

# Installation Instructions

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## GENERAL

These units are controlled by varying water flow through coil. Follow installation steps in sequence suggested. Each step includes figure(s) and procedures required for a specific stage of installation.

Set up a sample installation to familiarize all trades with their specific job function.

See Fig. 1 for the Proposition 65 warning label. See Fig. 2 and 3 for 36SV,SL base units.



Fig. 1 — Proposition 65 Warning Label

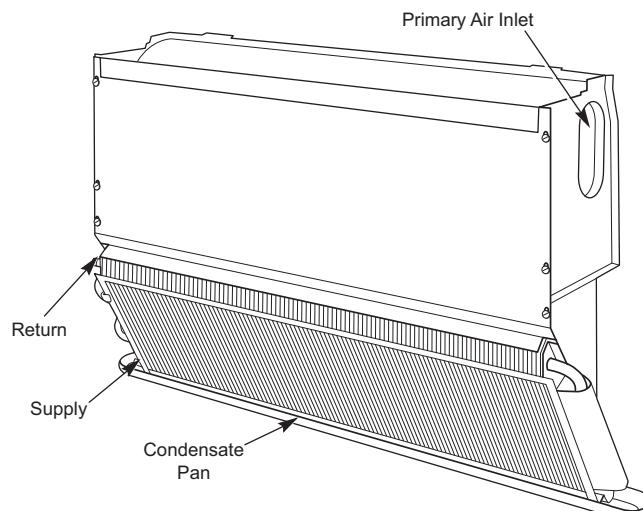
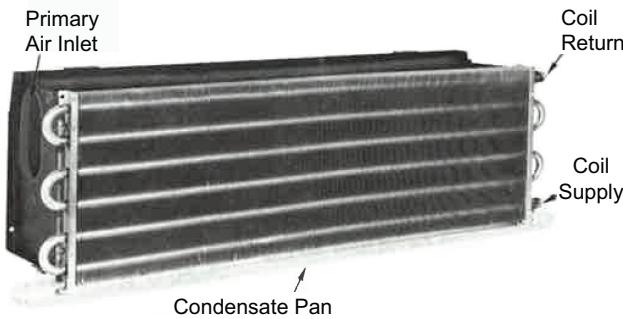


Fig. 2 — 36SV Base Unit



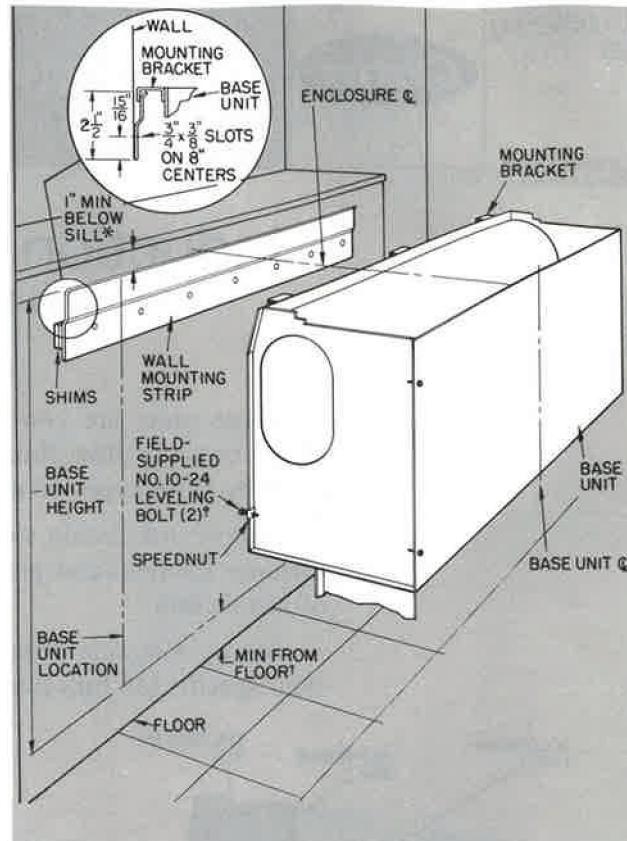
NOTE: Coil return and coil supply shown with flare connection (optional).

**Fig. 3 — 36SL Base Unit**

## VERTICAL UNIT INSTALLATION

### Step 1 — Install Wall Mounting Strip and Hang Base Unit

1. Determine required length of mounting strip. Allow for length of enclosures and runouts to be used. *Maximum unsupported length of Carrier enclosures is 2 in. on either side.*
2. Locate strip per job prints. Install straight and level using field-supplied fasteners through alternate and end holes. Shim if necessary.
3. Install separate mounting strip above base unit strip for hanging 36SC or 36ST enclosures if used. See Fig. 4.
4. Mark enclosure vertical center line on wall near mounting strip.
5. Remove base unit from carton. Retain carton and place over unit after installation to protect from dirt.
6. Remove unit protective packing.
7. Do not remove lint screen clips (taped to condensate pan) or tee and connector (tape to side of secondary unit) until required.
8. Install two no. 10-24 bolts (factory-supplied) through two no. 10-24 speed nuts provided. (These or any other suitable means will be used for unit leveling.)
9. Mark base unit vertical center line on unit.
10. Determine from job prints or certified prints relative position of base unit with respect to enclosure.
11. Hang base unit on wall-mounting strip, using center lines for reference.
12. Level unit by adjusting two no. 10-24 bolts (or other means selected).



