut a hole in your existing masonry chimney and wall (if your masonry is concealed). Insert a UL listed 4" flex pipe and 7" flex pipe (co-axially) down through the masonry tile liner. Connect both flex pipes to the Cap Adapter using the fittings in the 7" flex kit. Pull both flex pipes through the masonry wall and connect both flex pipes to the Conversion Adapter using the fittings in the 7" flex kit. Attach the Conversion Adapter to the black Face Plate. Attach the Cap Adapter to the flashing. Connect the Conversion Adapter to the direct vent pipe and your Cap Adapter to the direct vent termination cap.

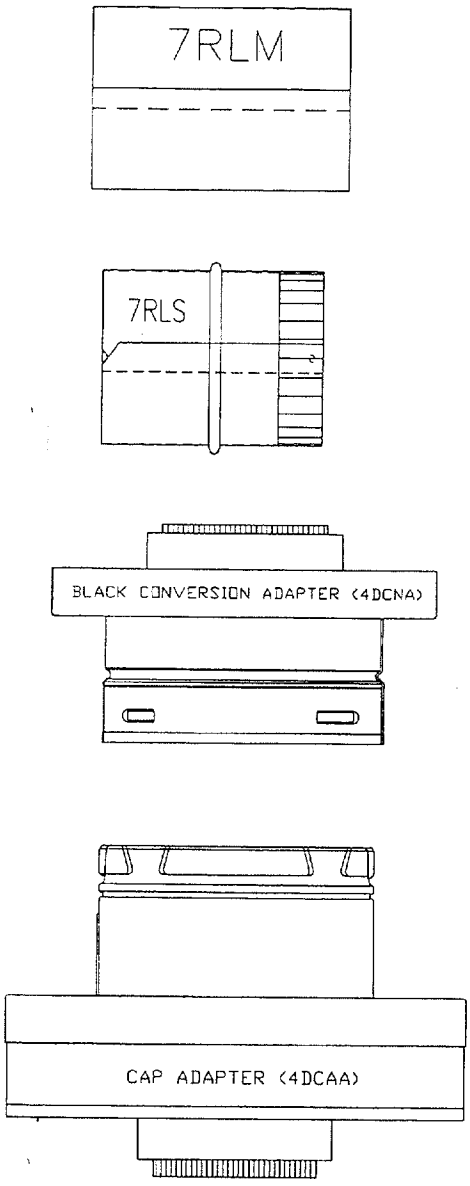
Tools/Hardware Needed:

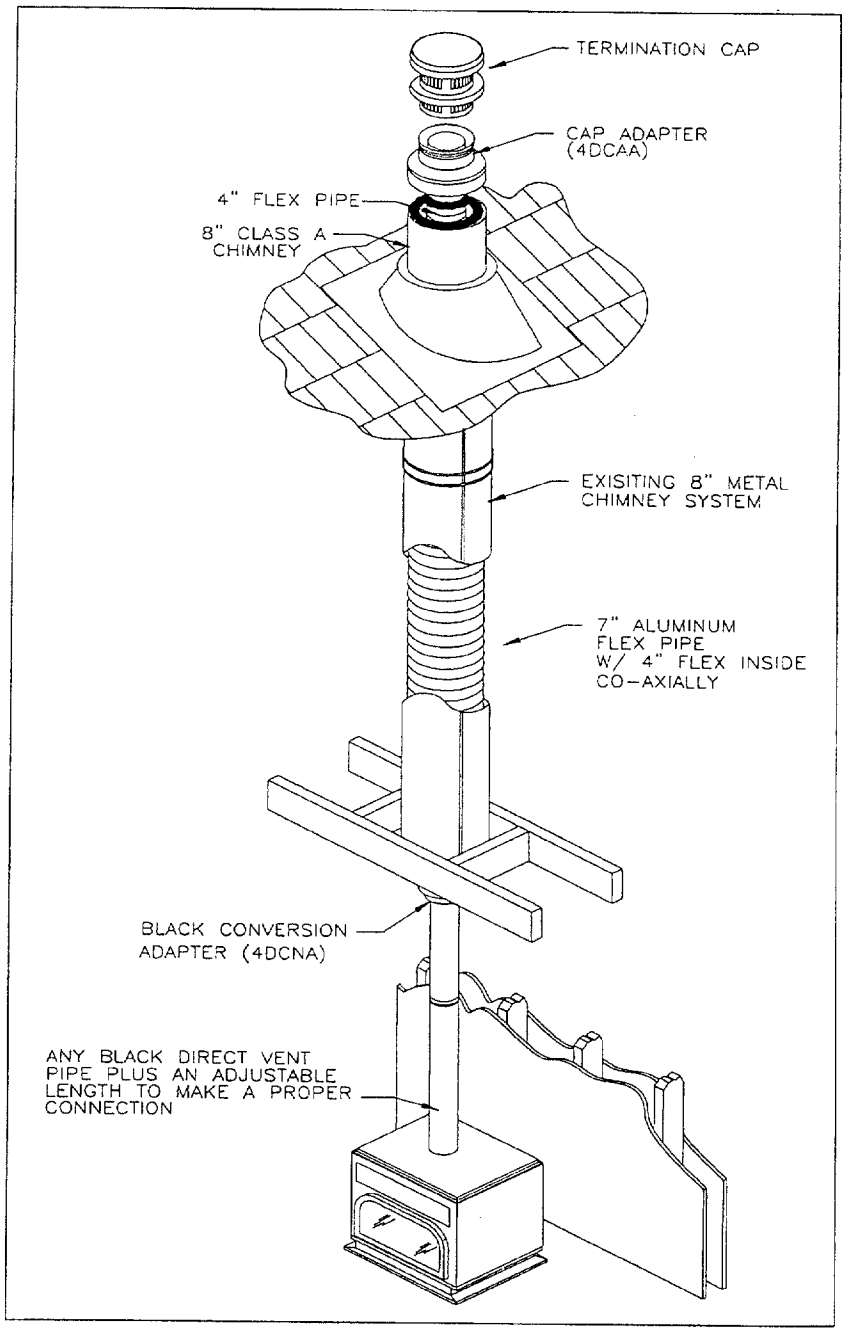
Hi-Temp Sealant: black for the black Conversion Adapter. Any other color for the remaining applications.

- Sheet metal screws. Various lengths up to 2" in length. Use SS screws for the Exhaust Gas 4" Flex Pipe.
- Pull Cone.
- Typical sheet metal fabrication tools
- Black touch-up paint. Reference: part no. AVD-PTU can be used.
- #10 Masonry bolts

TYPICAL 8" METAL CHIMNEY RETRO CONVERSION - KIT A

**Both 7RLM and 7RLS come with 7" Flex Kit





Installation Instructions for a Retro Conversion of a Factory Built 8" Class-A All Fuel Metal Chimney - (Kit A).

****Any screws exposed to the combustion air or exhaust gases will need a bead of hi-temp sealant on the end of them before insertion. FURNISHED SS SCREWS ARE FOR ATTACHING THE 4" FLEX PIPE (EXHAUST) TO THE ADAPTERS.**

*****This system requires a large amount of hi-temp sealant to maintain its listing. Any seam or joint between two mating parts needs sealing, including fasteners.**

