

National Comfort Products

539 Dunksferry Road • Bensalem, PA 19020 • (215) 244-1400 • 1-800-523-7138 • Fax: (215) 244-9579

SPLIT-SYSTEM CONDENSING UNIT INSTALLATION INSTRUCTIONS 1000 3000 4000 SERIES

Before Installing Unit

1. Check all local codes and ordinances that could affect installation.
2. Be sure that the electrical data specified on unit rating plate corresponds to what is available at the installation site and NEC for installation requirements.
3. Be sure that the electrical service provided to the building can handle the load imposed by the unit.
4. This unit may be installed in an outside wall for thru-the-wall installation. The unit also can be installed on the ground or on the roof of the building as a conventional unit.
5. NCP condensing units may be used with indoor evaporator coils utilizing various expansion devices (TXV, capillary tube, orifice piston). Self-equalizing components are recommended to reduce compressor starting problems.

Step 1 - Thru-the-Wall Installation

In thru-the-wall installation, due to the various types of wall construction, it is not possible to provide detailed instructions. The following is a list of general requirements and cautions for installing these units.

1. Masonry walls must have a lintel to support the wall.
2. Extend the unit approximately 3/4" beyond outside surface of the wall. Optional mounting angles can be purchased from the factory or field fabricated for locating and mounting unit in the wall.
3. The wall opening across the top and bottom should be flashed. All openings around the top, sides, and bottom should be caulked and sealed. Care must be taken not to plug the openings in the front of the base pan of the unit.
4. Clearances to air inlets and outlets must be adequate to insure no airflow obstructions or recirculation of condenser air flow.
5. Some architectural designs of buildings will require the unit to be mounted behind a decorative grille. The performance (capacity and efficiency) of the unit may be reduced with the use of these decorative grilles. The less resistive these grilles are to air flow, the better the units performance will be.

Outdoor louvers provided by others must be approved by NCP to maintain unit performance and warranty.

6. If the unit is mounted behind a decorative grille, one or both of the following items must be done to eliminate recirculation of air to the unit.
 - a. the front of the unit must be mounted tight to the inside of the architectural grille.
 - b. a barrier must be provided to prevent recirculation of air to the unit (mixing of inlet and outlet air) when the front of the unit is mounted back from the inside of the architectural grille.
7. The unit must not be mounted in dead-end hallways or areas where there is no fresh outside air circulation. Cool fresh outside air must be provided for best unit operation.
8. 30" clearance is required for service accessibility on the inside.

Step 2 - Installing Refrigerant Lines

Important:

The outdoor unit is fully charged at the factory for the recommended model of indoor unit. With other models of indoor units the charge must be adjusted.

Be sure both service valves are closed during tubing installation and leak checking to avoid loss of charge. For indoor units with TXV, a liquid line filter drier must be installed (SPORLAN #083-S or similar).

1. The unit has internally mounted service valves. Tubing access may be obtained from two different sets of knockouts in the cabinet unit. Tubing access can be obtained through top or lower back of cabinet.

NOTES:

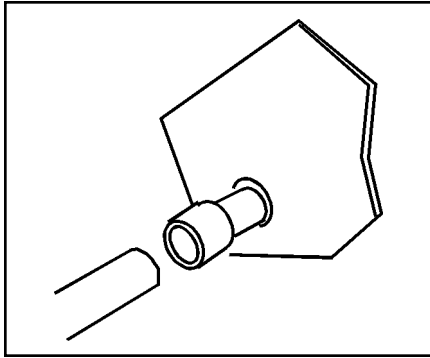
Always use refrigeration grade copper tubing that is internally clean and dry for refrigerant lines. Use clean hard drawn copper tubing if no appreciable amount of bending is necessary. If soft copper is used, avoid sharp bends which may cause a restriction. Always use heat sink materials during brazing to prevent damage to service valves. See Figure 1.

2. Run refrigerant lines as directly as possible. Field piping inside the condensing unit should not block access to major components. Refrigerant lines should not be in direct contact with the floor or ceiling joists. Use insulated or suspension type hangers. When passing refrigerant lines through a wall, seal openings around lines with a flexible material to avoid vibration to the structure.
3. Insulate the vapor line with a minimum 1/2" foam rubber or other type insulation having an adequate vapor barrier. For indoor units with TXV, a liquid line filter drier must be installed (SPORLAN #C-083-S or similar).

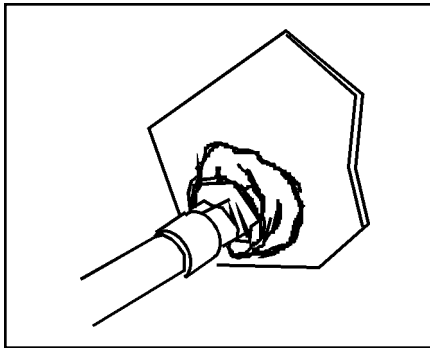
Figure 1- Installing Refrigerant Lines

Field Installation:

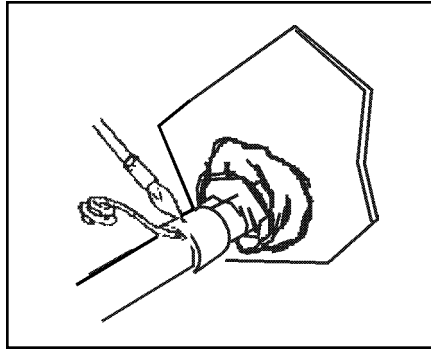
Install the outdoor and indoor units per the manufacturer's recommendations. Route the copper lines between the units.



