

INSTALLATION INSTRUCTIONS

RETURN AIR BASE KIT

NAHA01401RA, NAHA01701RA, NAHA02101RA, NAHA02401RA

NOTE: Read the entire instruction manual before starting the installation.

SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause death, personal injury, or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses, protective clothing, and work gloves. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions include in literature and attached to the unit. Consult local building codes, the current editions of the National Fuel Gas Code (NFGC) NFPA 54/ANSI Z223.1 and the National Electrical Code (NEC) NFPA 70.

In Canada, refer to the current editions of the National Standards of Canada CAN/CGA-B149.1 and .2 Natural Gas and Propane Installation Codes, and Canadian Electrical Code CSA C22.1.

Recognize safety information. This is the safety-alert symbol . When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words **DANGER**, **WARNING**, and **CAUTION**. These words are used with the safety-alert symbol. **DANGER** identifies the most serious hazards which **will** result in severe personal injury or death. **WARNING** signifies hazards which **could** result in personal injury or death. **CAUTION** is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. **NOTE** is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.



WARNING

ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD

Failure to follow this warning could result in personal injury or death, or property damage.

Before installing, modifying, or servicing system, main electrical disconnect switch must be in the OFF position and install a lockout tag. There may be more than one disconnect switch. Lock out and tag switch with a suitable warning label. Verify proper operation after servicing.

INTRODUCTION

This instruction covers the installation of Return Air Kit for 35-in. (889 mm) tall condensing gas furnaces and 33 1/3-in. (847 mm) tall mid-efficiency furnaces. The bases are matched to specific furnace cabinet widths. The base can be used to provide side and bottom return air connections to any furnace installed in the upflow position without requiring a floor penetration. The 21 and 24 base is also used to mount a 20-in. (508 mm) or 24-in. (610 mm) media cabinet to the side of a 21-in. (533 mm) or 24 1/2-in. (622 mm) wide furnace without the use of a transition.

DESCRIPTION AND USAGE

The following kits are matched to the widths of the furnaces shown in **Table 1** below:

Table 1 Kit Usage		
KIT PART NUMBER	USED WITH FURNACE WIDTH	HEIGHT OF BASE
NAHA01401RA	14 3/16 inch wide	4 inch
NAHA01701RA	17 1/2 inch wide	4 inch
NAHA02101RA	21 inch wide	4 inch
NAHA02401RA	24 1/2 inch wide	8 inch

The kit comes in two pieces with screws to attach the assembly together and secure it to the furnace. The kit utilizes the existing bottom return air closure panel from the furnace as the bottom closure of the return air base.. It is best to assemble the kit on the furnace to optimize fit-up of the base to the furnace.

INSTALLATION

NOTE: The installation will require the use of the factory-supplied bottom enclosure panel for the furnace. Do not discard this panel.

To install the Return Air kit, perform the following steps. (See **Figure 1**)



CAUTION

CUT HAZARD

Failure to follow this caution may result in personal injury.

Sheet metal parts may have sharp edges or burrs. Use care and wear appropriate protective clothing and gloves when handling parts and servicing furnaces.

1. Remove the upper and lower doors.
2. Remove the loose parts bag and any other materials shipped inside the furnace.
3. Invert the furnace.
4. Remove the four (4) screws that secure the bottom plate to the furnace casing.
5. Slide the bottom closure pan out of the furnace.
6. Re-install the bottom plate to the furnace casing with the four (4) screws.
7. Align the flanged opening of the rear section of the base on the bottom opening of the furnace.
8. Secure the base to furnace casing.
9. Set the bottom closure panel on the return air base, embossed side toward blower assembly.
10. Slide the bottom closure panel to the back of the furnace so the back flange of the base goes underneath the flange of the return air base. The side flanges of the bottom closure panel should be resting on top of the return air base.
11. Position the front section of the return base on the front of the larger section of the return air base. The front edge of the bottom closure panel should be underneath the front section of the return air base.
12. Secure the return air base sections together with sheet metal screws.

13. Secure the front section of the return air base to the casing with sheet metal screws inserted through the tabs of the front section.
14. If necessary, seal the bottom closure pan to the casing with code approved tape or mastic. Allow mastic to dry before inverting the furnace.

