THE INSTALLATION AND MAINTENANCE INSTRUCTIONS

*RP14AC AND *RP14HP SERIES UNITS

RESIDENTIAL PACKAGED UNITS
Air Conditioners and Heat Pumps
507296-03
12/2020

CAUTION
Save these instructions for future reference

The installation of this appliance must conform to the requirements of the National Fire Protection Association; the National Electrical Code, ANSI/NFPA No. 70 (latest edition) in the United States; the Canadian Electrical Code Part 1, CSA 22.1 (latest edition) in Canada; and any state or provincial laws or local ordinances. Local authorities having jurisdiction should be consulted before installation is made. Such applicable regulations or requirements take precedence over the general instructions in this manual.
Unit Dimensions - Small Base Air Conditioners & Heat Pumps

TOP VIEW

RETURN AIR

SUPPLY AIR

POWER ENTRY

POWER ENTRY

POWER ENTRY

CONDENSATE DRAIN 3/4 NPT

TYPICAL DRAIN LOCATION

SIDE VIEWS

CONDENSATE DRAIN 3/4 NPT
Unit Dimensions - Large Base Air Conditioners & Heat Pumps

TOP VIEW

RETURN AIR

SUPPLY AIR

POWER ENTRY

POWER ENTRY

47.66

11.49

19.49

2.33

2.33

2.33

11.49

18.52

16.07

6.94

10.06

25.81

26.56

28.68

SIDE VIEWS

CONDENSATE DRAIN 3/4 NPT

TYPICAL DRAIN LOCATION

POWER ENTRY

1-1/8 DIA. KNOCKOUT

LOW VOLTAGE ENTRY

7/8 DIA. KNOCKOUT

ELECTRIC HEAT

POWER ENTRY

6.20

3.76

4.20

14.32

17.07

3.87

3.62

4.06

33.59

18.19

38.19

12.14

21.63
NOTE - Roof deck may be omitted within confines of curb.
Roof Curb Dimensions - Large Base Air Conditioners & Heat Pumps

Opening for Power Entry Through Unit Base
5-1/2 x 5-5/8 in.
(140 x 31 mm)

Opening for Power Entry Through Unit Base
3 x 13 in.
(76 x 330 mm)

Insulated Panels

NOTE - Roof deck may be omitted within confines of curb.
Adjustable Roof Curb Dimensions - Small Base Air Conditioners & Heat Pumps

CLIPLOCK CORNER DETAIL

Top Edge
Wood Nailer Strip
Bottom Flange
Typical Slot
Typical Locking Tab

NOTE: See Cliplock 1000 installation instructions for complete assembly and installation procedures and requirements.

Curb Profile

Opening for Power Line Entry thru base

Insulated Panels

Bottom Curb Assembly

Opening for Power Entry thru base

NOTE - Roof deck may be omitted within confines of curb.
Adjustable Roof Curb Dimensions - Large Base Air Conditioners & Heat Pumps

NOTE: See Cliplock 1000 installation instructions for complete assembly and installation procedures and requirements.

NOTE - Roof deck may be omitted within confines of curb.
Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified installer or service agency.

**WARNING**

**Installation**

These instructions explain the recommended method of installation of the packaged heat pump and air conditioner units and associated electrical wiring.

This unit is designed and approved for use as a self-contained air-to-air outdoor heat pump and air conditioner system.

The units are factory-equipped with a transformer and blower control for applications without auxiliary heat. Electric heat accessory kits (PHK-) can be ordered for field installation of additional heat where required.

These instructions, and any instructions packaged with mating components and/or accessories, should be carefully read prior to beginning installation. Note particularly any **CAUTIONS** or **WARNINGS** in these instructions and all labels on the units.

These instructions are intended as a general guide only, for use by qualified personnel and do not supersede any national or local codes in any way. Compliance with all local, state, provincial, or national codes pertaining to this type of equipment should be determined prior to installation.

**Inspection of Shipment**

Upon receipt of equipment, carefully inspect it for possible shipping damage. If damage is found, it should be noted on the carrier’s freight bill. Take special care to examine the unit inside the carton if the carton is damaged. File a claim with the transportation company.

If any damages are discovered and reported to the carrier, **DO NOT INSTALL THE UNIT, as claim may be denied.**

**Check the unit rating plate to confirm specifications are as ordered.**

**Limitations**

The unit should be installed in accordance with all national and local safety codes.

Limitations of the unit and appropriate accessories must also be observed.

