**Wired Remote Controller**
**7 Day Programmable Thermostat**
**Ductless Systems**
**KSACN0401AAA**
**KSACN0501AAA**

## INSTALLATION INSTRUCTIONS



**NOTES**: Read the entire instruction manual before installing the unit.

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## SAFETY CONSIDERATIONS

Read these instructions thoroughly and follow all warnings or cautions included in the literature and attached to the unit. Consult local building codes and National Electrical Code (NEC) for special requirements.

Recognize safety information. This is the safety−alert symbol $\triangle$. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury. Understand these signal words: **DANGER**, **WARNING**, and **CAUTION**. These words are used with the safety−alert symbol. **DANGER** identifies the most serious hazards which will result in severe personal injury or death. **WARNING** signifies hazards which could result in personal injury or death. **CAUTION** is used to identify unsafe practices which may result in minor personal injury or product and property damage. **NOTE** is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

# ⚠ CAUTION

**EQUIPMENT DAMAGE HAZARD**

Failure to follow this caution may result in equipment damage or improper operation. Excessive torque can break the flare nut depending on installation conditions.

# ⚠ CAUTION

Failure to follow this warning could result in personal injury or death.
Before beginning any modification or installation of this kit, ensure the main electrical disconnect is in the OFF position. Ensure power is disconnected to the fan coil unit. On some systems both the fan coil and the outdoor unit may be on the same disconnect. Tag the disconnect switch with a suitable warning label. There may be more than one to disconnect.

# ⚠ CAUTION

**INSTALLATION**

Entrust the distributor or authorized professionals to install the unit. Installation by unskilled persons may lead to improper installation, electric shock, or fire.
Re–installation must be performed by authorized professionals.
Non–compliance may lead to electric shock or fire.

**NOTES**: **Save this manual for future reference**.

- This manual provides a detailed description of the precautions that the user should be mindful of during operation.
- To ensure correct service of the wired controller, read this manual carefully before using the unit.
- Keep this manual, after reading it, for future reference.

**NOTES**:

1. Do not install the unit in a location vulnerable to flammable gas leaks. Once flammable gases are leaked and left around the wire controller, a fire may occur.
2. Do not operate with wet hands or allow water to enter the wire controller, otherwise an electric shock may occur.
3. The wiring should be a compatible connection cable for the current wired controller. Otherwise, electric leakage or heating may occur and result in a fire.
4. The specified cables shall be applied in the wiring. No external force may be applied to the connection wire terminal. Otherwise, a wire cut and heating may occur and result in a fire.

# COMPATIBILITY

|  | | Wired Controller Part Number | |
|---|---|---|---|
|  | **Model Number** | **KSACN0401AAA** | **KSACN0501AAA** |
| **High Wall** | **40MPHA** | • | |
| | **619PHA** | • | |
| | **DHMPHA** | • | |
| | **DLFPHA** | • | |
| | **40MAQ** | • † | |
| | **619P\*B** | • † | |
| | **DLFSHA** | • | |
| | **40MHH** | • | |
| | **DLFEHA** | • | |
| **Cassette** | **40MBQB\*C** | | • |
| | **619R\*C** | | • |
| | **40MBCQ** | | • |
| | **DLFSCA** | | • |
| | **DLFLCA** | | • |
| **Ducted** | **40MBQB\*D** | | • |
| | **619R\*D** | | • |
| | **40MBDQ** | | • |
| | **DLFSDA** | | • |
| | **DLFLDA** | | • |
| **Console** | **40MBQB\*F** | •[2] | |
| | **619R\*F** | •[2] | |
| | **40MBFQ** | • Sizes 9−12 | • Sizes 18−58 |
| | **DLFSFA** | • Size 12 | • Sizes 18−24 |
| | **DLFLFA** | | • |

**NOTES**:

- \* = wildcard character representing one or more characters
- † Compatible with indoor units starting with Serial Number 0216V10001
- [2] Compatible with indoor units starting with Serial Number 0117V10001.

Units built prior this serial number would require a Control Board Replacement on the Indoor unit.