PROFESSIONALLY CLEAN METAL CHIMNEY BEFORE INSTALLING

1. --OUTSIDE: Remove the existing metal chimney termination cap.
2. --At one end of the galvanized mortar sleeve (7RLM- from 7" chimney re-liner kit), cut approx. 1 ½"L slits around the circumference and peel back as to create a fabricated flange on the end of the sleeve. Try to create a flange that is just under 11" in diameter. Do not go any larger than 11" or smaller than 9½". See Figure 1.
3. --At the un-crimped end of the aluminum single wall collar (7RLS- from 7" chimney re-liner kit), cut approx. ¾" slits around the circumference and peel back as to create a fabricated flange on the un-crimped end of the collar. Try to create a flange that is just under 9" in diameter. Do not go any larger than 9". See Figure 1.
4. --Measure the length from the top of the existing metal chimney to the bottom of the ceiling support box and cut a section of 7" flex pipe to that length in its stretched position.
5. --Attach the un-flanged end of the 7RLM at the top end of the flex pipe about 3" down the length of the flex w/ sheet metal screws. Put a bead of sealant around the seam of the 7"flex and 7RLM. See Figure 2. Insert the flex pipe down the middle of the 8" class-A chimney, w/ the flanged 7RLM attached, and let the flex pipe hang by the flange of the 7RLM on the top of the metal chimney. See Figure 3.
6. --Fasten the flange to the metal on the topside of the chimney w/ sheet metal screws. See Figure 3.
7. --Cut a section of 4" flex pipe the same length as the 7", in its stretched position and add 3" to that length.
8. --Drill 4 holes around the circumference of the flat part (ledge) of the Cap Adapter. See Figure 5.
9. --Put a thick bead of sealant around the inside of the Cap Adapter on the underside of the larger ring (*relative to where the flange on the 7RLM will mate up). See Figure 4.
10. --*Fastening The 4" Flex To The Cap Adapter-* Put a thick bead of sealant around the end/edge of the 4" flex. Insert the flex in between the crimped and un-crimped SS sleeves and use SS sheet metal screws (furnished) to attach to these sleeves. Put another bead of sealant around the seam between the un-crimped SS sleeve and the inserted, fastened 4" flex. See Figure 5.
11. --Put a thick bead of sealant around the innermost part of the topside of the flange on the 7RLM. See Figure 6.
12. --Insert the 4" flex pipe (attch'd to Cap Adapter) down through the 7" flex pipe. Position the Cap Adapter so that it is centered on the metal chimney.
13. --Using the 4 previously drilled holes, fasten with sheet metal screws (4) to the metal in the chimney (preferably to a spacer ring if your chimney has one). Also, insure fastening through the flange on the 7RLM. See Figure 6.
14. --Attach your direct vent termination cap (AMP: 4DVC) to the Cap Adapter. See Figure 7.
15. --INSIDE: Remove the black stovepipe adapter if there is one that exists protruding from your ceiling support box.
16. --Pull out the 4" flex pipe from the ceiling support box. There should be about 3" of it below the support box.
17. --Slide the 7RLS (crimped end first) over the 4" flex and temporarily insert it into the support box or 7" flex, so that it is hanging by itself.
18. --Fasten the 4" flex pipe to the black Conversion Adapter in the same method as the Cap Adapter (Step 10). See Figure 8.
19. --Put a thick bead of sealant around the innermost part of the bottom side of the flange (facing the floor) on the 7RLS. See Figure 9.
20. --Put a thick bead of sealant around the inside of the black Conversion Adapter on the underside of the larger ring (*relative to where the flange on the 7RLS will mate up). See Figure 8.
21. --Pull the 7RLS out from its temporary position (Step 17) and fasten the flange to the underside of the flat part (ledge) of the Conversion Adapter w/ sheet metal screws, preferably from the decorative side if capable. See Figure 10.

22. --Insert the crimped end (un-flanged) of the 7RLS into the bottom end of the 7" flex up to the point of the flared-out bead around the circumference of the 7RLS. Fasten it to the flex pipe w/ sheet metal screws. Put a bead of sealant around the seam of the 7RLS and the 7" flex. See Figure 11.
23. --Push the whole assembly flush up against the bottom of the ceiling support box and fasten the flat part (ledge) of the Conversion Adapter to the ceiling support box w/ sheet metal screws (approx 1½"–2" long). Hi-temp black paint may be required to touch-up scrapes. See Figure 12.
24. --Put a bead of black sealant around the seam of the direct vent fitting, of the Conversion Adapter, and the flat part (ledge) of the Conversion Adapter. See Figure 12.
25. --Connect the Conversion Adapter to the direct vent pipe. An adjustable length section of direct vent pipe may be necessary to connect to the appliance.

FIG 1

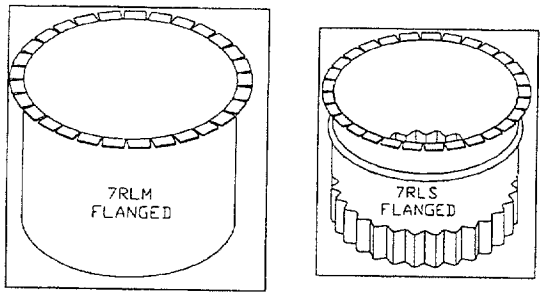


FIG 2

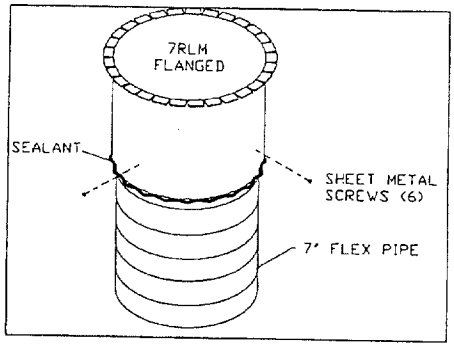


FIG 3

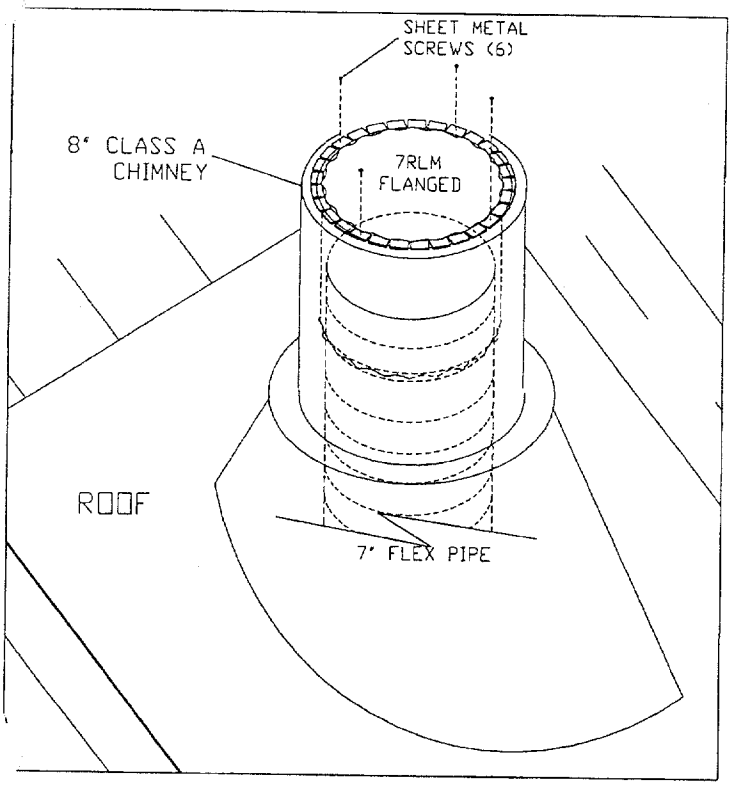
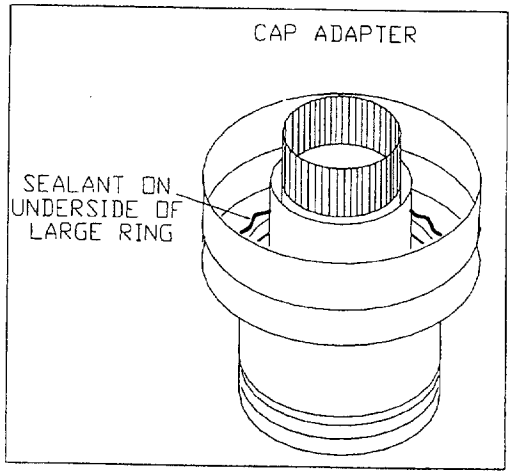
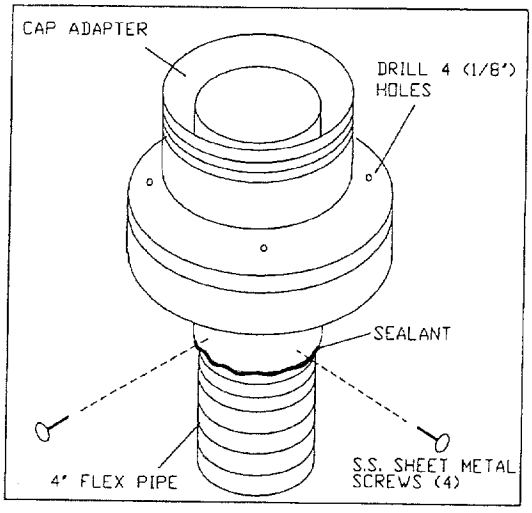
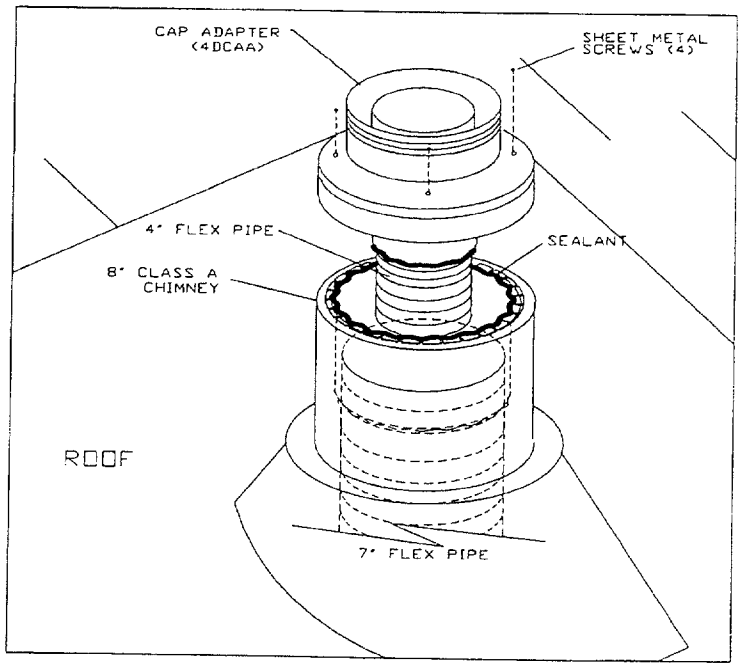
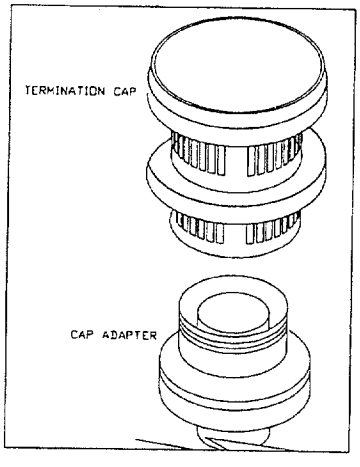