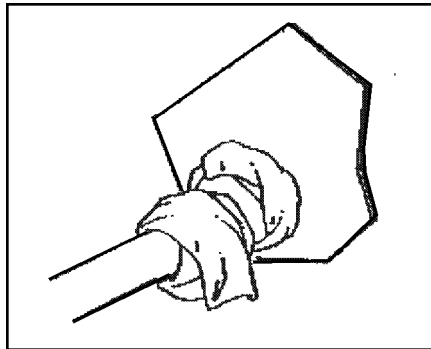
Step 1. The tubing should be cut square. Make sure it is round and free of burrs at the connecting ends. Clean the tubing to prevent contaminants from entering the system.



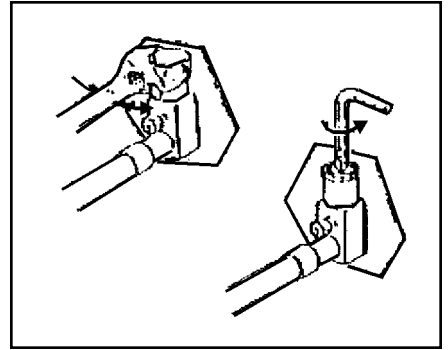
Step 2. Wrap a wet rag around the copper stub before brazing.



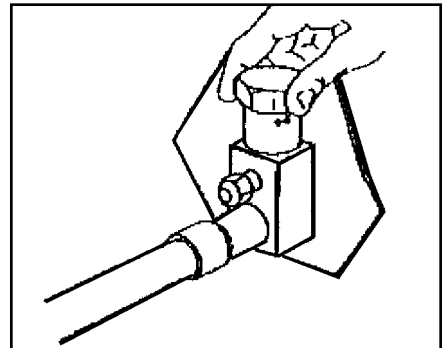
Step 3. Flux the copper tube and insert into the stub. Braze the joint. No flux is necessary if a low to zero-silver braze alloy is used.



Step 4. After brazing - quench with a wet rag to cool the joint and remove any flux residue. Evacuate, purge or charge the connecting lines per the unit manufacturer's instructions.



Step 5. This is not a back seating valve. To open the valve remove the valve cap with an adjustable wrench. Insert a 3/16" or 5/16" hex wrench into the stem. Back out counter-clockwise until the valve stem just touches the retaining ring.



Step 6. Replace the valve cap finger tight then tighten an additional 1/12 turn or 1/2 hex flat. A metal-to-metal seal is now complete. Complete normal factory recommended procedures.

Step 2 - Continued

Caution: Dry nitrogen should always be supplied through the tubing while it is being brazed, as the high temperature required for brazing will cause oxidation of the copper unless an inert atmosphere is provided. The flow of dry nitrogen should continue until the joints have cooled. Always use a pressure regulator and safety valve to ensure that only low pressure nitrogen is introduced into the tubing. Only a small flow is necessary to displace air and prevent oxidation.

4. Install the refrigerant lines using the following procedure. (See also: Figure 1)

a. Remove the service port caps of the liquid line service valve and the vapor line service valve of the condensing unit. Connect low pressure dry nitrogen to the liquid line valve service port.

b. Provide a heat sink at the service valve such as wrapping a wet rag around it, to prevent damage during the brazing operation.

c. Braze the liquid line to the service valve. Allow the nitrogen to keep flowing when brazing the refrigerant line until all brazed joints are completed.

d. Carefully remove the rubber plugs from the evaporator liquid and vapor connections. Use caution as the evaporator is pressurized.

e. Braze the liquid line to the evaporator liquid connection.

f. Braze the vapor line to the evaporator vapor connection

g. Provide a heat sink to the vapor line service valve of the condensing unit.

h. Braze the vapor line to the service valve.

5. When tubing installation is completed, seal openings around tubing where tubing enters the unit cabinet.

Step 3 - Leak Checking

Leak checking of refrigerant line braze joints and evaporator unit using dry nitrogen.

1. Install service port cap of the vapor line service valve (cap was removed for brazing operations).

2. Connect dry nitrogen source to the service port of the liquid line service line. Pressurize refrigerant lines and indoor coil to approximately 100 PSIG.

3. Check for leaks using a liquid soap solution. If any leaks are located, purge the nitrogen, repair the leak(s), and repeat the leak check procedure.

Leak checking of refrigerant line braze joints and evaporator unit using R22 refrigerant.

1. Connect R22 source to the service port of the liquid line service valve. Use of a manifold gauge set will facilitate connecting and disconnecting of the refrigerant source for leak checking. Pressurize refrigerant lines and indoor coil with refrigerant gas.

2. Leak check with a halide torch, electronic leak detector, or liquid soap solution. If any leaks are detected, use a refrigerant recovery system to remove the refrigerant. Repair the leak(s) and repeat the leak check procedure.

Step 4 - Evacuation

1. Connect the vacuum pump to the service ports of the liquid line and the vapor line service valves. If the vacuum pump lines do not contain shut-off valves, hook up the vacuum pump through a manifold gauge set, as the vacuum pump lines must be closed for step 4 below.

a. If the evacuation is being performed on a new system installation, the condensing unit service valves should be kept in the closed position. The vacuum pump will then be able to evacuate the refrigerant lines and evaporator coil.

b. If the evacuation is being performed on an installation where the condensing unit factory charge has been lost, the service valves should be opened.

2. Following the vacuum pump manufacturer's instructions, allow the pump to operate until the system has been evacuated down to 300 microns.

