NE WEST
12/12

INSTALLATION / PERFORMANCE CHECK LIST

ATTENTION INSTALLERS:

It is your responsibility to know this product better than your customer. This includes being able to install the product according to strict safety guidelines and instructing the customer on how to operate and maintain the equipment for the life of the product. Safety should always be the deciding factor when installing this product and using common sense plays an important role as well. Pay attention to all safety warnings and any other special notes highlighted in the manual. Improper installation, service, or maintenance of the furnace or failure to follow safety warnings could result in serious injury, death, or property damage.

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of this appliance. Some local codes require licensed installation/service personnel for this type of equipment. Please read all instructions carefully before starting the installation. Return these instructions to the customer's package for future reference.

INSTALLER NAME:		
CITY:	STATE:	
INSTALLATION ADDRESS:		
CITY:	STATE:	
UNIT MODEL #		
UNIT SERIAL #		
Minimum clearances per Table 1 (page 5)?	YES	NO
Has the owner's information been reviewed with the home-owner?	YES	NO
Has the literature package been left near the furnace?	YES	NO

ELECTRICAL SYSTEM:		
Electrical connections tight?	YES	NO
Line voltage polarity correct?	YES	NO
Supply Voltage: _____ VOLTS		
Has the thermostat been calibrated?	YES	NO
Is the thermostat level?	YES	NO
Is the furnace grounded properly?	YES	NO
Is the heat anticipator setting correct?	YES	NO

COMBUSTION AIR & VENTING SYSTEM:		
Is there adequate fresh air supply for ventilation?	YES	NO
Filter(s) secured in place?	YES	NO
Filter(s) clean?	YES	NO

⚠ WARNING:

PROPOSITION 65 WARNING: This product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

c ETL us Intertek

We Encourage Professionalism
Through Technician Certification by NATE

Complies with H.U.D. Manufactured Home Construction & Safety Standards.

NORDYNE
COMPLETE COMFORT. GENUINE VALUE.

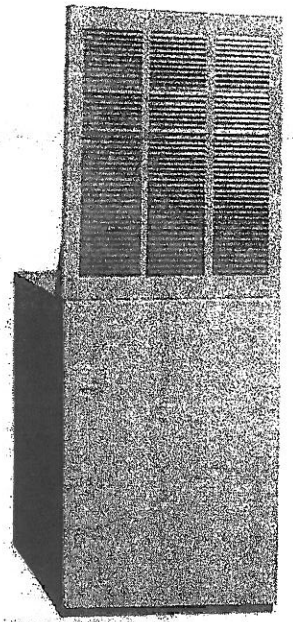
Specifications & illustrations subject to change without notice or incurring obligations.
O' Fallon, MO | Printed in U.S.A. (12/12)

708976C (Replaces 708976B)

Downflow, Upflow Electric Furnaces

Owners Manual & Installation Instructions

E3 Series (Air Conditioner / Heat Pump Air Handler)



IMPORTANT

User, please read this information thoroughly and become familiar with the capabilities and use of your appliance before attempting to operate or maintain this unit. Keep this literature where you have easy access to it in the future. If a problem occurs, check the instructions and follow recommendations given. If these suggestions don't eliminate your problem, call your servicing contractor.

The installation instructions are primarily intended to assist qualified individuals experienced in the proper installation of this appliance. Some local codes require licensed installation/ service personnel for this type of equipment. Please read all instructions carefully before starting the installation.

DO NOT DESTROY. PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE

TABLE OF CONTENTS

USER INFORMATION

INSTALLER INFORMATION

USER INFORMATION

IMPORTANT SAFETY INFORMATION

Safety markings are used to designate a degree or level of seriousness and should not be ignored. **WARNING** indicates a potentially hazardous situation that if not avoided, could result in personal injury or death. **CAUTION** indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

⚠ WARNING:

Improper service, adjustment or maintenance of unit may cause fire, electrical shock, or hazardous conditions which may result in personal injury, property damage, or death. Installation or servicing should only be performed by qualified trained personnel thoroughly familiar with this type equipment

⚠ WARNING:

Do not store or place flammable or vaporous materials (paint thinners, etc.) in the vicinity of this appliance. Failure to comply may cause fire, explosion, or other hazardous conditions which may result in serious injury, death or property damage.

The following list of chemicals should not be used or stored near the furnace:

- Chlorinated cleaners
- Water softening chemicals
- De-icing salts or chemicals
- Household Cleaning Solutions
- Printing inks, paint removers, varnishes, etc.
- Cements and glues
- Antistatic fabric softeners

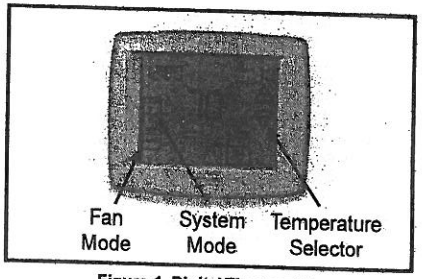


Figure 1. Digital Thermostat

⚠ WARNING:

Do not use this furnace if any part has been under water. A flood damaged furnace is extremely dangerous. Attempts to use the furnace can result in fire or explosion. A qualified service agency should be contacted to inspect the furnace and to replace any electrical or control system parts that have been wet or under water.