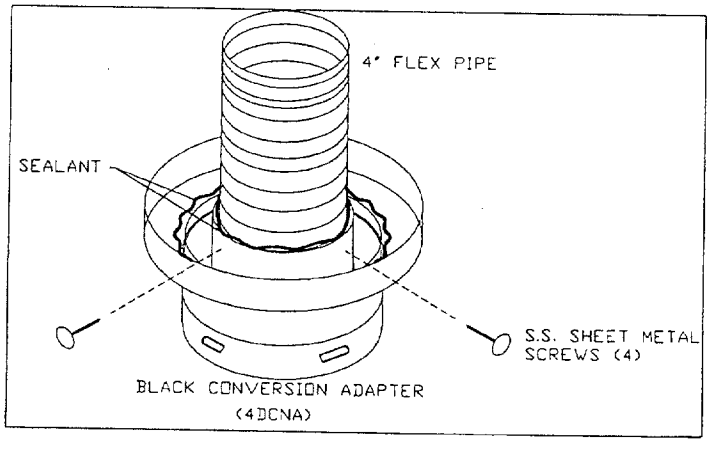
FIG 4

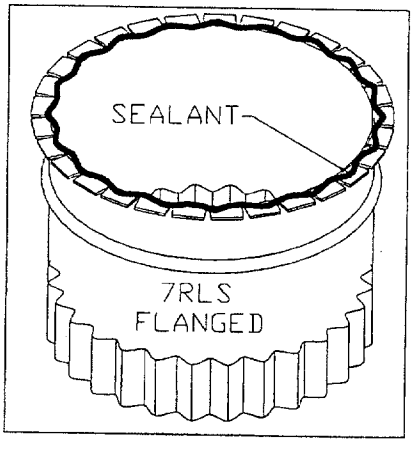



CAP ADAPTER
DRILL 4 (1/8") HOLES
SEALANT
4" FLEX PIPE
S.S. SHEET METAL SCREWS (4)


CAP ADAPTER (4DCAA)
SHEET METAL SCREWS (4)
4" FLEX PIPE
SEALANT
8" CLASS A CHIMNEY
ROOF
7" FLEX PIPE


TERMINATION CAP
CAP ADAPTER


4" FLEX PIPE
SEALANT
S.S. SHEET METAL SCREWS (4)
BLACK CONVERSION ADAPTER
(4DCNA)


SEALANT
7RLS
FLANGED

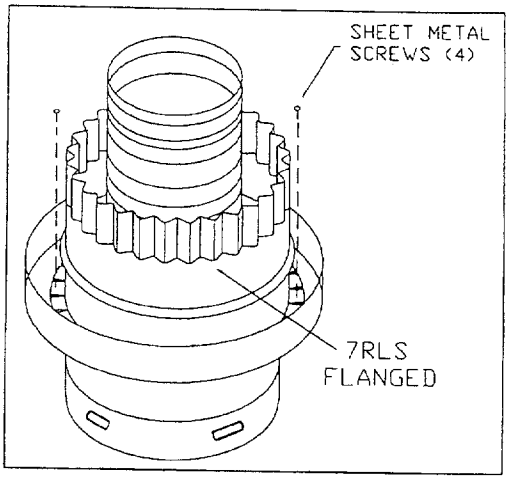

SHEET METAL SCREWS (4)
7RLS
FLANGED

FIG 11

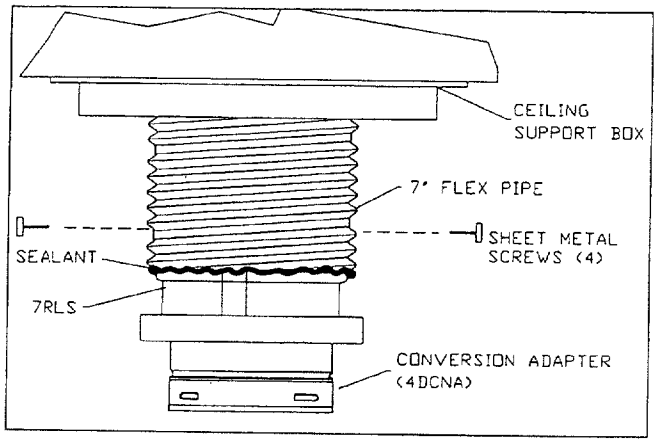
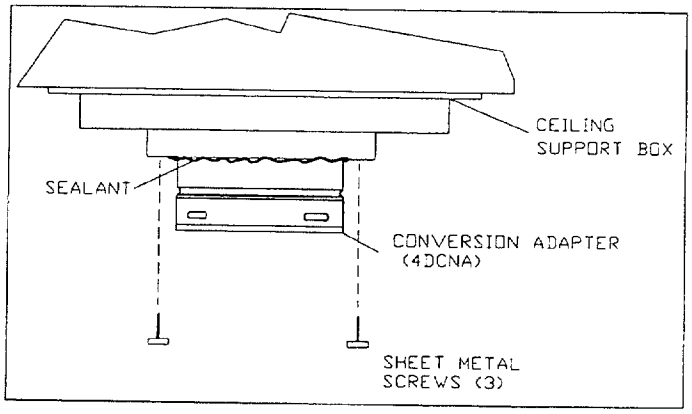
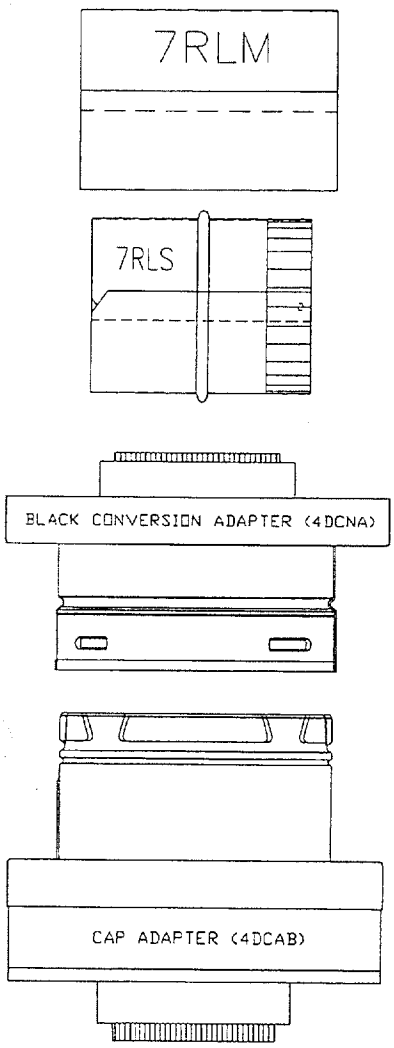