The unit must not be installed with any ductwork in the outdoor air stream. The outdoor fan is not designed to operate against any additional static pressure.

**Location**

The unit is designed to be located outdoors with sufficient clearance for free entrance to the air inlet and discharge air openings. The location must also allow for adequate service access.

The unit must be installed on a solid foundation that will not settle or shift. Adequate structural support must be provided. Install the unit in level position. Isolate the base from the building structure to avoid possible transmission of sound or vibration into the conditioned space.

The heat pump unit foundation should be raised to a minimum of 3" above finish grade. In areas that have prolonged periods of temperature below freezing and snowfall, the heat pump unit should be elevated above the average snow line. Extra precaution should be taken to allow free drainage of condensate from defrost cycles to prevent ice accumulation. The unit should not be located near walkways to prevent possible icing of surface from defrost condensate.

Avoid placing the unit near quiet areas, such as sleeping quarters or study rooms. Normal operating sound levels may be objectionable if the unit is placed near certain rooms.

For improved start-up performance, the condenser coil should be washed with suitable detergent to remove any residue from manufacturing processes.

**Use of Unit During Construction**

Use of this unit as a construction heater or air conditioner is not recommended during any phase of construction. Very low return air temperatures, harmful vapors and operation of the unit with clogged or misplaced filters will damage the unit.

If this unit has been used for heating or cooling of buildings or structures under construction, the following conditions must be met or the warranty will be void:

- A room thermostat must control the unit. The use of fixed jumpers that will provide continuous heating or cooling is not allowed.
- A pre-filter must be installed at the entry to the return air duct.
- The return air duct must be provided and sealed to the unit.
- Return air temperature range between 55°F (13°C) and 80°F (27°C) must be maintained.
- Air filters must be replaced and pre-filters must be removed upon construction completion.
- The input rate and temperature rise must be set per the unit rating plate.
- The heat exchanger, components, duct system, air filters and evaporator coil must be thoroughly cleaned following final construction clean-up.
• The unit operating conditions (including airflow, cooling operation, ignition, input rate, temperature rise and venting) must be verified according to these installation instructions.

Clearances
All units require certain clearances for proper operation and service. Refer to Table 1 for the minimum clearances to combustibles required for construction, servicing, and proper unit operation.

In the U.S., units may be installed on combustible floors made from wood or class A, B, or C roof covering material.

In Canada, units may be installed on combustible floors. Units must be installed outdoors.

Do not permit overhanging structures or shrubs to obstruct condenser air discharge outlet.

<table>
<thead>
<tr>
<th></th>
<th>Clearance to Combustibles</th>
<th>Clearance for Service Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front of unit</td>
<td>0 in.</td>
<td>24 in.</td>
</tr>
<tr>
<td>Back of unit</td>
<td>0 in.</td>
<td>0 in.</td>
</tr>
<tr>
<td>Left side</td>
<td>0 in.</td>
<td>24 in.</td>
</tr>
<tr>
<td>Right side</td>
<td>0 in.</td>
<td>24 in.</td>
</tr>
<tr>
<td>Base of unit</td>
<td>0 in.</td>
<td>0 in.</td>
</tr>
<tr>
<td>Top of unit</td>
<td>0 in.</td>
<td>48 in.</td>
</tr>
</tbody>
</table>

For any future service, installer must provide access to screws of top and rear panels.

Table 1. Minimum Clearances

Compressor
Units are shipped with compressor mountings factory adjusted and ready for operation. Do not loosen compressor mounting bolts.

Roof Curb Installation
If a roof curb is used, follow the manufacturer’s installation instructions and be sure that all required clearances are observed (see Clearances section).

Prior to setting the unit on the roof curb, the shipping bracket located underneath the unit must be removed. Remove the two screws in the base rail (located on the front and rear sides of the unit). The four screws and the bracket can be discarded. See Figure 1.

Rigging Unit
Exercise care when moving the unit. Do not remove any packaging until the unit is near the place of installation.

1. Connect rigging to the unit base rails using both holes in each corner.
2. All panels must be in place for rigging.
3. Place field-provided spreaders in place. Spreaders must be of adequate strength and length (must exceed unit dimension by 6 inches).

Units may also be moved or lifted with a forklift. The lengths of the forks of the forklift must be a minimum of 42 inches.

