



Cased Cooling Coil for Model CAUA Heaters



INSTALLATION FORM RZ 405-CC

APPLIES TO: Model ACU or Option C

Description/Application

These instructions apply to an optional cased cooling coil when installed on a Reznor® Model CAUA heater. See the table on the right for matching the cabinet size of the Model CAUA heater with the cooling coil. The coil may have been ordered as either a Model ACU or an Option C.

Installation should be done by a qualified agency in accordance with these instructions and in compliance with all codes and requirements of authorities having jurisdiction.

Follow the instructions in Form RZ 405 to install the heater. The heater should be in its final installation location (without discharge ductwork) before installing the cooling coil.

Shipped with the heater is a package of parts required to install a burner condensate drain. When installing a cooling coil, the burner condensate drain is required. Installation instructions are on page 2.

Heater/Coil Cross-Reference Table by Model CAUA and Cased Coil Option C or Model ACUA, ACUB, or ACUC Cased Cooling Coil

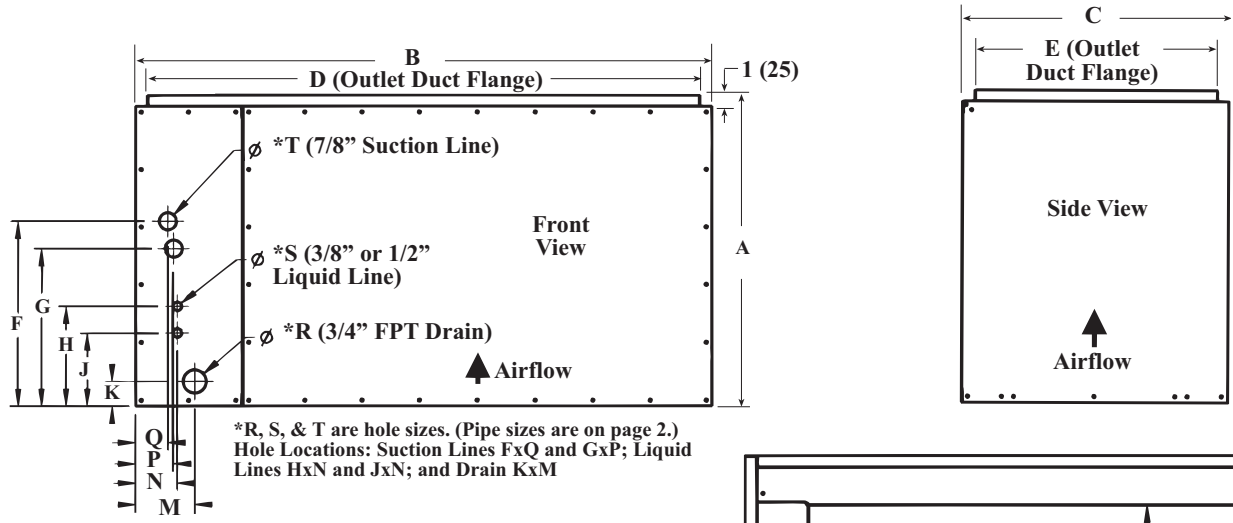
CAUA 150 and 200	CAUA 250 and 300	CAUA 350* and 400*
ACUA 060 / Opt C060	ACUB 090 / Opt C090	ACUC 120 / Opt C120
ACUA 072 / Opt C072	ACUB 120 / Opt C120	ACUC 150 / Opt C150
ACUA 090 / Opt C090	ACUB 150 / Opt C150	ACUC 180 / Opt C180

*The cased cooling coil for a CAUA 350 or 400 may include a factory-attached discharge plenum (Option CD62). To install a cased cooling coil with a discharge plenum, follow the instructions in this sheet plus the instructions in Form RZ 405-DP. Dimensions are shown in Form RZ 405-DP.

- ACUA 060 and Option C060 - a cased 5-ton "A" coil.
- ACUA 072 and Option C072 - a cased 6-ton "A" coil.
- ACUA, ACUB 090 and Option C090 - a cased 7.5-ton, dual circuit "A" coil.
- ACUB, ACUC 120 and Option C120 - a cased 10-ton, dual circuit "A" coil.
- ACUB, ACUC 150 and Option C150 - a cased 12-ton, dual circuit "A" coil.
- ACUC 180 and Option C180 - a cased 15-ton, dual circuit "A" coil.