CEILING
SUPPORT BOX
7" FLEX PIPE
SHEET METAL
SCREWS (4)
SEALANT
7RLS
CONVERSION ADAPTER
(4DCNA)

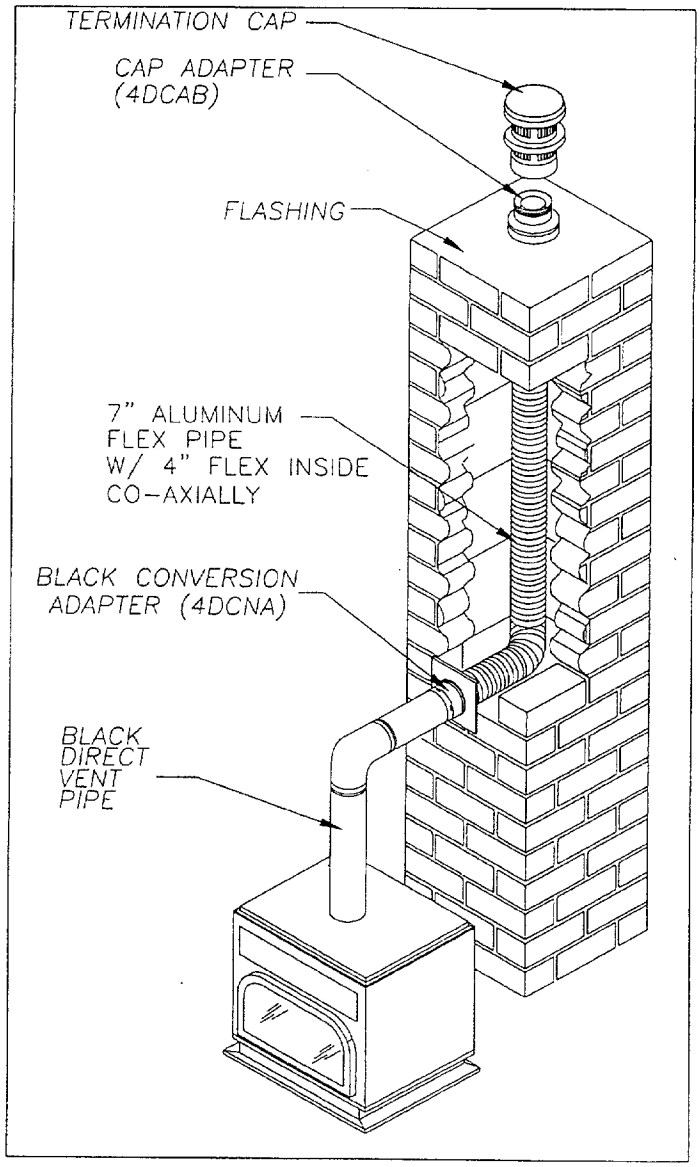
FIG 12


CEILING
SUPPORT BOX
SEALANT
CONVERSION ADAPTER
(4DCNA)
SHEET METAL
SCREWS (3)

TYPICAL MASONRY CHIMNEY RETRO CONVERSION - KIT M

7RLM and 7RLS come with 7" Flex Kit





Installation Instructions for a Retro Conversion of a Masonry Chimney. (Kit M)

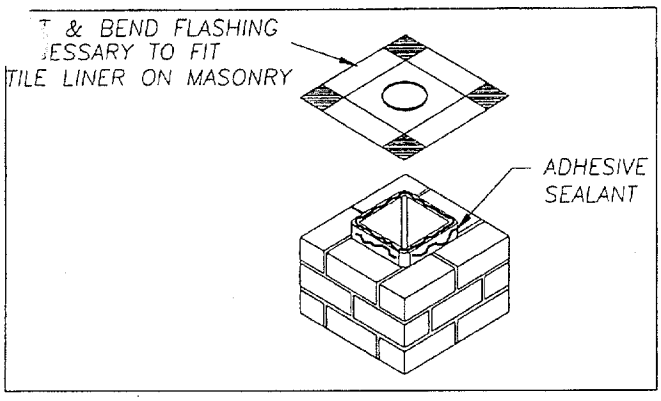
Note: The existing masonry tile flue area opening must be capable of fitting a 7" diameter flexible pipe down through it and bending at a 90 degree angle at the bottom. Pull cones may be needed.

****Any screws exposed to the combustion air or exhaust gases will need a bead of hi-temp sealant on the end of them before insertion. FURNISHED SS SCREWS ARE FOR ATTACHING THE 4" FLEX PIPE (EXHAUST) TO THE ADAPTERS.**

*****This system requires a large amount of hi-temp sealant to maintain its listing. Any seam or joint between two mating parts needs sealing, including fasteners.**

PROFESSIONALLY CLEAN MASONRY CHIMNEY BEFORE INSTALLING

1. --Know where the appliance and direct vent pipe are going to be penetrating the masonry wall. You may have to pre-assemble the direct vent system to determine this and then mark the center point on the masonry wall.
2. At the center point of the penetration cut a 9¼" – 10" diameter hole in the masonry. This allows the black Conversion Adapter to fit inside the masonry. See Figure 14. **If you have a concealed masonry chimney, you may have to cut a clear 10" square opening in the interior-preceding wall and only need a 8" diameter opening in the masonry. Some walls may have to be re-framed around the 10" opening. Center the 10" square opening around the 8" round opening. The square opening provides the right amount of clearance to combustibles when cut in the proper location. See Figure 22.
3. --OUTSIDE: Adhere the flashing to the top of the masonry tile liner (existing flue opening) with non-hardening sealant-adhesive. Cut and fold the flashing, as needed, to get a proper fit around the tile liner. See Figure 13.
4. --At one end of the galvanized mortar sleeve (7RLM- from 7" chimney re-liner kit), cut approx. 5/8" slits around the circumference and peel back as to create a fabricated flange on the end of the sleeve. Try to create a flange that is no larger than 9" in diameter. See Figure 1.
5. --At the un-crimped end of the aluminum single wall collar (7RLS- from 7" chimney re-liner kit), cut approx. ¾" slits around the circumference and peel back as to create a fabricated flange on the un-crimped end of the sleeve. Try to create a flange that is no larger than 9" in diameter. See Figure 1.
6. --Measure from the top of the tile liner to the bottom of the round opening in the masonry. Add to the measured length, the distance from the middle of the masonry out through the opening. If you have an interior wall, add the length to protrude through the 10" square opening.
7. --Cut a section of 7" and 4" flex pipe to that length in its stretched position.
8. --Temporarily support and hang the 7" flex pipe down through the tile liner.
9. --Temporarily slide the 7RLM over the top of the 7" flex (hanging down through the masonry).
10. --Fasten the 4" flex pipe to the Cap Adapter (between the SS sleeves w/ sealant on the end/edge) in the same method as in Kit A (Step 10) and insert it down through the 7" flex pipe and the 7RLM. See Figure 5 & 6.
11. --Put a thick bead of sealant around the innermost part of the topside of the flange on the 7RLM. See Figure 15.
12. --Put a thick bead of sealant around the inside of the Cap Adapter on the underside of the larger ring (*relative to where the flange on the 7RLM will mate up). See Figure 4 & 16.
13. --Fasten the flanged part of the 7RLM to the underside of the flat part (ledge) of the Cap Adapter w/ sheet metal screws. See Figure 16.
14. Remove the temporary support and attach the un-flanged end of the 7RLM (attached to the Cap Adapter at this point) at the top end of the 7" flex pipe about 3" down the length of the flex w/ sheet metal screws. Put a bead of sealant around the seam of the 7RLM and the 7" flex. See Figure 17.
15. --Position the Cap Adapter (w/ all the attachments) over the flashing and screw (4) into the lip of the flashing from the outside sleeve of the Cap Adapter. See Figure 18.
16. --Attach your direct vent termination cap to the Cap Adapter. See Figure 18.
17. --INSIDE: Pull out the flex pipes from the masonry chimney w/ a pull cone. There should be about 3" of flex pipe protruding through the hole to work with.
18. --Slide the 7RLS (crimped end first) over the 4" flex and temporarily insert it into the 7" flex.
19. --Put a thick bead of sealant around the inside of the black Conversion Adapter on the underside of the larger ring (*relative to where the flange on the single wall collar will mate up). See Figure 8.
20. --Fasten the 4" flex pipe to the Conversion Adapter in the same method as in Kit A (Step 18). See Figure 8.
21. --Put a thick bead of sealant around the innermost part of the bottom side of the flange on the single wall collar (7RLS). See Figure 9.
22. --Fasten the flanged part of the 7RLS to the underside of the flat part (ledge) of the Conversion Adapter, preferably from the decorative side if capable. See Figure 10.
23. --Insert the crimped end (un-flanged) of the 7RLS into the bottom end of the 7" flex up to the point of the flared-out bead around the circumference of the 7RLS. Fasten it to the flex pipe w/ sheet metal screws. Put a bead of sealant around the seam of the 7RLS and the 7" flex. See Figure 19.
24. --Put a bead of black sealant around the seam of the direct vent fitting, of the Conversion Adapter, and the flat part (ledge) of the Conversion Adapter. See Figure 12.
25. --Slide the black Face Plate onto the Conversion Adapter and fasten it to the flat part (ledge) of the Adapter w/ sheet metal screws. See Figure 20.
26. --Push the whole assembly against the masonry and attach the Face Plate to the masonry with masonry bolts. See Figure 21.
27. --Connect the Conversion Adapter to the direct vent pipe. An adjustable length section of direct vent pipe may be necessary. Hi-temp black paint may be necessary to touch-up scrapes.


