

CENTRAL CONTROL SC-SL4-AE, SC-SL4-BE

INSTALLATION MANUAL

PJZ012D091A

- Please read this manual thoroughly and follow it carefully when carrying out installation work.
- Please also refer to the installation manuals for the indoor and outdoor units.
- The appliance must be installed in accordance with national wiring regulations.
- The product is a precision equipment, so please handle it with enough care to prevent the unit damage due to falling and being stepped on.
- Before touching the terminal block, turn off the power supply.

Safety Precautions

- Before starting installation work, read the “Safety Precautions” thoroughly in order to ensure you carry out installation correctly.
 - Safety Precautions are divided into “Warning ⚠” and “Caution ⚠”.
 - ⚠ **WARNING** : Indicates a high possibility that serious injuries or death may occur if the unit is not installed correctly.
 - ⚠ **CAUTION** : Indicates a possibility that serious consequences may occur depending on circumstances.
- Please be sure to follow the instruction.
- After completing the installation, carry out a test run to confirm that no abnormalities occur, and show customers how to use the unit according to the User’s Manual. Please ask customers to keep the Installation Manual on hand.

⚠ WARNING

- Please ask your dealer or relevant professionals to install the unit. Installing the unit by yourself may result in defects, which may lead to electric shocks or fire.
- Install the unit correctly according to the Installation Manual. If any of the installation steps are not followed, electric shocks or fire may occur.
- Be sure to only use the included accessories and specified parts when installing the unit. Otherwise, it may result in electric shocks or fires.
- The electrical work should be performed by qualified electrical engineer, according to <Electrical Standards>, <Local electrical safety regulations> and wiring specification. If any of the installation steps are not followed, electric shocks or fire may occur.
- When wiring, ensure solid connection and fasten specified cables securely so that terminal connections may not be subject to external force working on cables. Incomplete connection for terminal wiring may cause electric shock and resultant fire.

⚠ CAUTION

- Please perform grounding work. Please do not connect the ground wire with gas pipes, water pipes, lightning rod and telephone ground wire. Incomplete grounding work may cause electric shock.
- Please do not install the central control at the following places.
 1. Oil fog filled place, oil spraying and steamy location such as kitchen, etc.
 2. The place where corrosive gas such as sulfur dioxide generates.
 3. The location with machine that generates radio wave. It may cause abnormality in the control system and abnormal running.
 4. The location at risk of flammable gas leaking. The place where volatile combustible substance such as paint thinner and gasoline exists. By any chance the gas leaks and it accumulates around the equipment, it may cause ignition.

1 Applicable Models All models for Superlink

2 Accessories Please check the following accessories.

Central control	1 unit
Pan-head screws (M4)	4 pieces for installing on the control box (10mm) 4 pieces for embedding in a wall (40mm)
Pan-head screws (M3)	4 pieces (8mm) for installing the central control

• For SC-SL4-BE

CD-ROM (Energy consumption calculation software)	1 unit
--	--------

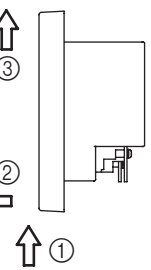
USB Memory	1 unit
------------	--------

User’s manual (CD-ROM)	1 unit
Installation Manual (this document)	1 unit
Installation bracket (front)	1 piece
Installation bracket (rear)	1 piece
Round crimping terminal (L)	Large size × 2 pieces
Round crimping terminal (S)	Small size × 6 pieces

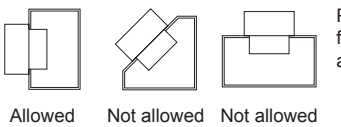
Installation procedure

(1) Remove the upper case

- ① Take out two screws using a cross slot screwdriver. (Do not lose the screws)
- ② Pull the upper case a little forward and push above. Then, upper case can be removed.



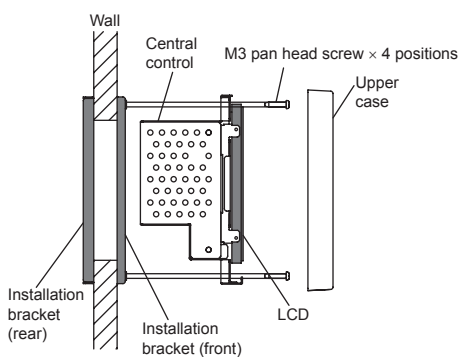
Caution



- Embed signal wire and power supply wire in the wall beforehand.
- Connect wires to the terminal block.
- Confirm power supply voltage and connect correctly.