Dimensions

Figure 1 - Dimensions of Cased "A" Coil - inches (mm)



*R, S, & T are hole sizes. (Pipe sizes are on page 2.)
Hole Locations: Suction Lines FxQ and GxP; Liquid Lines HxN and JxN; and Drain KxM

Dimensions of Cased Cooling Coil

Option C for Model CAUA	Model		A	B	C	D
Option C060, C072, C090 for CAUA 150 or 200	All	inches	27	38	23	36
	ACUA	mm	686	965	584	914
Option C072, C120, C150 for CAUA 250 or 300	All	inches	27	50	23	48
	ACUB	mm	686	1270	584	1219
Option C120, C150, C180 for CAUA 350 or 400	All	inches	32-5/8	50	36	48
	ACUC	mm	829	1270	914	1219

Option C for Model CAUA	Model		E	F	G	H	J	K	M	N	P	Q	R*	S*	T*	U	V
Option C060, C072, C090 for CAUA 150 or 200	All	inches	21	16-1/2	--	8-1/2	--	2-1/8	6	4	--	3-1/2	2	3/4	1-1/4	14-1/2	27
	ACUA	mm	533	419	--	217	--	54	152	102	--	89	2	19	32	368	686
Option C072, C120, C150 for CAUA 250 or 300	All	inches	21	16	13-5/8	8-5/8	6-1/4	2-1/8	5-1/8	3-5/8	3-1/4	2-3/4	2	(2)3/4	(2)1-1/2	14-1/2	41-1/4
	ACUB	mm	533	406	346	219	159	54	130	92	83	70	2	(2)19	(2)38	368	1048
Option C120, C150, C180 for CAUA 350 or 400	All	inches	34	20-1/2	17-1/4	9-1/4	7-3/4	2-1/8	4-1/4	5-3/4	4-1/4	3	2	(2)3/4	(2)1-3/4	27-1/2	39-7/8
	ACUC	mm	864	521	438	235	197	54	108	146	108	76	2	(2)19	(2)44	699	1013

Installation Instructions

1. Uncrating and Preparation

Uncrate and inspect the cooling coil. If damage has been incurred during shipment, document the damage with the carrier and contact your Reznor distributor.

Check the rating plate for the specifications and electrical characteristics to be sure that they are compatible with the Model CAUA heater.

Model ACU Number Coding

Sample No: ACUA-XXX

AC - Air Conditioning Cased Coil
U - Upflow
A - Cabinet Size (A, B, C)
XXX - Nominal Capacity (060 to 180 MBH)

Read these instructions and become familiar with the installation requirements. If you do not have knowledge of local requirements, check with the local gas company or any other local agencies who might have requirements concerning this installation.

Before beginning, make preparations for necessary supplies, tools, and manpower. Verify that the package of parts required to install the burner condensate drain is at the job site.

2. Mount on a Model CAUA Heater

The coil fits over the discharge opening on the top of a Reznor® Model CAUA heater (See Figure 2). The heater should be in its final installed location before adding the cased cooling coil. The heater must be level. If specified, place field-supplied gasket material on the top of the heater where the cabinet surfaces will have contact. The coil will "fit" with the line connection holes in front or rear of the cabinet. Locate the openings and determine the most efficient orientation. Lift the coil and place it on top of the heater.

Approximate Weights of the Cooling Coil

For a CAUA 150 or 200	lbs	kg
ACUA 060 / Opt C060	83	38
ACUA 072 / Opt C072	86	39
ACUA 090 / Opt C090	105	48
For a CAUA 250 or 300		
ACUB 090 / Opt C090	110	50
ACUB 120 / Opt C120	122	55
ACUB 150 / Opt C150	140	64
For a CAUA 350 or 400		
ACUC 120 / Opt C120	176	80
ACUC 150 / Opt C150	180	82
ACUC 180 / Opt C180	188	85

Because of the cabinet design, there is no mechanical attachment required between the heater and the cased cooling coil.

Verify that the heater and coil cabinet are level.

3. Coil Piping Connections

Refer to the dimensions on page 1 for line connection locations.

Suction and Liquid Lines

Line sizes are listed in Figure 2. Follow the compressor manufacturer's instructions when installing and connecting lines.

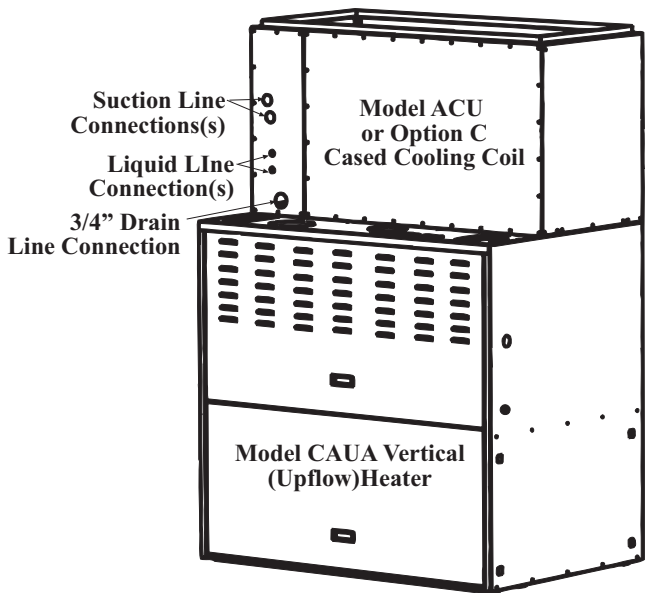
Coil sizes 060 and 072 are designed for single-stage cooling only and have one liquid line connection and one suction line connection.