NOTE: Check for leaks if unable to get to 300 microns

3. Allow the pump to continue running an additional 15 minutes. Turn off the pump and leave connections secured. After 10 minutes if system fails to hold 500 microns or less, check all connections for tight fit and repeat evacuation procedure.

4. Isolate the vacuum pump by closing the shut-off valves on vacuum pump lines or test gauge manifold.

5. Open the service valves. Opening the service valves will allow the refrigerant in the condensing unit to enter the refrigerant lines and evaporator coil. The vacuum pump can now be disconnected.

Step 5 - Refrigerant Charging

The condensing unit comes from the factory pre-charged for the condensing unit, recommended evaporator coil, and the 10 feet of refrigerant lines. If the actual line length is greater or less than 10 feet, add or remove refrigerant at the rate of 0.7 ounces per foot.

If the condensing unit charge was lost due to a leak or any other reason, add factory refrigerant charge listed on condensing unit data plate plus adjustments described above.

If the unit is operating during charge adjustment, the access panel must be in place to prevent high head pressure which would shut down the unit.

1. Connect the charging cylinder to the manifold gauge set. Open the charging cylinder valve and bleed air out of the charging hose at the manifold gauge set connection.
2. Tighten the manifold gauge set charging connection. Open the main manifold gauge set valve and introduce refrigerant into the system.

NOTE: If the system is being charged in the cooling cycle, proceed with the gauge hoses connected to the service valve gauge port.

3. When the correct refrigerant charge level is obtained, remove the manifold gauge set.
4. Replace the gauge port caps.

Permanently stamp the unit data plate with the total amount of refrigerant in the system.

ARI Rating Conditions

To obtain maximum performance at 80°F dry bulb and 67°F wet bulb evaporator air entering conditions with 82°F outdoor ambient, the refrigerant charge should be optimized to obtain 8 to 12 degrees superheat at the vapor line entering the condensing unit, and 18 to 22 degrees subcooling at the liquid line leaving the condensing unit.

Step 6 - Electrical Connections

NOTE: Make certain that the volts, hertz, and phase correspond to that specified on the unit rating plate, and that the service provided by the utility is sufficient to handle the additional load imposed by this equipment.

Make all electrical connections in accordance with the National Electrical Code and any pertinent local codes or ordinances.

Use a separate branch electrical circuit for this unit. Locate a disconnecting means within sight of and readily accessible to the unit.

A. Line Voltage Connections (see Figure 2)

- a. Connect the single phase power supply to unit contactor terminal L1 and L2.
- b. Connect ground wire to lug.

B. Low Voltage Connections (see Figure 3)

Consult the indoor unit installation instructions for thermostat connections. Use a 2-wire thermostat cable between the outdoor and indoor units.

When locating the room thermostat, it should be in the natural circulating path of room air. Avoid locations where the thermostat would be exposed to cold air infiltration; drafts from windows, doors, or other openings leading to the outside; exposure to air currents from warm-or-cold air registers or to exposure where the natural circulation of the air is cut off, such as behind doors, above or below mantels, shelves, etc.

Sequence of Operations

On a "call for cooling" the thermostat "makes" circuits R-Y and R-G.

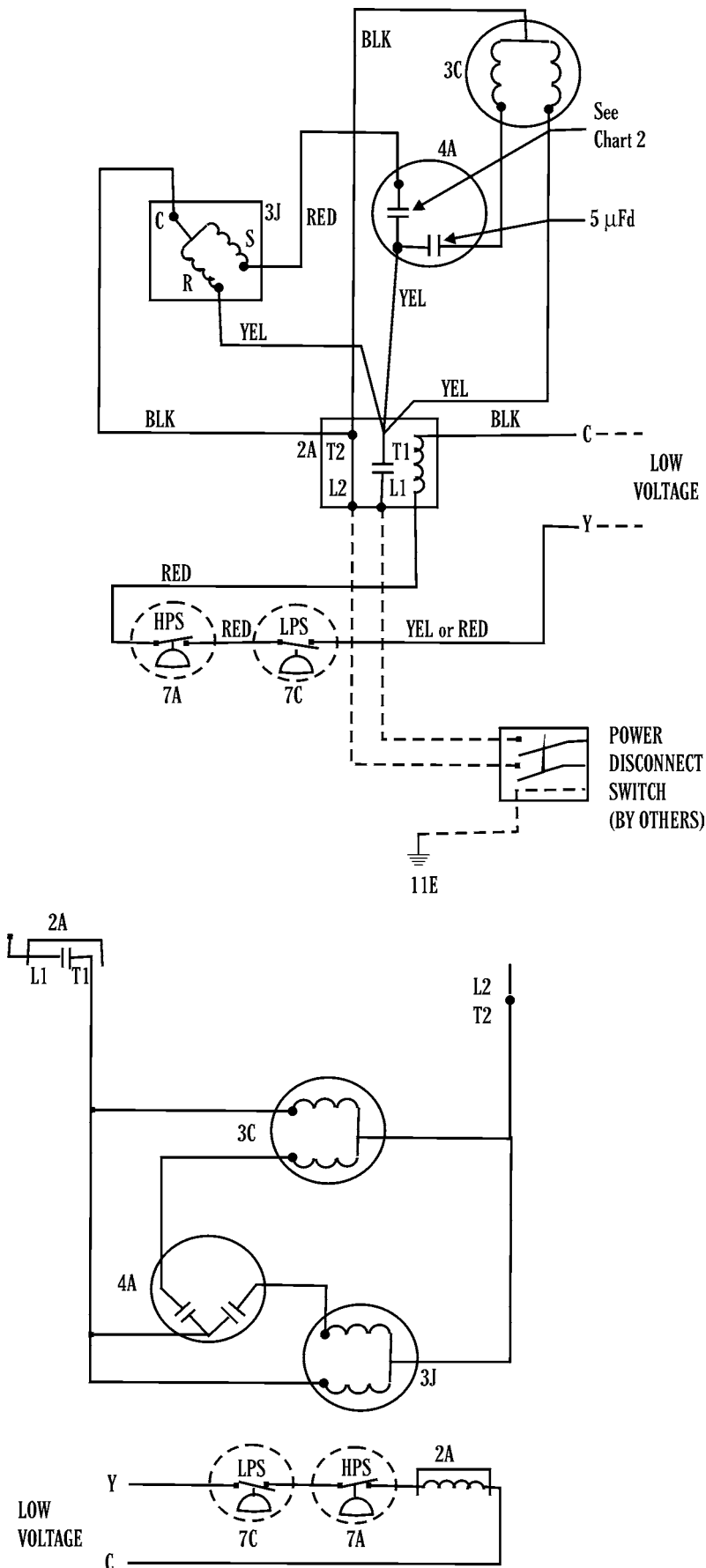
Circuit R-Y energizes the contactor starting the outdoor fan motor and compressor circuit. R-G energizes the indoor unit blower relay starting the indoor blower motor.