OPERATING INSTRUCTIONS

NOTE: Thermostat styles vary. Some models may not include the AUTO mode and others will have the AUTO in place of the HEAT and COOL. Others may include all three. Please refer to the thermostat manufacturer's User manual for detailed programming instructions.

NOTE: Allow at least one hour for the room temperature to stabilize before you make a second adjustment to the thermostat setting. After the desired comfort level is established, make only small adjustments to the thermostat setting to meet changing temperature conditions.

Cooling Operation

1. Set the thermostat's system mode to COOL or AUTO and change the fan mode to AUTO. See Figure 1.
2. Set the temperature selector to the desired temperature level. The outdoor fan, compressor, and blower motor will all cycle on and off to maintain the indoor temperature at the desired cooling level.

Heating Operation

1. Set the thermostat's system mode to HEAT or AUTO and change the fan mode to AUTO. See Figure 1.
2. Set the temperature selector to the desired temperature level. The compressor, outdoor fan, and blower motor will cycle on and off to maintain the indoor temperature at the desired heating level.

Operating the Indoor Blower Continuously

The continuous indoor blower operation is typically used to circulate the indoor air to equalize a temperature unbalance due to a sun load, cooking, or fireplace operation.

Set the thermostat fan mode to ON (Figure 1). The indoor blower starts immediately, and will run continually until the fan mode is reset to AUTO.

The continuous indoor blower operation can be obtained with the thermostat system mode set in any position, including OFF.

CIRCULATING AIR REQUIREMENTS

⚠ WARNING:

All return ducts must be secured to the furnace with sheet metal screws. All return ducts must be adequately sealed. When return air is provided through the bottom of the unit, the joint between the furnace and the return air plenum must be air tight.

Return air and circulating air ducts must not be connected to any other heat producing device such as a fireplace insert, stove, etc. This may result in fire, explosion, carbon monoxide poisoning, personal injury, or property damage.

Plenums & Air Ducts

This unit is designed only for use with a supply and return duct. Air ducts should be installed in accordance with the standards of the National Fire Protection Association Standard for Installation of Air Conditioning Systems (NFPA 90A), Standard for Installation of Residence Type Warm Air Heating and Air Conditioning Systems (NFPA 90B), and all applicable local codes. NFPA publications are available by writing to: National Fire Protection Association, Batterymarch Park, Quincy, ME 02269 or visit www.NFPA.org on the web.

- Plenums and air ducts must be installed in accordance with the Standard for the Installation of Air Conditioning and Ventilating Systems (NFPA No. 90A) or the Standard for the Installation of Warm Air Heating and Air Conditioning Systems (NFPA No. 90B).
- Design the air ducts according to methods described by the Air Conditioning Contractors of America (ACCA).
- Air ducts must be aluminum, tin plate, galvanized sheet steel, or other approved materials for outlet or return air ducts.
- Snap-Lock or Pittsburgh-Lock seams are preferred. All other types of seams must be made tight to prevent leakage.
- It is good practice to seal all connections and joints with industrial grade sealing tape or liquid sealant. Requirements for sealing ducts vary from region to region. Consult with local codes for requirements specific to your area.
- Gas piping must not run in or through any of the air duct system.
- Applicable installation codes may limit the furnace to installation in a single-story residence only. Furnace installations other than closet or alcove require ducted return air systems.

Return Air Connections

Air return to the furnace must have a minimum free area opening (see Table 1). A return air grille for closet or alcove installations is available. Acceptable closet installations with return air entering through an opening in the floor or ceiling of a closet, must meet all of the following requirements:

- The return air opening, regardless of its location in the closet, must not be smaller than size specified on unit data label. If located in the floor, the opening must be provided with a means of preventing its inadvertent closure by flat object(s) placed over the opening.
- A return air grille must be used when furnace is installed in a closet or alcove:

  Alcove installations: use return air grille & frame assembly P/N 902989 or equivalent. See Figure 2, page.

  Closet installations: use wall mount return air grilled P/N 902999 or equivalent. **NOTE:** For 5 ton A.C. or H.P. system, 155 in² (1,000 cm²) must be added.

  Downflow alcove installations: the grille (with frame provided) may be attached to the top of the furnace and all paneling and trim flushed to it. This installation provides an access door for future installation of NORDYNE air conditioning or heat pump coils on top of the furnace.
- Materials located in return air duct system must have a flame-spread classification of 200 or less.
- Noncombustible pans having 1" upturned flanges must be located beneath openings in a floor-return duct system.
- Wiring materials located in return duct system must conform to NEC Article 300-22(c).
- If return air opening is located below top of furnace, a minimum clearance must be provided between opening and furnace. See Table 1 (page 5).

Supply Air Connections

- Supply duct system must be designed for proper air distribution. Static pressure measured externally to furnace shall not exceed static pressure rating listed on furnace nameplate.
- Duct system must be designed so that no supply registers are located in duct system directly below the furnace.

