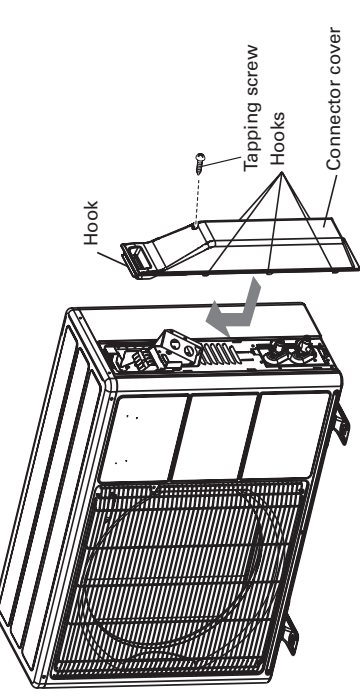


OUTDOOR UNIT INSTALLATION

- Minimize the shock and vibration on the ground because it will cause trouble.
- **Connector cover removal**
 - (1) After inserting the two front hooks, then insert the rear hook.
 - (2) Tighten the tapping screws.



- **Installing the connector cover**
 - (1) After inserting the two front hooks, then insert the rear hook.
 - (2) Tighten the tapping screws.

WARNING

- (1) **Install the unit where it will not be filled by more than 5°.**
- (2) **When installing the outdoor unit where it may be exposed to strong wind, fasten it securely.**

CAUTION

- (1) Refrigerant must not be discharged into atmosphere.
- (2) After connecting the piping, check the joints for gas leakage with gas leak detector.

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.

Close the high pressure side valve of the gauge manifold fully and do not operate it during the following work.

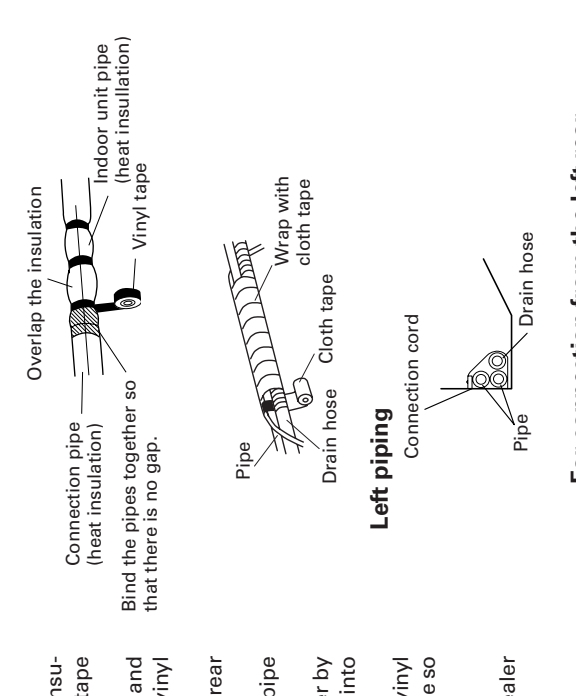
1. Check if the piping connections are secure.
2. Check that the stems of 2-way valve and 3-way valve are closed fully.
3. Connect the gauge manifold charge hose to the charging port of the 3-way valve (side with the projection for pushing in the valve core).
4. Open the low pressure side valve of the gauge manifold fully.
5. Operate the vacuum pump and start pump down.
6. Slowly loosen the flare nut of the 3-way valve and check if air vacuum pump charge and the reading of the compound pressure gauge goes (from zero).
7. Pump down the system for at least 15 minutes, then check if the compound pressure gauge reads -0.1 MPa (76 cmHg, -1 bar).
8. At the end of pump down, close the low pressure side gauge of the gauge manifold fully and stop the vacuum pump.
9. Slowly loosen the valve stem of the 3-way valve. When the compound pressure gauge reading reaches 0.10-0.2 MPa, retighten the valve stem and disconnect the charge hose from the stem of the 3-way valve. If the stem of the 3-way valve is opened fully before the charge hose is disconnected, it may be difficult to disconnect the charge hose.

