

Installation Instruction

Upflow—Downflow
Heating—Cooling

CJ5A Uncased Coil
CK5A Cased Coil

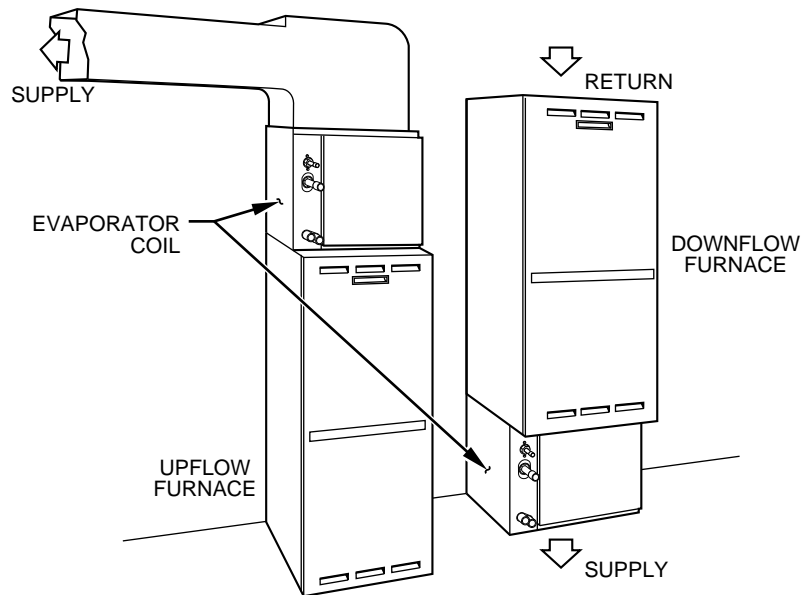


Fig. 1—Typical Coil Installation


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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 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 and work gloves. Use quenching cloth for brazing operations. Have fire extinguisher available. Read these instructions thoroughly and follow all warning or cautions attached to the unit. Consult local building codes and National Electrical Code (NEC) for special requirements.

It is important to 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 **would** result in minor personal injury or product and property damage.

 WARNING: Before installing or servicing system, always turn off main power to system. There may be more than 1 disconnect switch. Turn off accessory heater power if applicable. Electrical shock can cause personal injury or death.

INTRODUCTION

Use this instruction manual to install indoor coils on upflow or downflow furnaces. (See Fig. 1.) Do not install coil in horizontal position. Model CK5A is enclosed in a casing. Model CJ5A is an unenclosed bare coil, requiring a field-fabricated or accessory enclosure.

INSTALLATION

PROCEDURE 1—INSPECT EQUIPMENT

File claim with shipper if equipment is damaged or incomplete.

PROCEDURE 2—INSTALL COIL

All coils are designed to directly match the furnace width. (See Table 1.) Underhanging or overhanging installations are not necessary or advised with the N-coil design.

Table 1—Furnace Widths

CK5A CASED COILS	FURNACE WIDTHS (IN.)
A018, A024, A030, N036	14-3/16
W024, W030, A036, N042, N048	17-1/2
W036, A042, A048, N060	21
W048, A060, X060	24-1/2

A. Upflow CK5A Cased Furnace Coil Installation

1. Set coil in place on upflow furnace discharge air opening. (See Fig. 1.)
2. Ensure coil is level for proper condensate drainage. Do not tip coil toward condensate drain. Coil enclosure need not be fastened or screwed to furnace.

B. Upflow CJ5A Uncased Furnace Coil Installation

NOTE: To select an accessory casing refer to Table 2 for available sizes.

1. Field-fabricate mounting support shelf.

Table 2—Accessory Casing for CJ5A N-Coil

SINGLE CASING PART NO.	DIMENSIONS (IN.)			COIL SIZE USAGE
	Height	Width	Depth	
KCAKC01--ECC	17-3/16	14-3/16	21	A018, A024, A030, N036
KCAKC02--ECC	19-1/8	17-1/2	21	W024, W030, A036, N042, N048
KCAKC03--ECC	24-15/16	21	21	W036, A042, A048, N060
KCAKC04--ECC	24-15/16	24-1/2	21	W048, A060, X060

- a. A corrugated template is shipped in each coil shipping box. Use this template as a guide in laying out the support shelf.
- b. Place template on sheetmetal shelf to trace opening.
- c. Cut out sheet metal and bend up flanges as shown. (See Fig. 2.)
- d. Refer to Table 3 for correct mounting height for upflow furnace installations.

Table 3—Coil Mounting Position in Upflow Field-Fabricated Plenum

COIL CJ5A	FIELD-SUPPLIED PLENUM WIDTH (IN.)	COIL MOUNTING HEIGHT ABOVE FURNACE FLANGES (IN.)
A018, A024, A030, N036	12-1/2	3-3/4
W024, W030, A036, N042, N048	15-13/16	3-3/4
W036, A042, A048, N060	19-3/8	3-3/4
W048, A060, X060	22-7/8	3-3/4

2. Place support shelf and CJ5A coil onto furnace enclosure. (See Fig. 3.)
3. Slide casing onto assembly until coil rear seal contacts rear panel of enclosure. (See Fig. 4.)
4. Make sure that right side of support shelf does not block off any of the coil opening.
5. Attach front access panel to coil enclosure.