**Fig. 4 — Hanging Base Unit**

### Step 2 — Make Air Connections

1. Remove end plug from shipping position. *Do not discard.* See Fig. 5.
2. Air connections:  
Apply sealer (3M Scotch Seal 800 or equivalent) to end plug and air transition fitting. Install plug and fitting to plenum connection. Connect duct to transition fitting; seal connection with duct sealer. See Fig. 5.

#### CAUTION

Excessive duct sealer may interfere with damper movement. After applying sealer, check damper for free travel by rotating adjusting screw (See Step 8 — Balance System on page 7) with 1/8 in. Allen wrench.

3. Check that all tubing connections are tight.

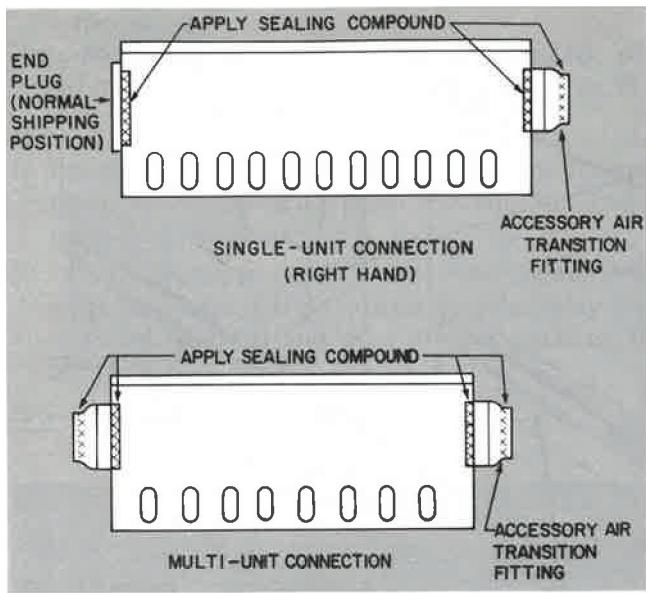


Fig. 5 — End Plug Fittings

### Step 3 — Connect Piping

1. If coil requires reversing see Coil Reversal on page 8.
2. Remove burrs and chips from all joints.
3. Locate piping as shown in Fig. 6. Piping may run behind 36S units.
4. Connect water lines to coil. (Bottom coil connection is recommended for supply.)
5. Use soft or silver solder, if required, for coil connections.
6. Level condensate pan; straighten strap. If drainable condensate pan in used, connect to drain line. Pitch drain line for adequate flow.
7. Insulate water and drain lines if required. Install service valves between runouts and water control valves.
8. Compress coil end covers slightly and insert between coil end flanges, with solid (unnotched) side on forward coil flange. Install coil end covers on 36SV, 36SD only.
9. Install lint screen against coil, securing to flange with clips provided. Install 2 lint screens on 36ST.

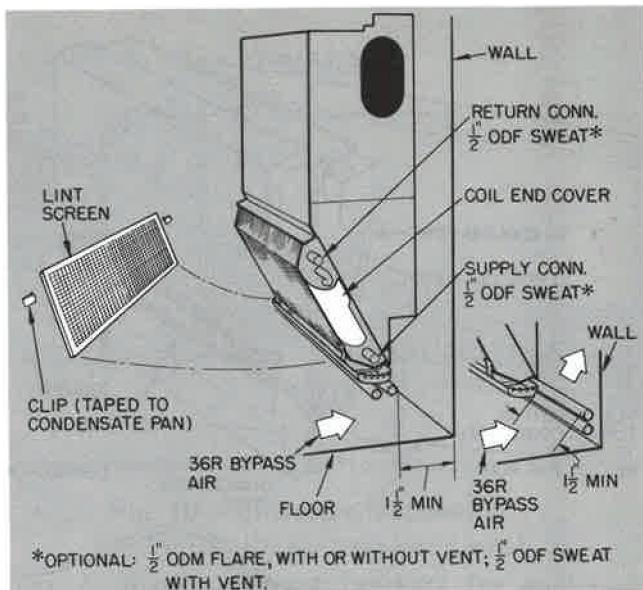


Fig. 6 — Piping Connections

### Step 4 — Install Accessory Grilles (if supplied, on furred-in or custom enclosure installations)

1. Position recirculation grille mounting frame, using holes provided. Install recirculation grille panel to grille frame. See Fig. 7.
2. Install discharge grille frame and removable grille sections. Field-fabricated collar may be installed on front and sides of unit discharge if required.