& BEND FLASHING
ESSARY TO FIT
TILE LINER ON MASONRY
ADHESIVE
SEALANT

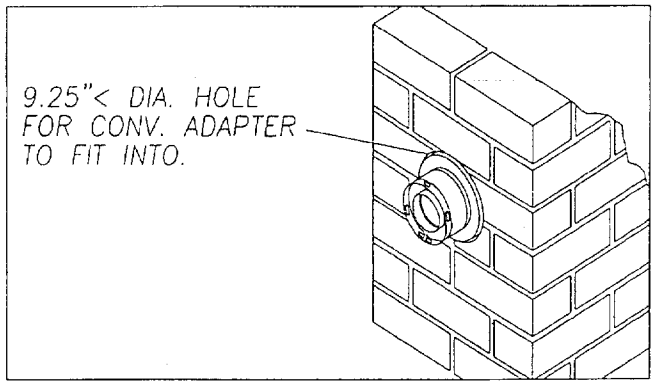
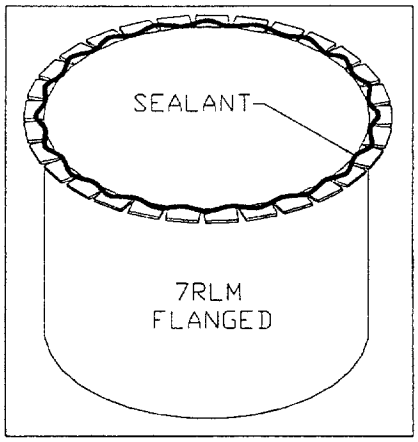
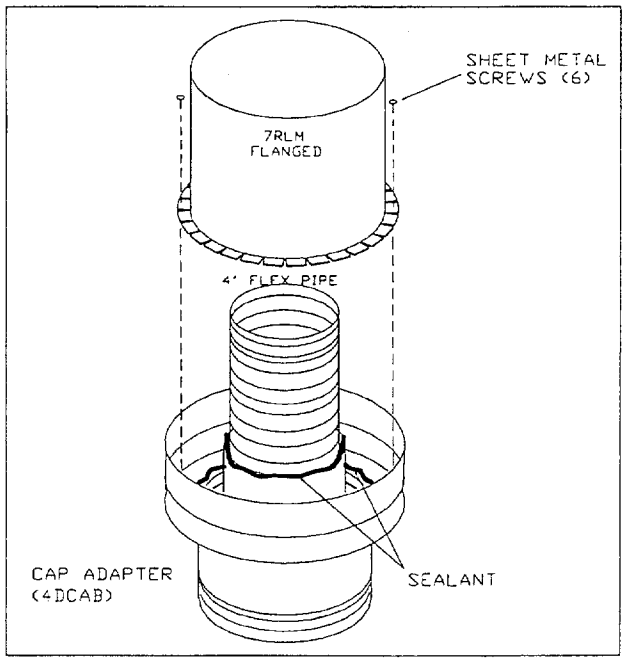
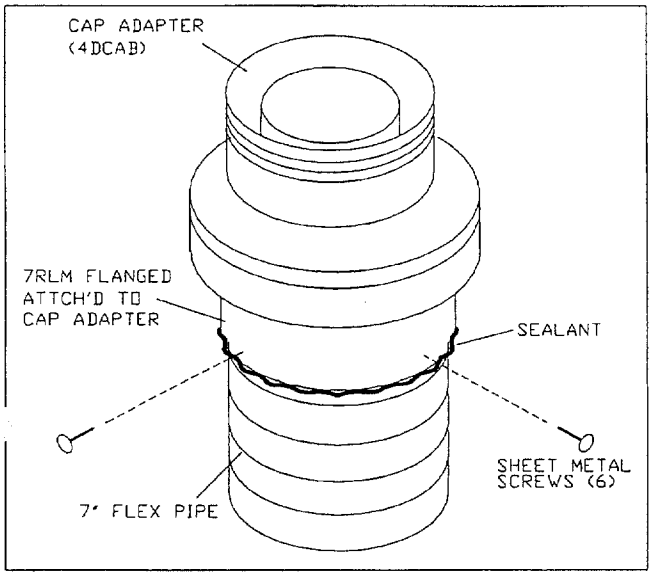

9.25"< DIA. HOLE
FOR CONV. ADAPTER
TO FIT INTO.

FIG 16


SEALANT
7RLM
FLANGED


SHEET METAL
SCREWS (6)
7RLM
FLANGED
4' FLEX PIPE
CAP ADAPTER
(4DCAB)
SEALANT


CAP ADAPTER
(4DCAB)
7RLM FLANGED
ATTCH'D TO
CAP ADAPTER
SEALANT
SHEET METAL
SCREWS (6)
7' FLEX PIPE

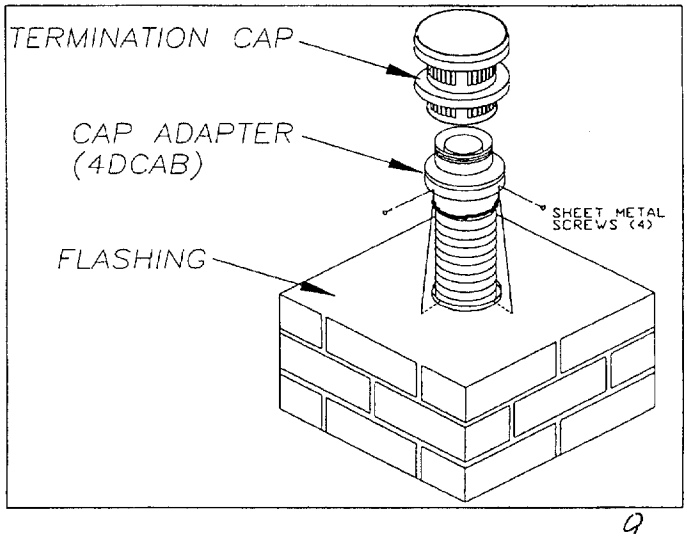

TERMINATION CAP
CAP ADAPTER
(4DCAB)
SHEET METAL
SCREWS (4)
FLASHING

FIG 19

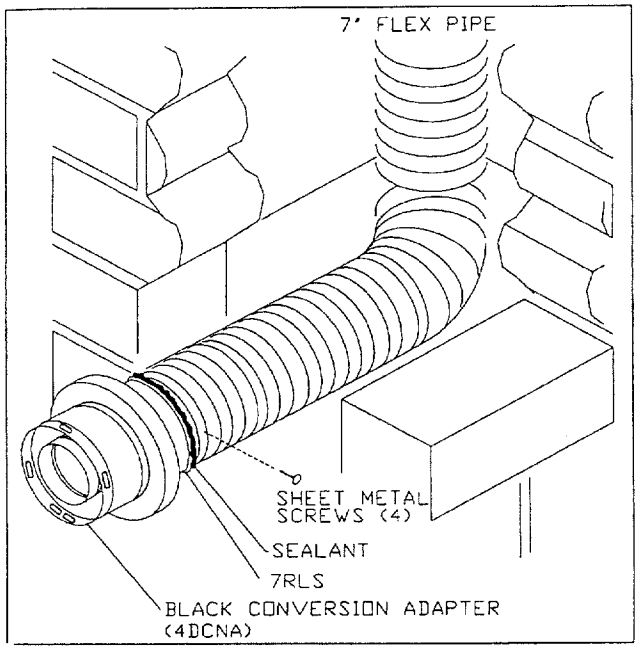
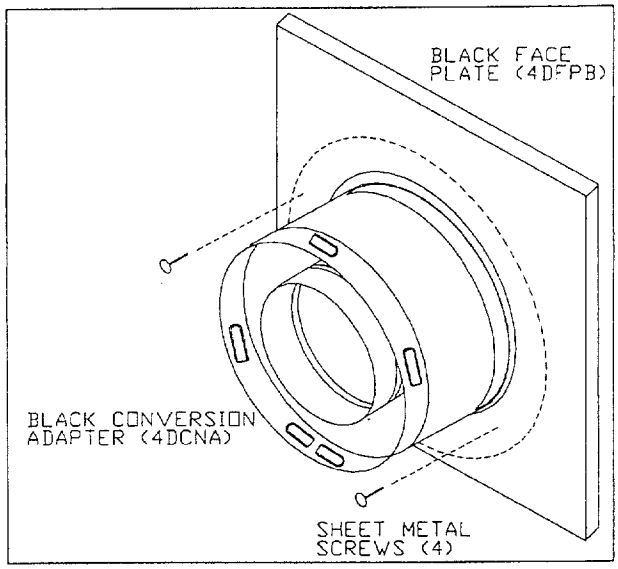


