



CRJO SERIES

Engineering/Operation & Installation Instructions

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Original Equipment Manufacturer of
Custom Packaged Terminal Air Conditioners and
National H.V.A.C. Parts Distributor

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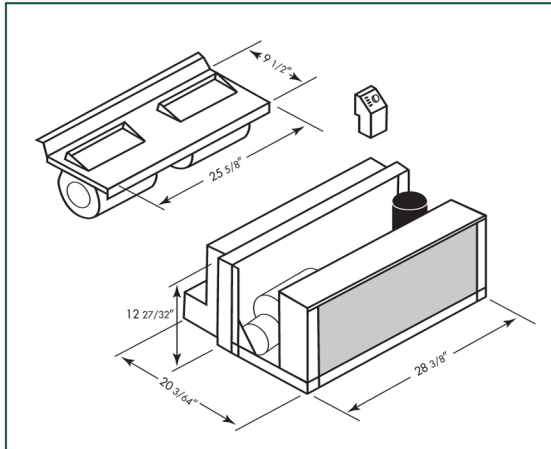
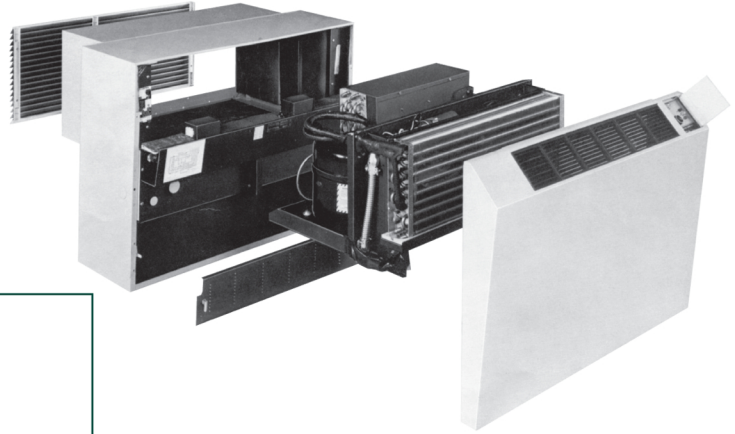




Component Style - Type CRJO Series

Engineering Specifications

Replaces Original Remington®, Singer® and McQuay® Type J-EJ (EJC, JC, EJB, JB, MQC, MEJ, PMEJ, PMEJH)



Model Numbers	07				09				12				15			18					
Voltage	115	208	230	277	115	208	230	277	115	208	230	277	208	230	277	208	230	277			
COOLING (HI-FAN SPEED)																					
Total Capacity (BTUH)	7300	7300	7300	7300	9000	9000	9000	9000	11800	11800	11800	11800	14939	14939	14939	17361	17361	17361			
Full Load Amps	6.8	3.6	3.3	2.7	8.7	4.6	4.1	3.2	11.4	6.4	5.8	4.8	7.6	6.9	6.0	9.2	8.5	7.4			
Watts Cooling	663	666	667	663	851	853	851	848	1135	1165	1170	1166	1580	1581	1590	1913	1955	1961			
EER (BTUH/Watt)	9.8	9.8	9.8	9.8	9.7	9.7	9.7	9.7	9.4	9.4	9.4	9.4	9.5	9.5	9.5	9.1	9.1	9.1			
HEATING																					
Capacity (BTUH)	7000	7000	7100	7100	8500	8500	8700	8700	11400	11400	11600	11600	14300	14500	14500	17200	17500	17500			
Watts Heating	N/A	850	850	850	N/A	960	960	960	N/A	1350	1350	1350	1500	1500	1500	1700	1700	1700			
COP (Coefficient of Performance)	N/A	2.9	3.0	3.0	N/A	2.8	2.9	2.9	N/A	2.8	2.9	2.9	2.9	3.0	3.0	2.8	2.9	2.9			
HYDRONIC HEATING																					
Hot Water (BTUH)	14,000				14,000				14,800				18,750			18,750					
Steam (BTUH)	14,000				14,000				14,800				19,400			19,400					
KILOWATTS																					
	115	208	230	277																	
2.5	2.5	—	—	19.6	13.3	—	—	19.6	13.3	—	—	19.6	13.3	—	—	13.3	—	—	13.3	—	—
—	3.0	3.0	—	—	14.4	12.6	—	—	14.4	12.6	—	—	14.4	12.6	—	14.4	12.6	—	14.4	12.6	—
—	3.3	—	—	—	17.3	—	—	—	17.3	—	—	—	17.3	—	—	17.3	—	—	17.3	—	—
—	—	4.0	4.0	—	—	18.8	16.4	—	—	18.8	16.4	—	—	18.8	16.4	—	18.8	16.4	—	18.8	16.4
—	4.3	—	—	—	—	—	—	—	—	—	—	—	22.1	—	—	22.1	—	—	22.1	—	—
—	—	5.3	5.3	—	—	—	—	—	—	—	—	—	—	24.4	21.5	—	24.4	21.5	—	24.4	21.5
COOLING/HEAT PUMP CHASSIS																					
W/O Auxiliary Heating	15	10	10	10	15	10	10	10	15	15	15	15	15	15	15	20	20	15			
With Auxiliary Heating																					
2.5 KW to 3.0 KW	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20			
3.3 KW to 4.0 KW	—	25	25	25	—	25	25	25	—	25	25	25	25	25	25	25	25	25			
4.3 KW to 5.3 KW	—	—	—	—	—	—	—	—	—	30	35	30	30	35	30	30	35	30			
Steam or Hot Water	15	10	10	10	15	10	10	10	15	15	15	15	15	15	15	20	20	15			

¹80F DB/67F WB air entering evaporator; 95F DB/75F WB air entering condenser per ARI Std. 310-70. ²200F EWT/180F LWT at 2 GPM 70F EAT. ³2 PSI 70F EAT saturated steam.
 * Wattage, Amperage & EER is based on compressor and condensing fan motor data. CNI reserves the right to modify specifications without prior notice in its efforts to improve product quality



(Options shown in parenthesis)

Furnish and install CNI CRJO Series air-cooled, terminal air conditioning units as shown on the plans and schedule and as herein described.