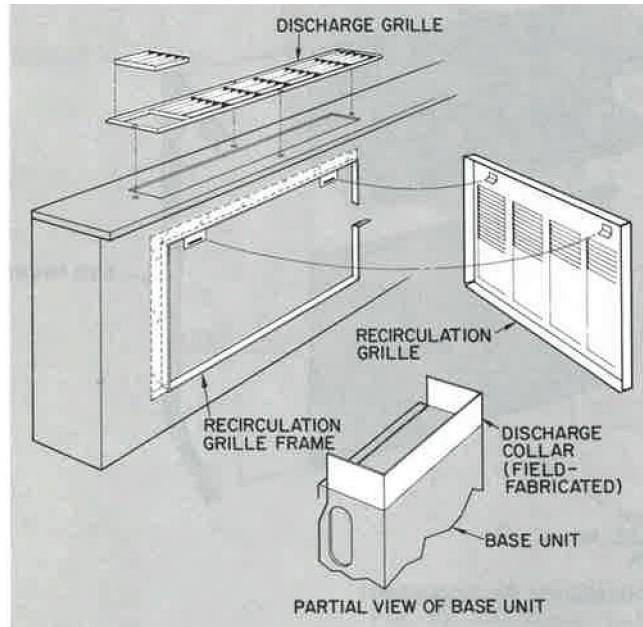


Fig. 7 — Accessory Grilles and Field-Supplied Collar

### Step 5 — Install Carrier Enclosures

1. Remove enclosures from carton.
2. On side-fed enclosures, remove end panel knockout as required for air connections (see Fig. 8). 36SC,ST unit enclosures (with kickstrip) are for floor-fed units only; no knockout is provided.
3. Hang enclosure on wall mounting strip. From job prints or certified prints, determine relative position of enclosure and base unit. *Unit discharge must be in line with enclosure discharge grille.* Hang 36SC,ST enclosures on separate mounting strip previously installed above base unit strip.
4. Remove front panel. Fasten enclosure to wall, using clips or tie-down holes. Re-install panel.

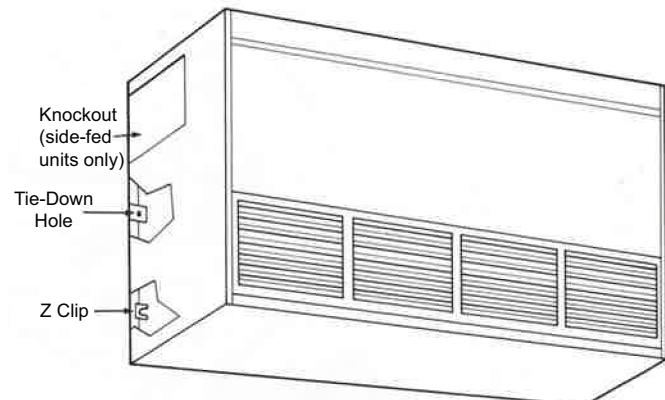
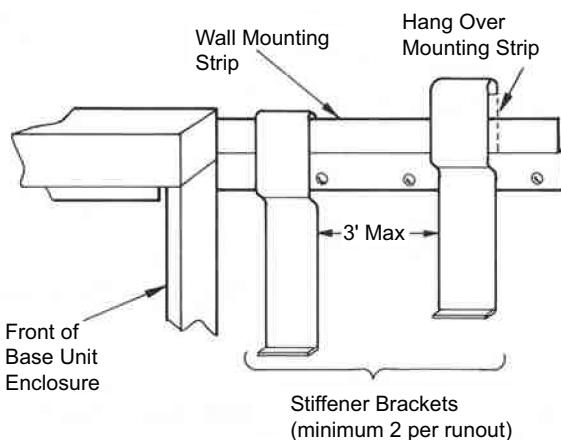


Fig. 8 — Enclosure Installation (36SV side-fed units)