FIG 20



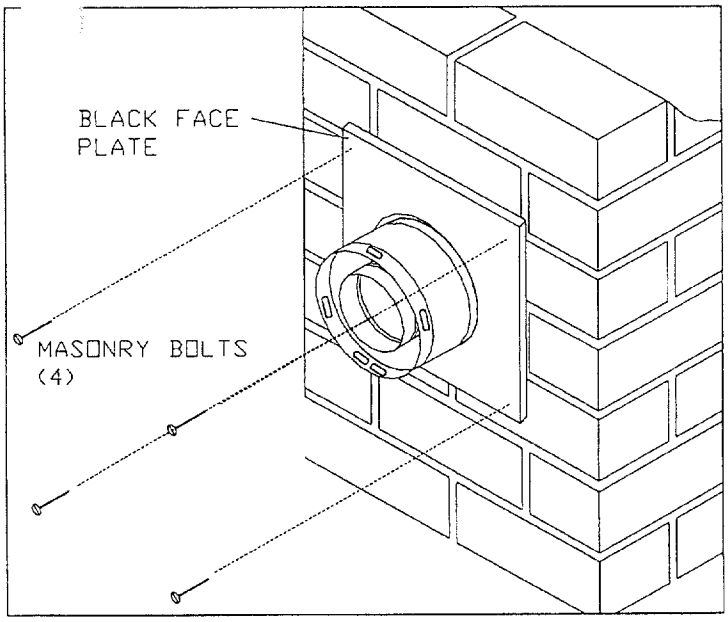


FIG 21

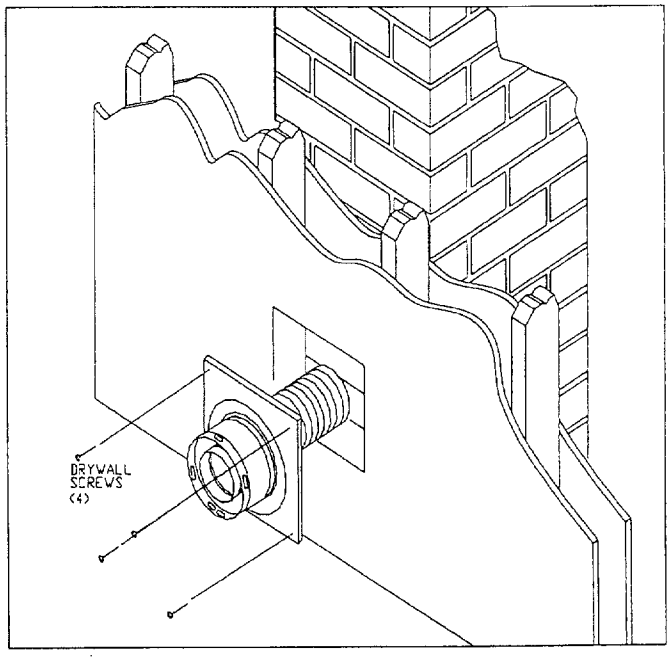


FIG 22

INSTALLATION AND ASSEMBLY INSTRUCTIONS

AmeriVent Direct™

Description and Use

AmeriVent Direct™ is designed to be the vent and air intake system for an approved list of direct vent appliances.

AmeriVent Direct™ materials, design and this instruction manual have been evaluated and listed by Warnock Hersey.

Contact local building or fire officials about restrictions and installation inspection in your area, and obtain required building permits.

Do not install AmeriVent Direct™ without first carefully reading these instructions and the appliance manufacturer's instructions. After reading these instructions, if you still have any doubt about your ability to complete the installation in a safe manner, arrange for a professional installation.

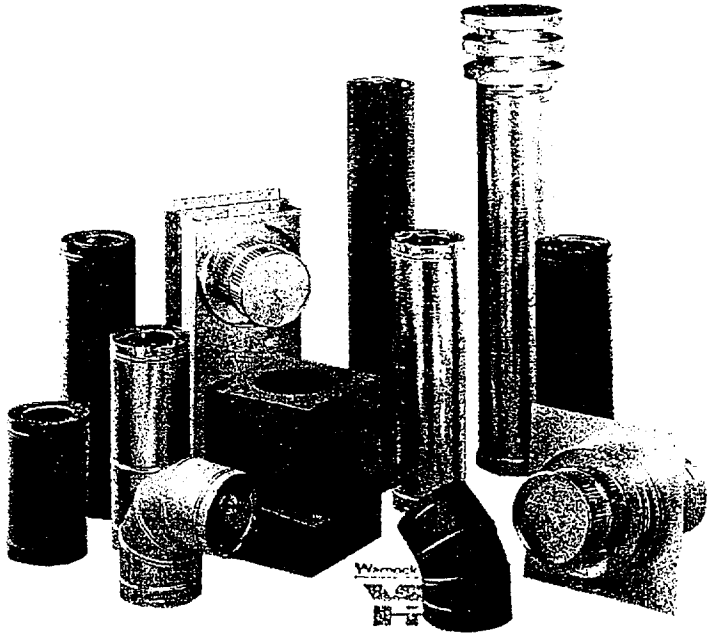
The appliance must be listed for use with American Metal Products' AmeriVent Direct™. Refer to the appliance manufacturer's label and installation instructions to make sure that the AmeriVent Direct™ system is approved for use with your specific appliance.

AmeriVent Direct™ is for use only with appliances that are certified or listed by a major qualified testing agency such as AGA, CSA, OMNI, UL, or Warnock Hersey. The appliance must be listed as one of the following types:

ANSI Z21.50/CGA 2.22 Vented Gas Fireplace

ANSI Z21.88/CGA 2.33 Vented Gas Fireplace Heater

ANSI Z21.86/CGA 2.32 Gravity Direct Vent Wall Furnace or Fan-Type Direct Vent Wall Furnace.



AMERICAN METAL PRODUCTS A Mestek Company

General Installation Guidelines

1. AmeriVent Direct™ is a complete system, extending from the appliance to the outdoors. Do not use AmeriVent Direct™ parts with components from another manufacturer unless compatibility is specified in the appliance manufacturer's instructions.

2. Each appliance must have its own separate AmeriVent Direct™ system.

3. Always maintain the required minimum (air space) clearances to combustibles. Refer to the appliance manufacturer's instructions for minimum clearance requirements. Do not put any type of insulation within the minimum required clearance distance surrounding the outside of the vent.

4. Approved venting configurations are determined during the testing of each appliance. Refer to the appliance manufacturer's installation instructions for allowable maximum and minimum lengths of vent runs, acceptable number of elbows, and specific details for wall or combustible ceiling penetrations.

5. When installing, make sure the pipe seam on the AmeriVent Direct™ part is NOT permanently left aligned with the seam of the adjoining pipe section.

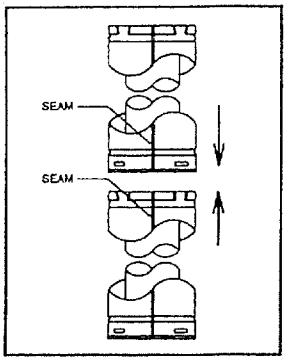
6. Do not perform any unauthorized modification to any portion of the appliance or vent/intake system.

7. A seal is pre-installed on the inner wall of AmeriVent Direct™. Sealant is optional on the outer wall, unless specified by the appliance manufacturer or local building codes.

