Outdoor Air Conditioner

Installation Instructions

iQ Drive™ Variable Speed Ultra-High SEER Split System

These units have been designed and tested for capacity and efficiency in accordance with ARI standards. These outdoor air conditioning units are designed for use exclusively with select NORDYNE G6 gas furnaces and select NORDYNE B5 air handlers equipped with dedicated matched indoor coils.

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of Heating and Air Conditioning equipment including the iQ Drive™ System. Local codes may require licensed installation/ service personnel for this type of equipment. Read all instructions carefully before starting the installation.

IMPORTANT NOTE

This equipment is one part of a total system designed for maximum efficiency, adequate capacity and total comfort. The system must function as intended. Under no circumstances any part of the system may be substituted with other components.

THE iQ DRIVE™ SYSTEM

The iQ Drive Air Conditioning System features fully variable speed compressor technology and variable speed indoor and outdoor motors. The system provides variable cooling capacity as needed modulating over a five degree F temperature range. It operates near the nominal rated capacity at the thermostat set point and modulates as temperature difference between set point and room temperature changes. The system may run at additional 18% capacity to provide rapid cooling and modulates down to minimum capacity if the room temperature reaches 2 degree F below set point, then it turns off if room temperature drops more than 2 degree F below set point. The system has a built-in humidity control that will activate a humidifier equipment (if supplied), and reduces blower speed if indoor relative humidity is greater than set point (default set at 60%).

The iQ Drive System consists of an outdoor unit, indoor unit, controller Thermostat and connecting lines.

1. **The Outdoor Unit:**
   The outdoor section consists of large heat exchanger surface, Inverter motor Drive, Brushless motor type rotary compressor and an integrated drive brushless fan motor coupled with a specially designed fan blade, in addition to refrigerant valves housed in sturdy attractive chassis.

2. **The Indoor Unit:**
   The matched indoor coil may be a stand alone cased coil intended to be installed in NORDYNE G6 Model Gas Furnaces or may be part of a dedicated NORDYNE B5 Model Air Handler.

   The indoor coil is equipped with Electronic Expansion Valve to precisely control refrigerant flow over the wide range of system capacity modulation.

   For the stand alone dedicated cased coil in gas furnace, a Furnace Blower Conversion Kit is required to allow the addition of required system components such as the Integrated Drive Brushless Indoor Blower Assembly, Interface Board, upgraded transformer and The Coil Kelvin Controller.

   Consult Installation Instructions provided with the Indoor Coil and the Furnace Blower Conversion Kit for details.

   For the dedicated Air Handler, the matched coil and all required components are included. Consult Installation Instructions provided with the Air Handler Unit for details.

3. **System Controller Thermostat:**
   The system controller is the master component that communicates with and controls the inverter driven system components.

The Inverter in the outdoor unit receives signals from compressor, heat exchanger, fan motor and outdoor ambient which are communicated to the controller via connections to the Indoor Interface Board. The controller responds back with appropriate messages for each device operation command. If no message is received for 10 seconds, the device will stop. The controller communicates with the indoor section via the Indoor Interface Board which is powered by 24 VAC from transformer in the furnace or air handler. Transformer in the gas furnace MUST be replaced with the one supplied in the gas furnace blower conversion kit.

1. GENERAL INFORMATION

Read the following instructions completely before performing the installation.

⚠ CAUTION:

This unit is charged with R-410A refrigerant. DO NOT under any circumstances use any other refrigerant besides R-410A in this unit. Use of another refrigerant will damage this unit.

Condensing Unit Section — Unit is factory charged with refrigerant charge adequate to operate the outdoor section with the indoor matched coil or air handler, and 15 feet of refrigeration line.

NOTE: DO NOT USE ANY PORTION OF THE REFRIGERANT CHARGE FOR PURGING OR LEAK TESTING.

Matching coils and Air Handlers are shipped with a small pressurized holding charge to keep contaminants out. To release the pressure, read the indoor section installation instructions carefully.

Liquid and Suction Lines — Refrigerant grade copper tubing should be used when installing the system. Suction line tubing should be fully insulated.

Field Connections for Electrical Power Supply — All wiring must comply with latest version of the "National Electrical Code" (ANSI/NFPA 70) and electrical conductors and circuit protection must be in compliance with information listed on the outdoor unit data label.

2. SAFETY CONSIDERATIONS

Pressures within the System — Split System Air Conditioning equipment contains liquid and gaseous refrigerant under pressure. Installation and servicing of this equipment should be performed by qualified, trained personnel thoroughly familiar with this type of equipment. Under no circumstances should the homeowner attempt to install and/or service the equipment.

Labels, Tags, Precautions — When working with this equipment, follow all precautions in the literature, on tags, and on labels provided with the equipment. Read and thoroughly understand the instructions provided with the equipment prior to performing the installation and operational checkout of the equipment.

