For authorized service personnel only.

1. Do not run the unit on power supply which has been turned off. Before turning the power supply, be sure to turn on the unit.

2. At the time of installation, never touch the air conditioner if your hands are wet.

3. Do not use any force or tools to open or close the compressor or to work on the compressor.

4. Do not run the unit on power supply which has been turned off. Before turning the power supply, be sure to turn on the unit.

5. Do not use any force or tools to open or close the compressor or to work on the compressor.

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49. Do not use any force or tools to open or close the compressor or to work on the compressor.

50. Do not use any force or tools to open or close the compressor or to work on the compressor.
Always use the screws as shown above.

Do not use this equipment with air or any other unspecified refrigerant in the refrigerant lines.

Never touch electrical components immediately after the power supply has been turned off. Electrical shock may result in severe personal injury or death.

Have installation work done by authorized service personnel only.

This installation manual describes how to install the outdoor unit only.

For the room air conditioner to operate satisfactorily, install it as outlined in this installation manual.

To install the indoor unit, refer to the installation manual included with the indoor unit.

SPECIAL PRECAUTIONS

The manufacturer shall in no way be responsible for improper installation conditions. If you require help for a special problem, contact our service counter or your nearest distributor.

In Case of Improper Installation

The installation shall in no way be responsible for any installation or maintenance service, including failures to follow the instructions in this manual.

SPECIAL PRECAUTIONS

When Wiring

Electrical Shock Can Cause Severe Personal Injury or Death.

Be careful when picking up and moving the indoor and outdoor units.

Do not use the existing (for R22) piping and flare nuts. When using R410A refrigerant, do not use the existing piping except that specified for R410A refrigerant.

Use a conventional vacuum pump can be used by installing a vacuum pump adapter.

This air conditioner uses new refrigerant HFC (R410A).

When Installing

CAUTION

Do not install the unit where people pass.

Do not install the unit where a strong wind blows or where it is very dusty.

If possible, do not install the unit where it will be exposed to direct sunlight.

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Do not install the unit where a strong wind blows or where it is very dusty.

If possible, do not install the unit where it will be exposed to direct sunlight.

Be careful when picking up and moving the indoor and outdoor units.

For authorized service personnel only.

WARNING

DO NOT use this equipment with air or any other unspecified refrigerant in the refrigerant lines.

CAUTION

This installation manual describes how to install the outdoor unit only.

To install the indoor unit, refer to the installation manual included with the indoor unit.

Do not touch the aluminum fins of heat exchanger built-in the indoor or outdoor unit to avoid personal injury when you install or maintain the unit.

Be careful to not scratch the air conditioner when handling it.

After the installation, correct operation to the customer, using the operating manual.

Get the customer keep this installation manual because it is used when the air conditioner is serviced or moved.

The maximum capacity of the piping is 68 (10 m). The maximum height difference of the piping is 48 (15 m). If the units are further apart than these, correct operation cannot be guaranteed.

-ELECTRICAL REQUIREMENT

Always check the air conditioner power supply is a special branch circuit and provide a special switch and receptacle. Do not extend the power cable. Always select the size of the power supply cable and the capacity of the circuit breaker in accordance with the values specified for the air conditioner.

Cable size: 1/2" 20 A

<table>
<thead>
<tr>
<th>Model</th>
<th>Indoor unit</th>
<th>Outdoor unit</th>
<th>Condenser wire size</th>
<th>Condenser wire size</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Tapping screw</td>
<td>Tapping screw</td>
<td>1/2 threads per inch</td>
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</tr>
<tr>
<td>OUTSIDE</td>
<td>3/8-24 UNS</td>
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<td>0.80 (0.032)</td>
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STANDARD ACCESSORIES

This air conditioner uses new refrigerant HFC (R410A).

For the room air conditioner to operate satisfactorily, install it as outlined in this installation manual.

SPECIAL PRECAUTIONS

The manufacturer shall in no way be responsible for improper installation conditions. If you require help for a special problem, contact our service counter or your nearest distributor.

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SPECIAL PRECAUTIONS

When Wiring

Electrical Shock Can Cause Severe Personal Injury or Death.

Be careful when picking up and moving the indoor and outdoor units.

For authorized service personnel only.

WARNING

DO NOT use this equipment with air or any other unspecified refrigerant in the refrigerant lines.

CAUTION

This installation manual describes how to install the outdoor unit only.

To install the indoor unit, refer to the installation manual included with the indoor unit.