Acoustical Ducts

Certain installations may require the use of acoustical lining inside the supply duct work.

- Acoustical insulation must be in accordance with the current revision of the Sheet Metal and Air Conditioning Contractors National Association (SMACNA) application standard for duct liners.
- Duct lining must be UL classified batts or blankets with a fire hazard classification of FHC-25/50 or less.
- Fiber duct work may be used in place of internal duct liners if the fiber duct work is in accordance with the current revision of the SMACNA construction standard on fibrous glass ducts. Fibrous duct work and internal acoustical lining must be NFPA Class 1 air ducts when tested per UL Standard 181 for Class 1 ducts.

WIRING DIAGRAM

Models: E3EB-015H, 017H

⚠ WARNING
Switch circuit breakers to the "off" position before servicing the furnace.

NOTES:

1. **Supply wire size must be in accordance to the applicable revision of the NEC and all other applicable codes.**
2. **Thermostat anticipator setting: 0.40 Amps**
3. **To change blower speed on units without a relay box installed refer to installation instructions**
4. **Refer to furnace and/or relay box installation instructions for thermostat connections.**
5. **If any wire in this unit is to be replaced it must be replaced with 105° C thermoplastic copper wire of the same gauge.**
6. **Not suitable for use on systems exceeding 120V to ground.**
7. **Refer to installation instructions for complete wiring diagram.**
8. **Heating and cooling may be wired on the same speed using either a relay box or the provided jumper wire.**