Cutting the return air opening:

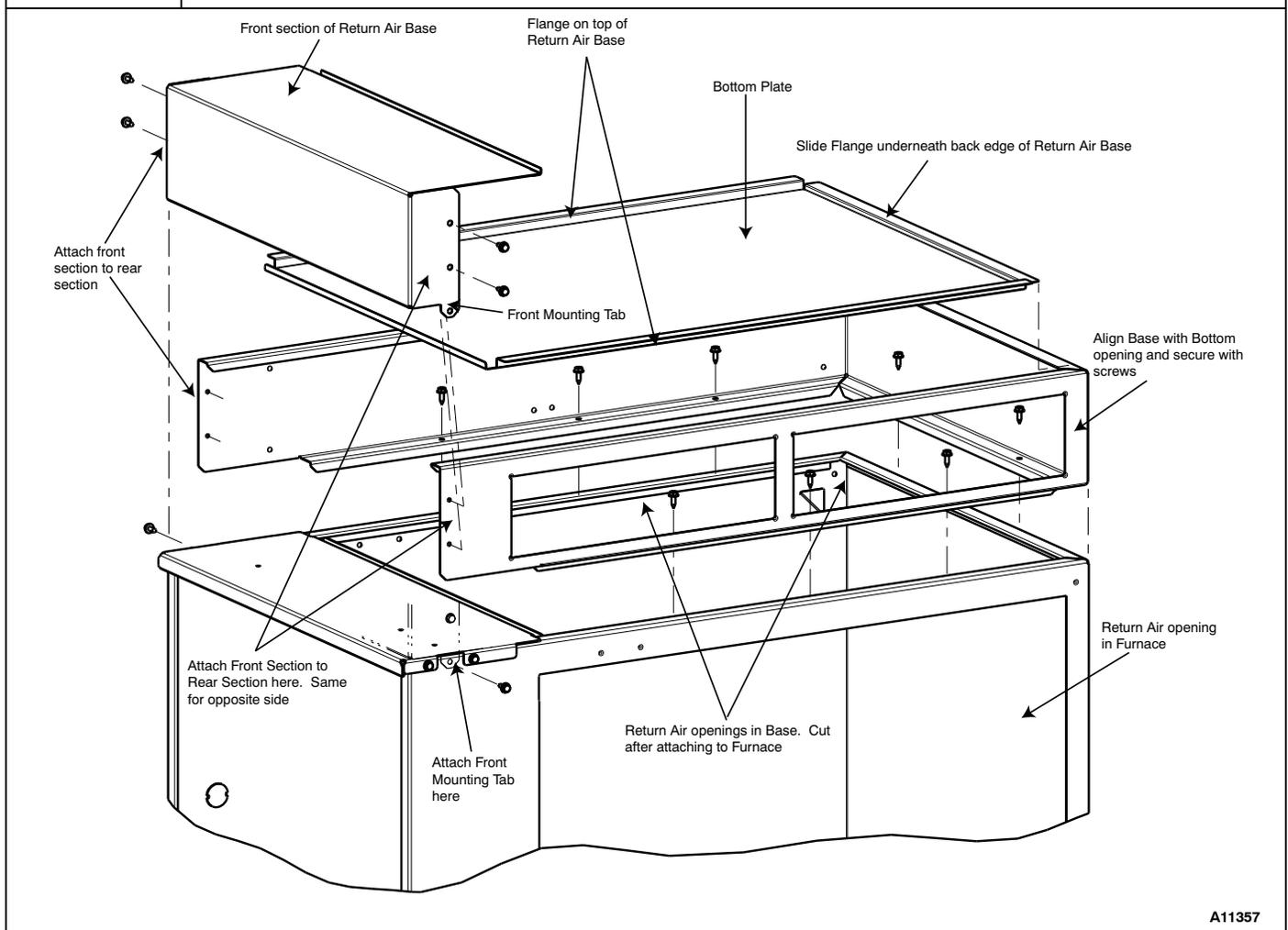
NOTE: Media Cabinet or other air filtration devices may not have the same opening dimensions as marked on the furnace casing and return air base. Always measure and mark the opening in the furnace casing and return air base prior to cutting the furnace casing and return air base. Do not cut outside the return air openings in the furnace casing or the dimples in the return air base.

1. Select the side of the furnace and base to be cut out and lay the furnace on the opposite side. (See **Figure 1**)
2. Verify the Media Cabinet or other air filtration device matches the marked openings in the casing and return air base. Re-mark if necessary.

3. Mark the required opening in the furnace casing.
4. Locate the eight dimples in the side of the return air base.
5. Mark the opening in the return air base between each set of four dimples. There will be a strip of metal left between each opening in the base.
6. Cut the return openings in the casing and return air base.
7. Attach the Media Cabinet or other air filtration device to the return air opening and base per the instructions included with Media Cabinet or other air filtration device.
8. If necessary, seal the Media Cabinet or other air filtration device to the casing with code approved tape or mastic. Allow mastic to dry before inverting the furnace.

Complete the installation of the furnace per the furnace Installation Instructions.

Figure 1 Return Air Base Assembly



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