## Step 6 — Install Stiffener Brackets for Enclosure Runouts

1. Determine length of runout from job prints.
2. Place stiffener brackets on wall mounting strip. See Fig. 9.



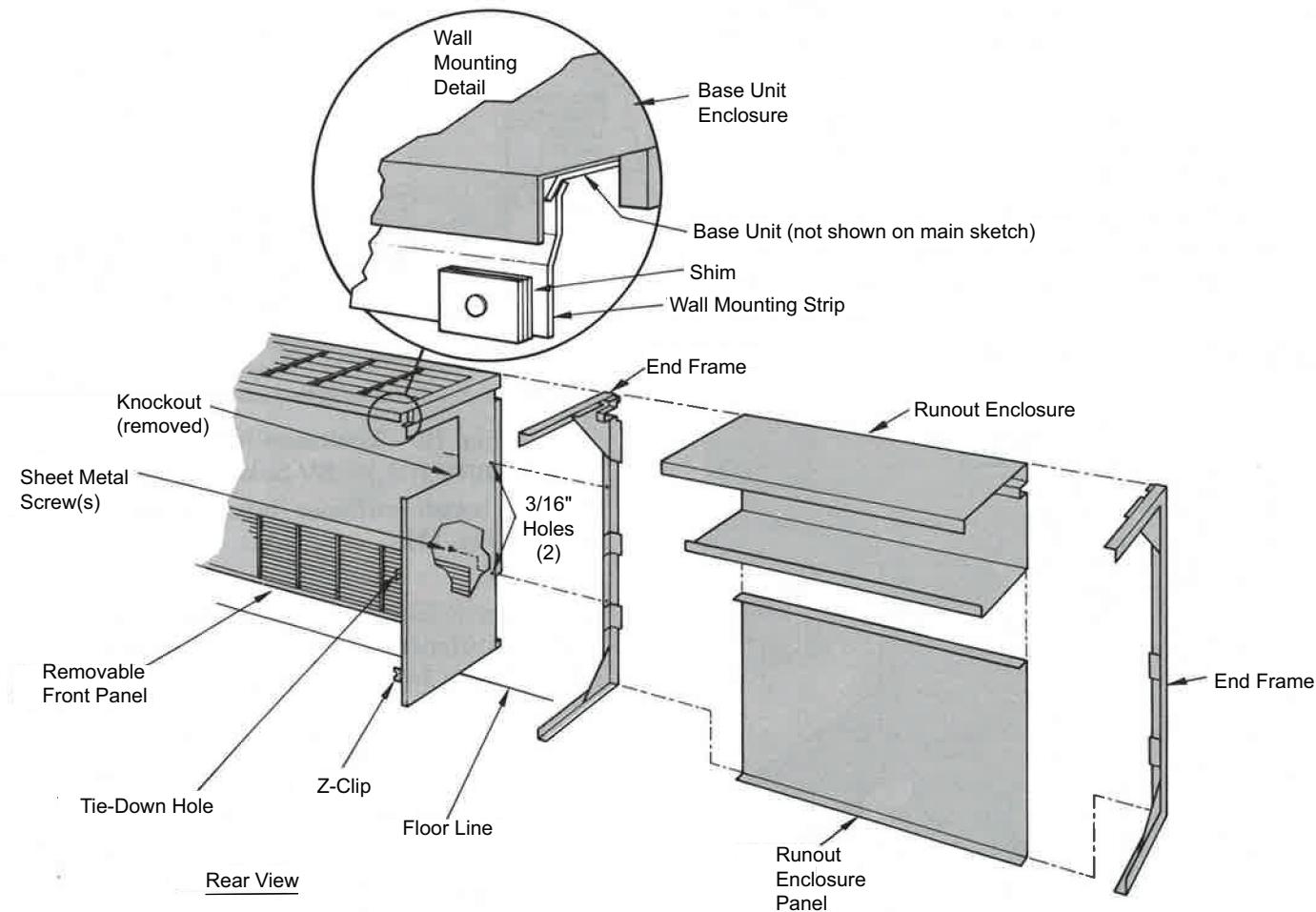
**Fig. 9 — Positioning Stiffener Brackets**

## Step 7 — Install Enclosure and Runout Arrangement as Required

Use end frame as template when drilling holes on unit enclosure side panels. Tap runout enclosure lightly to ensure tight fit in end frame slots.

### COLUMN-TO-COLUMN ARRANGEMENT

1. Drill two 3/16 in. holes for attaching runout. See Fig. 10.
2. Cut runout enclosure and enclosure panel to desired length.
3. Fit runout enclosure into slots of one end frame.
4. Insert enclosure panel into end frame slots.
5. Fit second end frame to opposite end of assembly.
6. Hang assembly on wall mounting strip and adjacent to unit enclosure. Stiffener bracket lip must support bottom of runout.
7. Attach end frame to unit enclosure with two no. 8 sheet metal screws (field-supplied).