(2) Installation outline

- Be sure to use the attached installation brackets.

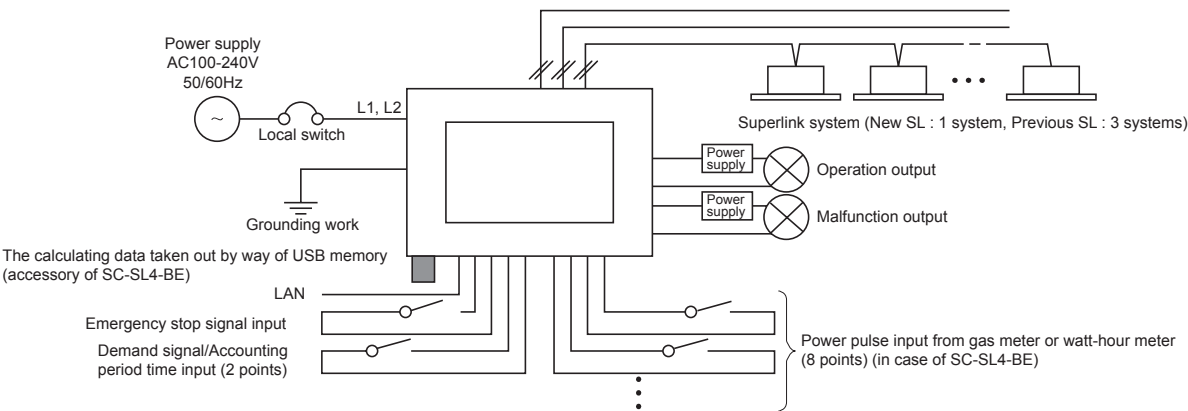


- Fasten the central control to the front side of the control box or a hole in the wall using the M3 screws.
- Wire separately the power supply wire and the signal wire for preventing malfunctions.

4 Electric Wiring

- For safety reasons, please use the round crimping terminals with insulated sleeves for connecting all wires to the central control.
- Please do the grounding work. Please do not connect earth line with gas pipes, water pipes, lightning rods and grounding line of telephone.
 - Please do not turn on the power supply (local switch) until all of the work is completed.
 - Please wait at least two minutes after the indoor and outdoor units are turned on before turning on the power supply.
 - Except for the central control in the figure, all of the components are obtained at the site (wires, switches, relays, power supply, lamps, etc.)
 - Please be sure to build the circuit breaker which is easily accessible with building equipment’s wiring.
 - Please be sure to use the supplied round crimped terminals when connecting wires to the power supply terminal block and Superlink terminal block.
 - Before connecting the wires, remove the cover of the terminal block. After the work is completed, fix the cover of the terminal block as before. The cover is used to prevent electric shock due to accidental contact.
 - Please use a gas meter or watt-hour meter, demand input device and emergency stop input device which comply with a relevant IEC Safety Standard.

Wiring Outline



Wiring Specifications

Power supply wire	1.25mm ²
Local switch	10A
Superlink signal wire (Note 1, Note 2)	Shielded wire (double-core, 0.75mm ² - 1.25mm ²). Max. 1000m per line (Max. distance: 1000m, Total wire length: 1000m)
The wire for operation output, error output, emergency stop and demand input	Shielded wire (double-core, 0.75mm ² - 1.25mm ²). Maximum length: 200m per system
The wire for gas meter or watt-hour meter	Shielded wire (double-core, 0.75mm ² - 1.25mm ²). Maximum length: 200m per system
Grounding wire	0.75mm ² - 6mm ²

Note 1: When this central control is used, use a shielded wire for the Superlink signal wire. Ground both ends of the shielded wire. (Please wire the ground of the central control at ⓑ of “System Wiring” in the diagram)

Note 2: If the indoor and outdoor units connected to the network are all compatible units with New Superlink, a total wire length of 1500m per line is possible (maximum distance: 1000m). However, be sure to use a 0.75mm² wire diameter if the total wire length exceeds 1000m. For further information, please contact your sales representative or dealer.