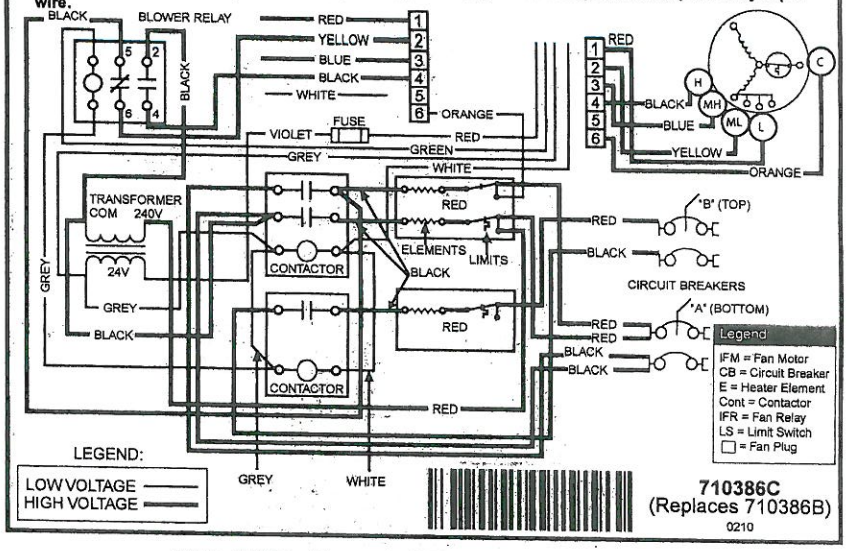


Figure 25. Wiring Diagram for E3EB 015H, E3EB 017H Furnaces

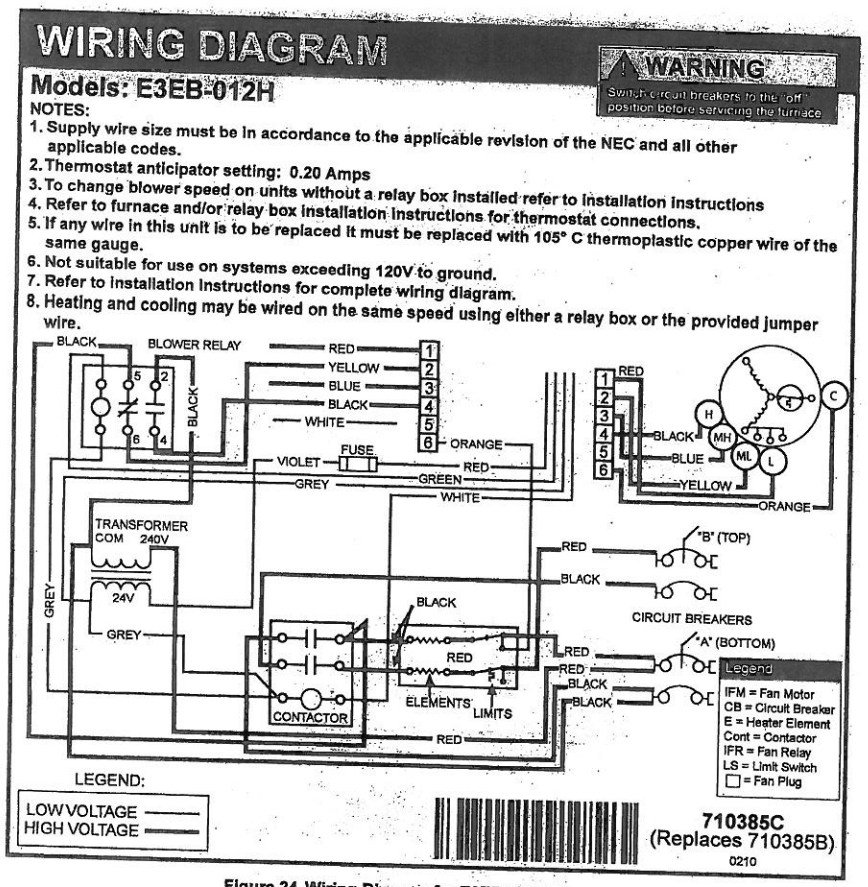


Figure 24. Wiring Diagram for E3EB 012H Furnaces

Unconditioned Spaces

All duct work passing through unconditioned space must be properly insulated to minimize duct losses and prevent condensation. Use insulation with an outer vapor barrier. Refer to local codes for insulation material requirements

Closed-Off Spaces

Living space not served by, and closed off from the return air ducts to the furnace (by doors, sliding partitions, and other means) must be provided with permanent, uncloseable openings in the doors or partitions to allow air to return to the furnace from all parts of the home. Return air grilles, with a minimum open area of one square inch for every five square feet of living space closed off from the furnace, must be provided in the door or room partition.

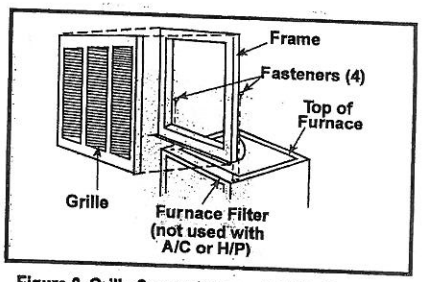


Figure 2. Grille Support Frame & Grille Assembly

Filtering Methods - Downflow Furnaces

Non-Ducted Return Air

For unducted return air systems, either the optional grille and frame assembly or the optional wall mount grille is recommended.

Without A/C or H/P uncased coil:

- Use the filter supplied with the furnace; ensure that the filter is installed mat side down between the filter retainer and furnace top. See Figure 2.

With A/C or H/P uncased coil:

- Use the optional coil filters; the filter supplied with the furnace is not used; REMOVE AND DISCARD THIS FILTER.

With optional coil housing:

- See coil cabinet instructions for specific filtering methods.

Ducted Return Air

For ducted return air systems with air conditioners or heat pumps, either providing an access panel in the duct or using the optional coil cabinet (Figure 3) is recommended. The duct system must be properly sized to account for any additional external static pressure produced from the chosen filtering method.

Without optional coil housing:

- Install a filter with a minimum unrestricted medium area of 324 in² in the duct above the coil that is accessible for monthly cleaning or replacement by homeowner.

With optional coil housing:

- Install a filter with a minimum unrestricted medium area of 324 in² in the duct above the coil that is accessible for monthly cleaning or replacement by homeowner.

Filtering Methods - Upflow Furnaces

Non-Ducted Return Air

Furnaces may be installed with unducted or ducted return air. For unducted systems with air conditioners or heat pumps, the following optional equipment is recommended: upflow stand, coil cabinet, upflow duct connector, and wall mount grille.

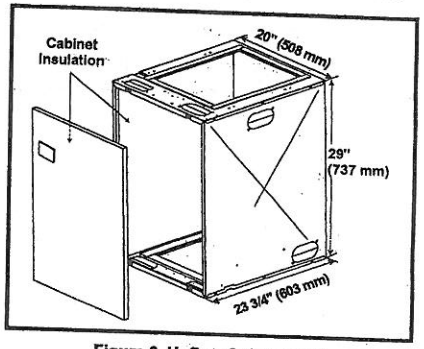


Figure 3. Upflow Coil Cabinet

Without optional upflow stand:

- Install a filter with a minimum unrestricted medium area of 324 in² below the coil cabinet/furnace assembly that is accessible for monthly cleaning or replacement by the homeowner

With optional upflow stand:

- Stand (Figure 4, page 8) must use two filters: one is supplied with the stand and the other MUST be removed from the furnace and placed in the stand. See instructions supplied with the upflow stand for additional details.

Ducted Return Air

For ducted systems with air conditioners or heat pumps, the following optional equipment is recommended: coil cabinet and upflow duct connector.

- Install a filter with a minimum unrestricted medium area of 324 in² below the coil cabinet/furnace assembly that is accessible for monthly cleaning or replacement by the homeowner

If Floor Cavity "X" is:	Duct Connector Type & Part Number	
	Standard Duct	Screw Down
7/8" / (22)	901987A	904008
2" / (51)	901988A	904009
4-1/4" / (108)	901989A	904010
8-1/4" / (159)	901990A	904011
8-1/4" / (210)	901991A	904012
10-1/4" / (260)	901992A	904013
12-1/4" / (311)	901993A	904014

NOTE: Dimensions shown as Inches / (Millimeter)

Table 2. Duct Connector Sizes

Standard Duct Connector Installation

The standard duct connector is designed for use on ducts 12" in width. **NOTE:** Ducts narrower than 12" may not allow sufficient clearances for this type of installation. See Narrow Duct Connector section.