Coil sizes 090, 120, 150, and 180 have two independent refrigerant circuits that are designed for two-stage cooling. Sizes 090, 120, 150 and 180 have two liquid line connections and two suction line connections. If a Size 090, 120, 150, or 180 is used for single-stage cooling (one compressor), install lines with twin (Y-type) connections at the coil connecting the one suction line to both suction line coil connections and the one liquid line to both liquid line coil connections.

Drain Line

Each unit has a 3/4" drain line connection. The drain line must have a downward slope. Connect the burner condensate tubing into the drain line and continue into a sanitary drain system.

Figure 2 - Piping Connections and Sizes



	"A" Coil	Connections
Model ACUA	060/072	(1) 7/8" Suction Line
or Optional	060	(1) 3/8" Liquid Line
Coil with	072	(1) 1/2" Liquid Line
CAUA 150	090	(2) 7/8" Suction Lines
or 200	090	(2) 3/8" Liquid Lines
Model ACUB or	090/120/150	(2) 7/8" Suction Lines
Optional Coil with	090/120	(2) 3/8" Liquid Lines
CAUA 250 or 300	150	(2) 1/2" Liquid Lines
Model ACUC or	120/150/180	(2) 7/8" Suction Lines
Optional Coil with	120	(2) 3/8" Liquid Lines
CAUA 350 or 400	150/180	(2) 1/2" Liquid Lines

Drain line connection is 3/4" for all sizes.

4. Burner Condensate Drain

When a cooling coil is installed on a Model CAUA heater, a burner condensate drain line must be installed.

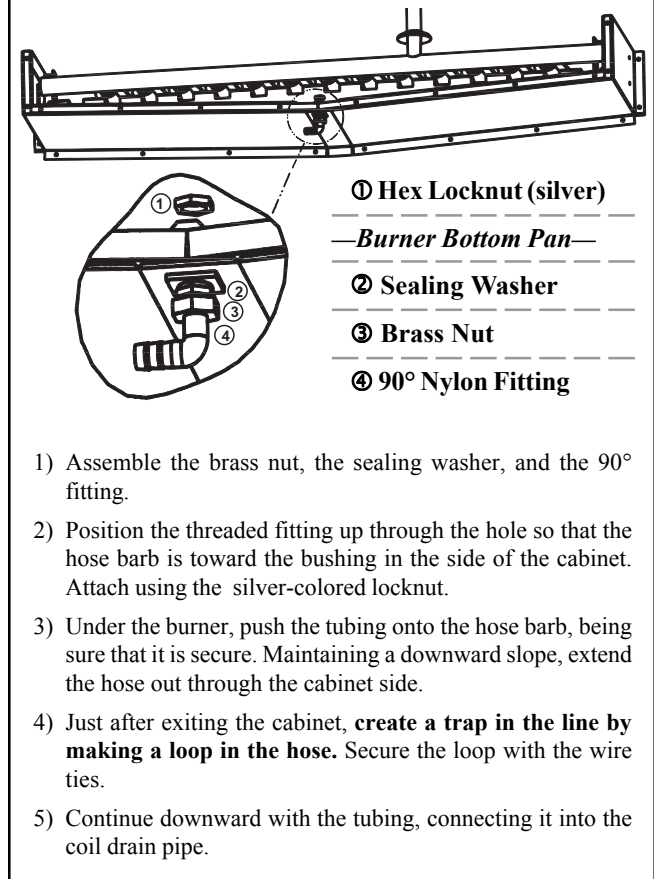
The following parts to install the drain line are packaged and shipped with the Model ACU cooling coil.