When the thermostat is satisfied, its contacts open de-energizing the contactor and blower relay. Compressor and motors should stop.

Step 7 - Maintenance

1. Periodically clean the inside of the unit to keep the weep holes in the base pan and in the fan scrolls open to assure proper drainage of water from the unit.
2. Keep the condenser coil clean and free of anything that restricts free air flow. On sea coast applications the condenser coil should be washed periodically to remove salt accumulation.
3. Reduced indoor air flow through a duct system will cause indoor coil to ice up in cooling. If this condition is allowed to continue, premature system failure will result. Indoor air filters should be cleaned and changed regularly.

Figure 2 - Wiring Schematic NCPB



LEGEND:

- 2A Contactor SPST (N.O.)
- 3C Outdoor Blower Motor
- 3J Compressor
- 4A Dual Fan Capacitor
- 7A High Pressure Switch-Optional
- 7C Low Pressure Switch-Optional
- 11E Unit Ground Lug

NOTES:

1. Single pole contactor used.
2. Use only copper wire between disconnect switch and unit.
3. Low voltage circuit to receive power from a 24 VAC 60 Hz NEC Class 2 control transformer output 40VA minimum.
4. Dotted lines represent field wiring by others.

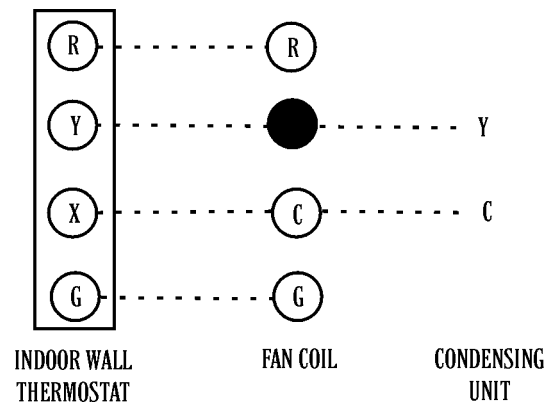
CHART 1

NOMINAL VOLTAGE	MINIMUM VOLTAGE	MAXIMUM VOLTAGE
208-230	197	253

CHART 2

MODEL	CAPACITOR
NCPB-018	30 µF _d
NCPB-024	30 µF _d
NCPB-030	35 µF _d

Figure 3 - Low Voltage Connection



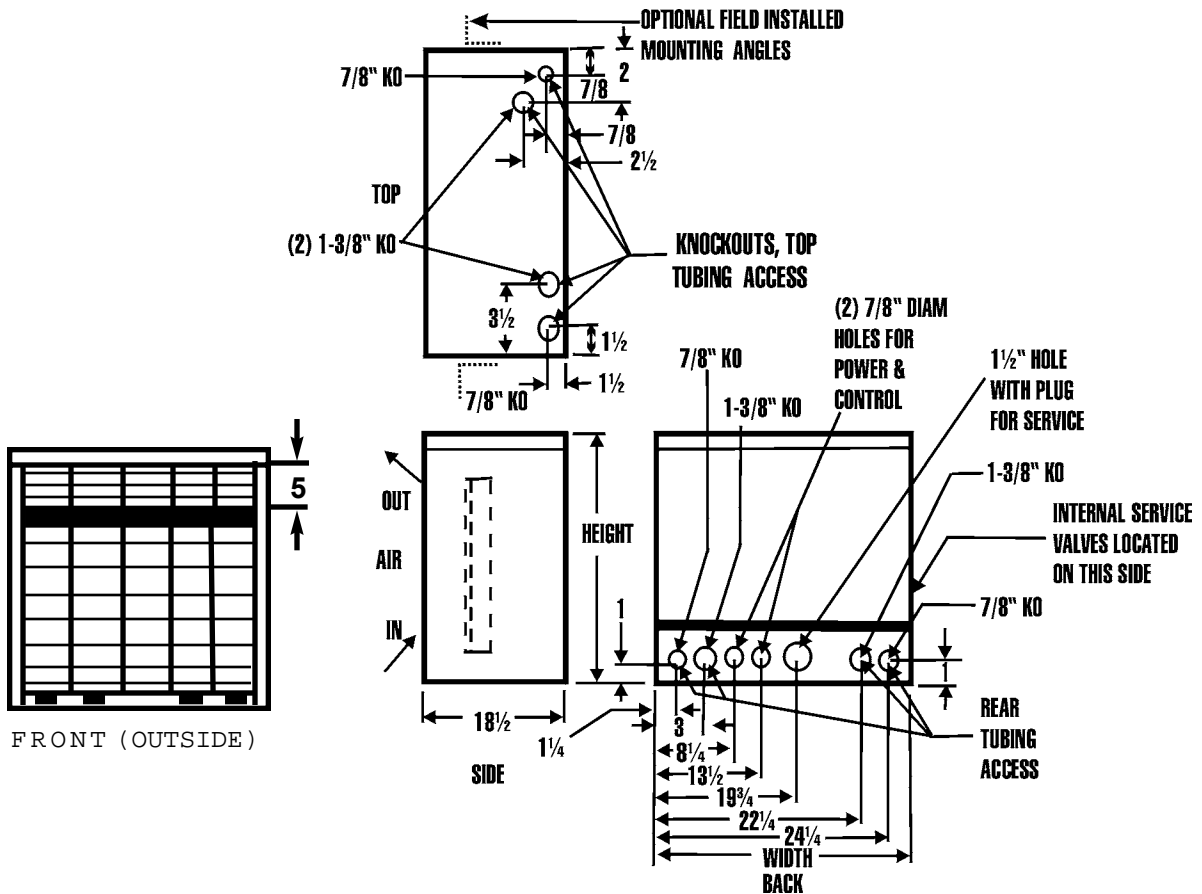
SPECIFICATIONS CHART 1000 SERIES

MODEL NO.	NCPB-018	NCPB-024	NCPB-030
DIMENSIONS			
Width	26"	26"	26"
Height	28 5/8"	28 5/8"	28 5/8"
Length	18 1/2"	18 1/2"	18 1/2"
Liquid Valve	3/8"	3/8"	3/8"
Vapor Valve	5/8"	3/4"	3/4"
NOMINAL CAPACITY B/HR	17,700	24,600	29,000
ELECTRICAL			
Volts	208/230	208/230	208/230
Hertz	60	60	60
Phase	1	1	1
Min. AWG Wire	14	12	12
Min. Cir. Ampacity	10.2	14.4	14.8
Max. Fuse	15	20	25
COMPRESSOR			
RLA (Amps)	7.2	9.5	10.9
LRA (Amps)	48	60	68
FAN MOTOR			
HP	0.25	0.25	0.25
RPM	1140	1140	1140
Amps (Full Load)	1.2	1.2	1.2
COIL			
Face Area	3.46	3.46	3.46
FPI	16	16	16

Service Clearance.....30"



DIMENSIONAL DRAWING NCPB-018-1010, NCPB-024-1010, NCPB-030-1010



SPECIFICATIONS CHART 3000 SERIES

Service Clearance.....30”