Figure 1.
Electrical Wiring

All field wiring must be done in accordance with National Electrical Code recommendations, local codes, and applicable requirements of UL Standards, or in accordance with Canadian Electrical Code recommendations, local codes, or CSA Standards. Power wiring, disconnect means, and over-current protection are to be supplied by the installer. Refer to the unit rating plate for maximum over-current protection and minimum circuit ampacity, as well as operating voltage. The power supply must be sized and protected according to specifications supplied.

The unit must be grounded with a separate ground conductor. See Figure 4 for typical field wiring connection. The wiring diagram can be found on the unit inside the access panel. Low voltage control wiring are terminal strip or pigtail leads located on the main control box and are color-coded to match the connection called out on the wiring schematic.

NOTE: An optional bottom-entry power kit is available for these units. See the kit instructions for proper installation details.

CAUTION

Units are factory wired for a 230-volt power supply. If power supply is 208 volts, it will be necessary to change a wire connection on the unit transformer from 240V terminal to 208V terminal as shown on the wiring diagram.

Use only copper conductors.

If any of the original unit wiring is replaced, the same size and type wire must be used.
Duct System

The duct system should be designed and sized according to the methods in the Air Conditioning Contractors of America (ACCA) manual that is most appropriate to the installation application.

A closed return duct system shall be used. This shall not preclude use of economizers or outdoor fresh air intake. It is recommended that supply and return duct connections at the unit be made with flexible joints.

Thermostat

The room thermostat should be located on an inside wall where it will not be subject to drafts, sun exposure, or heat from electrical fixtures or appliances. Follow the manufacturer’s instructions enclosed with the thermostat for general installation procedure. Color-coded insulated wires (#18 AWG) should be used to connect the thermostat to the unit. A minimum of five wires are required for proper installation.

![Thermostat Wiring Diagram](image)

Figure 4. Typical Wiring Connections

Filters

Air filters are not supplied with the unit. A field-provided air filter must always be installed ahead of the evaporator coil and must be kept clean or replaced. Dirty filters will reduce the airflow of the unit.

An optional filter rack kit may be purchased separately for installation inside the unit’s coil compartment. Air filter sizes are shown in Table 2 for use with filter rack kit.

<table>
<thead>
<tr>
<th>Unit Model</th>
<th>Filter 1</th>
<th>Filter 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>24,30,36</td>
<td>14 x 20 x 1</td>
<td>20 x 20 x 1</td>
</tr>
<tr>
<td>42,48,60</td>
<td>20 x 20 x 1</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Unit Air Filter Sizes - inches
Condensate Drain
This package unit is equipped with a 3/4" FPT coupling for condensate line connection. Plumbing must conform to local codes. Use a sealing compound on male pipe threads.

Do not operate unit without a drain trap. The condensate drain is on the negative pressure side of the blower; therefore, air being pulled through the condensate line will prevent positive drainage without a proper trap.

The condensate drain line must be properly trapped, routed to a suitable drain and primed prior to unit commissioning.

NOTE: Install drain lines and trap so they do not block service access to the unit.

See Figure 5 for proper drain arrangement. The drain line must pitch to an open drain or pump to prevent clogging of the line. Seal around the drain connection with suitable material to prevent air leakage into the return air system.

To prime trap, pour several quarts of water into drain, enough to fill drain trap and line.

CAUTION
Drain lines should be hand-tightened only. Do not use tools to tighten fitting into drain.

Crankcase Heater (if used)
Some models may be equipped with a crankcase heater to prevent excessive migration of liquid refrigerant into the compressor during off cycles. Power must be maintained to the unit to keep this feature active.

Except as required for safety while servicing, do not open the system disconnect switch.

Heater Kit Accessory (if used)
The unit is fully equipped for cooling operation without auxiliary heat. A heater kit accessory may also be used. To install the heater kit accessory (see Figure 7):

1. Disconnect the power and open the main control access.
2. Disconnect the plug separating the high voltage wire harness. Remove the high voltage wire harness plug and discard.
3. Remove the heater blockoff by removing the four screws holding it in place.
4. Insert the heater into the control panel and fasten in the same mounting holes.
5. Plug the heater wiring harness into the wire harness on the control assembly. Field wiring of the auxiliary heater is separate from the unit power supply. Wire the power supply wiring for the heater to the appropriate connections on the heater kit.

Sequence of Operation

Cooling
When the thermostat is in the cooling mode, the O circuit is powered, which energizes the reversing valve. Upon cooling demand, the thermostat closes circuit R and Y. Closing R and Y closes the unit contactor, starting the compressor and outdoor fan. The thermostat automatically closes the R to G circuit, which brings on the indoor blower at the same time. Upon satisfying cooling demand, the thermostat will open above circuits and stops unit operation.