Brazing Operations — Installation of equipment requires brazing operations. Safety codes must be complied with. Safety equipment (e.g. safety glasses, work gloves, fire extinguisher, etc.) must be used when performing brazing operations.

⚠ WARNING:

Ensure all electrical power to the unit is OFF prior to installing or servicing the equipment. Failure to do so may cause personal injury or death.

3. SITE PREPARATION

Unpacking Equipment — Remove the cardboard carton and user's manual from the equipment. Take care not to damage the tubing connections when removing the carton.

Inspect for Damage — Inspect the equipment for damage prior to installing the equipment at the job site.

Preferred Location of the Outdoor Unit — Conduct a survey of the job site to determine the optimum location for installing the outdoor unit. Overhead obstructions, poorly ventilated areas and areas subject to accumulation of debris should be avoided. The outdoor unit must be

installed in such a manner that airflow through the chassis is not obstructed and that unit can be serviced.

Facility Prerequisites — Electrical power must be supplied to the equipment. Electrical power supplied must be adequate for proper operation of the equipment. The system must be wired and provided with circuit protection in accordance with local building codes and the National Electrical Code.

Minimum Circuit Ampacity — Electrical wiring to the equipment must be compatible and in compliance with the minimum circuit ampacity listed on the outdoor unit data label.

Maximum Fuse/ Circuit Breaker Size — Circuit protection for the outdoor unit must be compatible with the maximum fuse/ circuit breaker size listed on the outdoor unit data label.

4. INSTALLING THE OUTDOOR UNIT

Slab Mount — The site selected for a slab mount installation requires a stable foundation not subject to erosion. The slab should be level and anchored (if necessary) prior to placing the unit on the slab.

Cantilever Mount — The cantilever mount should be designed with adequate safety factor to support the weight of the unit, and for loads subjected to the mount during operation. Installed equipment should be adequately secured to the cantilever mount and leveled prior to operation of the equipment.

Roof Mount — The method of mounting should be designed so as not to overload roof structures nor transmit noise to the interior of the structure.

Refrigerant and electrical lines should be routed through suitably waterproofed openings to prevent leaking into structure.

5. INSTALLING THE INDOOR UNIT

The indoor section should be installed before proceeding with routing of the refrigerant piping. Consult the installation instructions of the indoor unit (i.e.; air handler, indoor coil and furnace) for details regarding installation.

6. CONNECTING REFRIGERANT TUBING

⚠ CAUTION:

This system utilizes R-410A refrigerant with PVE oil. When servicing, cover or seal openings to minimize the exposure of the refrigerant system to air and prevent accumulation of moisture and other contaminants.

General — Once the outdoor and indoor unit placement has been determined, route refrigerant tubing between them in accordance with sound installation practices. Refrigerant tubing should be routed in a manner that minimizes the length of tubing and the number of bends in the tubing. Refrigerant tubing should be supported in a manner that the tubing will not vibrate or abrade during system operation. Tubing should be kept clean of foreign debris during installation. Refrigerant lines that exceed 75 ft in length and 20 ft in vertical elevation difference are not recommended. The maximum interconnecting refrigerant line length is 100 feet, and the maximum vertical elevation difference between the indoor and outdoor sections shall not exceed 50 feet.

Filter Dryer Installation—A liquid line filter dryer is supplied with unit and must be installed in the liquid line of the system. If the installation replaces a system with a filter dryer already present in the liquid line, the filter dryer must be replaced with the one supplied with the unit.

7. MAKING ELECTRICAL CONNECTIONS

⚠ WARNING:

Turn off all electrical power at main circuit box before wiring electrical power to the outdoor unit. Failure to comply may cause severe personnel injury or death.

Wiring Diagram — A wiring diagram/ schematic is located on the inside cover of the electrical box of the outdoor unit. The installer should become familiar with the wiring diagram/ schematic before

making any electrical connections to the outdoor unit. Refer to wiring diagrams in this literature for wiring of system components.

Outdoor Unit Connections — The outdoor unit requires both power and control circuit electrical connections. Refer to the unit wiring diagram/ schematic for identification and location of outdoor field wiring interfaces.

Control Circuit Wiring — The outdoor unit is designed to operate from a 24 VAC Class II control circuit. Control circuit wiring must comply with the latest version of the "National Electrical Code" (ANSI/NFPA 70) and with applicable local codes having jurisdiction.

Controller Thermostat Connections — Connections to controller unit should be made in accordance with the instructions supplied with unit, and with the instructions supplied with the indoor equipment. System requires the use of shielded cable.