Each CRJO Series air conditioner shall consist of a wall sleeve assembly, outside air louver, heating section with controls, cooling chassis and room cabinet. Units shall be designed to operate on (115 v), (208 v), (230 v), (277 v), single phase, 60 Hz power supply.

Wall Sleeve shall be factory fabricated of 16 gage, zinc coated, phosphatized steel. Suitable insulation shall be factory applied for prevention of condensation on exterior of sleeve and adequate weather seals provided within the sleeve to prevent the passage of moisture or infiltration of outdoor air into the building interior.

Outside Air Louver shall consist of horizontal extruded aluminum sections, anodized in natural aluminum color and securely crimped into aluminum back-up channels. Louver assembly shall be capable of being installed from inside the building after wall sleeve is in place. (A matching anodized aluminum louver frame shall be furnished).

Heating Section shall consist of (hot water) (steam) (open wire electric heating coil), fan and motor assembly, and control box with specified ventilation and temperature controls.

Motor and Fan Assembly shall be mounted on a one-piece, galvanized steel motorboard which shall be easily removable for maintenance without breaking pipe connections or rewiring. Fans shall be aluminum, double inlet, forward curved centrifugal type, directly connected to a two speed motor with built in automatic reset overload protection Maximum motor speed to be 1150 RPM.

Control Box shall be completely factory prewired with plug-in connections for heating section and cooling chassis, and with adequately sized junction box for wiring of external power supply (and temperature controls).

(**Hydronic Heating Coil** shall be one row serpentine, 1/2" O.D. copper tube with aluminum fins. Joints to be silver brazed and tested to 300 PSIG. Coil to be suitable for use with steam or hot water. Supply and return connections to be 5/8" O.D. copper located on left end of coil).

Cooling Chassis shall be a self contained slide-in assembly complete with hermetically sealed refrigeration circuit, separate condenser fan and motor, condensate disposal

system, filter and casing. The cooling chassis shall be constructed of zinc coated galvanized and phosphatized steel. Fasteners shall be stainless steel. Bottom pan shall be 16 gage and coated with mastic finish. Side and top panels shall be 18 gauge minimum and insulated where required with non-fibered vapor-proof material. The entire cooling chassis shall slide in and out without the necessity of breaking piping or wiring except by plug connections.

The Evaporator Coil shall be copper tube with aluminum fins and mounted so that condensated pan is easily accessible for cleaning. Pan shall be galvanized steel, insulated and mastic coated. Condensate disposal shall be accomplished by entrainment of water particles in the condenser air stream and evaporation on the condenser coil. Condenser fan slinger ring or pump arrangements dependent on filling of the condenser section bottom pan with water are not acceptable.

The Refrigerant Circuit shall be precharged and shall utilize an internally and external spring mounted hermetic compressor, PSC motor with automatic reset overload. Compressor shall be equipped with suction and discharge mufflers. Compressor capacitor shall be located in control box only. Refrigerant metering shall be accomplished by an automatic expansion valve. Capillary tubes are not acceptable. The unit shall operate at capacity to 35° F outdoor, with no frosting of the evaporator, short cycling of the compressor or liquid slugging.

Room Cabinet shall consist of not less than 18 gauge top and side enclosure with removable 18 gauge front panel. Cabinet shall have slope top air discharge. Access to controls shall be through a hinged access door on right side of cabinet. Return air intake shall be concealed with air entering through toe space. Cabinet front panel shall be factory assembled and finished in baked enamel.

Check, Test and Start – Bid shall include provision for final check-out, initial start-up of units and instruction of owner's representative. It shall be expressly stated by whom this function will be performed, as well as who will be responsible for any necessary maintenance service during first year of operation.

NOTE: Unit specification and construction detail are subject to change without prior notice.

Product Code Sheet

(Z in any box = Special)

CRJO

Product Code
J-Replacement

C

Chassis Type
H = Heatpump
C = Cooling only

09

Nominal Size
07 - 7000 BTUH
09 - 9000 BTUH
12 - 12000 BTUH
15 - 15000 BTUH
18 - 18000 BTUH

4

Electrical Service
3 = 115/60/1
4 = 208/230/60/1
5 = 277/60/1

-

D

Heat Source
0 = Cooling only
D = Hydronic Heat
A = 2.5/3.0 KW
B = 3.3/4.0 KW
*C = 4.3/5.3 KW
*Not available sizes 07 and 09

1

Thermostat
0 = Cooling only, Component Style Chassis
1 = Unit Mounted Manual Changeover
2 = Wall Mounted, Manual Changeover
*3 = Unit Mounted Automatic Changeover
*4 = Wall Mounted, Automatic Changeover
*Not available on HP chassis

0

Control Options
0 = None
1 = Night Set Back
2 = Remote Switching with
Night Setback
3= Fan Cycle Switch (Heating Mode)
4= Auxiliary - Permanent Power
*Voltage needs to be determined for
primary (Hydronic Heat Only)
Z = Consult Factory

RS

Design Sequence
RS = Rotary Compressor
AS = Reciprocating Compressor
AZ = Special

Installation

The installation of this equipment shall be in accordance with the regulations of authorities having jurisdiction and all applicable codes. It is the responsibility of the installer to determine and follow the applicable codes. Sheet metal parts, self-tapping screws, clips and such items inherently have sharp edges, and it is necessary that the installer exercise caution. This equipment is to be installed only by an experienced installation company which employs trained personnel.