1. Center the duct connector in the floor opening with bottom tabs resting on top of the supply air duct.
2. Mark the cut-out area on the supply air duct by tracing around the connector tabs (Figure 8) of the duct connector.
3. Remove the duct connector and cut out the marked area of the supply air duct 1/4" larger the actual cutout drawn.
4. Install the duct connector back in the floor opening with the bottom tabs extending into the supply air duct.
5. Install the mounting plate (Figure 8) under the back side of the duct connector. Align the screw holes in both components.
6. Secure the duct connector and the mounting plate to the wood floor with appropriate size screws.
7. Bend the connector tabs on the bottom of the duct connector upwards and as tight as possible against the supply air duct.

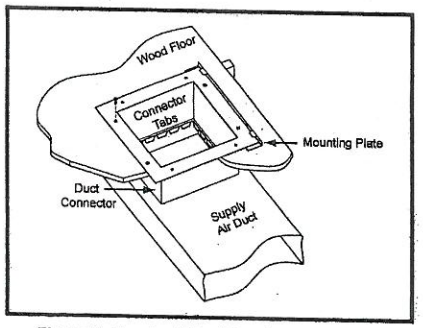


Figure 8. Standard Duct Connector Installed

8. Seal all connections with industrial grade sealing tape or liquid sealant.

NOTE: Requirements for sealing ductwork vary from region to region. Consult with local codes for requirements specific to your area.

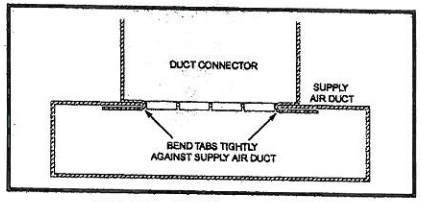


Figure 9. Duct Connector Tabs

Narrow Duct Connectors

This attachment method should be used if there is insufficient clearance to bend the tabs on a standard 12" duct connector.

1. Score and cut the top of the supply air duct as indicated in Option 1 or Option 2 (Figure 10). With Option 1 choice, cut out the metal from the shaded area.
2. Fold the two flaps (Options 1 or 2) up to form the opening for the duct connector.
3. Install the duct connector with the bottom tabs extending into the supply air duct.
4. Bend the tabs on the bottom of the duct connector upwards and as tight as possible against the supply air duct (Figure 11, page 11).
5. Form the flaps (Options 1 or 2) up against the duct connector as tight as possible.
6. Secure the duct connector flaps to the supply air duct with staples (3 minimum) or if a 2x block/joist is not provided, use sheet metal screws (2 minimum). **NOTE:** The duct connector tabs may be attached to the air duct with sheet metal screws or other suitable fasteners as long as the duct connector and the air duct are securely attached.

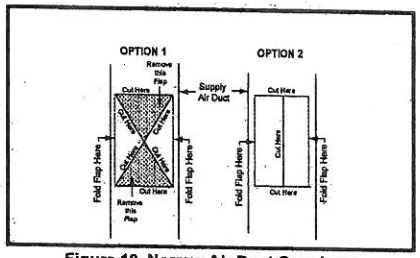


Figure 10. Narrow Air Duct Openings

ELECTRICAL INFORMATION

	Furnace Models E3EB-						
	010H	012H	015H	017H	020H	023H	023H 5-Ton
Rated Heating Output, Btuh (see note 1)	35,000	41,000	53,000	57,000	70,000	75,000	75,000
Watts (Total kw, Heating Elements & Blower)	10.4	12.0	15.4	16.6	20.4	22.0	22.0
Supply Voltage	240 Volts/60Hz/1-Phase						
Heating Elements, No. (Total kw)	2 (10.0)	2 (11.6)	3 (15.0)	3 (16.2)	4 (20.0)	4 (21.6)	4 (21.6)
Blower Wheel Size	10.5" Dia, 8" W	10.5" Dia, 8" W	10.5" Dia, 8" W	10.5" Dia, 8" W	10.5" Dia, 8" W	10.5" Dia, 8" W	11" Dia., 8" W
Motor Speed, H.P. Rating, Amps	4 Speed, 1/3 HP, 2.9						4 Spd, 3/4HP, 3.8 Amps
Test ESP, in. w.c. Max	0.3						
Optional Cooling Available with factory installed blower	2.0 - 4.0 Ton (See Note 3)						2.0 - 5.0 Ton
Optional Heat Pump Available with factory installed blower	2.0 - 4.0 Ton						
Air Filter (Standard)	16" x 20" x 1" (nominal)						
Furnace Dimensions	Width-20" (508mm), Height-29" (737mm) (see note 2), Depth-24 1/2" (623mm)						

1. Heating output rated at listed voltage. For outputs at voltages other than 240V, multiply Btuh rating by the following factors: x 0.92 (230V), x 0.84 (220V), x 0.75 (208V).
2. Height is 56" with return air grille installed, 58" with coil cabinet and 72" with coil cabinet and upflow stand.
3. The factory installed blower for the EB models can be replaced with a multi-speed blower allowing the units to accept up to 5 tons of air conditioning.