# INSTALLATION ACCESSORY

## PREPARATION BEFORE INSTALLATION

1. Confirm the following required parts have been supplied.

**Parts**

| No. | Name | Qty. | Remarks |
|-----|------|------|---------|
| 1 | Wired controller | 1 | |
| 2 | Installation and owner's manual | 1 | |
| 3 | Screws | 3 | M4X20 (for mounting on the wall) |
| 4 | Wall plugs | 3 | For mounting on the wall |
| 5 | Screws | 2 | M4X25 (for mounting on the switch box) |
| 6 | Plastic screw bars | 2 | For fixing on the switch box |
| 7 | Battery | 1 | |
| 8 | The connection cable | 1 | 19 feet (6 meters) |
| 9 | Adapter Board | 1 | Required for High Wall 40MAQ/619P*B |
| 10 | Display Board | 1 | Required for High Wall 40MAQ/619P*B |

**NOTES**:

**Extension wire available through RCD (Replacement Components). Part Number: 17401204000769.**
**For 40MHH High Wall or other indoor units, please follow the instructions on the installation manual of the indoor unit.**

2. Prepare the following assemblies on site.

**Assemblies**

| No. | Name | QTY. (Embedded into Wall) | Specification (Only for Reference) | Remarks |
|-----|------|---------------------------|-------------------------------------|---------|
| 1 | Switch box | 1 | | |
| 2 | Wiring tube (insulating sleeve and tightening screw) | 1 | | |

## WIRED CONTROLLER INSTALLATION PRECAUTION

1. This manual provides the wired controller installation method. Refer to the wiring diagram in this installation manual to wire the wired controller with the indoor unit.

2. The wired controller works in a low voltage loop circuit. Do not connect directly to 208/230V and 460V. Do not wire this kind of wire into a loop. Wiring clearance between the configured tubes should range 11.81−19.69 inches (30−50 cm) or above.

3. The shielded wire of the wired controller must be properly grounded.

**NOTES**: Upon completion of the wired controller connection, do not use a tramegger to test the insulation.

## CONTROLLER DIMENSIONS
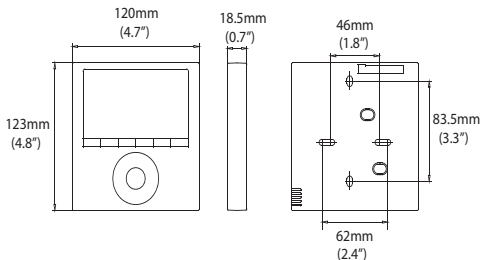


**Fig. 1 — Wired Remote Controller Dimensions**
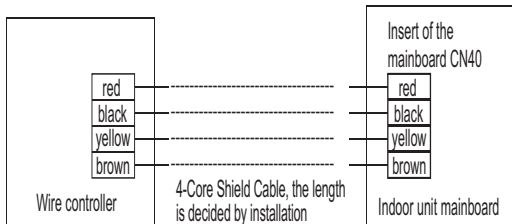


**Fig. 2 — Wiring Connection Diagram**

# INSTALLATION
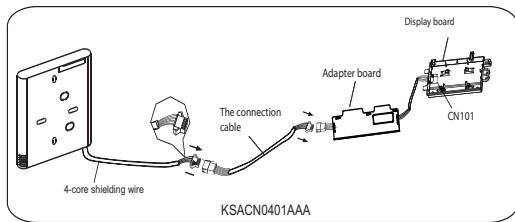


**Fig. 3 — Installation of KSACN0401AAA**

1. Install the Adapter Board and the Display Board on the High Wall (See the Appendix for instructions).
2. Connect the female joint of the wires group from the adapter board with the male joint of the connective wires group. Next, connect the other side of the adapter board with the display board (see Fig. 3).
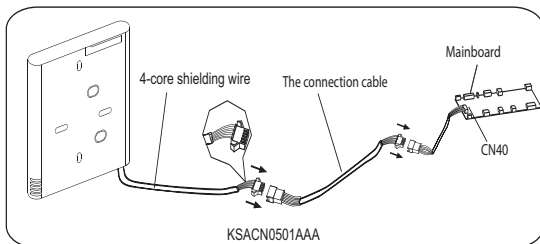3. Connect the other side of the connective wires group with the male joint of the wires group leads from the wire controller (see Fig. 3).



**Fig. 4 — Installation of KSACN0501AAA**

1. Connect the female joint of the wires group from the mainboard with the male joint of the connective wires group (see Fig. 4).
2. Connect the other side of the connective wires group with the male joint of the wires group leads from the wire controller (see Fig. 4).