Inspection

When the equipment is received all items should be carefully checked against the bill of lading to be sure all crates and cartons have been received. All units should be carefully inspected for damage when received, If any damage is noticed, the carrier should make the proper notation on the delivery receipt acknowledging the damage. The carrier should also fill out a Carrier Inspection Report. The C.N.I. Traffic Department should then be contacted.

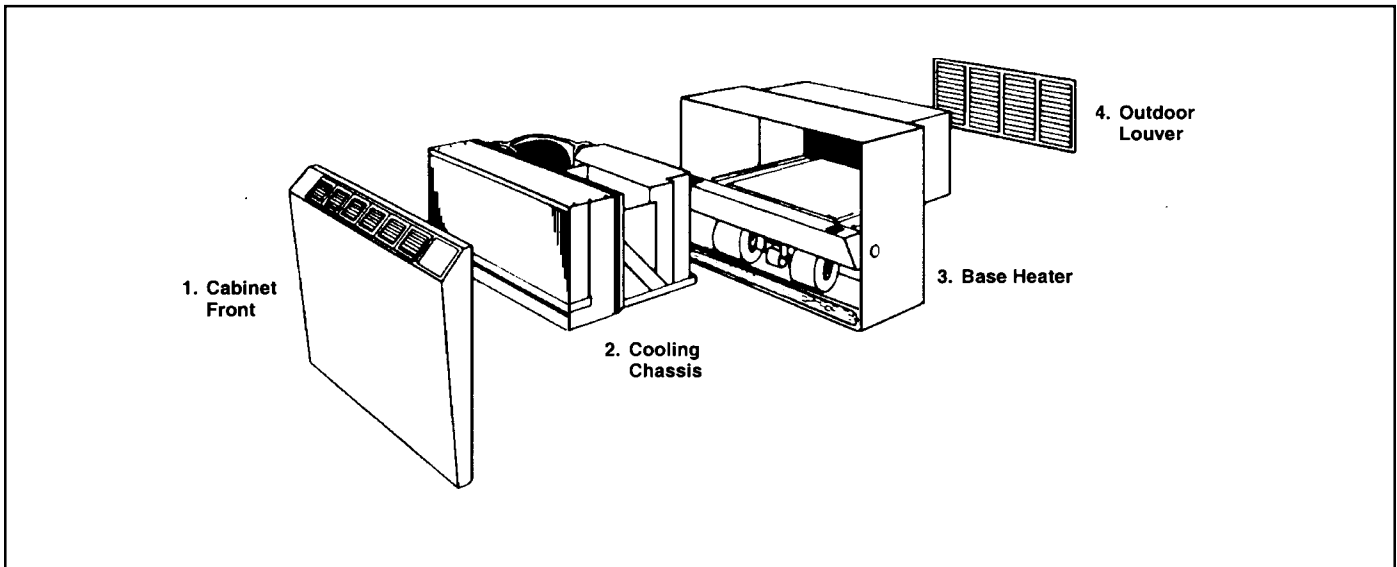
The unit nameplate should be checked to make sure the voltage agrees with the power supply available.

The CRJO Series unit is designed for through-the-wall installation in either new or existing buildings. A complete unit is comprised of four (4) sections:

1. Cabinet front with controls
2. Cooling chassis
3. Base heater and wall box
4. Outdoor air louver

Any of these sections can be used individually to replace existing sections.

Figure 1.



Wall Opening Requirements

The wall opening for the CRJO Series unit is 12½" above the floor level to accommodate piping or other obstructions that are present. For existing buildings, a hole must be cut in the wall for the con-denser section to protrude outdoors. If this is impractical, the CRJO Series outdoor section can protrude through a window. Depending on the window sill height, the unit may have to be mounted several inches above the floor.

There are two ways to install the unit: either recessed or nonrecessed. Figure 2 illustrates a typical nonrecessed unit with

only the rear extension projecting into the wall. Figures 3 and 4 show variations in the amount of recess with Figure 4 depicting the maximum recess depth.

The rough-in dimensions for the CRJO Series also vary for recessed and nonrecessed installations. Figure 5 shows the rough-in dimensions for a nonrecessed unit and Figure 6 shows the rough-in dimensions for recessed units. **Note:** It is not required to install the unit above the floor line. However, if a kick space is desired, the unit can be installed above the floor as needed.

Figure 2.

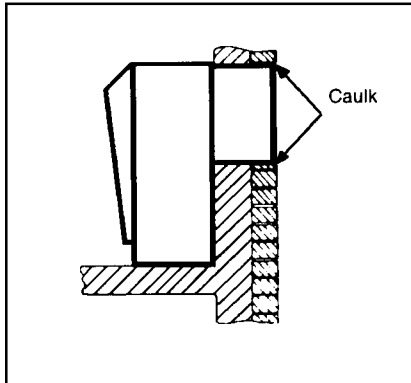


Figure 3.