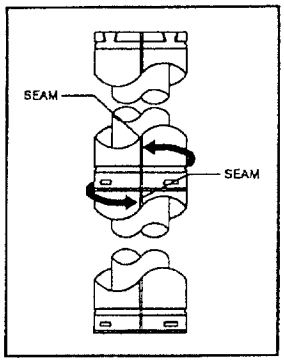
8. Portions of AmeriVent Direct™ passing through accessible spaces, including closets, must be enclosed to maintain the minimum required clearances to combustibles, to avoid personal contact and to prevent damage to the vent.

9. Firestops must be used where vents pass through floors or ceilings.

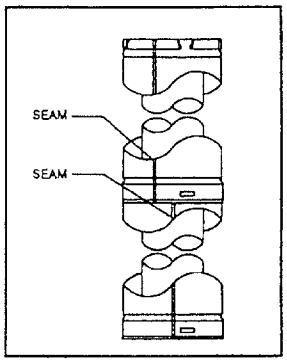
Locking Instructions



1. Align pipe ends, make sure the pipe seams are in line.



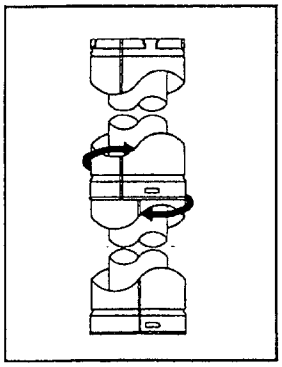
2. Press together until pipes rotate.



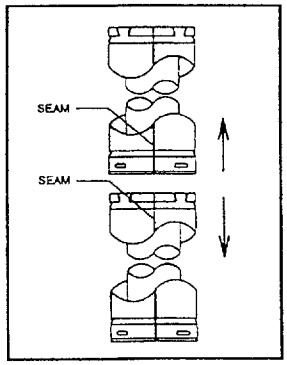
3. Make sure the pipe seam is NOT permanently left aligned with the adjoining pipe seam.

4. Pipes are now firmly connected.

Unlocking Instructions



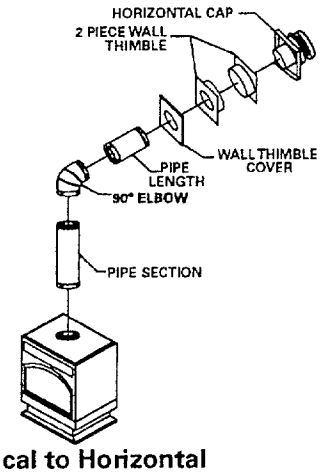
1. Rotate pipes until the pipe seam is aligned with adjoining pipe seam.



2. Pull straight apart to disconnect.

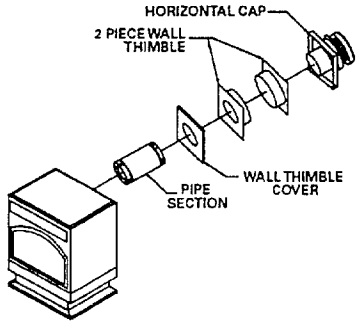
Horizontal Installations
(Figures 1 and 2)

FI



Vertical to Horizontal Installation

FIG. 2



Rear Exit Horizontal Installation

Plan the installation. The appliance must be installed in accordance with national and local codes and the manufacturer's installation instructions. Codes and, in some cases, the appliance manufacturer will dictate the location of the termination. Acceptable venting configurations are dictated solely by the individual requirements of that appliance. See manufacturer's installation instructions for restrictions regarding maximum and minimum vent runs, number of elbows, as well as the relationships between lengths of vent run to vent rise.

'>se an appliance and termination location that a_ es with both the code and appliance manufacturer's requirements. If you have any doubt about conflicting requirements, choose the more conservative installation.

Attach the first section of AmeriVent Direct™ to the appliance. AmeriVent Direct™ fits most standard appliance start collars used in the market. Check appliance manufacturer's installation instructions to determine if an adaptor is necessary with AmeriVent Direct™. Install the first pipe or elbow section as outlined above.

Elbows and Offsets

AmeriVent Direct™ is available with 45° and 90° elbows. Some vertical outlet appliances require a minimum rise before adding an elbow, while others allow an elbow to be connected directly to the appliance. See the appliance manufacturer's installation instructions for maximum allowable rise and run dimensions. Where the AmeriVent Direct™ vent installation changes from a vertical direction, the vent system must be re-supported within 8 feet of the elbow. Wall Strap bands are available for this purpose. All offset or horizontal runs must be supported at least every 8 feet.

When penetrating the wall, insure that all manufacturer's recommended clearances are maintained and that all local and national building code specifications are followed.

Wall Thimble

The Wall Thimble (WT) is available to use where AmeriVent Direct™ vent passes through a vertical wall. The Wall Thimble will provide for 1½" clearance to combustible material as the vent passes through the wall. The rough framed-in opening for direct vent is 10" square for 4" x 6½" systems and 11½" square for 5" x 8" systems. The Wall Thimble also acts as a firestop for the vent.

Note: Some direct vent appliances require more than 1½" to combustibles on the top of the wall thimble. Some appliances require a shielded thimble supplied by the appliance manufacturer. See manufacturer's installation instructions for exact wall thimble clearance requirements.

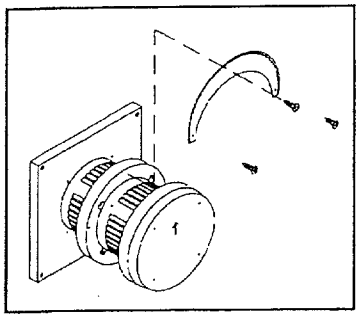
Horizontal Termination of AmeriVent Direct™ Systems

AmeriVent Direct™ systems use two types of horizontal termination caps. The standard horizontal cap is a high wind design for terminating horizontal systems through the wall. The horizontal cap includes a vinyl siding stand-off and optional shield. The termination

telescopes onto standard AmeriVent Direct™ pipe sections and mounts to the wall. Optional strapping and pilot holes are provided to secure the termination the wall thimble or adjoining pipe section.

all the optional vinyl siding shield to protect the wall above the termination. See Fig 3.

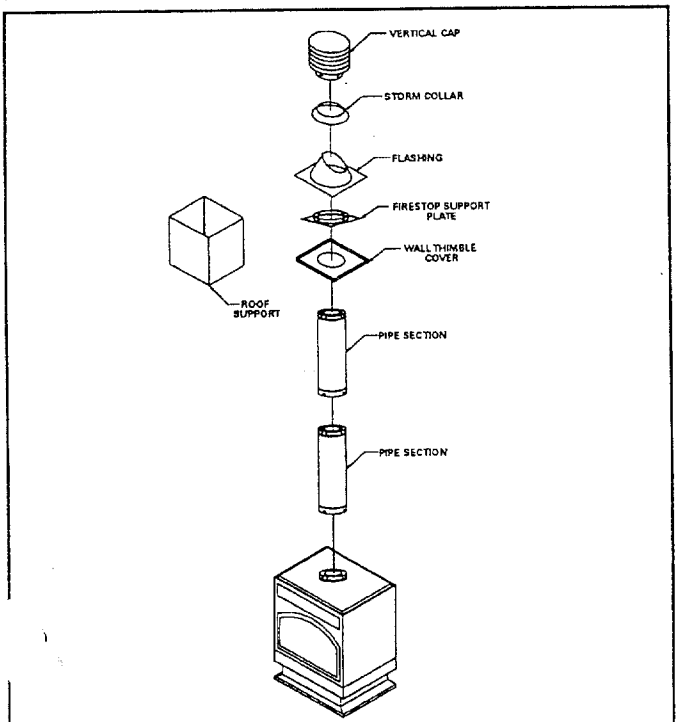
FIG. 3



AmeriVent Direct™ vent systems may also terminate with a snorkel cap where additional vertical rise is needed on the outside of the building. The snorkel caps are available in 14" and 36" rise above wall penetration. See manufacturer's installation instructions for maximum rise and run information.

Vertical Installations
gure 4)

FIG. 4



Vertical Installation

Plan the installation. The appliance must be installed in accordance with national and local codes and the manufacturer's installation instructions. Codes and, in some cases, the appliance manufacturer will dictate the location of the termination. Acceptable venting configurations are dictated solely by the individual requirements for that appliance. See manufacturer's installation instructions for restrictions regarding maximum and minimum vent runs, number of elbows, as well as the relationship between lengths of vent run to vent rise.