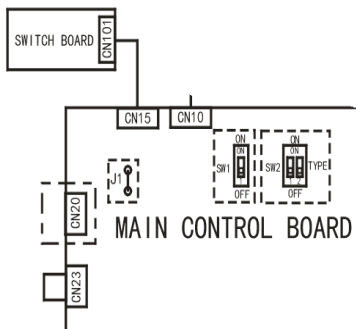# INSTALLATION OF KSACN0401AAA FOR CONSOLE INDOOR MODELS SIZES 9–12
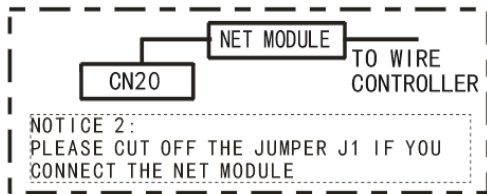


**Fig. 5 — Main Control Board**



**Fig. 6 — Net Module**

1. Cut off the J1 jumper cable located on the Main Control Board (see Fig. 5).
2. Locate the net module connected to CN20 on the Main Control Board.
3. Connect the wired control with the net module.

## WIRED CONTROLLER UPPER PART REMOVAL

1. Insert a flat screwdriver into the slots in the lower part of the wire controller (2 places).
2. Remove the upper part of the wire controller (see Fig. 7).
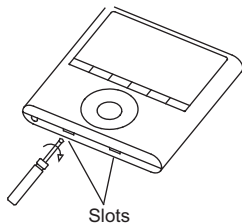


Slots

**Fig. 7 — Slots**

**NOTES**:  The PCB is mounted in the upper part of the wired controller. Be careful not to damage the board with the screwdriver.

## FASTEN THE WIRED CONTROLLER BACK PLATE

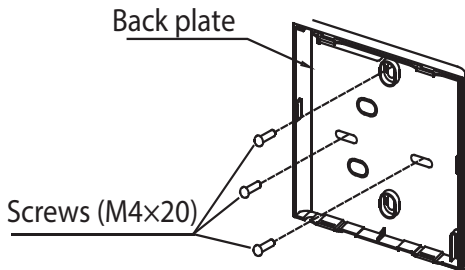1. For surface mounting, fasten the back plate on the wall with the 3 screws (M4x20) and plugs (see Fig. 8).



**Fig. 8 — Fasten Back Plate**

2. For switch box mounting, fasten the back plate on the switch box with 2 screws (M4x25) and fasten it on the wall with 1 screw (M4x20) (see Fig. 9).
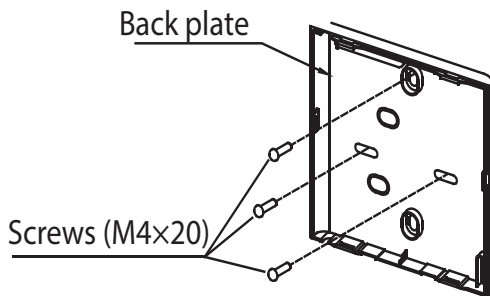


**Fig. 9 — Flush Mounting**

**NOTES**: Place on a flat surface. Be careful not to distort the wire controller's back plate by over–tightening the mounting screws.
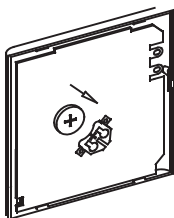
## BATTERY INSTALLATION



**Fig. 10 — Battery Installation**

1. Place the battery in the unit and ensure the positive side of the battery is in accordance with the polarity markings (see Fig. 10).

2. Set the correct time before operating. Batteries in the wired controller can maintain the correct time during a power failure. When the power is restored and the displayed time is not correct, replace the battery.

# WIRE THE INDOOR UNIT
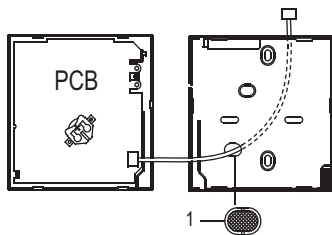
There are three methods:

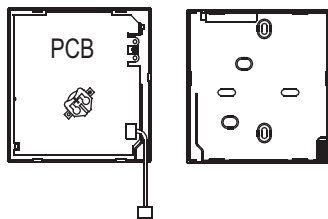1. From the rear



**Fig. 11 — From the rear**

2. From the bottom



**Fig. 12 ─ From the bottom**
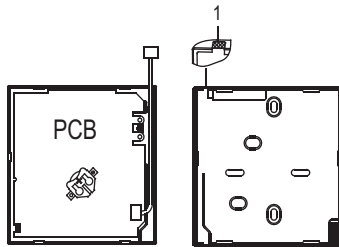
3. From the top



**Fig. 13 ─ From the top**

4. Notch the part for the wiring to pass through with a nipper tool.

**NOTES**: **DO NOT** allow water to enter the remote control. Use the trap and putty to seal the wires.
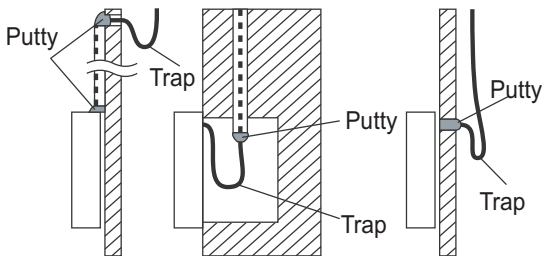
**Fig. 14 — Seal the wires**