Electrical Power Wiring — Electrical power wiring shall comply with the current provisions of the National Electrical Code (ANSI/NFPA 70) and with applicable local codes having jurisdiction. Use of shielded (metal lined sealtite or rigid) conduit is required. Electrical conductors shall have minimum circuit ampacity in compliance with the outdoor unit rating label. The facility shall employ electrical circuit protection at a current rating no greater than that indicated on the outdoor unit rating label.

Disconnect Switch — An electrically compatible disconnect switch must be within line of sight of the outdoor unit. This switch shall be capable of electrically de-energizing the outdoor unit.

8. STARTUP AND CHECKOUT

⚠ WARNING:

Ensure electrical power to the unit is off prior to performing the following steps. Failure to do so may cause personal injury or death.

Outdoor Unit — Ensure the outdoor coil, the inverter heat sink and the top of the unit are free from obstructions and debris, and all equipment access/control panel cover is in place.

Indoor Unit — Consult the installation instructions of the indoor unit (i.e.; air handler, indoor coil and furnace) for details regarding installation. Ensure wiring is secure and correct.

Air Filters — Ensure air filters are clean and in place prior to operating the equipment.

Ensure that the unit has been properly and securely grounded and that power supply connections have been made at both the facility power interface and outdoor unit.

Controller Thermostat — Connect the Outdoor section low voltage wiring to the Indoor section interface board. Using standard 4-wires thermostat cable, connect controller thermostat to the indoor section interface board.

Using extreme caution, apply power to the system and inspect the wiring for evidence of open, shorted, and/or improperly wired circuits.

Controller Thermostat screen will be lit and calibration of indoor blower assembly will begin. Initial screen will display indoor and outdoor temperatures and installer will be able to select functions and program all modes of operation.

NOTE: The Controller Thermostat is designed to display information screens for use by the installer and homeowner.

At initial installation, from "OFF" screen, press the Up and Down buttons simultaneously for 5-10 seconds to display the "Installer Settings Menu Screen". This screen prompts the installer to input system configuration, unit size, furnace information, accessories installed, desired settings in cooling and heating, and humidity setting if different from default setting. Installer may also input recommended service schedule and dealer/ contractor information for future use.

The controller screens display all pertinent system information in normal operation. When necessary, important messages may be sequenced along the top line to indicate conditions that need attention.

The controller is also designed to function as an important service and troubleshooting tool.

INSTALLER SETTINGS SCREEN:

1- From "Installer Settings", select "Model Configuration". Screen will display "single stage" or "multi stage".
2- Select appropriate option. Screen will display "Input rate" and "temp rise" for the installed furnace.
3- Input data from furnace installed.
4- Press "select button" following each selection or the up and down arrows to access displayed options. Press "Previous arrow" to scroll between screens.
5- From "Installer Settings", select "Accessories" option. Screen will display accessories. Input pertinent selections
6- Each accessory selected will be followed with additional screens for scheduling maintenance and service. Input appropriate recommended service schedules.
7- From "Installer Settings", select "Input Dealer Info" option. Screen will display pertinent selections. Follow screen prompts and save "Completed Dealer Info Screen".
8- From "Installer Settings", select "Humidity Settings" option. Screen will display available selections. Select from "Humidify only", "Dehumidify only", "Both" or "None".
9- From "Installer Settings", select "Restore Factory Defaults" if so desired.
10- From "Installer Settings", select "Charging Mode" to run system at nominal setting for proper charging conditions.

MAIN SCREEN:

The iQ Drive controller thermostat main screen displays system normal operating information. It displays Outdoor and Indoor temperatures, Set points in cooling and heating, humidity and mode of operation for system and indoor fan. In addition, it displays four options to select from:

TEMP Option:
Select this option to temporarily override program setting until next program interval is activated.

MODE Option:
Select this option to choose operating mode (Cool, Heat, Auto or Off).

FAN Option:
Select this option to set desired indoor blower operation mode (Auto, On or Programmed). If "On" is selected, blower will run at heating speed.

MENU Option:
Select "MENU" option to input the following: Set Date & Time, Hold Temp info, Program of Operation, Fan, Mode, Settings and Security Lockout).

Note: "Fan" and "Mode" may be selected from Main Screen directly.