Table 6. Unit Specifications

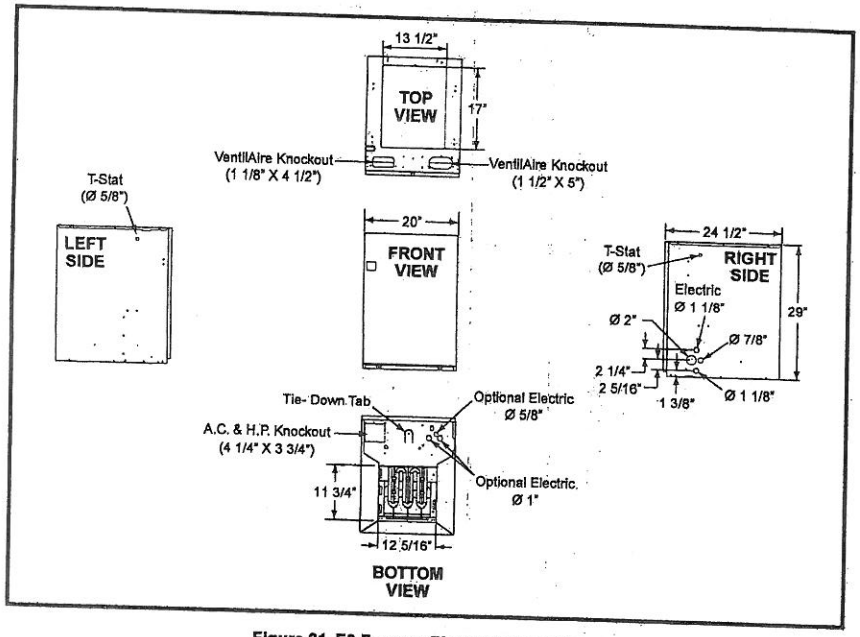


Figure 21. E3 Furnace Physical Dimensions

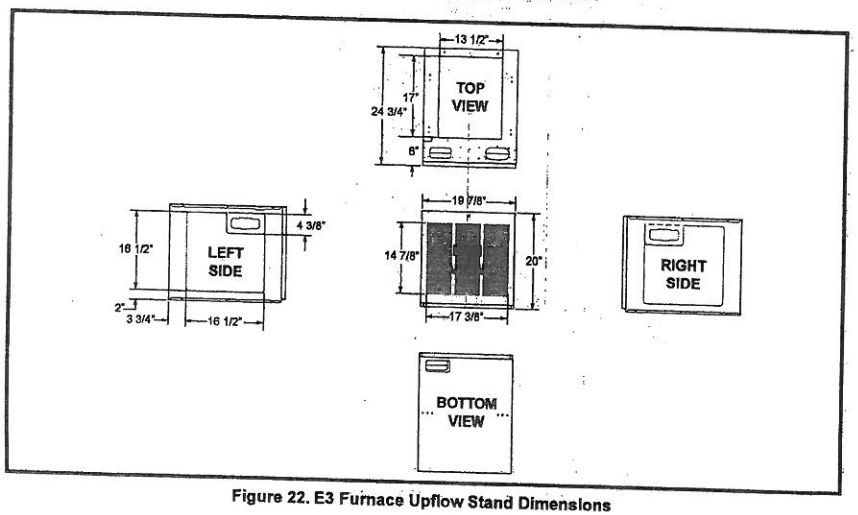


Figure 22. E3 Furnace Upflow Stand Dimensions

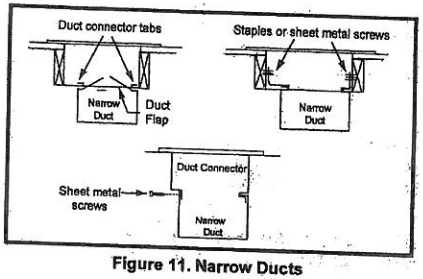


Figure 11. Narrow Ducts

7. Seal all connections with industrial grade sealing tape or liquid sealant.

NOTE: Requirements for sealing ductwork vary from region to region. Consult with local codes for requirements specific to your area.

Round Duct Connector Installation

The 14" round duct connector is designed to connect directly to a 14" flexible duct. **NOTE:** Flexible ducts must have a minimum temperature rating of 200° F and meet all applicable codes and standards.

1. Apply a bead of caulking, mastic, or other approved sealant around bottom side of connector.
2. Install and center the duct connector in the floor opening.
3. Install the mounting plate under the back side of the duct connector. See Figure 12. **NOTE:** Align the screw holes in both components.
4. Secure the duct connector and the mounting plate to the wood floor with appropriate size screws.
5. Connect the round supply duct to the underside of the duct connector and secure them with field supplied sheet metal screws.
6. Seal all connections with industrial grade sealing tape or liquid sealant.