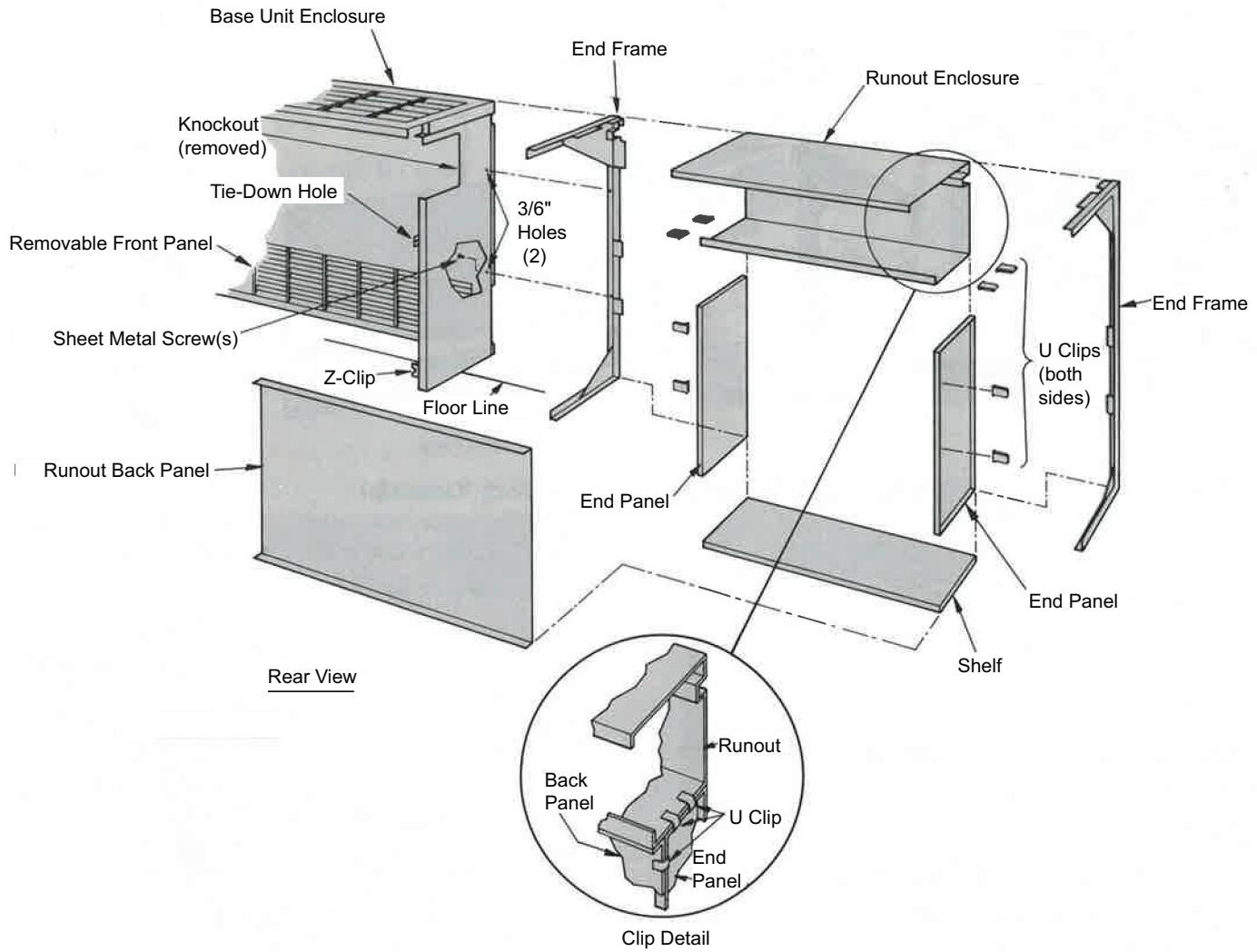


**Fig. 10 — Column-to-Column Enclosure Arrangement**

## COLUMN-TO-COLUMN WITH SHELVING

1. Drill two 3/16 in. holes for attaching runout. See Fig. 11.
2. Cut runout enclosure, back panel, and shelving to desired length. *Maximum unsupported shelf length is 3 ft.*
3. Fit runout enclosure into slots of 2 end frames.
4. Install end panels flush with front of runout enclosure, leaving space at bottom to insert shelving. Fasten end panels to runout enclosure with U-clips.

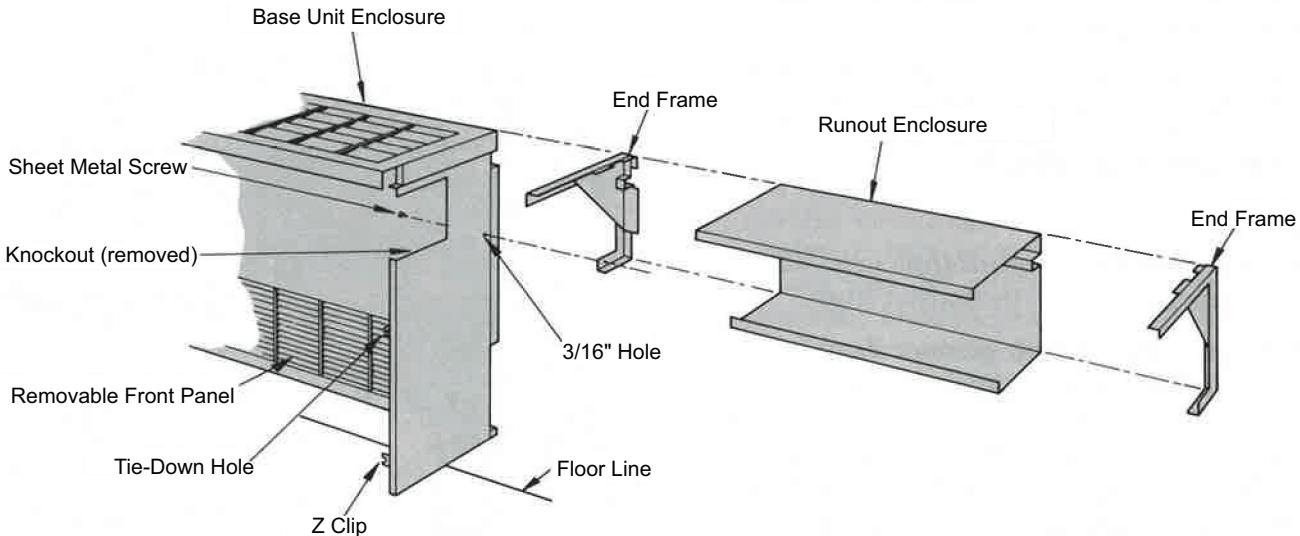
5. Insert shelving below end panels, with flanges turned down. Shelving rests on lower flange of end frame.
6. Hang assembly on wall mounting strip and adjacent to unit enclosure. Stiffener bracket lip must support bottom of runout.
7. Attach end frame to unit enclosure with two no. 8 sheet metal screws (field-supplied).