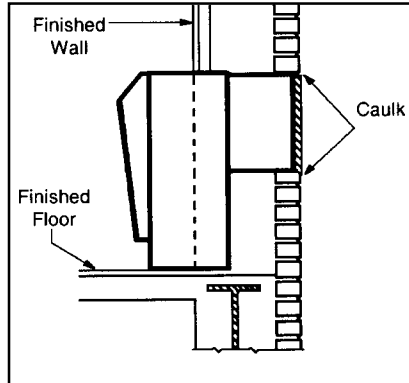
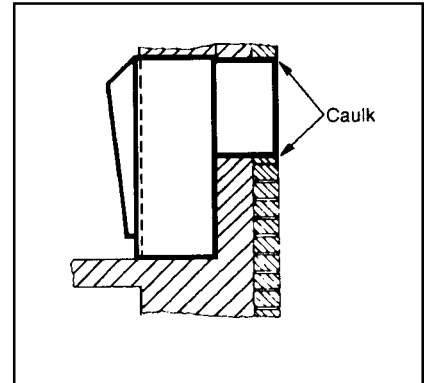


Figure 4.



Rough Opening Dimensions

Figure 5. Nonrecessed

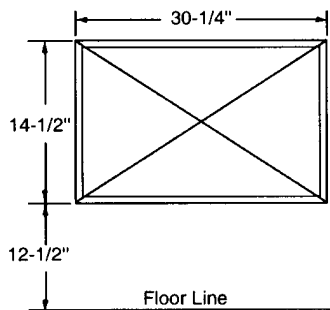
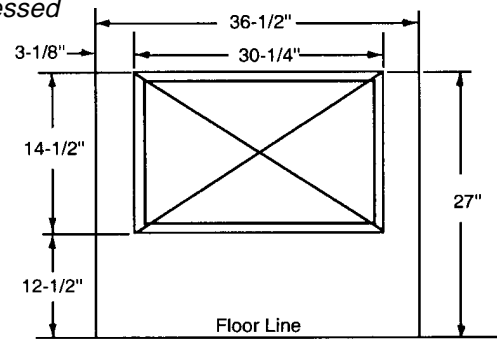


Figure 6. Recessed



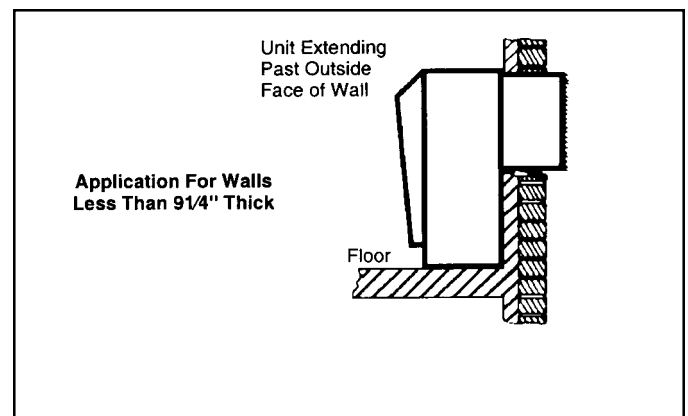
Base Heater/Wall Box Installation

Before installing, review wall thicknesses and make certain that the wall location of base heaters with special depth rear extensions are noted so as to avoid any possible confusion during actual installation of the equipment.

Where the walls are thicker than 9¼" or where built-in radiator enclosures are already provided or desired, usable floor space can be saved, and the appearance of the installation enhanced if the cabinet is partially recessed. If recessing is not desired for walls thicker than 9¼" base heaters are available on special order with special depth rear extensions. The special depth rear extensions are used so that the equipment can be applied flush with the outside wall without recessing the room cabinet from the inside. If wall is less than 9¼", rear extension may project beyond outside face wall. See Figure 7.

1. For units that will be partially or fully recessed, complete the rough-in piping and electrical requirements at this time. Piping stubs should be allowed to extend into the cabinet at the location shown on Figure 9 on page 10. The use of a ½" I.D. (⅝" O.D.) copper tubing from the supply lines to the heating coil will simplify connections considerably.

Figure 7.



2. Once piping and electrical rough-in is complete, slide the base heat section into the wall opening until it is at the desired location.

3. Shim under the bottom of the base heat section cabinet if necessary to make the rear extension 1/4" low at the back. This will allow condensate or wind driven moisture to drain out of the rear extension.
4. Fasten the base heater to the floor and to the wall as necessary to make it secure. **Do not drill any holes in the rear extension.**
5. Caulk around entire rear extension at the outside face of the wall. Check the weep holes along the bottom of the cabinet extension to make certain that they have not been clogged by the caulking.

Piping For Steam or Hot Water (Hydronic Heating Only)

6. Supply piping connection is made to the factory mounted automatic control valve on the left-hand side of the coil. Make the return connection to right-hand side of the coil. See Figure 9, on Page 10.
7. A shutoff valve is recommended on the supply and return piping coil. A trap is required on the outlet when steam is used for heating. In the case of hot water heat be sure to include an air vent. Locate the air vent so it will not drip or spray on electrical components.

Caulking & Sealing

Note: Before proceeding any further, **stop** and make the following inspection.

Check around the base heater rear extension and make sure it is sealed and insulated properly. If any light shows through or if there is any way air might leak between the base heater and the

wall, caulk and insulate as necessary. This is very important as in warm weather there will be a loss of cooling power and in cold weather drafts might result. If these gaps exist, in extremely cold weather there is a possibility that steam traps or hot water lines could freeze.

Cooling Chassis Installation

1. Remove the cooling chassis from the shipping carton and examine for concealed damage. If any exists, report it to the carrier immediately. **Do not** rest the carton on end.
2. Spin condenser blower wheel to make sure it has not become loose due to rough handling in shipment. If it has been loosened or rubs on the blower housing, center setscrew over the flat in the motor shaft and retighten.
3. The cooling chassis is supplied with an internally spring mounted compressor and therefore it is **not necessary** to loosen hold-down bolts. When handling chassis, be careful not to lift or pull it using any of the copper tubing forming the hermetic refrigeration cycle.
4. Remove the base heater inner front panel, insert cooling chassis, and replace inner front panel.