NOTE: Requirements for sealing ductwork vary from region to region. Consult with local codes for requirements specific to your area.

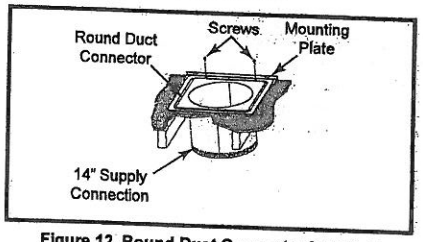


Figure 12. Round Duct Connector Installed

Alcove Installation

1. Cut alcove rough openings to minimum dimensions shown in Figure 13 (page 12).
2. Attach frame assembly with four fasteners (provided or equivalent) into pre-punched holes on top of furnace. See Figure 2 (page 7). **NOTE:** If additional securing is required, attach each side of frame assembly to alcove opening using holes provided.
3. Attach return air grille to frame assembly by hooking grille over flange on top of frame and into channel on bottom.

Closet Installation

For proper air circulation, closet installations require a return air grill installed in the door or a partially louvered door across the opening. For clearances 6" or greater, the closet must have an open free area of 235 in² minimum. For special clearances between 1" - 5", requirements are a louvered door with a minimum of 250 in² (1613 cm²) free area. A fully louvered closet door is strongly recommended for both installation types. For closet installations, the return air grille mounting frame is not used since the furnace is located inside the closet. For examples of both types of installations, see Figure 14 (page 12).

1. Cut return air opening in desired position in door or wall, preferably above top of furnace. Refer to Table 1 for return air opening requirements.
2. Insert four fasteners, securing grille to door or wall.

Downflow Furnaces

For typical unducted return air downflow applications, an air-conditioner or heat-pump coil can be installed by mounting the coil directly on top of the furnace without adding sheet metal cavities or cutting and trimming wood panels. Unducted return air systems may be used for closet or alcove installations.

The steps below describe installation procedures for an under-the-floor supply duct system with a ducted or unducted return air system. Duct connectors are recommended for this application. See Table 2 (page 10).

1. Route 240V supply circuit(s) and 24V wiring to closet or alcove. See Figure 21 (page 18) for locations.
2. Remove refrigerant line knockouts in furnace only when installing indoor coil of an air conditioner or heat pump system, or for hook-up of a VentilAire accessory when the furnace is used in the upflow position. Refer to instructions supplied with accessory equipment.
3. Remove unit front door and slide back until bottom slots in rear of unit engage with both tabs of optional rear mounting plate. If mounting plate is not used, an equivalent method of securing the rear of the unit may be used as long as it prevents displacement during transport if used in a manufactured home.

NOTE: The furnace does not need to be positoned against the rear mounting plate. The tabs will engage into the slots and allow approximately 1/2" of furnace adjustment front to back and side to side.

- -010 model is factory-wired for single-branch supply circuit only.
- -012 models are factory-wired for single-branch supply circuit (single-circuit kit factory installed). Dual-branch circuit can be used by removing factory-installed single-circuit kit (see Figure 17).
- -015, -017, -020 and -023 models are factory-wired for dual-branch supply circuit. Single-branch circuit can be used by installing optional single-circuit kit.

Connecting Supply Service Wires

Power entrance for all models may be through the right side or through the bottom of the unit.

1. Remove right-hand control panel (when viewing in downflow position).
2. Locate power supply knockouts in side of unit and in bottom of unit. Remove appropriate plug(s) or knockout opening applicable to selected wire size(s).

⚠ WARNING:

To avoid personal injury or property damage, make certain that the motor leads cannot come into contact with non-insulated metal components of the unit.

3. Install listed cable connector(s) in opening(s). If metal-sheathed conduit is used for incoming power line(s), provide an approved metal clamp on conduit and secure it in entrance knockout.
4. Insert supply service wire(s) through cable connector(s) and connect wires to circuit breakers (Figures 17 & 18). **NOTE:** To install single-circuit kit, perform step 5. If single-circuit kit installation is not needed, go to step 6.

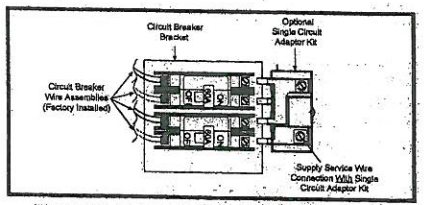


Figure 17. Optional Single Circuit Adaptor Kit

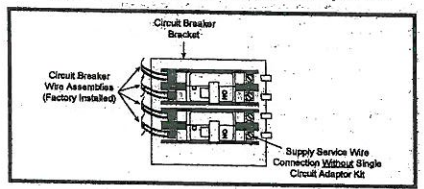


Figure 18. Installation of Supply Service Wires

5. To install optional single-circuit kit:
   a. Loosen lugs at supply side of circuit breakers.
   b. Remove cover from single-circuit kit (if supplied).
   c. Insert metal buss bars of kit into lugs of circuit breaker.
   d. Tighten lugs securely.(45 in.-lbs. recommended).
6. Connect service ground wire(s) to grounding lug(s) provided. One ground is required for each supply circuit used. See Fgiure 20 (page 17).