Qty	P/N	Description
1	165955	6-ft length of 3/8" I.D. Tubing
1	165952	90° Nylon Fitting, 1/4" NPT x 3/8" tubing
1	110628	1/4" NPT Brass Nut
1	171527	1/4" Locknut, Hex, T& B 139
1	165953	Sealing Washer
2	20913	Nylon Wire Ties, T&B #TY-24M
1	87556	Snap Bushing, Heyco SB 625-8

Instructions for Installing Burner Condensate Drain

1. Remove the burner compartment door.
2. Depending on date of manufacture, the burner box cover is in either two sections (top left and top right extending over the front) or three sections (top left, top right, and a separate front cover).
 - *If the front burner cover is not a separate piece*, on the left side of the burner box cover, disconnect the flame sensor wire and the flame rollout switch wires. Disconnect the silicone tubing from the static tap and remove the top left cover.
 - *If the front of the burner cover is separate*, remove the front section only.
3. Determine which side of the cabinet will be most convenient for the drain line. Remove the hole plug on that side and insert the snap bushing from the package.
4. Locate the hole in the bottom center of the burner pan and remove the plug. Follow the instructions in Figure 3 to install the drain. Complete all steps and re-assemble the heater.

Figure 3 - Burner Condensate Drain Connection



5. Ductwork

This system requires both inlet air and discharge ductwork. Discharge ductwork attaches to the top of the coil cabinet. Dimensions D x E in Figure 1 (page 1) are the duct flange dimensions.

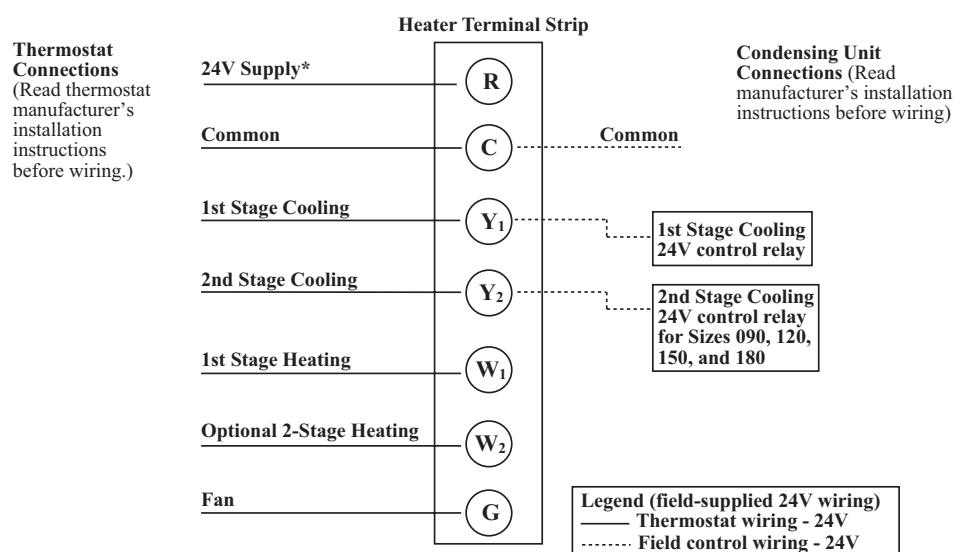
It is recommended that an optional mixing box with filters, an optional filter cabinet, or field-supplied filters be installed in the inlet air duct.

Refer to the heater installation manual, Form RZ 405, Paragraph 8, for additional details on installing ductwork.

6. Electrical Connections

The system is operated by 24-volt controls. A separate 24V control transformer is required for the condensing equipment controls. Refer to the 24V electrical requirements of the condenser manufacturer.

Figure 4 - Typical Low Voltage Wiring (field supplied)



*A separate 24V control transformer may be required for the condensing equipment controls. Install a jumper wire between RH and RC terminals on the thermostat for single transformer operation. Consult the thermostat manufacturer's instructions.

FOR SERVICE OR REPAIR, FOLLOW THESE STEPS IN ORDER:

FIRST: Contact the Installer

Name _____

Address _____

Phone _____

SECOND: Contact the nearest distributor (See telephone yellow pages.) If no listing, contact Authorized Factory Representative, 1-800-695-1901 (Press 1)

THIRD: Contact REZNOR®/ Thomas & Betts Corporation

150 McKinley Avenue

Mercer, PA 16137

Phone: (724) 662-4400

Model No. _____

Unit Serial No. _____

Date of Installation _____

- REFERENCES:** Form RZ 405, Model CAUA Installation Manual
Form RZ 405-OMS, Model CAUA Operation/Maintenance/Service Manual
Form RZ 405-IB, Installation Instructions for Optional Inlet Air Mounting Base
Form RZ 405-DP, Installation Instructions for Optional Discharge Plenum
Form RZ 405-FC, Installation Instructions for Optional Filter Cabinet
Form RZ 405-MB, Installation Instructions for Optional Mixing Box
Form RZ 706, Replacement Parts Form for Model CAUA and Model ACU



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