1- SET DATE AND TIME: Follow prompted screens after each selection is made.
2- HOLD: Select from "Vacation" or "Permanent"
2A- From "Vacation Hold Screen" set desired "Hold temperatures for "Heat" and/or "Cool".
2B- The following screen prompts the date and time entry for the desired hold. Follow same steps for "Permanent Hold".
3- PROGRAM: Select to set weekdays, weekends, every day or individual days programming. The prompted screens allow four settings per day. Input desired program and save.
4- FAN: Select from "Auto", "On" or "Programmed Fan". The "Programmed Fan Settings" allows fan to run as programmed in step 3.
5- MODE: Select from "OFF", "AUTO", "COOL" or "HEAT".
6- SETTINGS: Use this screen to scroll through options such as:
6A- SCREEN SETTINGS: Set preferred screen settings such as "Temp scale", "Clock setting", "Language", "Contrast" and "Backlight On Time".
6B- OFFSET: Set temperature offsets, humidity offset, heat anticipator and heat differential.
6C- CYCLES PER HOUR: Set the maximum allowed heating cycles per hour.
6D- AUTO CHANGEOVER: Select "Auto or Manual Change" and select the "Auto Changeover Time" to input desired time interval between cooling and heating changeover.
6E- PROGRAM SETTINGS: Select "Smart Recovery", "Events per Day" and "Intermittent Fan".

When Smart recovery is selected, the controller adjusts operating span to match set program. Events per day selection define number of daily air changes required based on residential or business choices.

When Intermittent Fan is selected, the fan may be programmed to turn on for selected periods of time at selected time intervals if no call for cooling or heating is present. Follow instructions of each option to set program.

6F- SERVICE INFORMATION: This screen lists components status and faults if any. Scroll up and down to obtain "Fault Status" showing active fault and last 5 faults, "Compressor Status", "Outdoor fan Status", "Indoor fan Status", "Temperature Status" and option to "Clear Fault History".

7. SECURITY LOCKOUT: Select from "Temp Adjust Only" or "Total Keypad Lockout" options. A PIN number may be input. This PIN number will be needed for future system settings and adjustments.

9. OPERATING INSTRUCTIONS

To Operate System in Cooling:

From MODE Screen, select AUTO or COOL. From Main Screen use the down arrow to set cooling temperature below room temperature. Verify that the indoor fan calibration is performed and that system starts running.

To set system operation, select MENU from the Main Screen and follow the instructions listed under previous section.

To Operate Furnace in Heating:

From MODE Screen, select AUTO or HEAT. From Main Screen use the up arrow to set heating temperature above room temperature.

If system has been properly configured, heating will start to operate.

To Shut Off the System:

The system is designed to continuously operate within a wide range of speeds to provide ultimate comfort, adequate matched to load capacity and maximum efficiency. It will turn off automatically if required. However if there is a need to shut off the system, select OFF from Operating Mode Screen.

To Operate Indoor Blower Only:

Select FAN from MAIN menu screen, then select ON for continuous blower operation or Programmed Fan for intermittent option.

NOTE: The controller is programmed to start a Fan Calibration occurrence every week and every time the power is lost. This function starts the indoor blower and calibrates air volume to motor speed.

10. SYSTEM PROTECTION MEASURES

The Inverter Driver is designed to provide a full scale of protection measures against conditions that may cause compressor and/or other components failure. When a protection function is triggered, the Inverter trips and communicates the fault description to the controller which will display an error code or component fault status. To release the trip, correct the fault cause, turn power off, and then turn it on after few seconds.

Protection Functions:

1- **Low Voltage Protection:** If the voltage becomes lower than design minimum, the output of inverter is interrupted.

2- **Over Voltage Protection:** Inverter will trip if voltage becomes higher than design maximum.

3- **Over Current Protection:** Inverter will trip if the converter output current is exceeded due to load short circuit or ground fault.

4- **Over Heat Protection:** Inverter has a heat sink that rids it from excessive temperatures. If temperature sensor exceeds 194 Fahrenheit, Inverter will trip.

5- **Over Speed Protection:** Inverter will trip if compressor speed is increased to 1.5 times the allowed rated speed.

6- **Abnormal Rotation Protection:** Inverter will trip if abnormal rotation of compressor is detected due to improper wiring.

7- **Sensors Error Protection:** The outdoor air temperature sensor controls maximum compressor speed allowed for safe operation and the compressor discharge temperature sensor monitor maximum allowed compressor temperature. Inverter will trip if these sensors are open or shorted.

8- **Microprocessor Error Protection:** If abnormality of the CPU is detected, the inverter will trip. Abnormality may be caused by external electromagnetic noise.

9- **Communication Error Protection:** Inverter will trip if communication with the main controller fails.

NOTE: Tripping of the Inverter is input into the controller memory up to 5 times occurrences.

Other System Protections:

Low Pressure Switch — A low pressure switch is factory installed and located in the suction line internal to the outdoor unit. The switch is designed to protect the compressor from a loss of charge. Under normal conditions, the switch is closed. If the suction pressure falls below 35 psig, then the switch will open and its signal to the inverter will open. The inverter will then send signal to the controller to turn unit off and displays fault message. The switch will close again once the suction pressure increases to 60 psig.