Heating - Heat Pump Stage
Upon heating demand, the thermostat closes circuit R to Y, which closes the unit contactor, starting the compressor and outdoor fan. The reversing valve is not energized in the heating mode. The thermostat again automatically brings on the indoor fan at the same time. Upon satisfying heating demand, the thermostat opens above circuits and stops unit operation.

Heating - Auxiliary Electric Heat
Upon heating demand for auxiliary electric heat, the thermostat closes circuit R to W, which energizes the
heater sequencers as well as the indoor blower. Upon satisfying auxiliary heat demand, the thermostat opens above circuits and heating elements sequence off; blower continues to operate until all heating elements have turned off.

**Defrost System**
The defrost system includes two components: the defrost thermostat and the defrost control.

**Defrost Thermostat**
The defrost thermostat is located on the evaporator coil. When the defrost thermostat senses 35°F or cooler, the thermostat contacts close and send a signal to the defrost control board to start the defrost timing. It also terminates defrost when the liquid line warms up to 60°F.

**Defrost Control**
The defrost control board includes the combined functions of time/temperature defrost control, defrost relay, diagnostic LEDs and terminal strip for field wiring connections (see Figure 6).

The control provides automatic switching from normal heating operation to defrost mode and back. During the compressor cycle (call for defrost), the control accumulates compressor run time at 30, 60, 90 minute field-adjustable intervals. If the defrost thermostat is closed when the selected compressor run time interval ends, the defrost relay is energized and the defrost begins.

**Figure 6. Defrost Control Board**

1. An on-board outdoor ambient temperature sensor on the defrost control bypasses the low pressure switch during low ambient temperature below 15°F in heating mode to eliminate nuisance low pressure trips.

**NOTE:** 15°F is an approximate temperature, depending upon model and installation location.

2. A defrost cycle will initiate when there has been a low pressure switch trip; the defrost sensor must be closed and the defrost time interval must not have expired.

**Figure 7. Heater Kit Accessory Installation**
3. At the end of the defrost cycle, when the unit goes back to heating mode, the low pressure switch is checked to see if it has reset. If so, the strikeout is not counted. This prevents lockout during extreme winter conditions.

**Defrost Control Timing Pins**

Each timing pin selection provides a different accumulated compressor run time period during one thermostat run cycle. This time period must occur before a defrost cycle is initiated. The defrost interval can be adjusted to 30 (T1), 60 (T2), or 90 (T3) minutes. **It is intended that this product should be set at the 60-minute time interval at initial installation.** If the timing selector jumper is not in place, the control defaults to a 90-minute defrost interval. The maximum defrost period is 14 minutes and cannot be adjusted.

**NOTE:**

For geographic areas that experience low temperature and high humidity conditions (below 35°F and above 80% RH), the defrost timer pin must be field set at installation to a 60 or 30 minute defrost interval to ensure reliable system operation while in heating mode.

A test option is provided for troubleshooting. The test mode may be started any time the unit is in the heating mode and the defrost thermostat is closed or jumpered. If the jumper is in the TEST position at power up, the control will ignore the test pins. When the jumper is placed across the TEST pins for 2 seconds, the control will enter the defrost mode. If the jumper is removed before an additional 5-second period has elapsed (7 seconds total), the unit will remain in defrost mode until 14 minutes have passed. If the jumper is not removed until after the additional 5-second period has elapsed, the defrost will terminate and the test option will not function again until the jumper is removed and reapplied.

**Compressor Delay (Quiet Shift)**

The defrost board has a field-selectable function to reduce occasional sounds that may occur while the unit is cycling in and out of the defrost mode. The compressor will be cycled off for 30 seconds going in and out of the defrost mode when the compressor delay jumper is removed.

**NOTE:** The 30-second “off” cycle is not functional when jumpering the TEST pins.

**Time Delay**

The defrost control includes a compressor timer, which ensures the compressor is off for a minimum amount of time between operating cycles.

The timed-off delay is 5 minutes long. The delay helps to protect the compressor from short cycling in case the power to the unit is interrupted or a pressure switch opens.

The delay is bypassed by placing the timer select jumper across the TEST pins for 0.5 seconds.

**Pressure Switch Circuit**

High and low pressure switches are connected to the defrost control board on heat pump models. Air conditioning models have a high pressure switch installed in line with compressor contactor coil (see Figure 6).