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Get the customer keep this installation manual because it is used when the air conditioner is serviced or moved.

The maximum capacity of the piping is 68 (10 m). The maximum height difference of the piping is 48 (15 m). If the units are further apart than these, correct operation cannot be guaranteed.

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STANDARD ACCESSORIES

This air conditioner uses new refrigerant HFC (R410A).

For the room air conditioner to operate satisfactorily, install it as outlined in this installation manual.

SPECIAL PRECAUTIONS

The manufacturer shall in no way be responsible for improper installation conditions. If you require help for a special problem, contact our service counter or your nearest distributor.

In Case of Improper Installation

The installation shall in no way be responsible for any installation or maintenance service, including failures to follow the instructions in this manual.

SPECIAL PRECAUTIONS

When Wiring

Electrical Shock Can Cause Severe Personal Injury or Death.

Be careful when picking up and moving the indoor and outdoor units.

For authorized service personnel only.

WARNING

DO NOT use this equipment with air or any other unspecified refrigerant in the refrigerant lines.

CAUTION

This installation manual describes how to install the outdoor unit only.

To install the indoor unit, refer to the installation manual included with the indoor unit.

Do not touch the aluminum fins of heat exchanger built-in the indoor or outdoor unit to avoid personal injury when you install or maintain the unit.

Be careful to not scratch the air conditioner when handling it.

After the installation, correct operation to the customer, using the operating manual.

Get the customer keep this installation manual because it is used when the air conditioner is serviced or moved.

The maximum capacity of the piping is 68 (10 m). The maximum height difference of the piping is 48 (15 m). If the units are further apart than these, correct operation cannot be guaranteed.
IMPORTANT! Please Read Before Starting

This air conditioning system meets safety and operating standards. However, it is your responsibility to install or service the system in a safe and efficient manner.

For safe installation and trouble-free operation, you must:

1. Contact the dealer from whom you purchased this air conditioner.
2. Follow each instruction step by step exactly as shown.
3. Observe all local codes and regulations.

In case of improper installation or maintenance, this air conditioner may result in personal injury or death. THIS INSTALLATION MANUAL CONTAINS INSTRUCTIONS FOR INSTALLING THE OUTDOOR UNIT ONLY.

Contents of change

For authorized service personnel only.

(1) For the room air conditioner to operate satisfactorily, install it as outlined in this installation manual.
(2) In the area with heavy snowfall, if the intake and outlet of outdoor unit is obstructed, the refrigerant cycle will rise and cause rupture, injury, etc. (Use the special R410A materials.)

SPECIAL PRECAUTIONS

When Wiring

- ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH.
- EARTH (GROUND) THE UNIT ACCIDENTALLY OR DEATH. ONLY A QUALIFIED, EXPERIENCED SPECIAL PRECAUTIONS
- HEAT EXCHANGERS BUILT INTO THE INDOOR OR OUTDOOR UNIT TO AVOID PERSONAL INJURY WHEN USING THE UNIT.
- Check carefully for leaks before starting the test run.

When Connecting Refrigerant Tubing

- Keep all tubing run as short as possible.
- Use flair method for connecting tubing.
- Apply refrigerant oil to the mating surfaces of the flare and valve before connecting flare, then tighten the nut with a wrench. Be careful not to bend or kink the tubing run.

When Servicing

- Do not apply water to the unit. Water may cause electrical failure.
- In snowy areas, use a vacuum pump to remove any water or oil from the unit before starting the test run.

When Transporting

- Do not place any other electrical products or household appliances near the air conditioner. There is a risk of electrical shock.
- Handle the air conditioner carefully to avoid damage to the unit.

When Charging Refrigerant

- Do not charge the air conditioner if the compressor is not cool. The compressor may be damaged.
- Charge refrigerant slowly to prevent damage to the compressor.

For the room air conditioner to operate satisfactorily, install it as outlined in this installation manual.

Do not use the existing (for R22) piping and flares unless the diameter of each port has been changed. If the existing piping is used, the pressure inside the refrigerant cycle will rise and cause rupture, injury, etc. (See the special R410A materials.)

This installation manual describes how to install the outdoor unit only.

- Standard accessories
- Special tools for R410A
- OUTDOOR UNIT INSTALLATION
- SELECTING THE MOUNTING SITE
- INSTALLATION DIAGRAM OF OUTDOOR UNIT
- POWER
This air conditioner uses new refrigerant HFC (R410A). The table lists the materials used and the safety precautions for using refrigerant R410A.