High Pressure Switch — A high pressure switch is factory installed and located in the compressor discharge line internal to the outdoor unit. The switch is designed to de-energize the unit when excessive pressure occurs due to abnormal conditions. Under normal conditions, the switch is closed. If the discharge pressure rises above 575 psig, then the switch will open and de-energize the outdoor unit. The switch will close again once the discharge pressure decreases below 460 psig.

Diagnostics and Troubleshooting:

The controller Thermostat Unit is designed to provide service personnel with detailed description of faults that may cause system malfunction, as well as messages indicating maintenance required.

Only qualified service personnel shall get into "Service Information Menu" screen to define the fault and make the appropriate correction.

"SERVICE NEEDED" Display:
The controller will change screen color to RED and displays "SERVICE NEEDED", System information and Fault detected in the Service needed menu screen.

If Compressor error is detected, it displays "COMP ERROR" followed by code number (see below).

If Blower error is detected, it displays "BLOWER ERROR" followed by code number (see below).

Other possible errors displayed are:
Too Hot Out
Comp Overload
Low Gas Pressure
COMM Error 10, for indoor motor
COMM Error 20, for outdoor motor
COMM Error 30, for Furnace

An Inverter Keypad diagnosis tool may be used to help service the outdoor unit at site. See column "Display of Inverter panel" for fault codes.

Table 1 describes possible errors and corrective measures.

Code No.	Fault Indication	Possible Cause	Display of inverter panel	Check item	Finding and correction
1	Sensor error	Outdoor temp thermistor shorted or disconnected.	E.-A1	1- Check thermistor resistance at normal temperature (60~95°F) (1-2pin of CN7)	Out of range 10~25k.ohms, Replace thermistor.
				2- Reset the power supply and run.	Display E-A1, Replace inverter
		Discharge temp thermistor shorted or disconnected.	E.-A2	1- Check thermistor resistance at normal temperature (60~95°F) (1-2pin of CN8)	Out of range 30~80k.ohms, Replace thermistor.
				2- Reset the power supply and run	Display E-A2, Replace inverter
		IPM temp thermistor shorted or disconnected.	E.-A3	1- Check thermistor resistance at normal temperature (60~95°F) (1-2pin of CN9)	Out of range 30~80k.ohms, Replace thermistor.
				2- Reset the power supply and run	Display E-A3, Replace inverter.
2	Under voltage	Low voltage of inverter	E.-LV	1- Check supply voltage	Equal or over 187V AC, possible power interruption
					Less than 187VAC, Check power supply.
				2- Reset to the rated voltage and run	Display E-LV, Replace inverter.
3	Over voltage	High voltage of inverter	O.V.	1- Check supply voltage	Under 253VAC, possible strong wind
					Over 253VAC, check power supply.
				2- Reset to the rated voltage and run	Display O.V., Replace inverter/fan motor
5	Over speed	Compressor over speed	O.S.	Reset to the rated voltage and run	Display O.S., Replace inverter.
8	Over current	Over current of power module (hardware)	O.C.	1- Check compressor resistance	Out of range 0.3~1.ohms, Replace compressor.
				2- Disconnect comp wires	Display O.C., Replace inverter.
				Reset power supply and run	Display E.ROT., Check wiring.
				Replace inverter and run	Display O.C., Replace compressor.
		Over current of power module (software)	O.C.-C.	1- Check compressor resistance	Out of range 0.3~1.ohms, Replace compressor.
				2- Disconnect comp wires	Display O.C., Replace inverter.
				Reset power supply and run	Display E.ROT., Check wiring.
				Replace inverter and run	Display O.C., Replace compressor.
9	Over heat	Over heat of power module	O.H.	1- Check outdoor temperature	Equal or above 125F, unit not allowed to run.
				2- Check the screws of power module	Secure loose screws
				3- Check IPM heat sink fins	Clear obstructions
				4- Check fan rotation	Secure fan to motor shaft if screw is loose.
				5- Check IPM thermistor resistance at normal temperature (60~95°F) (1-2pin of CN9)	Out of range 30~80k.ohms, Replace thermistor.
				6- Reset power supply and run	Display O.H., Replace inverter.