DIMENSIONAL DRAWING NCPB-018-3010, NCPB-024-3010, NCPB-030-3010



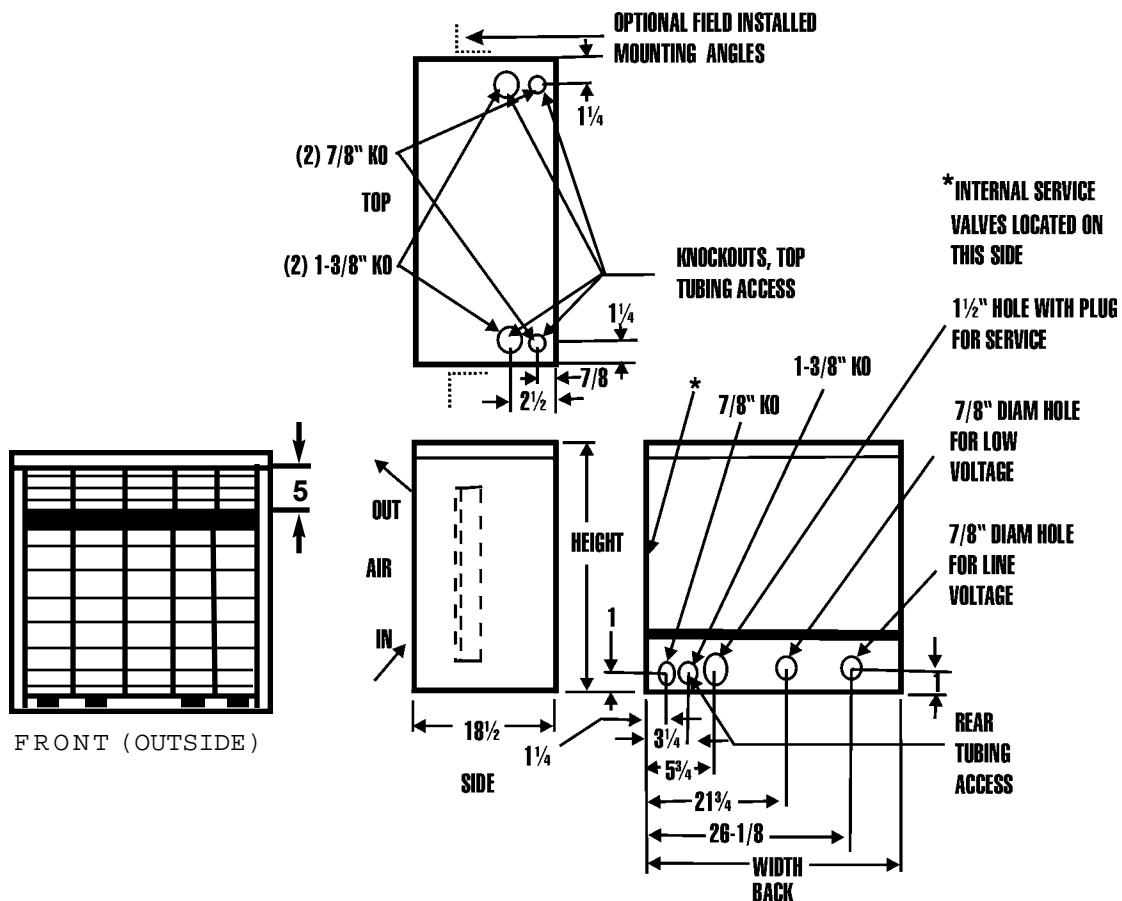
SPECIFICATIONS CHART 4000 SERIES

MODEL NO.	NCPB-018	NCPB-024	NCPB-030
DIMENSIONS			
Width	29 1/2"	29 1/2"	29 1/2"
Height	23"	23"	23"
Length	18 1/2"	18 1/2"	18 1/2"
Liquid Valve	3/8"	3/8"	3/8"
Vapor Valve	5/8"	3/4"	3/4"
NOMINAL CAPACITY B/HR	18,000	24,400	29,000
ELECTRICAL			
Volts	208/230	208/230	208/230
Hertz	60	60	60
Phase	1	1	1
Min. AWG Wire	14	12	12
Min. Cir. Ampacity	10.2	14.4	14.8
Max. Fuse	15	20	25
COMPRESSOR			
RLA (Amps)	7.2	9.5	10.9
LRA (Amps)	48	60	68
FAN MOTOR			
HP	0.25	0.25	0.25
RPM	1140	1140	1140
Amps (Full Load)	1.2	1.2	1.2
COIL			
Face Area	3.14	3.14	3.14
FPI	16	16	16

Service Clearance.....30"



DIMENSIONAL DRAWING NCPB-018-4010, NCPB-024-4010, NCPB-030-4010

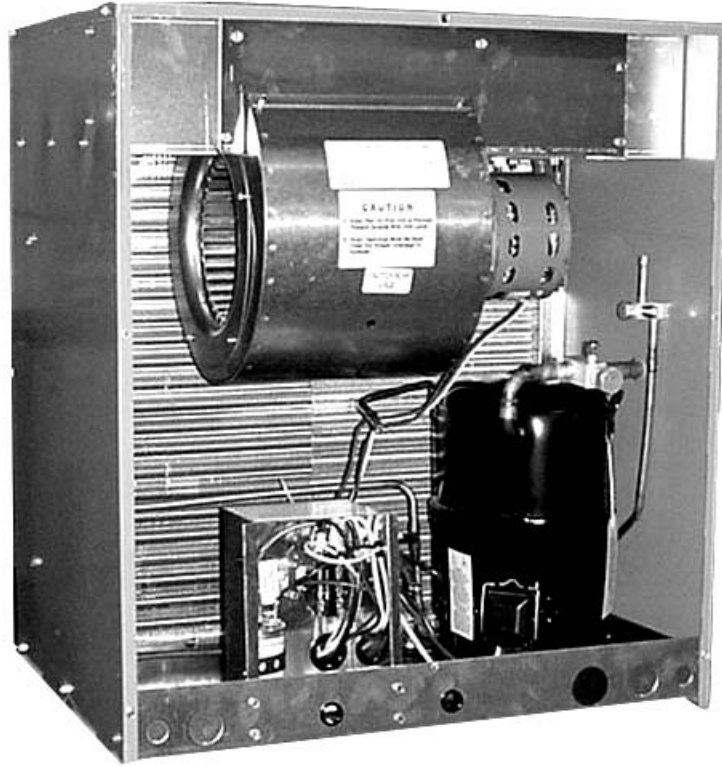


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REPLACEMENT PARTS GUIDE

NCPB SERIES 1000 NCPB-018-1010, NCPB-024-1010, NCPB-030-1010



ITEM	DESCRIPTION	NCPB-018	NCPB-024	NCPB-030
1	Contactors	142-62-082	142-62-082	142-62-082