3

Installation Work

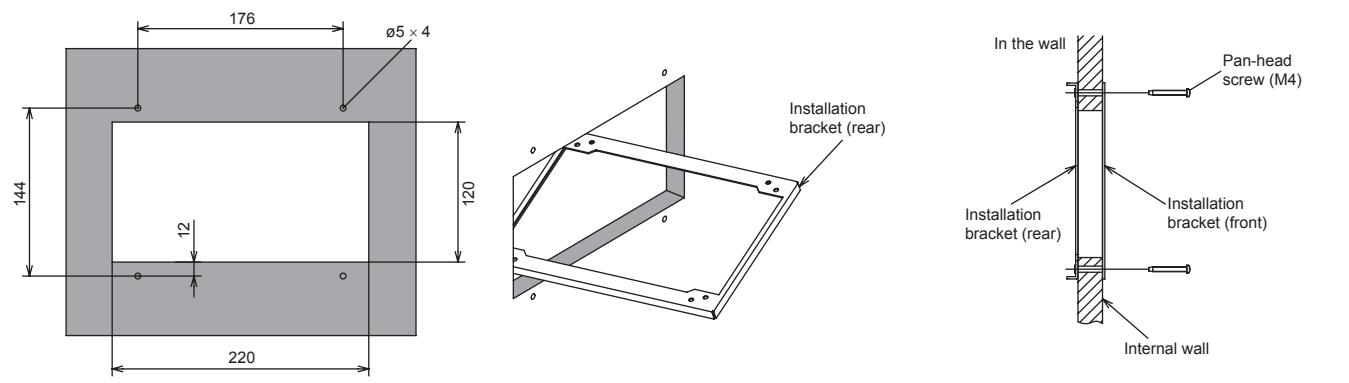
Please install the central control after turning off the power for fear of electric shock. Please arrange or protect the wiring so that excessive force is not applied to the electrical wires.

Installation Place

Please install in an indoor location that is not exposed to electromagnetic waves, water, dust, or other foreign substances. The operating temperature range of this product is from 0°C to 40°C. Install in a location where the ambient temperature remains within the operating temperature range. However, if the operating temperature range is exceeded, be sure to implement corrective measures such as installation of a cooling fan. Be aware that continued usage of this central control outside the operating temperature range can result in operation problems.

Space Required for Installation

<Opening Space for the Installation>



Create a hole in the wall as shown in the figure above. Be sure to check the dimensions required to correctly install the unit.

Insert the installation bracket (rear) into the rear of the wall through the hole, and secure the bracket.

Fasten the installation bracket (front) and installation bracket (rear) as shown in the figure above. The top and bottom of the brackets can be easily identified. Be sure to check the “↑UP” mark to install it right side up.

(1) In case of installing on the control box

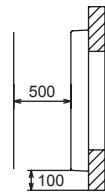
- Please use the control box of the size of 300mm × 400mm × 120mm or larger.
- Please be sure to lock the control box to protect persons from electric shock. Avoid usage of heat-retaining materials and heat-insulating materials because these can result in heat buildup and adversely affect the operation of the central control.

Caution

Please do not install devices that can cause the ambient temperature to rise in the same control box. Also, do not install multiple controllers in the same control box. These can cause heat to build up and result in false operation. If multiple central control must be installed in the same control box, take corrective measures to ensure that the temperature in the control box does not rise above 40°C such as by installing cooling fans.

<Service space>

Front of the central control
500mm or larger
Bottom of the central control
100mm or larger

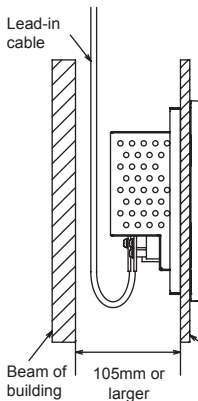


(2) In case of embedding in a wall

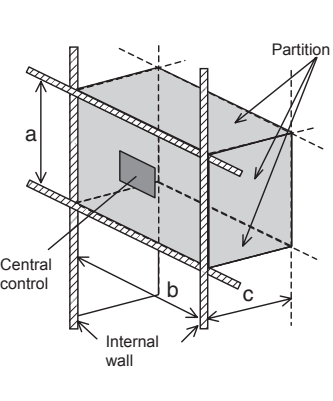
Be sure to use the attached installation brackets. Alternatively, you can use SLA3R-BX for SC-SL3N. Please be sure to use for protecting persons from the electric shock. Please check that the sufficient space is available in the wall. When the inside of the wall is divided and have a cavity, please create space more than 0.08m³. Refer to the table below. If there is partition on the left, right, top and bottom of the central control, please create a space that is 105mm or deeper.