Electric Wiring

Before making any electrical connections, observe the following precautions:

1. Check the nameplate rating of the heat section and cooling chassis to make sure the equipment is connected to the proper power supply and that proper fusing is used.
2. In cases where a number of conditioners are to be installed, single circuits should be provided for each machine.
3. A separate disconnect is recommended for each conditioner in addition to individual fusing. This can be accomplished in several ways:
 - a. By employing a remote double-pole switch in the conditioner's power line within sight of the unit.
 - b. Install a double pole, single throw "On-Off" switch of the proper rating. Locate this in a convenient position within the room cabinet.
4. All wiring must be done in accordance with all local and national electric codes.

Cabinet/Front Panel Installation

1. If the filter has been removed, replace it in the base heat section at this time.
2. The control is an integral part of the front panel and contains a power cord that exits from the bottom of the control box. At the end of the power cord is a 12-pin amp connector that plugs into a receptacle in the base heat section.
3. Plug the amp connector from the control into the base heat section and lift the front panel into place. The top of this panel "clips" into the base heat section, then swings downward until it is in full contact with the base heat section. Use the alignment pins to make sure the front panel is positioned correctly.
4. Once the panel is properly positioned, locate the two locking clips in the base heat section and swing them into place to secure the front panel to the base heat section.

Figure 8. Electric Heat

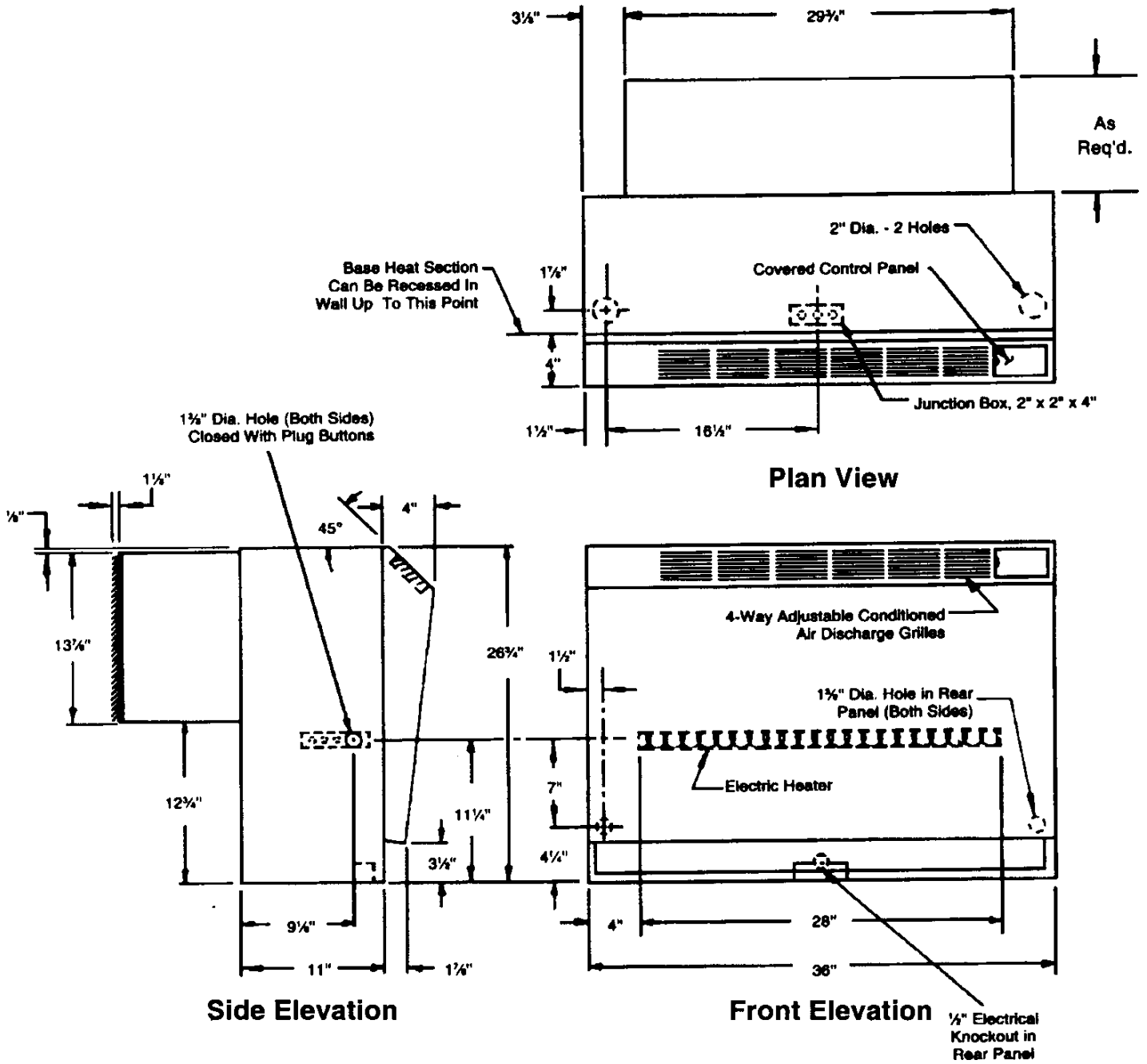
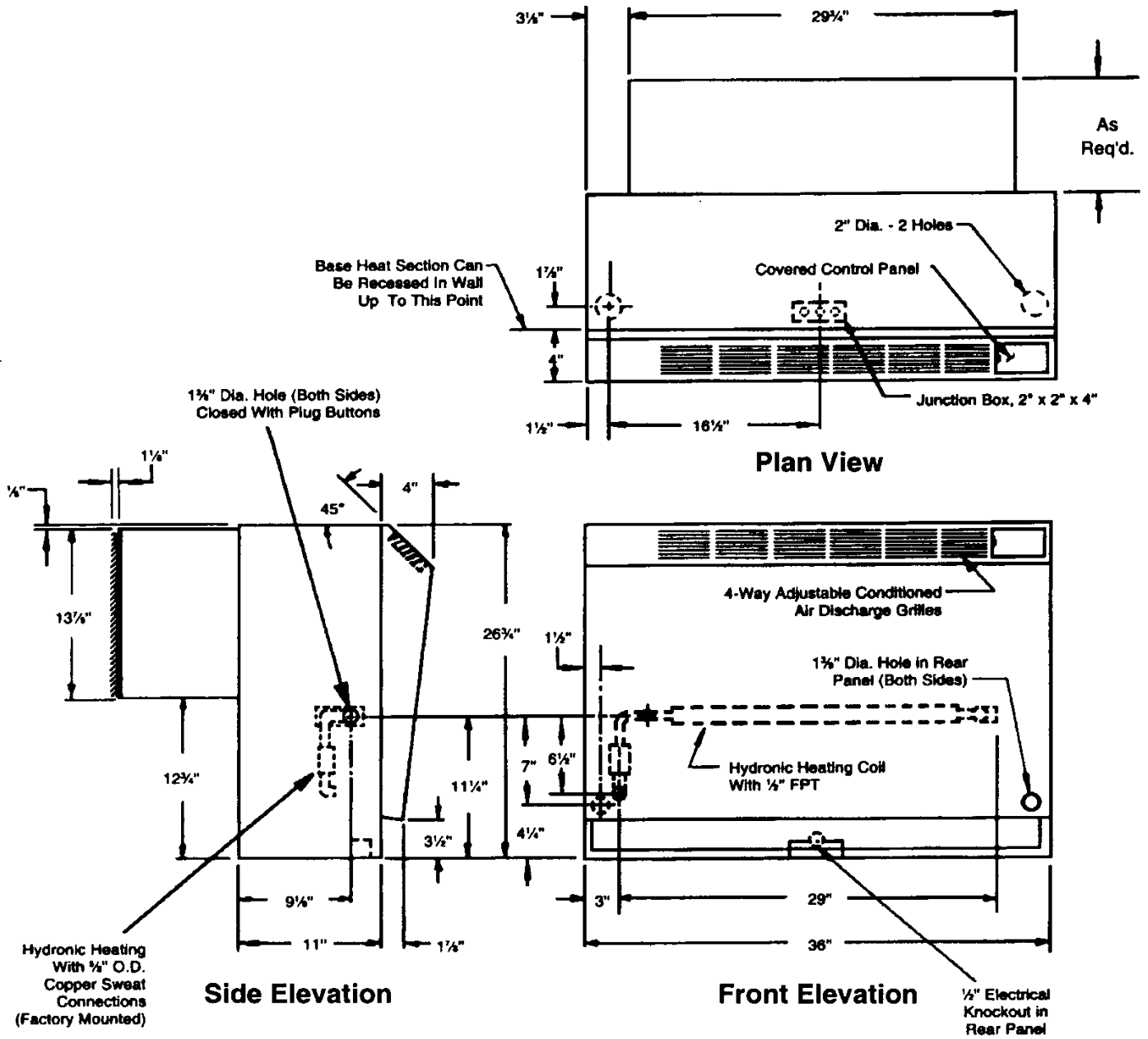