2	Dual Run Capacitor 30-5 mFd / 370V 35-5 mFd / 370V	142-25-376 NA	142-25-376 NA	NA 142-25-375
3	Low Pressure Switch (Optional)	142-65-020	142-65-020	142-65-020
4	High Pressure Switch (Optional)	142-65-021	142-65-021	142-65-021
5	Compressor H29B17UABC H29B22UABC H29B26UABC	142-10-018 NA NA	NA 142-10-019 NA	NA NA 142-10-025
6	Liquid Service Valve	142-58-603A	142-58-603A	142-58-603A
7	Vapor Service Valve	142-58-605A	142-58-606A	142-58-606A

ITEM	DESCRIPTION	NCPB-018	NCPB-024	NCPB-030
8	Outdoor Coil	142-08-007	142-08-008	142-08-008
9	Blower Motor 0.25 HP 1140 RPM	142-70-038	142-70-038	142-70-038
10	Blower Wheel (7.6" OD x 8.0")	142-67-007	142-67-007	142-67-007
11	Blower Housing	142-14-013	142-14-013	142-14-013
12	Inlet Ring (2 Req'd.)	142-14-021	142-14-021	142-14-021
13	Motor Blower Mount	142-56-933X	142-56-933X	142-56-933X
14*	Access Panel 1000	142-56-936Y	142-56-936Y	142-56-936Y
15	Top Panel 1000	142-56-939S	142-56-939S	142-56-939S
16	Right Side Panel	142-56-938S	142-56-938S	142-56-938S
17	Left Side Panel	142-56-937S	142-56-937S	142-56-937S
18	Wire Grille 1000	142-69-001	142-69-001	142-69-001

