

# WIRED REMOTE CONTROLLER INSTALLATION MANUAL



## WDC-120G/WK(A)

Version: MD13I-047BW  
202055101012

Thank you very much for purchasing our product.  
Before using your unit, please read this manual carefully and keep it for future reference.

### SAFETY PRECAUTION

- Read the safety precautions carefully before installing the unit.
- Stated below are important safety issues that must be obeyed.
- Conform there is no abnormal phenomena during test operation after complete, then hand the manual to the user.
- Meaning of marks:

	<b>WARNING</b>	Means improper handling may lead to personal death or severe injury.
	<b>CAUTION</b>	Means improper handling may lead to personal injury or property loss.



#### WARNING

**Please entrust the distributor or professionals to install the unit.**  
Installation by other persons may lead to imperfect installation, electric shock or fire.

**Strictly follow this manual.**  
Imporper installation may lead to electric shock or fire.

**Reinstallation must be performed by professionals.**  
improper installation may lead to electric shock or fire.

**Do not disassemble your air conditioner at will.**  
A random disassembly may cause abnormal operation or heating, which may result in fire.



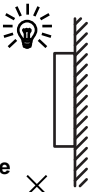
#### CAUTION

**Do not install the unit in a place vulnerable to leakage of flammable gases.**  
Once flammable gases are leaked and left around the wire controller, fire may occure.

**The wiring should adapt to the wire controller current.**  
Otherwise, electric leakage or heating may occur and result in fire.

**The specified cables shall be applied in the wiring. No external force may be applied to the terminal.**  
Otherwise, wire cut and heating may occur and result in fire.

**Do not place the wired remote controller near the lamps, to avoid the remote signal of the controller to be disturbed. (refer to the right figure)**



### OTHER PRECAUTIONS

#### Installation Location

Do not install the unit in a place with much oil, steam, sulfide gas. Otherwise, the product may deform and fail.

#### Preparation before installation

1. Check whether the following assemblies are complete.

No.	Name	Qty.	Remarks
1	Wire controller	1	
2	Cross round head wood mounting screw	3	GB950-86 M4X20 (For Mounting on the Wall)
3	Cross round head mounting screw	2	M4X25 GB823-88 (For Mounting on the Electrical Switch Box)
4	Installation Manual	1	
5	Owner's Manual	1	
6	Plastic expansion pipe	3	For Mounting on the Wall
7	Plastic screw bar	2	For fixing on the 86 electrician box
8	Switching wires for signal receiving board	1	For connecting the signal receiving board and 4-core shielding wire
9	Switching wires for wire controller	1	(If needed) For connecting the main control panel and 4-core shielding wire
10	Switching wires for wire controller signal	1	For connecting the indoor unit connector and 4-core shielding wire

2. Prepare the following assemblies on the site.

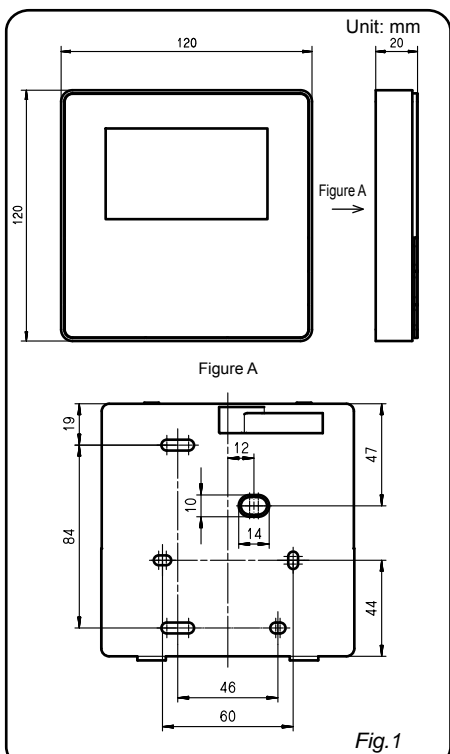
No.	Name	Qty.(embedded into wall)	Specification (only for reference)	Remarks
1	4-core shielded cable	1	RVVP-0.5mm <sup>2</sup> x4	The longest is 15m
2	86 Electrician box	1		
3	Wiring Tube(Insulating Sleeve and Tightening Screw)	1		