## REATTACH THE WIRED CONTROLLER'S UPPER PART

1. While adjusting and mounting the upper case, avoid clamping the wiring during installation (see Fig 15).
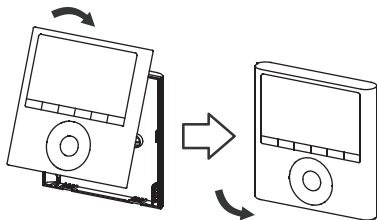


**Fig. 15 — Buckle the upper case**

**IMPORTANT**: All the pictures in this manual are for illustration purposes only. Your wire controller may differ slightly.

# APPENDIX
## INSTALL THE WIRE CONTROLLER KIT

1. Open the front panel.



**Fig. 16 — Front Panel**

2. Disconnect the wire from the main controller board.



**Fig. 17 — Main Controller Board**

3. Identify the components. Fig. 18 shows, from left to right, the wired controller, adapter board and the display board.



**Fig. 18 — Wired Controller, Adapter Board, and Display Board**

4. Identify connections on the Display Board.

- CN201 is the display board connection to the main board wire (on the display board).



**Fig. 19 — CN201 Connection to the Main Control Board**

- CN101 is the display board connection to the Adapter board wire (on the display board).



**Fig. 20 — CN101 Connection to the Adapter Board**

5. Uninstall the display board from the front panel. Keep the display board holder.



**Fig. 21 — Display Board Holder**

6. Carefully bend and break off the rectangular section (upper left section with two diagonal holes) from the display board.
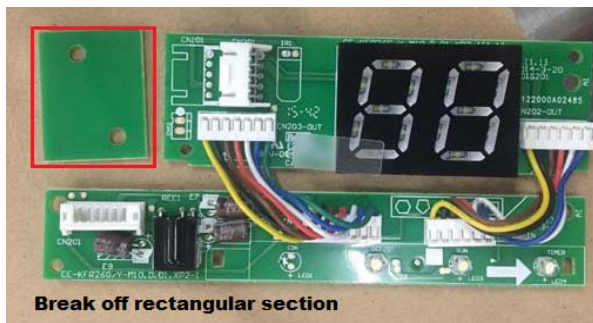


**Fig. 22 — Display Board**

**NOTES**: Break off the upper left hand rectangle (section with the two holes marked with a red rectangle).

7. Replace the old display board (for the New Display board provided) and secure with the clips. To uninstall the clips, push the clips inward.

**NOTES**: There are 4 clips just above the numeric display (88) which run the length of the holder.



**Fig. 23 — Display Board Installed on the Display Board Holder**

8. Before assembling mounting back on the Front Panel, remove the display board's screen cover.



**Fig. 24 — Display Board Screen Cover**

9. Connect the Wires to the Adaptor Board.
   a. Connect the wire coming from the Display board to the Adapter Board (this connection consists of 5 wires).



**Fig. 25 — Adaptor Board to Display Board Connection**

b. Connect the wire coming from the Wired Remote Controller to the Adapter Board (this
      connection consists of 4 wires).



**Fig. 26 — Wired controller port**

10. Once the ports are connected, install the cover.



**Fig. 27 — Transformer Board**

11. Mount the new display board and Adapter board to the Front Panel.
12. Connect the wired remote controller to the display board and the Adapter board.



**Fig. 28 — Front Panel with New Display Board and Adapter Board**

13. Connect the wire from the main controller board (see Fig. 2).

# SPECIFICATION

**Specification**

| Input voltage | KSACN0401AAA: DC 5V |
|---|---|
| | KSACN0501AAA: DC 12V |
| Ambient temperature | 23~110F (−5~43C) |
| Ambient humidity | RH40%~RH90% |

**Wiring Specifications**

| WIRING TYPE | SIZE | MAXIMUM LENGTH |
|---|---|---|
| Sheathed vinyl cord or cable | 0.029 in−0.74mm | KSACN0401AAA: 66 ft (20m) |
| | (0.75−1.25mm$^{2)}$) | KSACN0501AAA: 164 ft (50m) |

# TECHNICAL INDICATIONS AND REQUIREMENT

EMC and EMI comply with the CE certification requirements.