Table 1. Interpreting the Diagnostic Codes

Code No.	Fault Indication	Possible Cause	Display of inverter panel	Check item	Finding and correction
10	Rotation error	Abnormal comp rotation	E.ROT.	1- Check comp wiring connection (TA4,TA5,TA6)	Secure loose wiring/ terminals.
				2- Reset power supply and run	Display E.ROT., Replace inverter.
				3- Replace inverter and run	Display E.ROT., Replace compressor.
		Abnormal rotation of outdoor FM	E.-FAn	1- Check connection of FM wiring (CN3)	Secure connection
				2- Reset power supply and run	Display E.-Fan, Replace inverter/ fan motor
20	Communication error	Communication error at indoor or outdoor	E.-485	1- Check connection of communication cable (CN11,CONTROLLER)	Verify and secure loose Connections
				2- Check SW2 position	Set SW2 to ON (lower side)
				3- Reset power supply and run	Display E.-485, Replace inverter.
				4- Replace inverter and run	Display E.-485, Replace controller or Indoor fan motor.
91	System Parameter error	DIP-SW switching error	E.-DS.	1- Check the setting of DSW tonnage	Set the DSW switch to match tonnage.
				2- Reset the power supply and run	Display E.-DS, Replace inverter.
		EEPROM data failure	E.-PR.	Reset power supply and run	Display E.-PR., Replace inverter.
		CAU trip	CAU.	Reset power supply and run	Display CAU., Replace inverter.
99	CPU error	System Error	E.-CT	Reset power supply and run	Display E.-CT, Replace inverter.
		CPU Error	Err.	Reset power supply and run	Display Err., Replace inverter.

Table 1. Interpreting the Diagnostic Codes (Continued)

Adjustment of Refrigerant Charge:

⚠ CAUTION:

Split system air conditioner equipment contains liquid and gaseous refrigerant under pressure. Adjustment of refrigerant charge should only be done by qualified, trained personnel thoroughly familiar with this type of equipment. Under no circumstances should the homeowner attempt to install and/or service this equipment. Failure to comply with this warning could result in equipment damage, personal injury or death.

NOTE: The unit MUST be charged at nominal speed setting. See “Installer Settings Screen” and select “Charging Mode” to run system at nominal speed.

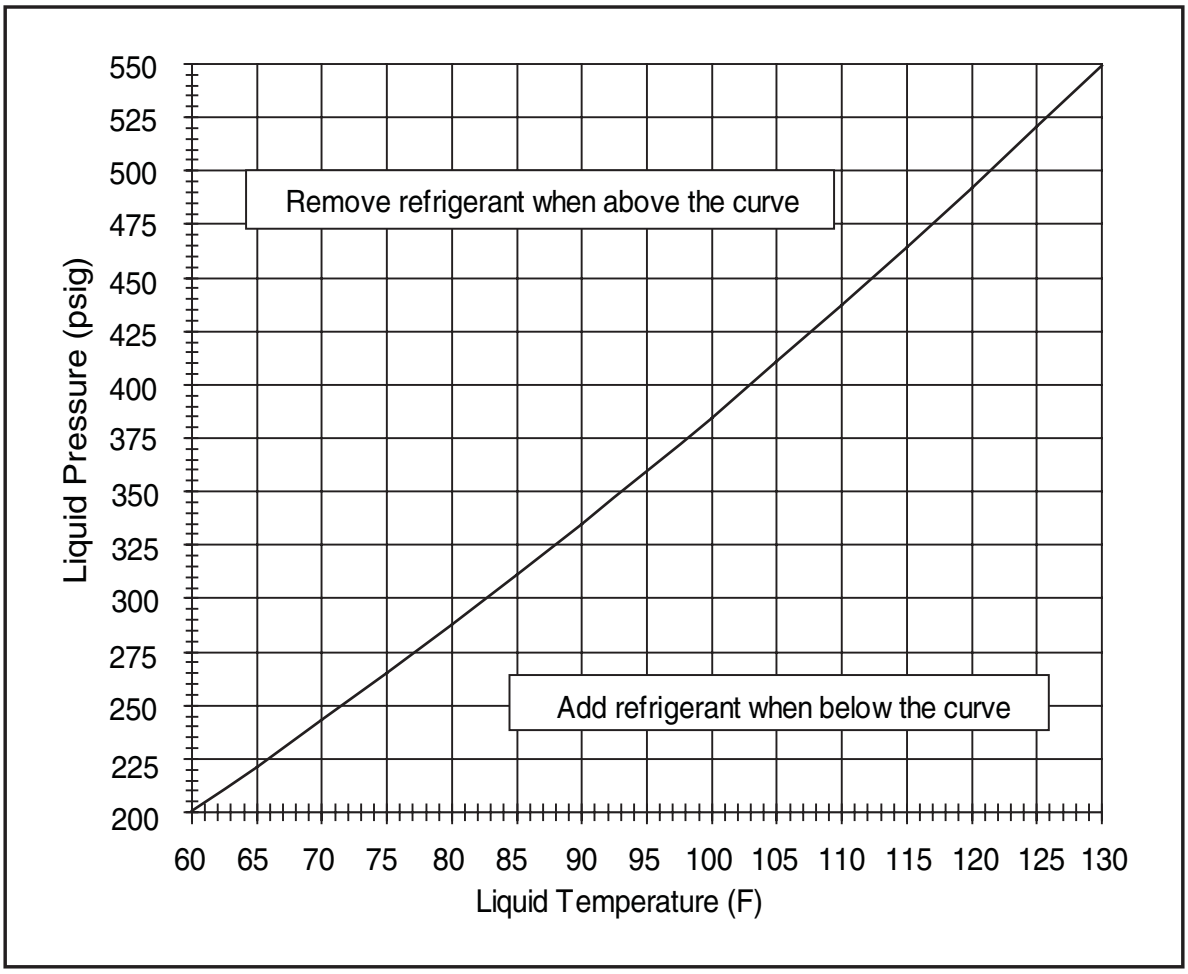
Unit Tonnage	System Charge R-410A Oz.
2 Ton	160
3 Ton	168
4 Ton	188