- **CAUTION:**
  - When wiring:
    - Use the special terminal for connection.
  - For safe installation:
    - Do not mix gases other than the specified refrigerant (R410A).
    - Follow the installation and repair steps as shown.
    - When installing:
      - Make sure the piping is strong enough to hold the unit weight at a level foundation.
      - Do not use copper pipes thinner than 0.8 mm (0.032 in.).
    - When charging refrigerant:
      - Use a vacuum pump instead of a compressor.
      - Always use the screws as shown above.
  - For room air conditioner to operate satisfactorily, install it as outlined in this installation manual.
  - When transporting:
    - Be more careful that foreign matter (oil, water, etc.) does not enter the piping when using with refrigerant (R22 models).
    - When charging the refrigerant, take into account the slight change in the composition of the gas and liquid phases, and always charge from the liquid phase side whose composition is stable.

### ELECTRICAL REQUIREMENT
- Always connect the air conditioner power supply to a properly sized branch circuit and provide a protective fuse. Do not extend the power cord.
- Do not touch the aluminum fins of heat exchanger built-in the indoor or outdoor unit to avoid personal injury when you install or maintain the unit.

### OUTDOOR UNIT INSTALLATION
- **CAUTION:**
  - Do not install where there is the danger of combustible gas leakage.
  - Do not install near a water or water way.
  - Do not install in an area where it can be exposed to direct sunlight.
  - Do not install where the outdoor unit will be sheltered.
- **WARNING:**
  - Always install a special branch circuit and install a special disconnect switch in accordance with the wiring diagram and the labeling before installing the unit.
  - When the voltage is low and air conditioner is inefficient, it may not detect the compressor.

### INSTALLATION DIAGRAM OF OUTDOOR UNIT
- **CAUTION:**
  - Never use this equipment with air or any other unspecified refrigerant in the refrigerant lines.
  - For safe installation:
    - Do not mix gases other than the specified refrigerant (R410A).
    - Follow the installation and repair steps as shown.
    - When installing:
      - Make sure the piping is strong enough to hold the unit weight at a level foundation.
      - Do not use copper pipes thinner than 0.8 mm (0.032 in.).
    - In Case of Improper Installation:
      - Install the unit where it will not be tilted by more than 5°.

### SPECIAL PRECAUTIONS
- **CAUTION:**
  - When installing:
    - Make sure the piping is strong enough to hold the unit weight at a level foundation.
    - Do not use copper pipes thinner than 0.8 mm (0.032 in.).
  - **CAUTION:**
    - When transporting:
      - Be more careful that foreign matter (oil, water, etc.) does not enter the piping when using with refrigerant (R22 models).
    - When charging the refrigerant, take into account the slight change in the composition of the gas and liquid phases, and always charge from the liquid phase side whose composition is stable.

### INSTALLATION DIAGRAM OF INDOOR UNIT
- **CAUTION:**
  - Never use this equipment with air or any other unspecified refrigerant in the refrigerant lines.
  - For safe installation:
    - Do not mix gases other than the specified refrigerant (R410A).
    - Follow the installation and repair steps as shown.
    - When installing:
      - Make sure the piping is strong enough to hold the unit weight at a level foundation.
      - Do not use copper pipes thinner than 0.8 mm (0.032 in.).
  - **CAUTION:**
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    - When charging the refrigerant, take into account the slight change in the composition of the gas and liquid phases, and always charge from the liquid phase side whose composition is stable.
OUTDOOR UNIT WIRING

**WARNING**

- Do not use the earth (ground) screw for an external connector. Only use for interconnection between two units.

- Do not operate it during the following work.
  - Close the valve stems of 3-way valve when the reading on the compound pressure gage becomes 0.05~0 MPa (7.25~0 psi).

**CAUTION**

- Do not disconnect the piping by connecting the charging hose of gauge manifold to the charging port of 3 way valve and opening it.
- Do not use a small ratchet wrench, otherwise, the screw becomes loose.
- Do not use the tapping screw to install the control box cover.

**HOW TO CONNECT THE WIRE TO THE TERMINALS**

1. Use crimp-type terminals with insulating sleeves as shown in the figure below to connect to the terminal block.
2. Securely using the crimp-type terminal to the wire using an appropriate tool so that the wires do not come loose.
3. Do not use a small ratchet wrench, otherwise, the screw becomes loose.
4. Use an appropriate connection to tighten the terminal screws.
5. Do not tighten the terminal screws too much, otherwise, the terminals may be damaged.
6. Be sure to comply with local codes while running the wire from the indoor unit to the terminal block.
7. Connect wires to the matching numbers of terminals.