Tightening torque

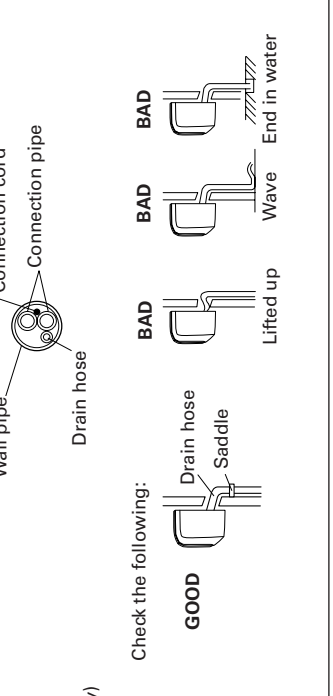
Blank cap (2-way valve)	14.75 to 19.44 ft-lbs (200 to 250 kgfcm)
Blank cap (3-way valve)	22.12 to 25.81 ft-lbs (300 to 350 kgfcm)
Changing part cap	7.27 to 8.65 ft-lbs (100 to 120 kgfcm)

FINISHING

- (1) Insulate between pipes.
 - For rear, right, and bottom piping, overlap the connection pipe heat insulation so that there is no gap.
 - For left and left rear piping, but the connection pipe heat insulation and indoor unit pipe heat insulation together and bind them with vinyl tape.
- (2) For left and left rear piping, wrap the area which accommodates the rear piping housing section with cloth tape.
- (3) For left and left rear piping, bundle the piping and drain hose together by wrapping them with cloth tape over the range within which they fit into the rear piping housing section. cord along the connection pipe with vinyl tape. (Wrap to about 1/3 the width of the space from the bottom of the pipe so that water does not enter.)
- (4) Fasten the connection pipe to the outside wall with saddles, etc. so that rain water and wind cannot blow in.
- (5) Fasten the drain hose to the outside wall, etc.



For connection from the left rear



FRONT PANEL REMOVAL AND INSTALLATION

THE INTAKE GRILLE REMOVAL

- (1) Open the intake grille.
- (2) Pull down the knob.
- (3) Push the intake grille forward, until the axle at the top of the intake grille is removed.

THE INTAKE GRILLE INSTALLATION

- (1) The fixing axle of the intake grille is installed on the Panel.
- (2) Lay down the intake grille.

THE FRONT PANEL REMOVAL

- (1) Push the reference intake grille (removal).
- (2) Remove six screws.
- (3) The thumb is hung on the lower part as shown in the figure, and it pulls to the front, pushing the mark, and bottom hooks and it pulls to the front, pushing the mark, and bottom hooks.
- (4) The front panel is pulled to the front, along the upper surface, and a front panel is removed.

THE FRONT PANEL INSTALLATION

- (1) Firstly, fit the lower part of the front panel, and insert top and bottom hooks. (Three top sides)
- (2) Push the front panel forward.
- (3) The intake grille is attached.

CAUTION
Install the front panel and INTAKE GRILLE securely. If installation is imperfect, the front panel or INTAKE GRILLE may fall off and cause injury.

ELECTRICAL WIRING (OUTDOOR UNIT)