During a single demand cycle, the defrost control will lock out the unit after the fifth time that the circuit is interrupted by any pressure switch wired to the control board. In addition, the diagnostic LEDs will indicate a locked-out pressure switch after the fifth occurrence of an open pressure switch (see Table 3).

The unit will remain locked out until power to the board is interrupted, then re-established, or until the jumper is applied to the TEST pins for 0.5 seconds.

**NOTE:** The defrost control board ignores input from the low pressure switch terminals as follows:

- During the TEST mode
- During the defrost cycle
- During the 90-second start-up period
- For the first 90 seconds each time the reversing valve switches heat/cool modes

If the TEST pins are jumpered and the 5-minute delay is being bypassed, the LO PS terminal signal is not ignored during the 90-second start-up period.

**Diagnostic LEDs**

The defrost board uses two LEDs for diagnostics. The LEDs flash a specific sequence according to the condition as shown in Table 3.

<table>
<thead>
<tr>
<th>Defrost Board Diagnostic LEDs</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LED (DS2)</td>
<td>Red LED (DS1)</td>
</tr>
<tr>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>Simultaneous slow FLASH</td>
<td>Normal Operation / Power to Control</td>
</tr>
<tr>
<td>Alternating Slow FLASH</td>
<td>5-min Anti-Short-Cycle Delay</td>
</tr>
<tr>
<td>ON</td>
<td>Slow FLASH</td>
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</tbody>
</table>

**Fault & Lockout Codes**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>OFF</td>
<td>Slow FLASH</td>
</tr>
<tr>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Slow FLASH</td>
<td>OFF</td>
</tr>
<tr>
<td>ON</td>
<td>OFF</td>
</tr>
</tbody>
</table>

Table 3. Defrost Control (CMC1) Diagnostic LEDs
System Performance

This equipment is a self-contained, factory optimized refrigerant system, and should not require adjustments to system charge when properly installed. If unit performance is questionable, perform the following checks.

Ensure unit is installed per manufacturer’s instructions and that line voltage and air flow is correct. Refer to the following tables for proper performance value. The indoor metering device varies by model; when checking performance of a unit using an orifice for metering, refer to the suction superheat value to judge performance. When checking performance of a unit that uses an expansion valve for metering, refer to the subcooling value to judge system performance.

If the measured performance value varies from table value allowance, check internal seals, service panels and duct work for air leaks, as well as restrictions and blower speed settings. If unit performance remains questionable, remove system charge, evacuate to 500 microns, and weigh in refrigerant to nameplate charge. It is critical that the exact charge is re-installed. Failure to comply will compromise system performance.

If unit performance is still questionable, check for refrigerant related problems, such as blocked coil or circuits, malfunctioning metering device or other system components.

### Maintenance

**WARNING**

Before performing maintenance operations on the system, shut off all electrical power to the unit. Turn off accessory heater power switch if applicable. Electrical shock could cause personal injury or death.

Periodic inspection and maintenance normally consists of changing or cleaning the filters and cleaning the evaporator coil. On occasion, other components may also require cleaning.

#### Filters

Filters are not supplied with the unit. Inspect once a month. Replace disposable or clean permanent type as necessary. Do not replace permanent type with disposable.

#### Motors

Indoor and outdoor fan and vent motors are permanently lubricated and require no maintenance.

Indoor fans are equipped with a permanent magnet constant torque motor. These motors remain energized and are controlled by 24V signals. For high static applications, use Tap 3 for cooling speed and Tap 5 for heating speed.

#### Evaporator Coil

Dirt and debris should not be allowed to accumulate on the evaporator coil surface or other parts in the air circuit. Cleaning should be as often as necessary to keep coil clean. Use a brush, vacuum cleaner attachment, or other suitable means. If water is used to clean the coil, be sure the power to unit is shut off prior to cleaning. **Care should be used when cleaning the coil so that the coil fins are not damaged.**

Do not permit the hot condenser air discharge to be obstructed by overhanging structures or shrubs.
Condenser Coil
Clean condenser coil annually with water and inspect monthly during the cooling season.

Condenser coil may need to be cleaned at startup in case oil from the manufacturing process is found on the condenser coil.