Table 2. System Charge

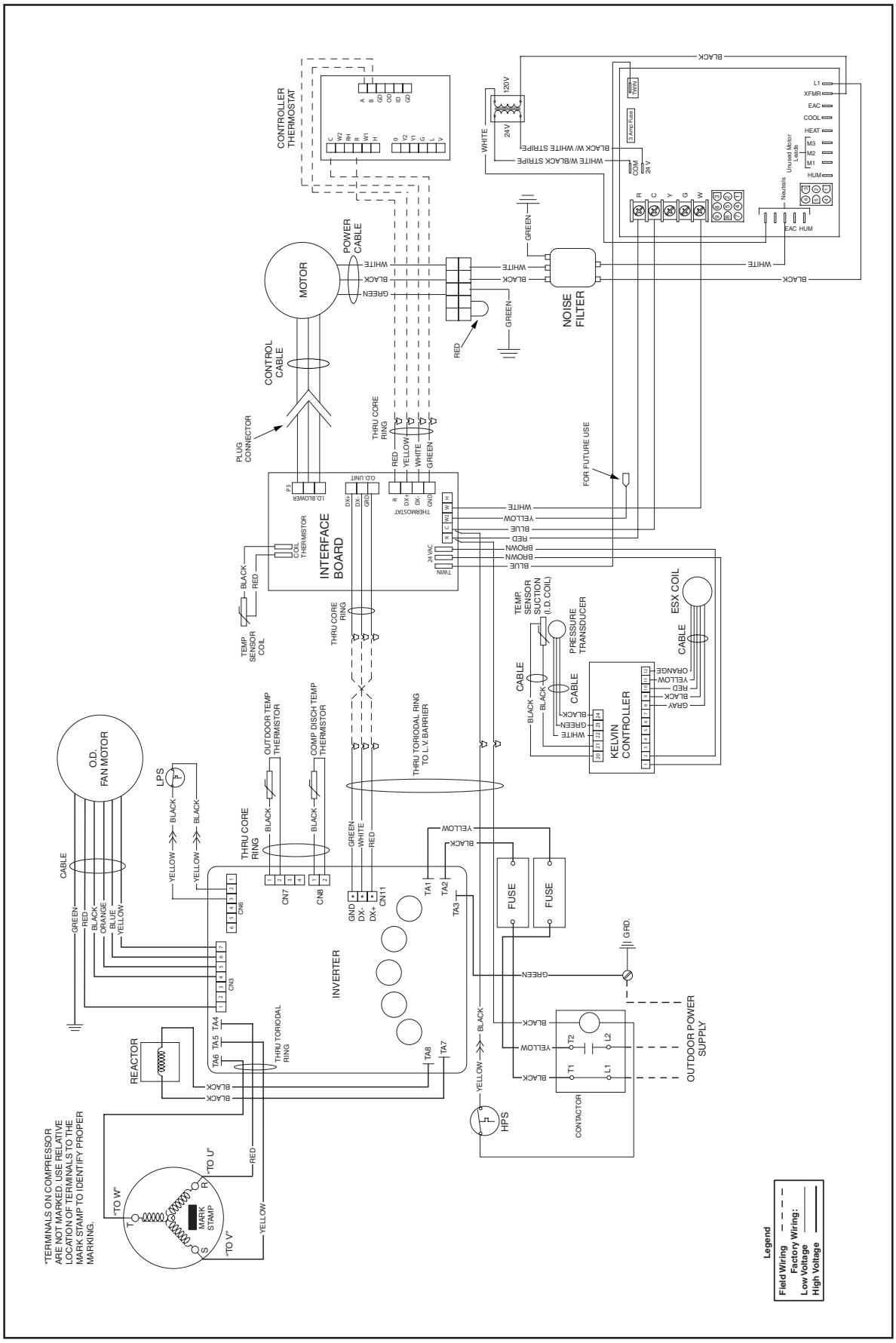
Procedure for charging outdoor unit at outdoor temperatures above 65 F:

1. With the system at nominal speed steady state, measure the liquid refrigerant pressure in psig at the service valve.
2. Measure the liquid refrigerant temperature in Fahrenheit at the service valve.
3. For the temperature measured, determine the liquid refrigerant pressure from the appropriate charging chart below.
4. If the pressure measured in step 1 is less than the required liquid refrigerant pressure determined in step 4, then there is too little charge in the system. Add refrigerant and repeat steps 1 through 3 until the system is correctly charged.
5. If the pressure measured in step 1 is greater than the required liquid refrigerant pressure determined in step 4, then there is too much charge in the system. Remove refrigerant and repeat steps 1 through 3 until the system is correctly charged.