**NOTE**

- Do not use the tapping screw to install the control box cover.
- Be sure to comply with local codes while running the wire from the indoor unit to the terminal block.

**Operating Range**

<table>
<thead>
<tr>
<th>Cooling/Dry Mode</th>
<th>Heating Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor temperature</td>
<td>-10 to 46 °C</td>
</tr>
</tbody>
</table>

**Connecting the Piping**

**Connection**

- Connect the outdoor unit and indoor unit piping.
- After connecting the piping, check the parts for gas leakage with a gas leak detector.

**Flaring**

- Cut the piping that is not to be flared with the appropriate tool.
- Use of appropriate tool is as follows: for R22, use the conventional (R22) flaring tool.
- Use the special R410A flaring tool, or the conventional (for R22) flaring tool.

**Bending pipes**

- When bending the pipe, be careful not to crush it.
- To prevent breaking of the pipe, avoid sharp bends.
- Bend the pipe with a radius of curvature of 2-13/16° (70mm) or more.
- If the copper pipe is bent the pipe or pulled to often, it will become stiff.
- If the copper pipe is bent the pipe or pulled to often, it will become stiff.
- Bending pipes do take time. Use a pipe bender to bend the pipe.
- Use a pipe bender to bend the pipe.

**Connecting cables to the terminal block**

- Connect wires to the matching numbers of terminals.
- Use crimp-type terminals with insulating sleeves as shown in the figure below to connect to the terminal block.
- Securely using the crimp-type terminal to the wire using an appropriate tool so that the wires do not come loose.
- Use an appropriate connection to tighten the terminal screws.
- Be sure to comply with local codes while running the wire from the indoor unit to the terminal block.
- Connect wires to the matching numbers of terminals.

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- Securely using the crimp-type terminal to the wire using an appropriate tool so that the wires do not come loose.
- Use an appropriate connection to tighten the terminal screws.
- Be sure to comply with local codes while running the wire from the indoor unit to the terminal block.
- Connect wires to the matching numbers of terminals.
(2) Connect the connection cables firmly to the terminal block. Imperfect installation may cause a fire.
(1) Match the terminal block numbers and connection cable colors with those of the indoor unit.

- **Connect the connection cables firmly to the terminal block.**
- Imperfect installation may cause a fire.
- Erroneous wiring may cause burning of the electric parts.

- **Match the terminal block numbers and connection cable colors with those of the indoor unit.**

**OUTDOOR UNIT WIRING**

- **WARNING**
  - Use the appropriate type terminals with crimping tool as shown in the figure below to connect to the terminal block.
  - Securely crimp the crimp-type terminals to the wires using an appropriate tool so that the wires do not come loose.
  - Use an appropriate connector to tighten the terminal screws.
  - Do not use a screwdriver to tighten the screws, otherwise, the cable may be damaged and prevent the screws from being tightened fully.

- **NOTE**
  - Be sure to connect wiring to the terminals.

**HOW TO CONNECT THE WIRES TO THE TERMINALS**

1. Use crimp-type terminals with crimping tool as shown in the figure below to connect to the terminal block.
2. Securely crimp the crimp-type terminals to the wires using an appropriate tool so that the wires do not come loose.
3. Use an appropriate connector to tighten the terminal screws.
4. Do not use a screwdriver to tighten the terminal screws, otherwise, the cable may be damaged and prevent the screws from being tightened fully.

- **Be sure to connect wiring to the terminals.**

**OPERATING RANGE**

- **Cooling Mode**
  - Indoor temperature: About 19 to 28 °C (66 to 82 °F)
  - About 4 to 26 °C (39 to 78 °F)

- **Heating Mode**
  - Indoor temperature: About 19 to 28 °C (66 to 82 °F)

**CONNECTING THE PIPING**

**CONNECTION**

- **CONNECTION**
  - Connect the piping using an appropriate connector to ensure a tight seal.

**FLARING**

- **FLARING**
  - Cut the piping to the necessary length.

**BENDING PIPES**

- **BENDING PIPES**
  - When bending pipes, be careful not to crush them.