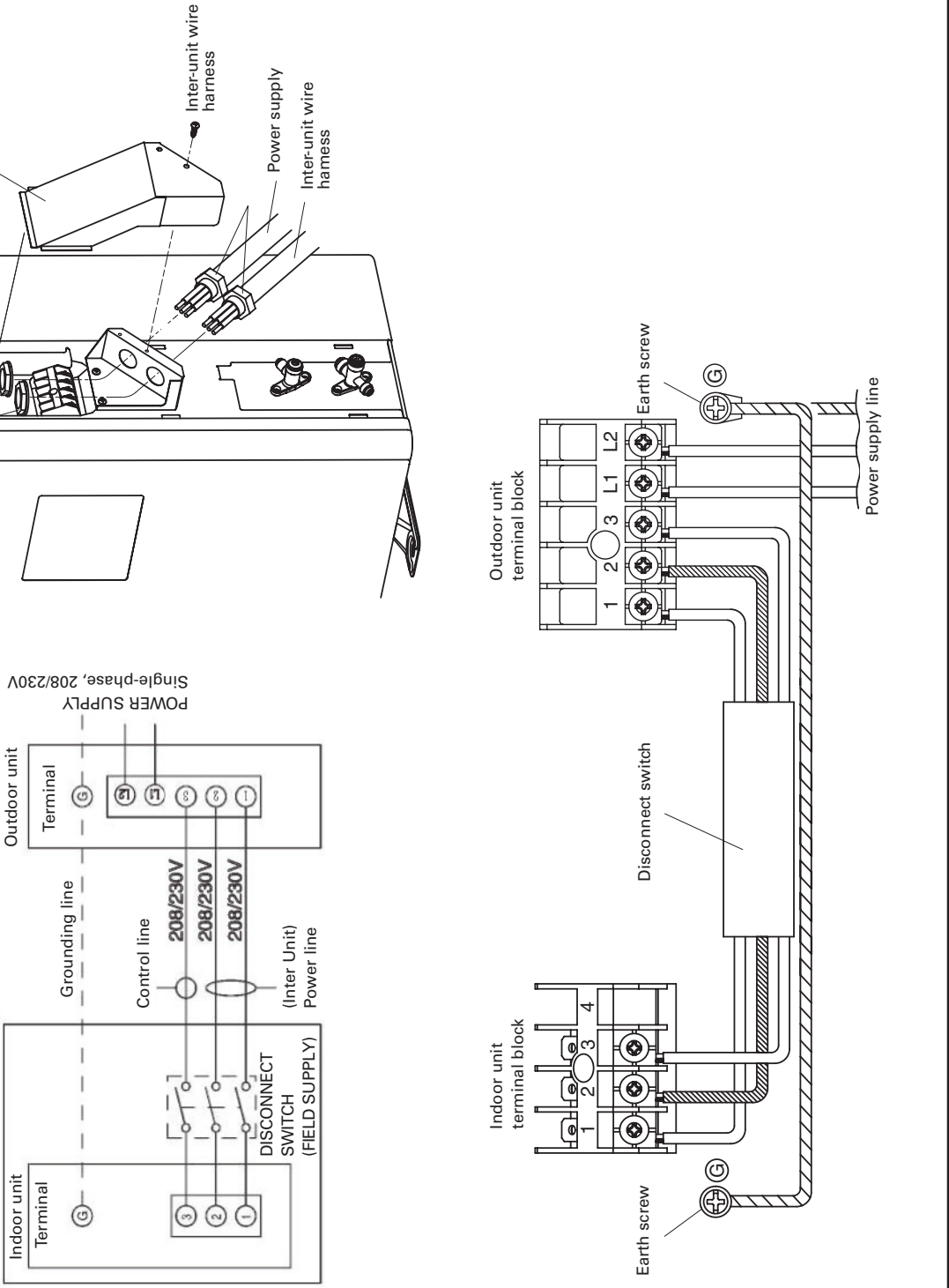
1. Remove the screws, then remove the control box cover.
2. Fix the outdoor unit wire harness and power supply to the conduit holder using the lock nut.
3. Connect indoor unit wire harness and power supply to the terminal.
4. Use the screws to install the control box cover.

NOTE:

- Conductor leads for this unit is 1.67 (1/2 inch). The conductor must be brought to the terminals for instructions on connecting depending on the wire type you are using.
- Full load current of the outdoor unit provides power supply protection for the indoor unit when power is applied if the system has been incorrectly wired.

WARNING

- Be sure to comply with local codes while running the wire from the indoor unit to the outdoor unit (size of wire and wiring method, etc.).
- Every wire must be connected firmly.
- No wire should be allowed to touch refrigerant tubing, the compressor or any moving part.
- Loose wiring may cause the terminal to overheat or result in unit malfunction. A fire hazard may also exist. Therefore, be sure all wiring is tightly connected.
- Connect wires to the matching numbers of terminals.



TEST RUNNING

1. Perform test operation and check items 1 and 2 below.
 - For the test operation method, refer to the operating manual.
 - While the air conditioner is running, check the temperature in the room with the test run button on the remote control unit toward the air conditioner and press the test run button with the tip of a ball-point pen, etc.)
 - To stop test operation, press the remote control unit START/STOP button.
 - Test operation is terminated by pressing the test run button, the OPERATION indicator lamp and TIMER indicator lamp will simultaneously flash slowly.
1. **INDOOR UNIT**
 - (1) Is operation of each button on the remote control unit normal?
 - (2) Does each lamp light normally?
 - (3) Does the transmitter section operate normally?
 - (4) Is the drain normal?
2. **OUTDOOR UNIT**
 - (1) Is there any abnormal noise and vibration during operation?
 - (2) Will noise, wind, or drain water from the unit disturb the neighbors?
 - (3) Is there any gas leakage?

POWER

- (1) The rated voltage of this product is 208/230 V AC 60 Hz.
- (2) Before turning on the power, check if the voltage is within the 208 V-10% to 230 V +10% range.
- (3) Always use a special branch circuit and install a special receptacle to supply power to the room air conditioner.
- (4) Use a circuit breaker and receptacle matched to the capacity of the power cord.
- (5) Do not extend the power cord.
- (6) Perform wiring work in accordance with standards so that the air conditioner can be operated safely and positively.
- (7) Install a leakage circuit breaker in accordance with the related laws and regulations and electric company standards.

CAUTION

- (1) The power source capacity must be the sum of the air conditioner current and the current of other electrical appliances. When the current contracted capacity is insufficient, change the contracted capacity.
- (2) When the voltage is low and the air conditioner is difficult to start, contact the power company the voltage raised.