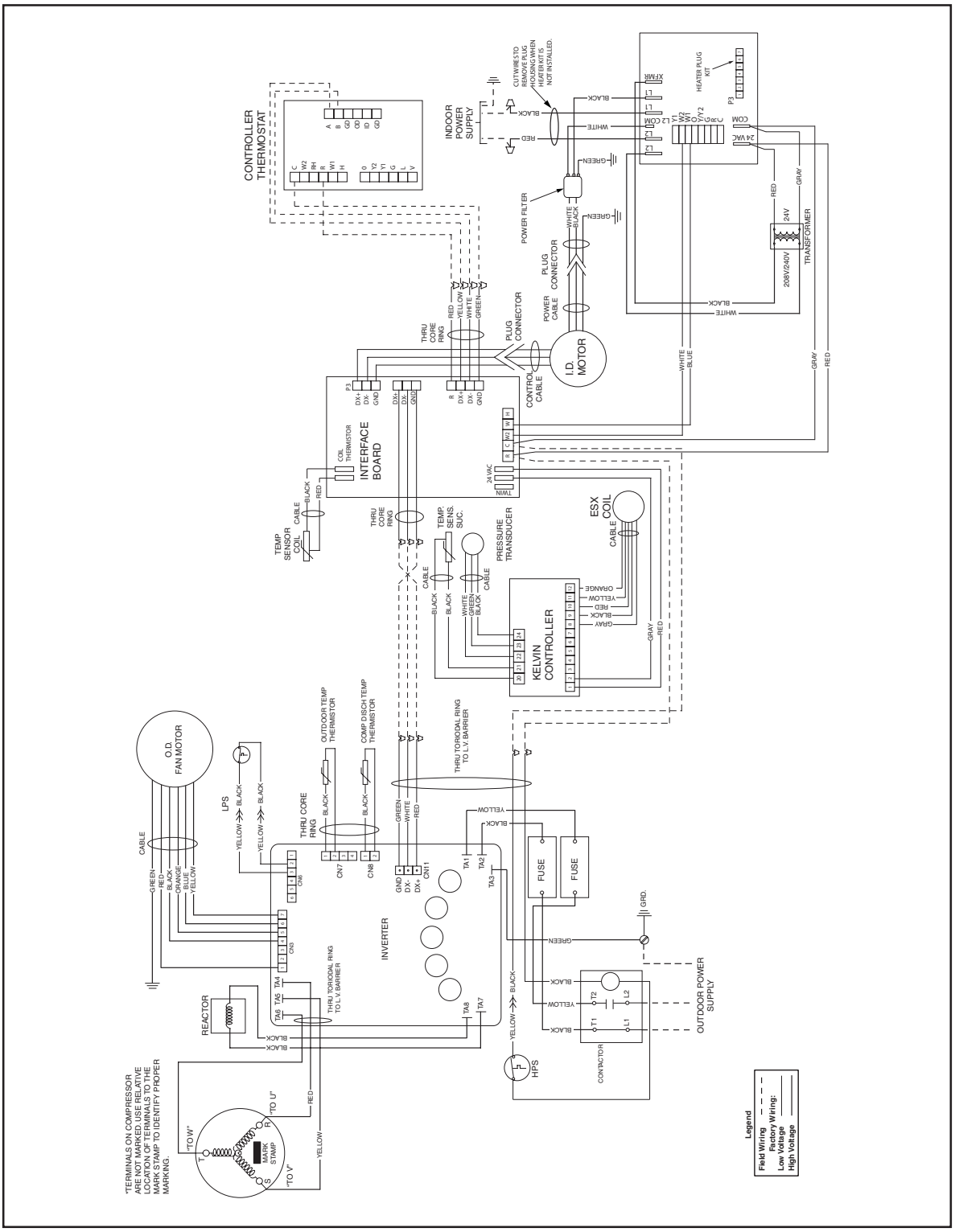
Refrigerant Charging Charts
For Cooling Mode of Operation



2,3, and 4 Ton iQ Drive Charging Chart



Outdoor Unit/Furnace Wiring Diagram



Outdoor Unit/Air Handler Wiring Diagram

INSTALLER: PLEASE LEAVE THESE INSTALLATION INSTRUCTIONS WITH THE HOMEOWNER

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