IMPORTANT: If CJ5A uncased coil is mounted on furnace directly inside the plenum without a coil casing, affix caution label attached to the instruction sheet to the right side of the plenum enclosure. (See Fig. 5.)

6. Insulate enclosure.

C. Downflow CK5A Coil Installation

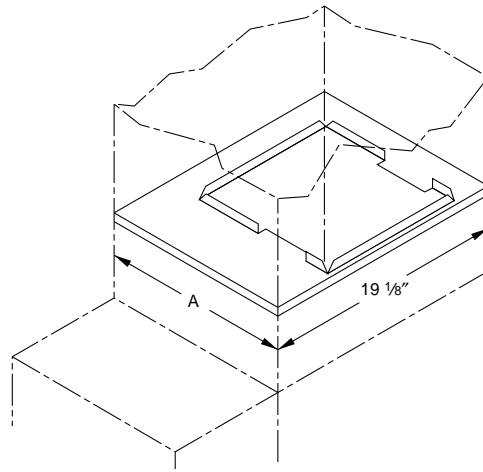
Place coil on furnace supply air opening using same methods described for coil placement on upflow furnace discharge air opening.

PROCEDURE 3—CONNECT REFRIGERANT PIPING

Refrigerant piping must be configured per local building codes. Lay out piping in relation to specifications and job site requirements.

PROCEDURE 4—CONNECT REFRIGERANT LIQUID AND SUCTION LINES

For matched and mix matched systems, use system suction line sizes recommended in outdoor unit Installation Instructions.

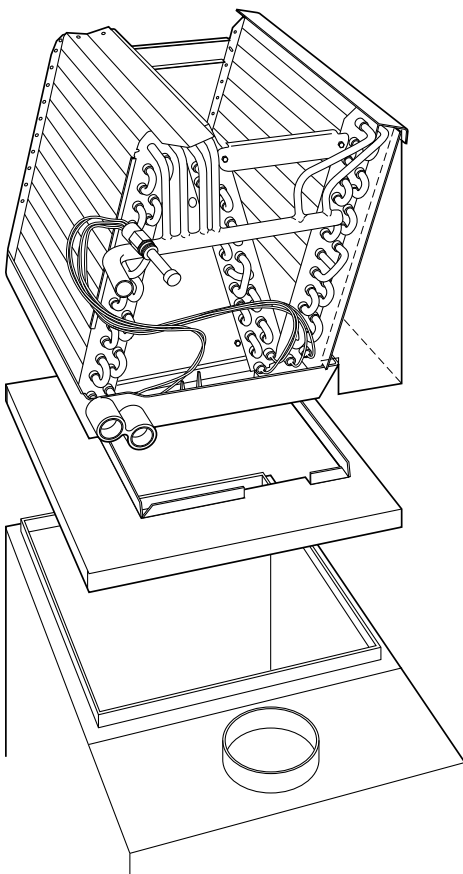


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Dimensions (In.)

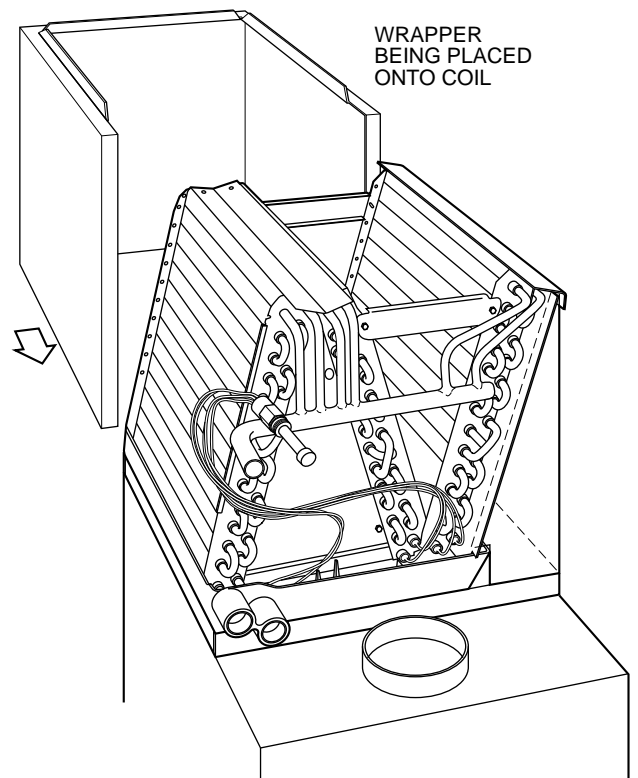
USED WITH CJ5A N-COIL SIZE	A
A018, A024, A030, N036	12-1/2
W024, W030, A036, N042, N048	15-13/16
W036, A042, A048, N060	19-3/8
W042, A060, X060	22-7/8

Fig. 2—Field Fabricated Mounting Support Shelf



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Fig. 3—Setting N-Coil and Support Shelf Onto Furnace



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Fig. 4—Placing Accessory Casing on N-Coil Assembly

CK5A and CJ5A coils can be connected to outdoor units using accessory tubing packages or field-supplied tubing of refrigerant grade. Always evacuate tubing and reclaim refrigerant when sweat connections are made or when tubing must be flared. If field-supplied tubing is used, insulate entire suction line.