CUSTOMER GUIDANCE

Explain the following to the customer in accordance with the operation manual.
(1) Start and stopping method, operation switching, temperature adjustment, timer air flow switching, and other remote control unit operations.
(2) Preventing mold and dirt, and how to use the air filters.
(3) Give the operating and installation manuals to the customer.

REMOTE CONTROL UNIT INSTALLATION

CAUTION

- (1) Check that the indoor unit correctly receives the signal from the remote control unit, then install the remote control unit holder.
 - (2) Select the remote control unit holder selection site by paying careful attention to the following: Avoid places in direct sunlight. Select a place that will not be affected by the heat from a stove, etc.
1. **REMOTE CONTROL UNIT HOLDER INSTALLATION**
 - Install the remote control unit with a distance of 23 ft (7 m) between the remote control unit and the photocell as the criteria. However, when installing the remote control unit, check that it operates positively.
 - Install the remote control unit holder to a wall, pillar, etc. with the tapping screw.

PUMP DOWN OPERATION (FORCED COOLING OPERATION)

To avoid discharging refrigerant into the atmosphere at the time of relocation or disposal, recover refrigerant by doing the cooling operation or forced cooling operation according to the following procedure. (When the cooling 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) Press the MANUAL AUTO button of the remote control unit.
(3) Start the cooling operation or following forced cooling operation.
(4) When using the remote control unit, press the TEST RUN button after starting the cooling operation by the remote control unit.
(5) Keep on pressing the MANUAL AUTO button of the indoor unit for more than 10 seconds.
(6) Press the MANUAL AUTO button of the indoor unit (The remote control unit kit, and so on).
(7) Press the TEST RUN button after starting the cooling operation by the remote control unit.
(8) Press the MANUAL AUTO button of the indoor unit for more than 10 seconds.
(9) Press the TEST RUN button of 3 way valve when the reading on the compound pressure gauge becomes 0.05-0 MPa (0.5-0 kg/cm²).
(10) Stop the operation.
(11) Press the START/STOP button of the remote control unit to stop the operation.
(12) Press the MANUAL AUTO button when stopping the operation from indoor unit side.
(It is not necessary to press on keeping for more than 10 seconds.)

CAUTION

During the pump-down operation, make sure that the compressor is turned off before you remove the refrigerant piping. 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 breakage and even injury.

CAUTION

Install heat insulation around both the gas and liquid pipes. Failure to do so may cause water leaks. Use heat insulation with heat resistance above 248 °F. (Reverse cycle model only)
In addition, if the humidity level at the installation location of the refrigerant piping is expected to exceed 70%, install heat insulation with heat resistance above 248 °F. (Reverse cycle model only)
If the humidity level at the installation location of the refrigerant piping is expected to exceed 70%, use heat insulation that is 15 mm or thicker and if the expected humidity exceeds 80%, use heat insulation that is 20 mm or thicker.
If heat insulation is used that is not as thick as specified, condensation may form on the surface of the insulation. In addition, use heat insulation with heat conductivity of 0.045 W/(m·K) or less (at 68 °F).

OPTIONAL KIT INSTALLATION (OPTION)

This air conditioner can be connected with the following optional kits.
• Wired remote controller
• External input/output kit

BEFORE INSTALL WIRE REMOTE CONTROLLER

- When you use wired remote controller, some functions may not be used.
- Please use the recommended wired remote controller.

CAUTION

- (1) Before installing, be sure to disconnect all power supply.
- (2) Don't touch the heat exchanger.
- (3) During installing or removing operation, be sure not to have wire caught by parts or draw it hard. Or, it may result troubles to the air-conditioner.
- (4) Avoid place that will not be affected by the heat from a stove, etc.
- (5) Select place that will not be affected by the heat from a stove, etc.
- (6) Before setting up the optional kit, please confirm whether air-conditioner can receive the signal.
- (7) Do not connect the wired remote controller with the indoor unit, please use the connecting cable packaged up with the wired remote controller.
- (8) When connecting the wired remote controller with the indoor unit, please use the connecting cable packaged up with the wired remote controller.
- (9) Recommended cable length of wired remote controller is 10 m. Make sure to do insulate of connecting part when extended the cable.