**TABLE 2 Pipe outside diameter**

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Flare Tool</th>
<th>Conduit Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.35 (1/4)</td>
<td>R410A</td>
<td>Conduit connector</td>
</tr>
<tr>
<td>9.52 (3/8)</td>
<td>Conventional (R22) flare tool</td>
<td>Conduit connector</td>
</tr>
<tr>
<td>12.70 (1/2)</td>
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</tbody>
</table>

**TIGHTENING TORQUE**

<table>
<thead>
<tr>
<th>Type</th>
<th>M3 screw</th>
<th>M4 screw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torque</td>
<td>0.5 to 1.0 N·m (4.4 to 9.1 lbf·in)</td>
<td>1.2 to 1.8 N·m (10.5 to 16.0 lbf·in)</td>
</tr>
</tbody>
</table>

**CAUTION**

- Do not use the ground (ground) screw for an external connector. Only use for interconnections between two units.

**CAUTION**

- Do not operate the vacuum pump for the air purification process if the outdoor unit is not charged with refrigerant.

**AIR PURGE**

- **AIR PURGE**
  - Always use a vacuum pump to purge the air.
  - Refrigerant for purging the air is not charged in the outdoor unit at the factory.

**Additional charge**

- Refrigerant suitable for a piping length of 68 ft (20 m) is charged in the outdoor unit at the factory.
  - When the piping length is greater than 68 ft (20 m), additional charging is necessary for the suction side piping.
  - Check the table below for charging.

**PUMP DOWN OPERATION (FORCED COOLING OPERATION)**

- **PUMP DOWN OPERATION (FORCED COOLING OPERATION)**
  - To avoid discharging refrigerant into the atmosphere at the time of evacuation or disposal, ensure refrigerant by doing the cooling operation or forced cooling operation according to the following procedure. (When the cooling operation cannot start in water and air, start the forced cooling operation.)
  - Do the air purging of the charge hose by connecting the charging hose to the gauge manifold.
  - Keep the system under 1 MPa (14.5 psi) while charging.
  - When the piping is longer than 49 ft (15 m), additional charging is necessary.
  - Use the tapping screw to install the control box cover.
  - The gauge manifold is tightened by the tapping screw.

**CONNECTIONS IN BOX CYCLES**

- **CONNECTIONS IN BOX CYCLES**
  - Use the tapping screw to install the control box cover.
  - The gauge manifold is tightened by the tapping screw.

**WARNING**

- **WARNING**
  - Do not operate the vacuum pump while the compressor is in operation with 2 or 3 way valve open.
  - Do not remove the connection pipe while the compressor is in operation with 2 or 3 way valve open.

**NOTE**

- **NOTE**
  - To avoid discharging refrigerant into the atmosphere at the time of evacuation or disposal, ensure refrigerant by doing the cooling operation or forced cooling operation according to the following procedure. (When the cooling operation cannot start in water and air, start the forced cooling operation.)
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- **CONNECTIONS IN BOX CYCLES**
  - Use the tapping screw to install the control box cover.
  - The gauge manifold is tightened by the tapping screw.

**CONNECTING THE PIPING**

- **CONNECTING THE PIPING**
  - Use the special R410A flare tool, or the conventional (R22) flare tool to connect.
  - Use a flaring tool to connect the piping.

**BENDING PIPES**

- **BENDING PIPES**
  - When bending the pipes, be careful not to crush them.

**WARNING**

- **WARNING**
  - Do not remove the connection pipe while the compressor is in operation with 2 or 3 way valve open.
  - Do not remove the connection pipe while the compressor is in operation with 2 or 3 way valve open.

**NOTE**

- **NOTE**
  - To avoid discharging refrigerant into the atmosphere at the time of evacuation or disposal, ensure refrigerant by doing the cooling operation or forced cooling operation according to the following procedure. (When the cooling operation cannot start in water and air, start the forced cooling operation.)
  - Do the air purging of the charge hose by connecting the charging hose to the gauge manifold.
  - Keep the system under 1 MPa (14.5 psi) while charging.
  - When the piping is longer than 49 ft (15 m), additional charging is necessary.
  - Use the tapping screw to install the control box cover.
  - The gauge manifold is tightened by the tapping screw.

**CONNECTING THE PIPING**

- **CONNECTING THE PIPING**
  - Use the special R410A flare tool, or the conventional (R22) flare tool to connect.
  - Use a flaring tool to connect the piping.

**BENDING PIPES**

- **BENDING PIPES**
  - When bending the pipes, be careful not to crush them.

