**IMPORTANT! Please Read Before Starting**

This air conditioning system meets strict safety and operating standards. Do not attempt to install or service this unit yourself if you do not fully understand the instructions or if you feel out of your depth. If you have any doubts about your ability to make repairs or complete the installation properly, contact your dealer or a professional contractor. Inadequate installation may result in safety hazards, poor performance, water leakage, and void warranty.

**SAFETY PRECAUTIONS**

Do not touch the indoor unit after installing the air conditioner, as it may be hot and cause burns.

**ABOUT THIS PRODUCT**

This unit is a suitable unit for people who are not familiar with air conditioning systems. However, it is necessary to have detailed knowledge and experience in the installation. If there is any doubt, please contact the installer.

**GENERAL SPECIFICATION**

This installation manual briefly outlines where and how to install the air conditioning system. Please read over the entire set of instructions for the indoor and outdoor units and make sure all accessories parts listed are with the system before beginning.

1. **TYPE OF COPPER PIPE AND INSULATION MATERIAL**
   - Copper piping for connecting the outdoor unit to the indoor unit.
   - Insulation material used for purchase locally. When you purchase these, please specify the following:
     - Model:
     - Inner diameter:
     - Outer diameter:
     - Thickness:
     - Length:

2. **ADDITIONAL MATERIALS REQUIRED FOR INSTALLATION**
   - Refrigerant (ammonia)
   - Insulated staples or clamps for connecting wire
   - Cable ties for electrical cords
   - Copper pipe insulation for copper pipes as required to precise length of piping. Wall thickness of the insulation should be less than 0.15/8" (3 mm).
   - Use insulated copper pipes for field wiring.

3. **OPERATING RANGE**
   - **D. Refrigeration lubricant**
     - A. Deoxidized annealed copper pipe for refrigerant locally. When you purchase these, please specify the following:
     - Model:
     - Inner diameter:
     - Outer diameter:
     - Thickness:
     - Length:

4. **SPECIAL PRECAUTIONS**
   - When Wiring:
     - Use a circuit breaker and receptacle matched to the current of the indoor unit.
     - When wiring, do not supply power to the unit until all wiring and tubing are complete.

5. **SAFETY ACCESSORIES**
   - This following safety accessories are supplied. Use them as required:
     - Name:
     - Quantity:
     - Description:

6. **SELECTING THE MOUNTING POSITION**
   - Determine the mounting position with the customer as follows:
     - Outdoor unit:
       1. Install at a place that can withstand the weight of the indoor and outdoor units and install positionally so that the units will not topple or fall.
       2. Do not install where there is the danger of combustible gas leakage.

7. **ELECTRICAL REQUIREMENTS**
   - Always make the air conditioner power supply a special branch circuit and provide a special switch and receptacle. Do not select the power outlet.

8. **INSTALLATION DIAGRAM OF OUTDOOR UNITS (OUTDOOR UNIT)**
   - Installation instructions on the back.

9. **CUSTOMER GUIDANCE**
   - Update the following to the customer in accordance with the operation manual.
OUTDOOR UNIT INSTALLATION

OUTDOOR UNIT

WARNING
Install the unit where it will not be tilted by more than 3°. However, do not install the unit with it tilted towards the side containing the compressor.

When installing the outdoor unit where it may exposed to strong wind, fasten it securely.

CONNECTING THE PIPE
1. CONNECTION PIPES

1.1. OUTDOOR UNIT

CAUTION
Do not purge the air with refrigerants, but use a vacuum pump to evacuate the installation! There is no extra refrigerant in the outdoor unit for air purging!

Use a vacuum pump and gauge manifold and charging hose for R410A exclusively.

Using the same vacuum for different refrigerants may damage the vacuum pump or the unit.

3. ADDITIONAL CHARGE

Refrigerant suitable for a piping length of 66ft(20m) is 99 ft.

For the additional amount, see the table below.

4. GAS LEAKAGE INSPECTION

After connecting the piping, check all the joints for gas leakage with gas leak detector.

When inspecting gas leakage, always use the vacuum pump for pressure. Do not use nitrogen gas.

ELECTRICAL WIRING (OUTDOOR UNIT)

CAUTION
When connecting the power supply cord, make sure that the phase of the power supply matches with the phase of the terminal board. If the phases do not match, the compressor will rotate in reverse and will not be able to compress.

1. Service cover removal
   - Remove the two mounting screws.
   - Remove the service cover by pulling downward.
   - Remove the screws from the connection cord to the condenser header using the tool nut.
   - Remove the knock out holes if necessary.
   - Connect the power supply cord and the connection cord to terminals.
   - Fasten the power supply cord and connection cord with cord clamps.

NOTE
- When wiring is completed, check all the wires and wiring method, etc.
- Do not use a screwdriver that is too small, otherwise, the screw heads may be damaged and prevent the screws from being properly tightened.
- Do not tighten the terminal screws too much, otherwise, the screws may break.
- See the table below for the terminal screw tightening torques.

WARNING
- Use ring terminals and tighten the terminal screws to the specified torques, otherwise, abnormal overheating may take place and possibly cause burn of the electrical parts.
- Connect the connection cord firmly to the terminal block. Improper connection may cause a fire.
- Always fasten the outside covering of the connection cord with the cord clamp. (If the insulator is chafed, electric leakage may occur.)
- Securely earth the power cord plug.

2. DISCONNECT SWITCH

Use 3-way valve and disconnect the valve from the outdoor unit.

Connect the 3-way valve to the specified torque.

3. ADDITIONAL CHARGE

Refrigerant suitable for a piping length of 66ft(20m) is 99 ft.

For the additional amount, see the table below.

4. GAS LEAKAGE INSPECTION

After connecting the piping, check all the joints for gas leakage with gas leak detector.

When inspecting gas leakage, always use the vacuum pump for pressure. Do not use nitrogen gas.