Choose an appliance and termination location that agrees with both the code and appliance manufacturer's requirements. If you have any doubt about conflicting requirements, choose the more conservative installation.

Attach the first section of AmeriVent Direct™ to the appliance. AmeriVent Direct™ fits most standard appliance start collars used in the market. Check appliance manufacturer's installation instructions to determine if an adaptor is necessary with AmeriVent Direct™. Install the first pipe or elbow section as outlined above.

Elbows and Offsets

AmeriVent Direct™ is available with 45° and 90° elbows. See the manufacturer's installation instructions for maximum rise and run dimensions. Where the AmeriVent Direct™ vent installation changes from a vertical direction, adequate lateral Support must be provided by the appliance, a Firestop Support or a Support Band. For sloping or horizontal runs, use horizontal support bands every 8 feet. Refer to the Elbows and Offsets in the Horizontal installations section for details. Offsets should slope upwards away from the appliance a minimum of 1/4 inch rise per foot of run. Resupport where the AmeriVent Direct™ vent installation changes from a sloping or horizontal to vertical. Use a Firestop Support or Roof Support for this purpose.

When penetrating the ceiling, insure that all manufacturer's recommended clearances are maintained and that all local and national building code specifications are followed. Note: A firestop is necessary at every point where the AmeriVent Direct™ penetrates the ceiling.

Firestop Supports

The Firestop Support (FSP) and Support Brackets (SB) are designed for use with AmeriVent Direct™ systems.

When used alone, the Firestop Support (FSP) serves as a firestop, while maintaining 1½" clearance to combustibles from the outer wall of the AmeriVent 'rect™ system. When the Firestop Support (FSP) is d with the Support Bracket (SB), this combination arts serves as both a firestop as well as a support. Each support is designed to support up to 20 feet of 4"x 6⅝" pipe and 15 feet of 5"x 8" pipe when installed as follows:

a. It is recommended that the vent pipe be supported at least every other floor.

b. Frame in an opening providing a 10¼" square for 4"x 6⅝" systems and 11¼" square for 5"x 8" systems.

c. Secure Firestop Support (FSP) as shown in Fig. 5, installing strapping (minimum ¼ inch, 28 gauge) through all four slots in collar and nail, as shown in Fig. 6, or nail at all four slots as shown in Fig. 7.

d. Pass AmeriVent Direct™ vent through opening in Firestop Support (FS).

e. Note: If used as a support, install Support Bracket (SB), as shown in Fig. 8. Clamp bracket securely to pipe section using the pair of bolts, nuts and washers provided.

FIG. 5

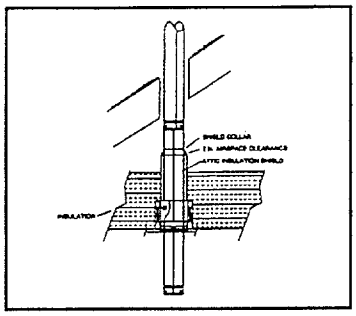


FIG. 6

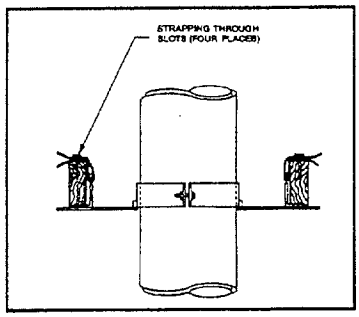


FIG. 7

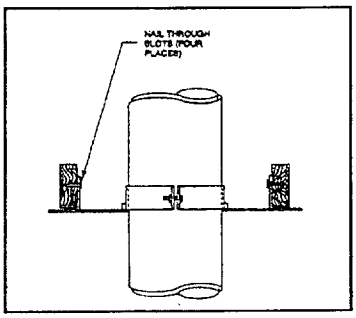
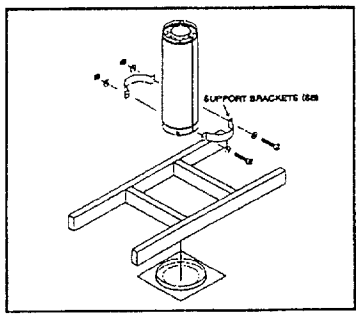


FIG. 8



Roof Support Assembly

Open Beam or Sloping Ceiling Installation requires the use of a **Roof Support Assembly**. To install a roof support assembly, read and follow the directions below:

a. Cut opening in roof. Cut a rectangular hole in the roof to fit the support snugly. (See Fig. 9). Avoid cutting through a roof rafter. If a rafter must be cut, install a header between the nearest uncut rafters. Frame around the hole. (See Fig. 10).

b. Place roof support in hole and lower support (See Fig. 11) until the bottom is below the ceiling. For steep ceilings, frame-in and build a box below the roof to maintain clearances as recommended by the appliance manufacturer. Tack-nail the support in place. Check to see that support is in a true vertical position by using a level across the bottom face of the support. Adjust tack nails, if required, until bottom of support is level.

c. Mark a line on the outside surface of front, back and sides of the roof support where it protrudes above the roofline – matching the pitch of the roof. (See Fig. 12) These lines will indicate where to cut the top of the roof support so it will be flush with the top of the

roof. Cut the top of the roof support along the lines by either cutting in place or removing tack nails and withdrawing roof support. If tack nails are removed to facilitate cutting, re-check to see that support is level prior to final nailing.

d. After cutting is completed, nail through all four sides of roof support into framework installed in step "b". Use a minimum of eight (8) 8d nails.

e. Install Support Bracket (SB) as shown in Fig. 8. Clamp bracket securely to pipe section using the Attic Insulation Shield

FIG. 9

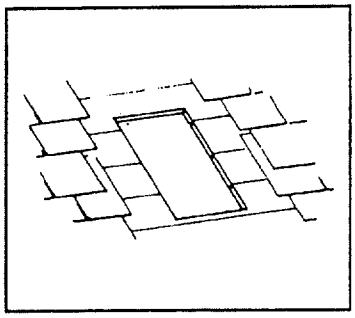


FIG. 10

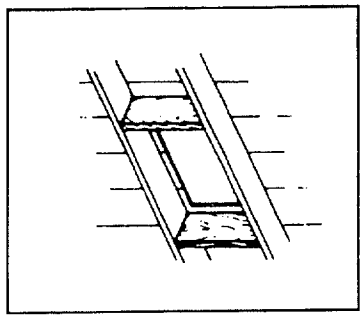


FIG. 11

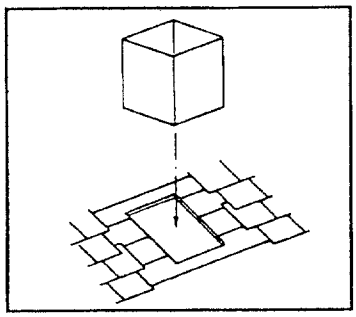
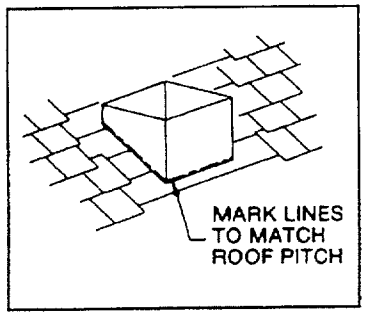


FIG. 12



Attic Insulation Shield

In order to insure adequate clearance to combustibles, it is necessary to use an attic insulation shield where the AmeriVent Direct™ vent goes through an unoccupied attic space. The AmeriVent Direct™ attic insulation shield is available in two models to fit 12" and 36" insulation thickness. The base of the shield may be mounted between or on top of ceiling joists. If mounted on top of ceiling joists, frame in the opening on all four sides.

Termination of AmeriVent Direct™ Systems

AmeriVent Direct™ systems use two types of termination caps: the vertical termination cap and ɔrizontal termination cap. The vertical cap is a ʰh wind design for terminating vertical systems ve the roofline.

a. To ensure a waterproof roof structure, use the appropriately sized flashing and storm collar where the vent penetrates the roof. Place the Storm Collar over the vent until it is level. Apply a thick horizontal ring of non-hardening, high temperature mastic around the vent at the top of the storm collar.

b. Vents in excess of 5 feet above the roof should be securely guyed to prevent unnecessary movement. Attach guying to the vent. Never attach guying to the cap.

c. To prolong life and appearance of galvanized steel parts located outside, use proper painting procedures:

1. Remove oil and dirt with a solvent.
2. Paint with a primer specifically recommended for adhesion to galvanized steel.
3. Apply finished coat.