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  - Use the special R410A flare tool, or the conventional (R22) flare tool to connect.
  - Use a flaring tool to connect the piping.
OUTDOOR UNIT WIRING

WARNING

(1) Use crimp-type terminals with insulating sleeves as shown in the figure below to connect to the terminals.
(2) Securely tighten the crimp-type terminals to the wires using an appropriate tool so that the wires do not come loose.
(3) Do not use a screwdriver that is too small, otherwise, the screws may be damaged and prevent the screws from being tightened.
(4) Do not cut the terminal screws too much, otherwise, the terminals may be damaged.

NOTE

- Do not use a screwdriver that is too small, otherwise, the screws may be damaged and prevent the screws from being tightened.
- Do not cut the terminal screws too much, otherwise, the terminals may be damaged.

HOW TO CONNECT THE WIRE TO THE TERMINALS

(1) Use crimp-type terminals with insulating sleeves as shown in the figure below to connect to the terminal block.
(2) Securely tightening the crimp-type terminal to the wires using an appropriate tool so that the wires do not come loose.
(3) Use an appropriate connection to tighten the terminal screws.
(4) Do not use a screwdriver that is too small, otherwise, the screws may be damaged and prevent the screws from being tightened.
(5) Do not cut the terminal screws too much, otherwise, the terminals may be damaged.

Connecting the outdoor and indoor units requires completing the following steps:

1. Cut the connection pipe to the necessary length with a pipe cutter.
2. Use the tapping screw to install the control box cover.
3. Insert the flare nut (always use the flare nut appropriate for the pipe size) onto the pipe and perform the flaring processing with a flaring tool.
4. Connect the connection pipe to the wall pipe.
5. Securely earth (ground) the power cable.

OPERATING RANGE

- Cooling/Dry Mode
  - Indoor temperature: About 18 to 19°C (64 to 66°F)
  - Outdoor temperature: About 6 to 26°C (43 to 79°F)

- Heating Mode
  - Indoor temperature: About 18 to 19°C (64 to 66°F)
  - Outdoor temperature: About 6 to 26°C (43 to 79°F)

CONNECTING THE PIPING CONNECTION

(1) Connect the connection pipe to the wall pipe with the optional installation set and wall seal supplied with the outdoor unit.
(2) Connect the connection pipe and wall seal to the wall pipe, and install the optional installation set and wall seal.
(3) Use the specified wires, connect them securely, and fasten them with two wrenches.

CAUTION

(1) Refrigerant must not be discharged into atmosphere.
(2) After connecting the piping, check the pipes for gas leakage with a gas leak detector.
(3) Do not use a screwdriver that is too small, otherwise, the screws may be damaged and prevent the screws from being tightened.
(4) Do not cut the terminal screws too much, otherwise, the terminals may be damaged.

PUMP DOWN OPERATION (FORCED COOLING OPERATION)

To avoid discharging refrigerant into the atmosphere at the time of evacuation or evacuation, use pump down by using the evacuation or forced cooling operation according to the following procedure (When the evacuation operation cannot start in winter, and so on, start the forced cooling operation).

(1) Do the air purging of the charge hose by connecting the charging hose of gauge manifold to the charging port of 3-way valve and opening the low-pressure valve slightly.
(2) Close the valve stems of 3-way valve completely.
(3) Slowly loosen the valve stem of the 3-way valve. When the compound pressure gauge reads -0.1 MPa (30 in.Hg ), retighten the flare nut.
(4) Close the valve stems of 3-way valve when the reading on the compound pressure gauge becomes 0.05~0.1 MPa (7.25~0 psi).
(5) Start the operation.
(6) Keep the MANUAL AUTO button of the indoor unit on for more than 10 seconds.

INFORMATION

(1) Refrigerant suitable for a piping length of 49 ft (15 m) is charged in the system.
(2) The table below shows the additional amount of refrigerant suitable for a piping length of 49 ft (15 m).
(3) Additional refrigerant
  - R410A: 0.2 oz/ft (20 g/m)
  - R22: 0.2 oz/ft (20 g/m)

<table>
<thead>
<tr>
<th>Piping Length (ft)</th>
<th>Additional Refrigerant Amount (oz/ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>0.2</td>
</tr>
<tr>
<td>66</td>
<td>0.2</td>
</tr>
</tbody>
</table>

CAUTION

(1) Do not remove the connection pipe while the compressor is in operation with 2-way or 3-way valve open. This may cause abnormal pressure in the refrigeration cycle that leads to rupture and even injury.
(2) Use an appropriate connection to tighten the terminal screws.
(3) Do not use a screwdriver that is too small, otherwise, the screws may be damaged and prevent the screws from being tightened.
(4) Do not cut the terminal screws too much, otherwise, the terminals may be damaged.