	a (height) (mm)	b (width) (mm)	c (depth) (mm)	space (m ³)
Example1	900	800	110	0.08
Example2	1800	400	110	0.08
Example3	1000	400	200	0.08
Minimum	600 or larger	400 or larger	110 or larger	

<No partition>

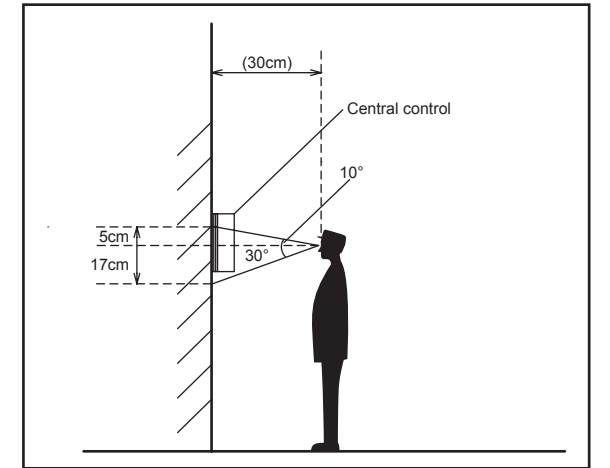


<With partition>

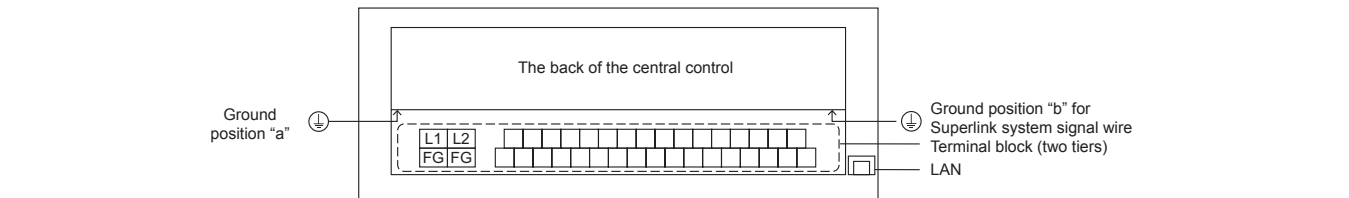


Installation Position

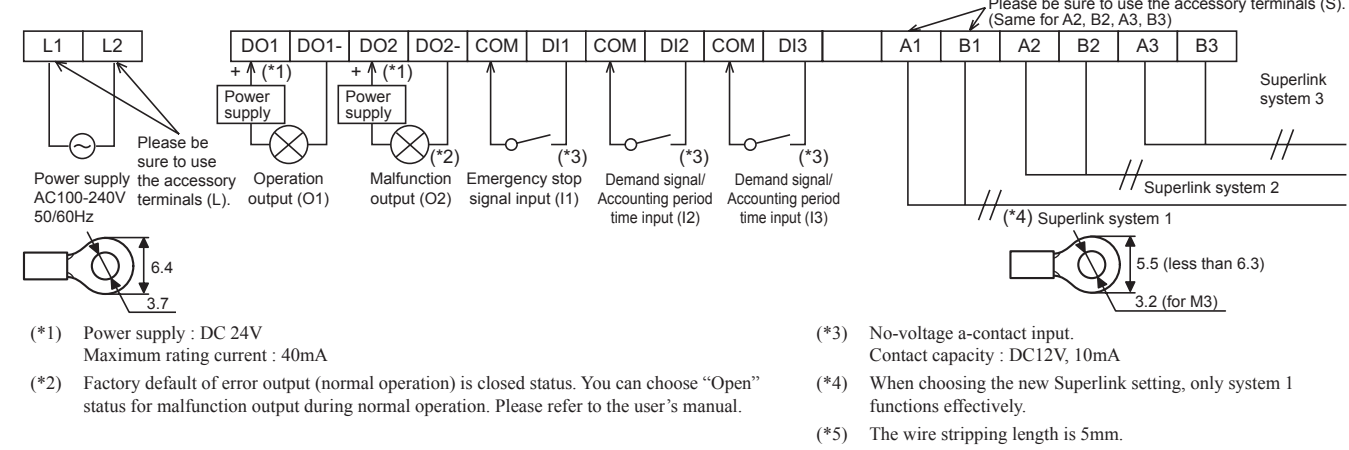
Install the central control so that the center of the screen will be at the same height as the eye level of people who will frequently use the unit. The recommended position is that the center of the screen becomes within +10, -30 degrees from eye level.