Grounding

⚠ WARNING:

To minimize personal injury, the furnace cabinet must have an uninterrupted or unbroken electrical ground. The controls used in this furnace require an earth ground to operate properly. Acceptable methods include electrical wire or conduit approved for ground service. Do not use gas piping as an electrical ground!

Thermostat / Low Voltage Connections

- The furnace is designed to be controlled by a 24 VAC thermostat. The thermostat's wiring must comply with the current provisions of the NEC (ANSI/NFPA 70) and with applicable local codes having jurisdiction.
- The thermostat should be mounted about 5 feet above the floor on an inside wall. DO NOT install the thermostat on an outside wall or any other location where its operation may be adversely affected by radiant heat from fireplaces, sunlight, or lighting fixtures, and convective heat from warm air registers or electrical appliances. Refer to the thermostat manufacturer's instruction sheet for detailed mounting information.

Selecting Blower Speed

The E3EB model is equipped with a 4-speed PSC motor which can be upgraded to a multi-speed high efficiency X-13 motor using kit 904619. It is equipped with a multi-speed blower, blower relay, and cabinet insulation kit for air conditioner hookup. See Table 6 (page 19) for cooling and heat pump availability with factory installed blower.

⚠ IMPORTANT:

If a relay box is installed, blower speeds for heating and cooling are set inside the relay box. The blower speed inside the furnace control box must be set to low or medium-low. Never change to a heating speed lower than that shown in Table 3 (page 15). See instructions supplied with relay box.

See Table 3 for the lowest speed approved for the heating output of the unit. Since the blower leads connect to the control box, blower speed selection is through use of the

Plug/Receptacle Position	Pin1	Pin2	Pin3	Pin4	Pin5
4 Speed Blower	Low	Med-LO	Med-HI	High	-
Control Box Blower Lead	Red	Yellow	Blue	Black	-

Table 3. Furnace Blower Speed Data

proper color-coded blower lead located inside the control box. The speed(s) set by the factory may be different from that shown on the wiring diagrams. See the unit control box for factory set blower speed(s).

Changing Blower Speed

The selected heating blower lead is attached to terminal 6 of the blower relay. The selected cooling blower lead is attached to terminal 4 of the blower relay.

- For New Heating Speed: Remove heating blower lead from terminal 6 of the blower relay. Choose desired speed and install new blower lead on terminal 6 of the blower relay.
- For New Cooling Speed: Remove cooling blower lead from terminal 4 of the blower relay. Install new blower lead on terminal 4 of the blower relay.
- Same Speed, Heating & A/C: Use white jumper wire supplied with unit and jumper between terminals 5 & 2 on blower relay. See Table 4 for blower performance data.

4-Ton Blower with Coil and Coil and Filters, @ 0.3" ESP		
Pin No.	Speed	CFM
#1	Low	880
#2	Med.-Low	1,170
#3	Med.-High	1,310
#4	High	1,460
5-Ton Blower, with Coil and Coil Filters, @ 0.3" ESP		
Pin No.	Speed	CFM
#1	Low	990
#2	Med.-Low	1,320
#3	Med.-High	1,620
#4	High	1,790
Multi-Speed, X13, Blower, with Coil and Filters, @ 0.3" ESP		
Pin No.	Speed	CFM
#1	Low	880
#2	Med.-Low	1,000
#3	Med	1,170
#4	Med.-High	1,260
#5	High	1,460

Table 4. Blower Performance

Blower Installation

1. Turn off all electrical supply circuits to the furnace at the main service panel.
2. Remove furnace front door and switch furnace circuit breaker(s) to OFF.
3. Disconnect the motor plug from the control panel receptacle.
4. Remove one screw from left side of blower and three screws from right side of blower. Slide blower forward to remove.
5. Install new blower. **NOTE:** Make sure the side flanges engage under side mounting tabs. Three tabs on one side and one on the other. The long tab is in the rear.
6. Replace screws removed from blower in step 4.
7. Connect the motor plug to the control panel receptacle.
8. Switch circuit breaker(s) to ON.
9. Reinstall furnace front door and turn on electrical supply circuits to the furnace.

Installing Control Circuit Wiring

NOTE: Installation of a five-wire thermostat circuit is recommended to for future addition of a heat/cool thermostat. See Figure 19 (page 16) for various E3EB thermostat connections.

1. Install the 24V control-circuit cable through plastic bushing at either side of furnace.
   - Units without a relay box: connect wires to furnace at blower plug pigtails (see wiring diagrams). Secure all connections with wire nuts.
   - Units with relay box installed: make wiring connections at relay box low-voltage terminal board. See relay box installation instructions.
2. Route control circuit wiring to wall thermostat and outdoor section, if installed. (See relay box installation instructions if applicable.)
3. Set anticipator per Table 5 or per the marking on the unit.

Furnace Model	T-Stat Anticipator Setting
010, 012	0.2
015, 017, 020, 023	0.4

Table 5. Anticipator Settings