*Not shown

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REPLACEMENT PARTS GUIDE

NCPB SERIES 3000

NCPB-018-3010, NCPB-024-3010, NCPB-030-3010



ITEM	DESCRIPTION	NCPB-018	NCPB-024	NCPB-030
1	Contactor	142-62-082	142-62-082	142-62-082
2	Dual Run Capacitor 30-5 mFd / 370V 35-5 mFd / 370V	142-25-376 NA	142-25-376 NA	NA 142-25-375
3	Low Pressure Switch (Optional)	142-65-020	142-65-020	142-65-020
4	High Pressure Switch (Optional)	142-65-021	142-65-021	142-65-021
5	Compressor H29B17UABC H29B22UABC H29B28UABC	142-10-018 NA NA	NA 142-10-019 NA	NA NA 142-10-020
6	Liquid Service Valve	142-58-603A	142-58-603A	142-58-603A
7	Vapor Service Valve	142-58-605A	142-58-606A	142-58-606A

ITEM	DESCRIPTION	NCPB-018	NCPB-024	NCPB-030
8	Outdoor Coil	142-08-014	142-08-014	142-08-015
9	Blower Motor 0.25 HP 1140 RPM	142-70-038	142-70-038	142-70-038
10	Blower Wheel (7.6" OD x 8.0")	142-67-007	142-67-007	142-67-007
11	Blower Housing	142-14-013	142-14-013	142-14-013
12	Inlet Ring (2 Req'd.)	142-14-021	142-14-021	142-14-021
13	Motor Blower Mount	142-56-933X	142-56-933X	142-56-933X
14*	Access Panel 3000	142-56-969S	142-56-969S	142-56-969S
15	Top Panel 3000	142-56-967S	142-56-967S	142-56-967S
16	Right Side Panel	142-56-973S	142-56-973S	142-56-973S
17	Left Side Panel	142-56-974S	142-56-974S	142-56-974S
18	Wire Grille 3000	142-69-003	142-69-003	142-69-003

*Not shown

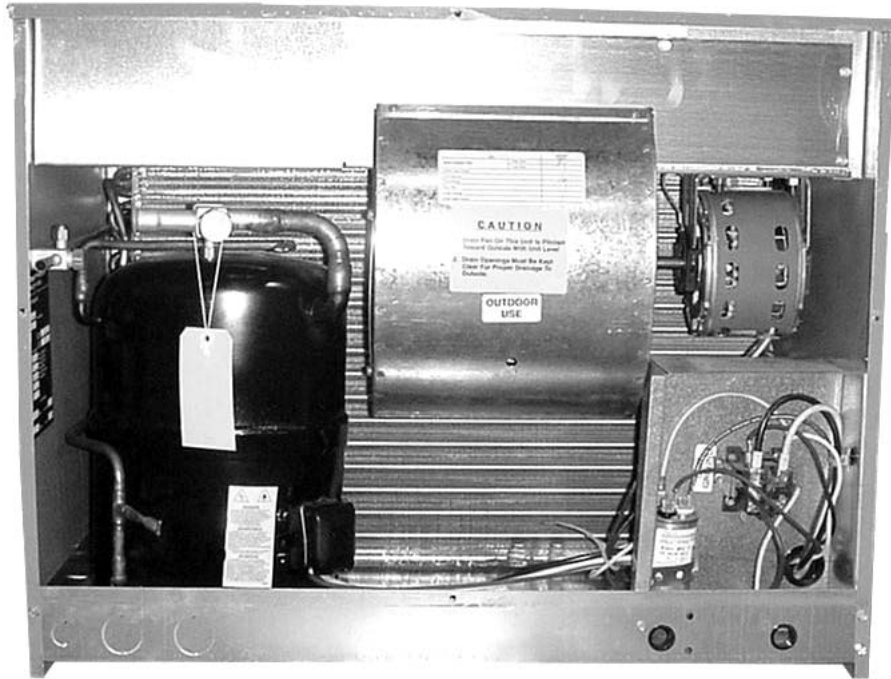
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REPLACEMENT PARTS GUIDE

NCPB SERIES 4000

NCPB-018-4010, NCPB-024-4010, NCPB-030-4010



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1	Contactors	142-62-082	142-62-082	142-62-082
2	Dual Run Capacitor 30-5 mFd / 370V 35-5 mFd / 370V	142-25-376 NA	142-25-376 NA	NA 142-25-375
3	Low Pressure Switch (Optional)	142-65-020	142-65-020	142-65-020
4	High Pressure Switch (Optional)	142-65-021	142-65-021	142-65-021
5	Compressor H29B17UABC H29B22UABC H29B26UABC	142-10-018 NA NA	NA 142-10-019 NA	NA NA 142-10-025
6	Liquid Service Valve	142-58-603A	142-58-603A	142-58-603A
7	Vapor Service Valve	142-58-605A	142-58-606A	142-58-606A