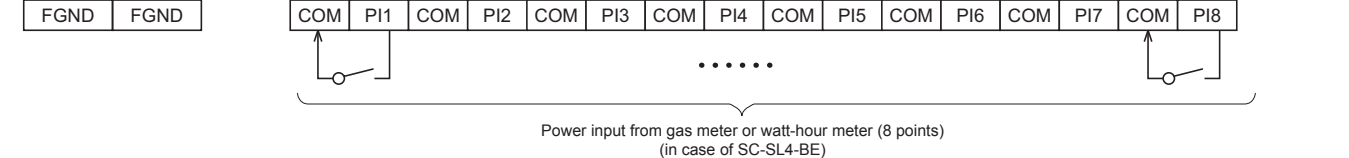
System Wiring



(1) The upper tier of Terminal Block (*)



(2) The lower tier of Terminal Block



Caution

- Do not connect power supply wire to another terminal block. When you connect by mistake, damage and damage by fire of the electric part are caused, and it is very dangerous. Please check the wiring thoroughly again before turning on power.
- The demand signal input is configured for two points. To configure the 3 level setting, contact your sales representative or dealer.
- Please connect the gas meter or the watt-hour meter that satisfies the specification below.
 - the meter with pulse transmitter
 - the meter with pulse width of 100ms or more
- The energy consumption calculated by this central control does not conform to OIML, and there are no guarantees concerning the results of the calculations.

Notice

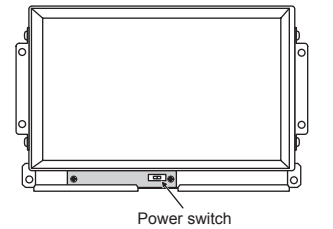
Please choose the new or previous setting of Superlink (SL) in the display of the main unit. (See user’s manual) It is necessary to change if the connection network is for previous Superlink. Whether the real connection network is new Superlink or previous Superlink depends on the type of connected indoor unit, outdoor unit, etc. Inquire the agents or dealers for more information. When choosing the new Superlink Communication setting, 1 system wiring can connect up to a maximum of 128 units. Be sure to connect wiring to the Superlink system 1. Be careful not to connect to the Superlink system 2 or 3, as the main unit will not be recognized.

Power switch

The power switch is lower front of the central control. After installation is completed, turn the power switch ON. Note that the central control does not start up unless the power switch is turned ON. (It is turned ON by factory default.)

Note

Please peel off the protection sheet of the screen when you pass the central control to the customers. Before you mount the upper case, please peel off the sheet.



After checking the wiring and doing power switch operation, when the screen is not displayed, please contact the shop where the central control was purchased. This product consists of the exclusive parts, and you can not exchange the electrical equipment. Please do not disassemble other than what is stated in this instruction manual.

Other Information

- This central control is electronic and independently mounted control.
- The type of this central control is automatic action for which the manufacturing deviation and the drift of its operating value, operating time or operating sequence have not been declared and tested under the standard.
- The actions of this central control are full-disconnection on operation, a trip-free mechanism which cannot even momentarily be reclosed against the fault, an action which can only be reset by the use of a tool, an action that does not require any external auxiliary energy source of electrical supply for its intended operation, and electronic disconnection on operation.
- The rated impulse voltage (impulse withstand voltage) is 2500V.
- The surface of touch panel and front cover produce an increase of temperature of about 15 degrees.
- Purpose of control is operating control.
- The lifetime of the keying of touch panel is ten million times. The lifetime of LCD is about 80,000 hours.
- Control pollution degree is 2.
- Ball pressure test temperature : 75 °C (front cover)
- Voltage and current declared by the EMC tests : AC85V:172mA, 200V:103mA
- The MAINTENANCE MENU is provided for dealers and qualified professionals responsible for maintaining the central control units. When logging in with a normal operator’s ID, you are not permitted to operate the MAINTENANCE MENU. Please refer to the user’s manual. Please do not disclose the ID and password to anyone except operators. ID : MHI, Password : 123456 The default ID and password can be changed. Please refer to “MAINTENANCE USER SETTING” in the user’s manual.