Figure 9. Hydronic Heat



IM 355 /

Equipment Start-Up

1. Press the button marked OFF and turn on the electric power supply. Also open the steam or hot water shutoff valves if conditioner has hydronic heat.
2. Press the button marked (Cool). (Units with automatic changeover controls have no "Cool" button.) Turn the thermostat knob clockwise to the extreme "cooler" position. The compressor will start and in a few minutes the unit should be discharging cooled air.
Note: the compressor will not start if the room is very cold. In cool weather it may be necessary to submerge the thermostat in warm water to get the compressor to start.
Now turn the thermostat knob to the extreme "warmer" position; the compressor should stop unless the room is very warm.
3. Press the button marked (Heat). (Units with automatic changeover control have no "Heat" button.) Rotate thermostat to extreme "warmer" position. The circulating air fans will run for normal heating.
4. Depress the OFF button and all functions of the unit should stop. **Caution: The OFF button does not disconnect power to the unit. Before servicing the equipment, disconnect the unit from the power source.**

Initial start-up of the C.N.I. equipment is usually the responsibility of the installing contractor. This consists of inspecting and operating the equipment for all functions at time of initial installation. It also includes demonstrating its proper operation to the owner or the owner's agent.

After the equipment leaves the C.N.I. factory, it may become damaged or maladjusted during transportation. (Transportation damage should be reported to the carrier immediately.) Likewise, this may happen in handling on the job and during installation by the various trades.

Sometimes wires are disconnected accidentally, or fan motors move on their bases due to rough handling, causing fans to strike. The correction of such conditions is part of startup.

Note that unless otherwise specifically agreed to in writing, C.N.I. includes no field labor, start-up service or the like in the price of its equipment. For additional instructions, if required, the contractor should contact the factory service manager.

Scheduled Maintenance

Incremental conditioners are built to last. With proper care, the unit should provide uninterrupted service for many years. Scheduled maintenance of this equipment, as described below, is the key to the equipment's longevity.