⚠ CAUTION: If unit is to be installed on system with a thermostatic expansion valve, removal of the indoor coil piston is required.



Fig. 5—Plenum Caution Label

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A. Suction Line

Suction line is designed for field sweat connection. Line is plugged to keep out moisture and dirt. Remove these plugs only when ready to make connection.

⚠ CAUTION: To avoid valve damage while brazing, service valves must be wrapped with a heat-sinking material such as a wet cloth.

B. Liquid Line

Liquid line is designed for sweat connection. During installation the following steps should be followed.

1. Remove rubber plug.
2. Replace piston if necessary. (See Fig. 6.)

IMPORTANT: Use a back up wrench to loosen and re-tighten nut.

⚠ CAUTION: DO NOT BURY MORE THAN 36 IN. (914mm) OF REFRIGERANT TUBING IN GROUND. If any section of tubing is buried, there must be a 6- in. (152mm) vertical rise to the valve connections on the outdoor unit. If more than the recommended length is buried, refrigerant may migrate to cooler buried section during extended periods of unit shutdown, causing refrigerant slugging and possible compressor damage at start-up.

NOTE: Wrap a wet cloth around rear of fitting to prevent damage to factory-made joints.

PROCEDURE 5—MAKE CONDENSATE DRAIN LINE CONNECTION

The coil is designed to dispose of accumulated water through built-in condensate drain fitting. Two 3/4-in. female threaded pipe connections are provided in each coil.

Install a trap in condensate line of CK5A and CJ5A coil as close to coil as possible. Make trap at least 3 in. deep and not higher than bottom of unit condensate drain opening. (See Fig. 7.) Pitch condensate line to open drain or sump.

When coil is installed over a finished ceiling and/or living area, a secondary sheet metal condensate pan must be constructed and installed under entire unit.

System Control

A refrigerant control device (bypass type) is factory supplied with coil. (See Table 4.) The piston has a refrigerant metering hole through it, and is field replaceable.

The piston shipped with the indoor coil may be different from the piston shipped with the outdoor condensing unit. If this is the case you may need to change the indoor piston. Always use the piston shipped with the outdoor condensing unit.

Table 4—Refrigerant Metering Device

MODELS CJ5A AND CK5A	FACTORY-SHIPPED PISTON NO.
A018	52
A024, W024	59
A030, W030	67
A036, W036, N036	70
A042, N042	78
A048, W048, N048	84
A060, X060, N060	90

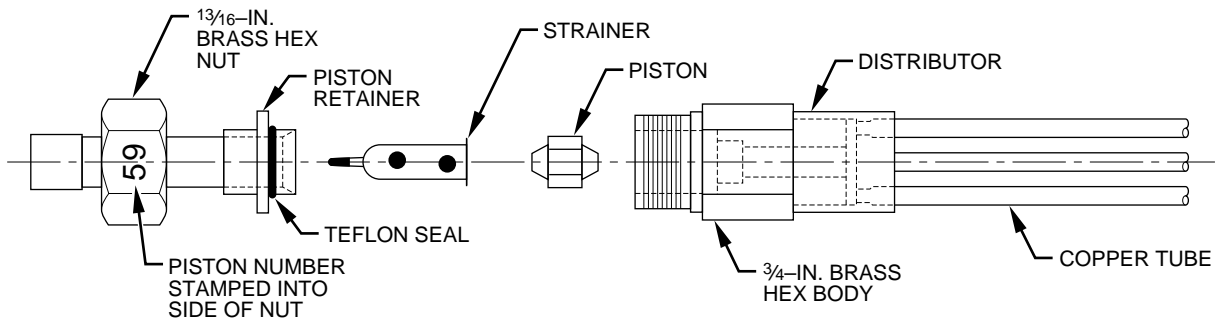


Fig. 6—Refrigerant Control Device Components

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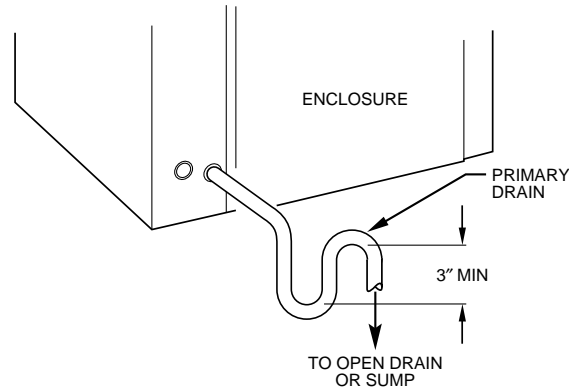


Fig. 7—Condensate Trap

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SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization
- Maintenance
- Installation Overview
- Operating Sequence

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