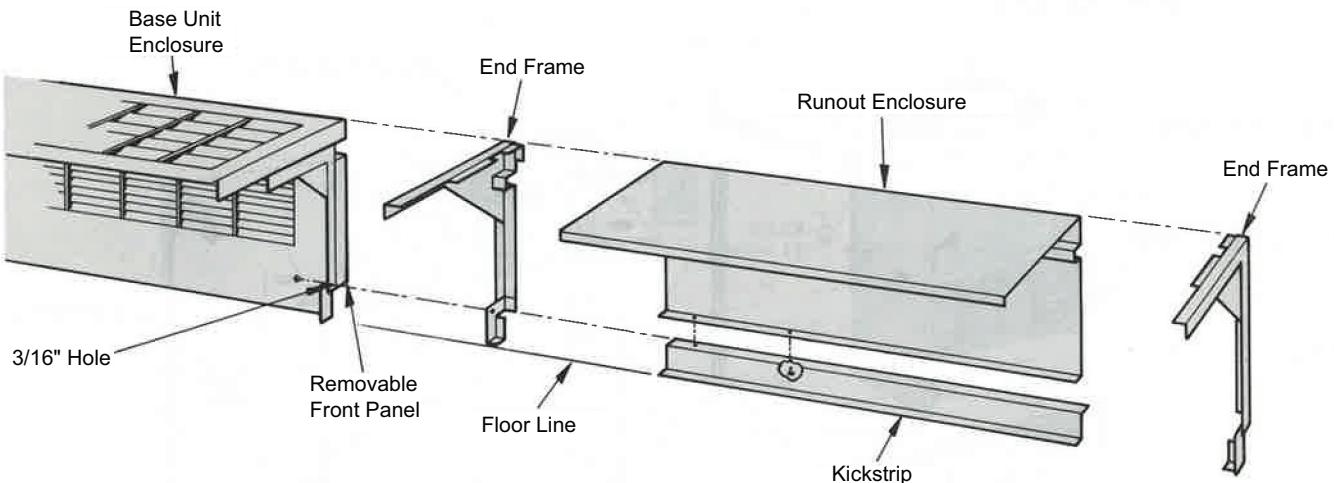
**Fig. 11 — Column-to-Column Enclosure with Shelving**

## ENCLOSURE WITH SINGLE OR DUAL RUNOUT

1. Drill two 3/16 in. holes for attaching runout. See Fig. 12.
2. Cut runout enclosure to desired length; fit into slots of 2 end frames.
3. Hang assembly on wall mounting strip and adjacent to base unit enclosure. Stiffener bracket lip must support bottom of runout.
4. Attach end frame to base unit enclosure with one no. 8 sheet metal screw (field-supplied).



**Fig. 12 — Enclosure with Single or Dual Runout**



**Fig. 13 — Single or Dual Runout (with Kickstrip)**

## SINGLE OR DUAL RUNOUT WITH KICKSTRIP

1. Drill one 3/16 in. hole for attaching runout. See Fig. 13.
2. Cut runout enclosure and kickstrip to desired length; join with no. 8 sheet metal screws.
3. Fit runout and kickstrip into slots of 2 end frames.
4. Hang assembly on wall mounting strip and adjacent to unit enclosure.
5. Attach end frame to unit enclosure with one no. 8 sheet metal screw (field-supplied).

## Step 8 — Balance System

1. Remove construction debris from unit. Remove protective plastic from thermostat cover.
2. Units are shipped with plenum damper wide open. Turn damper adjustment screw clockwise to close damper and decrease nozzle pressure to design value. Two or three runs may be necessary to obtain proper balance. Note that 36SL,SM,SC,ST have different nozzle types. Maximum allowable plenum pressure is 5 in. wg. See Fig. 14.