Air filters must be cleaned at regular intervals. Twice annually may be adequate in some areas while twice monthly may be required in others. Areas with high dirt and lint content or heavy usage of units require more frequent filter maintenance than those areas of relatively clean operating or low usage conditions. Unit malfunction may occur if air filters are not kept clean.

The standard filter supplied with the CRJO Series unit is a permanent wire mesh type. This type of filter should be rinsed with hot water and a mild detergent. Let dry and oil lightly to enhance dust collecting ability.

It is recommended that the chassis be removed every year for a thorough checkup. The heat section need not be removed but should be inspected and cleaned if necessary. Should the heat section blowers or motor need service, the entire fan board can be easily removed from the unit for service.

To access the unit for cleaning or service, proceed as follows:

1. Disconnect power to the unit.
2. Remove the front panel and the kickplate.
3. Unplug the chassis from the control box and remove the chassis from the wall sleeve. Replace with spare chassis.
4. Move chassis to maintenance area and check all seals, wires, and insulation and repair as required.

5. Cover motor and protect all electrical components before washing dirt from chassis.

Warning: Residential and institutional cleaning compounds can cause permanent damage to the packaged terminal unit. To avoid damage to unit controls and heat transfer surfaces, do not spray cleaning compounds onto the return air opening or unit controls. Normal cleaning can be accomplished by wiping the unit surface with a damp cloth. When using cleaning compounds on carpets, floors or walls, turn the unit off to avoid drawing potentially damaging vapors into the package terminal unit.

6. Clean condensate drain and clear weep holes.
7. Dry equipment thoroughly, especially electric parts and insulation.
8. Clean any rust spots with steel wool and paint with rust inhibiting paint.
9. Check all fasteners and tighten if necessary.
10. Check the motor nameplate for routine oiling instructions.
11. Test run chassis before reinstalling or returning to spare parts stock.



TROUBLESHOOTING CHART

OPERATING FAULT	POSSIBLE CAUSE	CORRECTION
Compressor will not start - no hum	<ol style="list-style-type: none"> 1. Broken or loose wiring 2. Improper wiring 3. Overload protector tripped. 	<ol style="list-style-type: none"> 1. Check all wiring and connections 2. Check against wiring diagram 3. If external type
Compressor will not start - hums but trips on overload protector	<ol style="list-style-type: none"> 1. Improper wiring 2. Running Capacitor defective 3. Compressor motor has a winding open or shorted. 4. Internal mechanical trouble in compressor 	<ol style="list-style-type: none"> 1. Check against wiring diagram 2. Determine reason and replace 3. Replace compressor 4. Replace compressor
Compressor starts and runs, but short cycles on overload protector	<ol style="list-style-type: none"> 1. Additional current passing thru overload protector 2. Overload protector defective 3. Excessive discharge pressure 4. Suction pressure too high 5. Compressor too hot -return suction gas hot 6. Compressor motor has a winding shorted 	<ol style="list-style-type: none"> 1. Check against wiring diagram 2. Check current, replace protector (If external type) 3. Check for restrictions in condenser air flow or refrigeration circuit 4. Check for defective valves 5. Check refrigerant charge (fix leak) refrigerant, if necessary. Check reversing valve operation. 6. Replace compressor
Unit operates with little or no capacity	<ol style="list-style-type: none"> 1. Shortage of refrigerant 2. Restriction in refrigeration system 3. Dirty condenser 4. Defective TXV, by-pass, or reversing valves. 5. Inadequate air flow over evaporator 	<ol style="list-style-type: none"> 1. Fix leak, recharge 2. Determine location and remove 3. Clean condenser 4. Replace TXV, bypass, or reversing valves. 5. Clean evaporator coil, check fan, clean filter.
Condenser fan and vent motor runs, but compressor will not start	<ol style="list-style-type: none"> 1. Broken or loose wiring 2. Improper wiring 3. Defective running capacitor on compressor 4. Defective compressor overload protector 5. Defective compressor motor 	<ol style="list-style-type: none"> 1. Check all wiring 2. Check against wiring diagram 3. Replace capacitor 4. Replace overload Protector. (If external type) 5. Replace compressor
Electric shock from unit	<ol style="list-style-type: none"> 1. Improper grounding of electrical circuit 	<ol style="list-style-type: none"> 1. Check wiring diagram and provide proper ground
Water drips from unit	<ol style="list-style-type: none"> 1. Condensate drain plugged 2. Chassis damaged 	<ol style="list-style-type: none"> 1. Clean drain 2. Repair or replace damaged parts 3. Check installation in wall sleeve.
Unit vibrates or rattles	<ol style="list-style-type: none"> 1. Copper tube vibrating 2. Loose components 	<ol style="list-style-type: none"> 1. Adjust by bending or apply tape 2. Tighten and adjust as necessary



Comitale National, Inc. Standard Limited Warranty

Limited First Year Warranty

CNI warrants for a period of one (1) year from the date of shipment from CNI's factory, that its "Tru-Fit" replacement chassis will be free from defects in material and workmanship.

Handling of Warranty Claims:

CNI will repair, or at its option replace, any part of parts of Units which CNI's examination shall disclose to its satisfaction to have been defective. We will send the replacement to the installer. You must pay all transportation and installation fees.

Exclusions from Warranty - This warranty shall not apply:

If the unit has not been installed according to our installation instructions;
If the unit has been repaired improperly;
If the unit has been subject to accident, alteration, neglect, or misuse;
If efficiency or performance has been impaired by use of any product not authorized by us;
If serial numbers have been altered or removed;
If located in any area with chemically corrosive atmosphere.