Table 7. Cooling Performance - AC Models

<table>
<thead>
<tr>
<th>80 DB / 67 WB Deg. Return Air</th>
<th>65°</th>
<th>70°</th>
<th>75°</th>
<th>80°</th>
<th>82°</th>
<th>85°</th>
<th>90°</th>
<th>95°</th>
<th>100°</th>
<th>105°</th>
<th>110°</th>
<th>115°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling Input (1000 BTU)</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

Condenser coil annual cleaning and monthly inspection during the cooling season. Cleaning may be required at startup due to manufacturing oil on the condenser coil.
### Table 8. Heating Performance - HP / DF Models

<table>
<thead>
<tr>
<th>Cooling Input (1000 BTU)</th>
<th>Pressure</th>
<th>0°</th>
<th>5°</th>
<th>10°</th>
<th>17°</th>
<th>20°</th>
<th>25°</th>
<th>35°</th>
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### Table 9. Cooling Performance - HP / DF Models

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CONNECTION DIAGRAM - HEAT PUMP - PACKAGED UNIT FACTORY SHIPPED SETTINGS

Description DS2 (GREEN) DS1 (RED)

No Power to Control OFF OFF

COOLING INPUT (BLK)

24 LOW

Normal Operation / Power to Control Simultaneous Slow Flash

30 MED

36 HIGH

42 LOW

INDOOR BLOWER MOTOR

NOTE: TAP1 FOR FAN ONLY

TAP 2 FOR COOLING

TAP3 FOR HIGH STATIC COOLING

TAP4 AND TAP5 FOR ELECTRIC HEAT - REFER TO HEATING LABEL

SINGLE PHASE

240V 10, 15 & 20KW MODELS

5 & 7.5KW HEATER ACCESSORIES

FUNCTION OFF W1 ONLY.

537663-01

Figure 8. Connections Diagram - A/C Constant Torque
208/230V-1PH, 60Hz

Description

DS1 (GREEN) DS2 (RED)

No Power to Control
OFF OFF

Normal Operation / Power to Control
Simultaneous Slow Flash

Anti-Short Cycle Lockout
Alternate Slow Flash

Low Pressure Switch Fault
OFF Slow Flash

Low Pressure Switch Lockout
OFF ON

High Pressure Switch Fault
Slow Flash OFF

High Pressure Switch Lockout
ON OFF

NOTE: TAP1 FOR FAN ONLY
TAP 2 FOR COOLING
TAP3 FOR HIGH STATIC COOLING
TAP4 AND TAP5 FOR ELECTRIC HEAT - REFER TO HEATING LABEL

Figure 9. Connections Diagram - Heat Pump Constant Torque

CONNECTION DIAGRAM, HEAT PUMP

WARNING - ELECTRIC SHOCK HAZARD. UNIT MUST BE GROUNDED IN ACCORDANCE WITH NATIONAL AND LOCAL CODES.

NOTE: COPPER CONDUCTOR ONLY, MIN 75°C WIRE

NOTE: IF ANY OF THE ORIGINAL WIRE IS REPLACED THE SAME SIZE AND TYPE WIRE MUST BE USED.

NOTE: TAP1 FOR FAN ONLY
TAP 2 FOR COOLING
TAP3 FOR HIGH STATIC COOLING
TAP4 AND TAP5 FOR ELECTRIC HEAT - REFER TO HEATING LABEL

Figure 9: Connections Diagram - Heat Pump Constant Torque

Diagnosis Codes for Defrost Control LEDs

Note: Because the Pressure Switches are monitored only when "Y1" (Input) is active, the code for pressure switch open will not be seen when "Y1" is off. Instead, the "Normal Operation" or "Anti Short Cycle" code will be seen.

Also, when a pressure switch opens and caused a short cycle lockout, the pressure switch-open code will be seen until it closes, then the short cycle lockout code will flash unless it has already expired.

W1 & W2 CAN BE USED TO STAGE ELECTRIC HEAT ACCESSORY ON 10, 15 & 20KW MODELS 5 & 7.5 KW HEATER ACCESSORIES FUNCTION OFF W1 ONLY.

NOTE: COMPRESSOR, CONTACTOR, THERMOSTAT, TRANSFORMER, CONDENSER, FAN MOTOR, FLOAT SWITCH (IF USED), CONTACTOR YEL W/STRIPE, CONTACTOR BLK, CONTACTOR YEL W/STRIPE, CONTROL CIRCUIT WIRING TO BE 24 VOLT, NEC CLASS-2

Figure 9: Connections Diagram - Heat Pump Constant Torque

W1 & W2 CAN BE USED TO STAGE ELECTRIC HEAT ACCESSORY ON 10, 15 & 20KW MODELS 5 & 7.5 KW HEATER ACCESSORIES FUNCTION OFF W1 ONLY.