ITEM	DESCRIPTION	NCPB-018	NCPB-024	NCPB-030
8	Outdoor Coil	142-08-016	142-08-017	142-08-017
9	Blower Motor 0.25 HP 1140 RPM	142-70-038	142-70-038	142-70-038
10	Blower Wheel (7.6" OD x 8.0")	142-67-007	142-67-007	142-67-007
11	Blower Housing	142-14-013	142-14-013	142-14-013
12	Inlet Ring (2 Req'd.)	142-14-021	142-14-021	142-14-021
13	Motor Blower Mount	142-56-933X	142-56-933X	142-56-933X
14*	Access Panel 4000	142-56-970S	142-56-970S	142-56-970S
15	Top Panel 4000	142-56-968S	142-56-968S	142-56-968S
16	Right Side Panel	142-56-975S	142-56-975S	142-56-975S
17	Left Side Panel	142-56-976S	142-56-976S	142-56-976S
18	Wire Grille 4000	142-69-004	142-69-004	142-69-004

*Not shown



**LIMITED EXTENDED PROTECTION WARRANTY
FOR
NATIONAL COMFORT PRODUCTS (NCP) BENSALEM, PA
SPLIT-SYSTEM CONDENSING UNITS**

This NCP product is warranted to be free from all manufacturing defects, material or workmanship, for a period of one year from the date of installation (receipt required), whether or not actual use begins on this date, or one year from the date of manufacture if the date of installation cannot be verified. Immediate notice to NCP will (A) provide a new or remanufactured part to replace the defective part, without charge for the part itself, or (B) provide a replacement unit.

This warranty does not include local transportation, related service, labor, diagnosis calls, refrigerant, or costs of returning defective parts.

EXTENDED 2ND THRU 5TH YEAR COMPRESSOR WARRANTY

If the compressor should fail because of a manufacturing defect, is in the original installation, has been operated under normal conditions, and is in the 2nd to 5th year following the above determined date, NCP will provide, at its option, a new or remanufactured replacement compressor.

Replacement parts are warranted for the remainder of the original product warranty, or for one year, whichever is longer. NCP may require that defective parts be returned to verify and identify the cause of the defect.

LIMITATION OF WARRANTIES—ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH EACH LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

This warranty gives you specific legal rights, and you may also have rights which vary from state to state.

NATIONAL COMFORT PRODUCTS, BENSALEM, PENNSYLVANIA

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PROCEDURE FOR WARRANTY FAILURE

National Comfort Products are warranted for one year after the date of installation, or one year from the date of manufacture. The compressor carries an extended 5 year warranty after the date of installation. Use the following procedure for returning parts for warranty replacement.

COMPRESSORS

The National Comfort Products use Bristol compressors. Bristol provides a 20 month warranty from date of compressor manufacture.

All failed compressors within this Bristol warranty period are to be returned to a Bristol wholesaler. Bristol wholesalers are located in all major cities.

The compressor serial number includes a date code. The first three numbers indicate the day of the year (059 = Feb. 28, 108 = April 18). The fourth and fifth numbers indicate the year (91 = 1991, 92 = 1992).

The Bristol wholesaler will honor the compressor warranty for 20 months after the date of compressor manufacture. This means you will not have to wait for a replacement compressor to be shipped from Bensalem, PA.

The situation may present itself where it is better for the compressor to be returned to National Comfort Products during the 20 month Bristol warranty period. NCP will honor the Bristol 20 month warranty period also.

All returned compressors must have the tubing connections closed with rubber plugs or brazed shut.

National Comfort Products will provide the extended warranty through the fifth year from date of installation of the unit for the compressor. All compressors returned to NCP for warranty are to follow the procedure listed below.

OTHER PARTS

A Purchase Order Number is required to ship a replacement part to a customer. The failed part is to be returned to NCP with freight prepaid. Credit will be issued to the Purchase Order, if the part is found to be a warranty failure.

Items returned to NCP for warranty claim must have a Returned Goods Authorization Number assigned to and attached to the part. The Return Goods Authorization Number may be obtained by contacting the factory.

Call and notify the factory before a warranty part is returned. The failed part must be returned prepaid with the Return Goods Authorization Number on all parts and reference paperwork.

National Comfort Products

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ENGINEERING SPECIFICATION GUIDE

THRU-THE-WALL SPLIT SYSTEM CONDENSING UNIT

SAFETY APPROVAL - Each unit shall be ETL listed for safety approval.

GENERAL - Each outdoor condensing unit shall be factory assembled and run tested.

THRU-THE-WALL APPLICATION - Each unit shall be designed for installation flexibility. Horizontal air inlet and outlet on the same side of the unit for Thru-the-Wall or conventional mounting.

COILS - Outdoor condenser coils shall be fabricated of raised lance aluminum fins mechanically bonded to seamless rifled copper tubes.

CABINET - Unit cabinet shall be constructed of heavy-gauge galvanized or aluminized steel. The steel shall be treated by phosphate washes prior to electrostatically-applied and oven-baked paint.

FACTORY CHARGED - Each unit shall be charged with R-22, for proper operation with recommended indoor evaporator coil and 10 foot tubing.

SERVICE VALVES - Each unit shall be equipped with liquid and vapor shut off valves. The valves are to be constructed of brass. Silver-brazed connection is required for connection to refrigerant lines.

COMPRESSOR - Shall be welded hermetic type with internal vibration isolation and built-in thermal and electrical protective devices.

HIGH PRESSURE AND LOW PRESSURE SWITCHES - Factory installed high and low pressure switches are optional. Either switch or both can be provided.

P.S.C. BLOWER MOTOR - Each unit shall have high efficiency Permanent Split Capacitor motor for low current and high efficiency unit operation.