There are no other express warranties. We do not warrant that the unit is suitable for any particular purpose, or can be used in buildings or rooms of any particular size. No one can make any other warranties for us.

CNI neither assumes, nor authorizes any person to assume for it, any obligation or Warranty other than that stated in this Warranty.

CNI reserves the right to make changes in design or improvements of its units or parts thereof without obligation to make or install such changes or improvements in or upon units covered by this Warranty.

Your remedy for a breach of this limited Warranty or for a breach of any implied Warranty, including the Warranty of merchantability is limited to the replacement of defective parts. We will not be liable for any damages caused by any defect in this unit.

This is CNI's sole Warranty. CNI makes no other Warranty of any kind whatsoever, expressed or implied.



C.N.I.

Optional Four Year Extended Warranty

Limited First Year Parts Warranty

The C.N.I. unit is warranted to be free from defects, under normal installation, use and service for one year.

Extended Warranty

The major component parts listed in Table 1 of this Warranty are warranted to be free from defects, under normal installation, use and service for the additional period of time shown in Table 1 of this Warranty form.

Table 1

Major Component Extended Term of Warranty

<u>Component & Products</u>	<u>Extended Warranty Period</u>
Motor Compressor: Heat Pump	4 years
Motor Compressor: Air Conditioning Systems	4 years
Refrigeration System	4 years

Description of Refrigeration Warranty

In addition, C.N.I. warrants that the cooling chassis consisting of compressor, condenser, evaporator, expansion valve, reversing valve and interconnecting piping of the refrigeration section of the units will be free from defects in material and workmanship for a period of four (4) years immediately following the expiration of the Initial Warranty (The Additional Warranty).

Duration of Warranty

This Warranty begins on the date of shipment from the factory, with the limited first year Warranty period being 12 months and the optional Extended Warranty period being 48 additional months. Replacement of a part or major component under Warranty does not extend the Warranty term.

What C.N.I. Will Do

Comitale National, Inc. will provide a free part to replace one which becomes defective during the one year Warranty period, or a major component to replace one which becomes defective during the Extended Warranty period listed in Table 1. The replacement may be either new or rebuilt. C.N.I. or our authorized distributor will send the replacement to the installer. You must pay all transportation and installation charges.

Exclusions from Warranty

1. The following expenses are your responsibility:

Normal maintenance;
Transportation and installation charges for replacement parts;
Replacement of refrigerant or filters;
Any other service calls or repairs.

2. This Warranty does not apply:

- A. If the unit has not been installed according to our installation instructions;
- B. To filter media and controls furnished by others;
- C. To any part or parts of units becoming defective as a result of:
 1. Negligence, accident or other casualty.
 2. Owner failure to provide normal maintenance such as lubrication of motor and bearing, cleaning of coils, removal of foreign material from water circuits or to provide protection of units from freezing water, corrosive atmosphere, or improper voltage.
 3. Improper installation, or repair or alteration by anyone other than an authorized C.N.I. agent.
 4. Operation in any manner contrary to C.N.I.'s printed instructions.
- D. To cooling chassis if it has been opened or tampered in any way.
- E. If serial numbers have been altered or removed.

3. There are no other express warranties. C.N.I. does not warrant that the unit is suitable for any particular purpose, or can be used in buildings or rooms of any particular size. No one can make any other warranties for C.N.I.

4. Any warranties implied by law, including the implied Warranty of merchantability, are limited in duration to the one year term of the first year parts Warranty.

5. Your remedy for a breach of this limited Warranty or for a breach of any implied Warranty, including the Warranty of merchantability is limited to the replacement of defective parts and listed major components in Table 1.

A. C.N.I. will not be liable for any damages caused by any defects in this unit.

6. C.N.I. will not be liable for delays caused by events beyond our control, including war, government restriction, strikes, fire, flood, or other acts of God.

Owners Responsibilities

1. Your normal responsibilities as owner are set forth in the instruction manual. Please read it carefully.
2. If you have a Warranty claim, notify your installer promptly. If they do not take care of your claim, write to Comitale National, Inc., 1683 B Winchester Road, Bensalem, PA 19020, Attn: Warranty Claims. Or email to sales@comitalenational.com Enclose a report of inspection by your installer or service person. Be sure to include model number, serial number, and date of purchase.

This Warranty gives you specific legal rights, and you may have other rights which vary with location.



Recommended Spare Parts

An advantage of the Incremental system is that failure of any one part affects only one Incremental conditioner and does not interrupt the operation of the rest of the system. A further advantage is that a failed part can be quickly and easily replaced, thus minimizing the inoperative time of the equipment. This is so, however, only if a replacement part is quickly available. In order to replace a failed part quickly and keep all Incremental conditioners in good operating condition C.N.I. recommends that at the time Incremental conditioners are purchased, owners arrange for a small stock of replacement parts.

Where an owner carries such a stock, **immediate** replacement of a defective part is possible. The defective part can then be returned to C.N.I. or one of its authorized service stations. So long as it is still in warranty, it is repaired or replaced and returned to the owner without cost for shop labor and material. Thus, the stock of replacement parts is constantly replenished. To the right is listed the kind of parts which C.N.I. recommends be carried in stock, together with the quantity of parts recommended per 100 Incremental conditioners installed.

Part Name	Qty. Per 100 Units
Cooling Chassis	2
Compressor Overload Device	2
Compressor Running Capacitor	2
Indoor Fan Motor	2
Outdoor Fan Motor	2
Outdoor Fan Motor Capacitor	2
Pushbutton Switch	4
Thermostat	4
Knob for Thermostat	12
Control Relay	4
Hydronic Valve	8
Spare Filter	20

Notes:





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