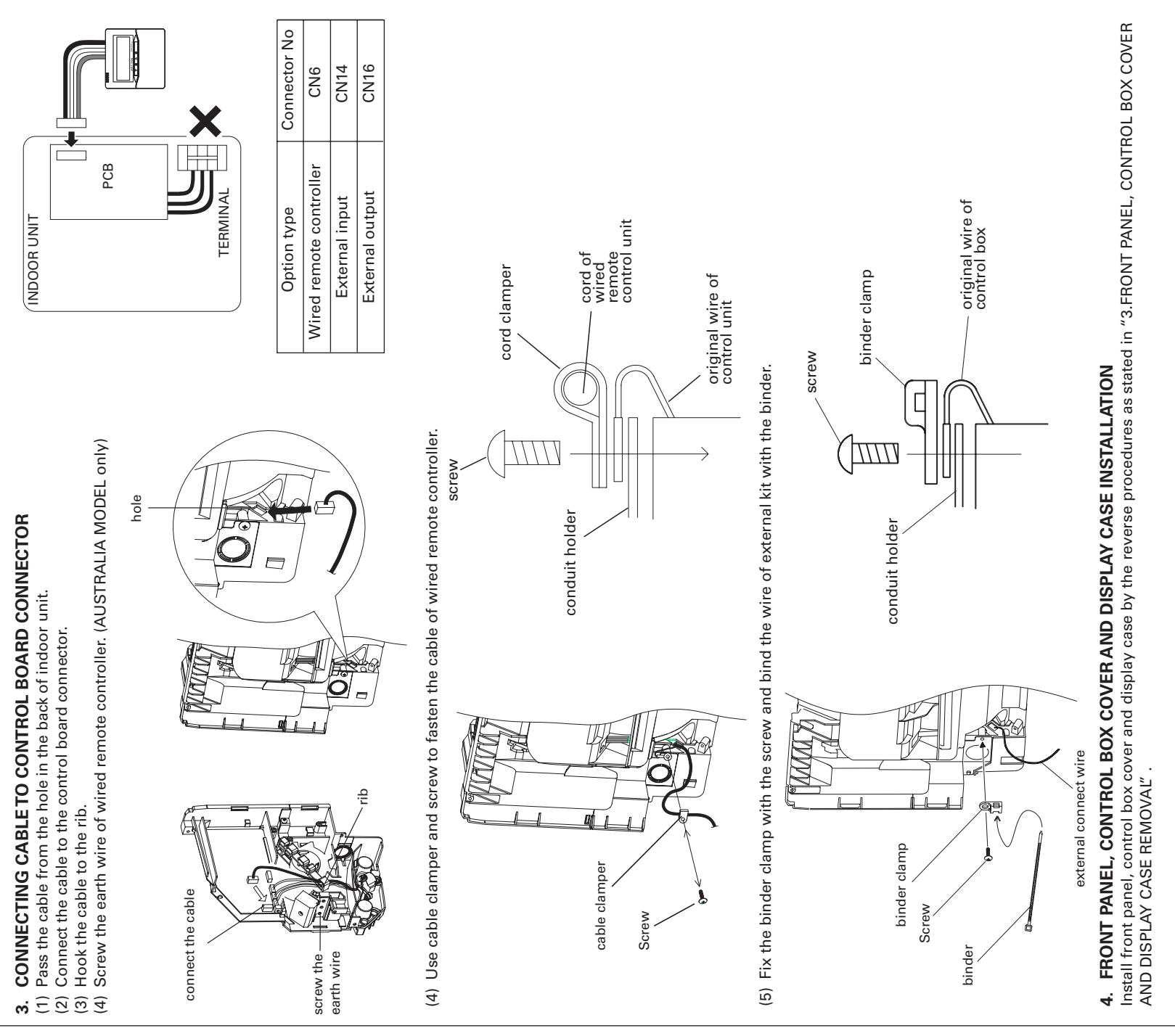
REMOTE CONTROLLER CABLE MODIFICATION

- (1) Use a tool to cut off the insulation on the end of the remote controller cable, and then strip the insulation on the end of the remote controller cable, and connect the remote controller cord and connecting cable. (supplied with wired remote controller)

Important: Be sure to insulate the connection between the cables.

FRONT PANEL CONTROL BOX COVER AND DISPLAY CASE REMOVAL

- (1) Refer to "FRONT PANEL REMOVAL AND INSTALLATION" to remove the front panel.
- (2) Remove the screw then remove the control box cover.
- (3) Remove the display case and connector.



4. FRONT PANEL CONTROL BOX COVER AND DISPLAY CASE INSTALLATION AND DISPLAY CASE REMOVAL
Install front panel, control box cover and display case by the reverse procedures as stated in "3. FRONT PANEL, CONTROL BOX COVER AND DISPLAY CASE REMOVAL".