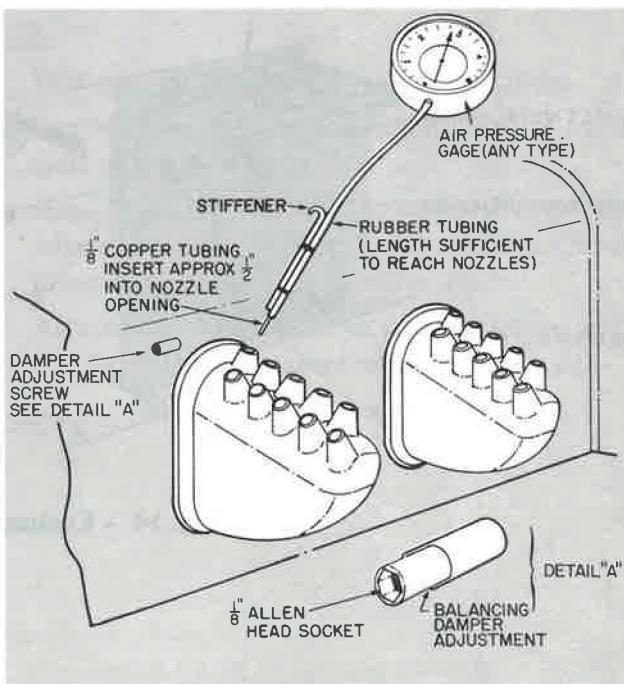


Fig. 14 — Pressure Measurements

## HORIZONTAL UNIT INSTALLATION (Unit-Mounted or Wall-Mounted Thermostat)

### Base Unit Not in Carrier Enclosure

1. Remove unit from carton. Remove protective packing.
2. Remove Z bars from shipping position. Fasten to unit with screws and clips provided. See Fig. 15.
3. Insert short lint screen (9-1/2 in. height), if used, adjacent to water coil. Use 2 screws and clips taped to unit front panel. Install one screw on either side of coil support and below screen. Install clip through hole as shown.
4. Locate unit per job prints. Suspend as shown in Fig. 15.
5. Level unit, using drain pan as reference.
6. Make air connections (see Step 2 — Make Air Connections, Steps 1-3 on page 2).
7. Make piping connections (see Step 3 — Connect Piping, Steps 1-9 on page 3).
8. Balance system (see Step 8 — Balance System, Steps 1-2 on page 7).

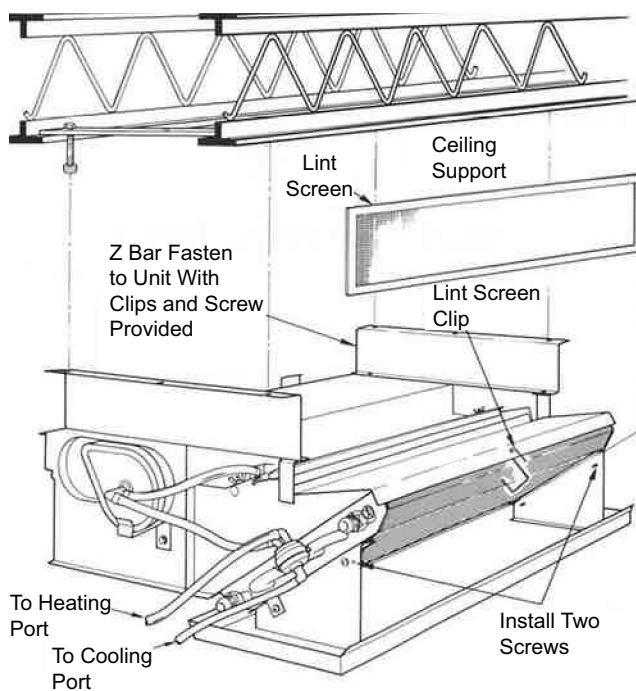
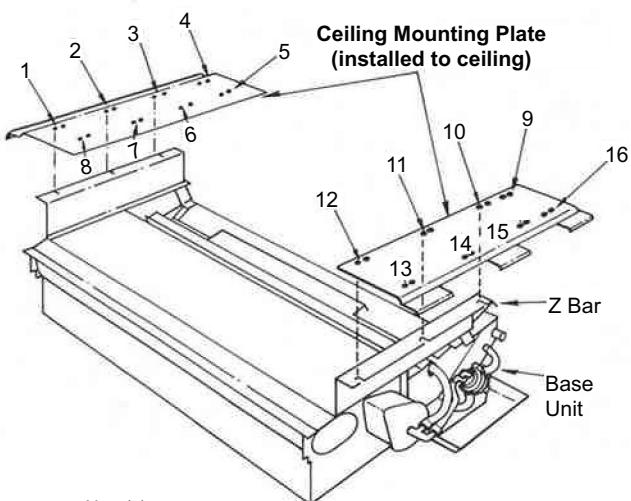


Fig. 15 — 36SH Base Unit Installation

### Base Unit in Carrier Enclosure

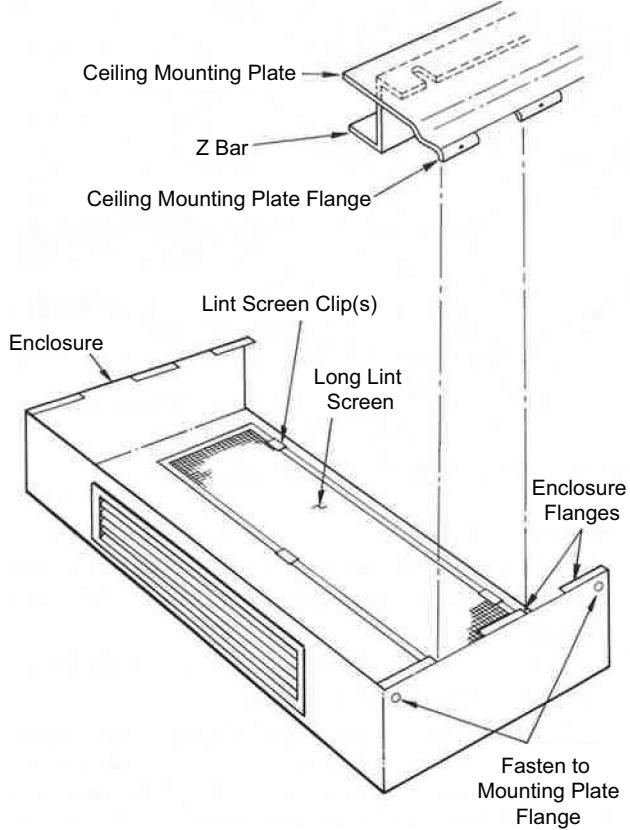
1. Remove base unit, enclosure, and ceiling mounting plates from their cartons. Remove protective packing.
2. Remove four no. 10-16 x 1/2 in. screws taped to inside of enclosure end panel.
3. Remove Z bars from shipping position; fasten to unit with screws and clips provided. Install ceiling mounting plates to ceiling; lift unit and fasten Z bars to mounting plates. See Fig. 16. (Mounting plates may be installed on Z bars and entire assembly lifted to be secured to ceiling.)
4. Insert short lint screen (9-1/2 in. height), if used, adjacent to water coil. Use 2 screws and clips taped to unit front panel. Install one screw on either side of coil support and below screen. Install clip through hole as shown.
5. Locate unit per job prints. Suspend as shown.
6. Level unit, using drain pan as reference.
7. Make air connections (see Step 2 — Make Air Connections, Steps 1-3 on page 2).
8. Make piping connections (see Step 3 — Connect Piping, Steps 1-9 on page 3).
9. Install long lint screen (11-1/2 in. height), if used.
10. Lift enclosure so that its flanges pass through slots in ceiling mounting plate. Slide enclosure flanges over mounting plate flanges; fasten with 4 screws provided.
11. Balance the system (see Step 8 — Balance System, Steps 1-2 on page 7).



Note(s):

1. For right-hand air connection, use holes 1-4, 9-13, and 16.
2. For left-hand air connection, use holes 1, 4-8, and 13-16.

**Assembly of Enclosure to Mounting Frame**

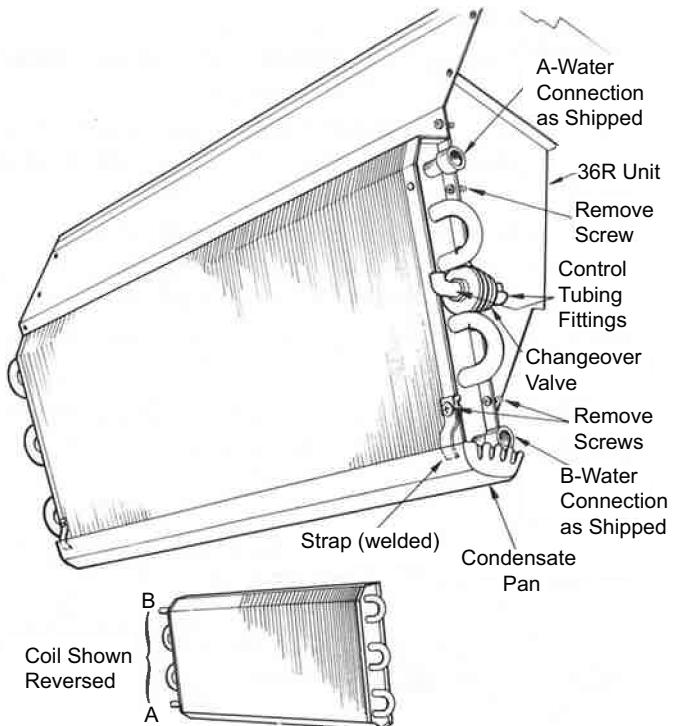


**Fig. 16 – 36SH Installed in Carrier Enclosure**

**Coil Reversal**

Do not reverse coils having vent fittings (except 36SL,SM,SC, ST). See Fig. 17. To reverse coils without vent fittings:

1. Remove sheet metal screws fastening condensate pan to coil.
2. Remove sheet metal screws holding coil to unit.
3. Reverse coil end-to-end. Reverse coil in horizontal plane on 36SL,SM,SC,ST units.
4. Reassemble coil to unit; re-install condensate pan.



**Fig. 17 – Coil Reversal**