#### Note to installation of wire controller:

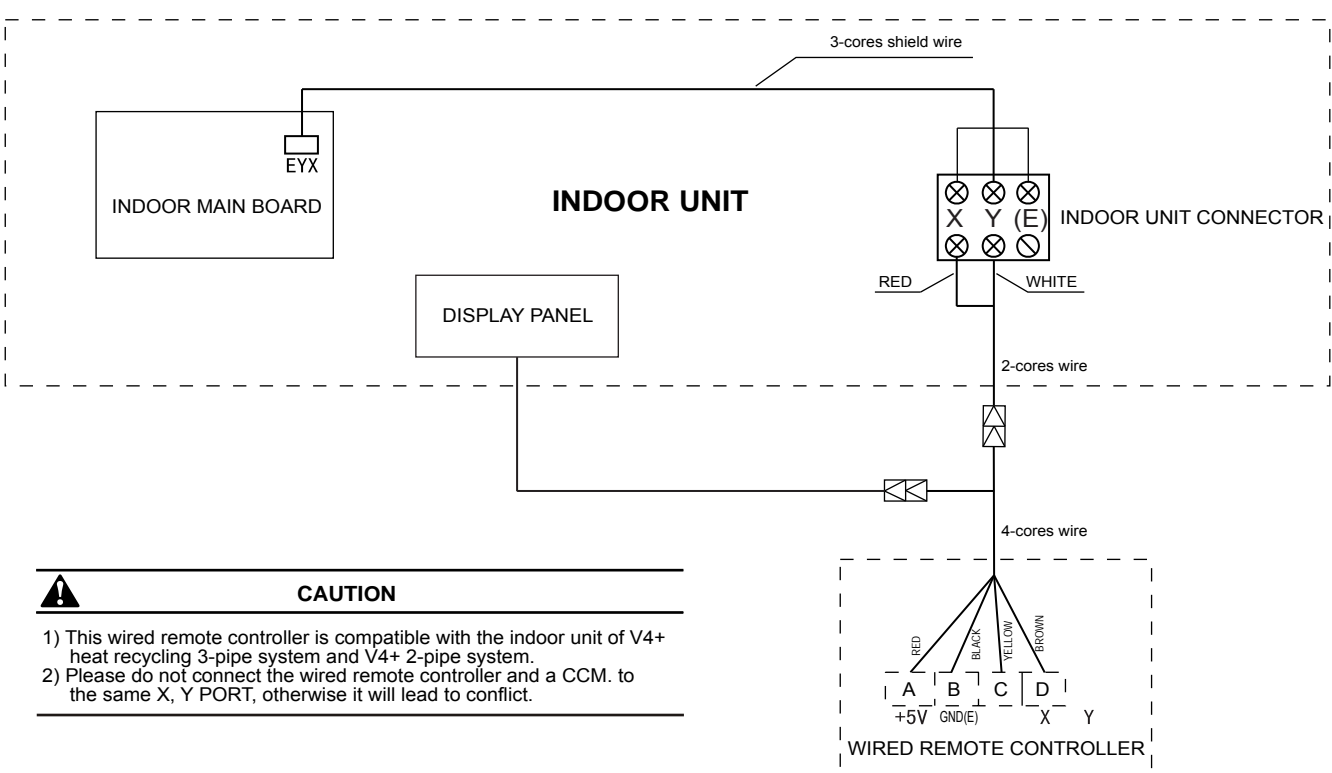
1. This installation manual contains information about the procedure of installing Wired Remote Controller. Please refer to Indoor Unit Installation Manual for connecting between Wired Remote Controller and Indoor Unit.
2. Circuit of Wired Remote Controller is low voltage circuit. Never connect it with a standard 220V/380V circuit or put it into a same Wiring Tube with the circuit.
3. The shield cable must be connected stable to the ground, or transmission may fail.
4. Do not attempt to extend the shield cable by cutting, if it is necessary, use Terminal Connection Block to connect.
5. After finishing connection, do not use Megger to have the insulation check to the signal wire.

### INSTALLATION PROCEDURE

#### 1.Wired remote controller structure size figure



#### 2.Wiring Principle Sketch:



## INSTALLATION PROCEDURE

### 4. Back cover installation

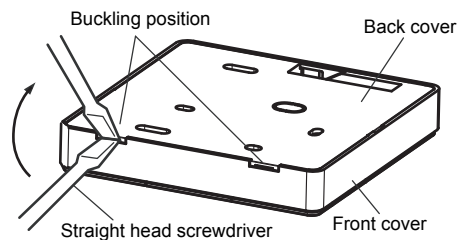


Fig.5

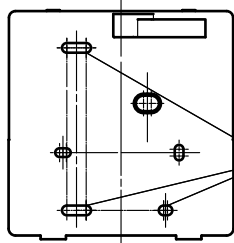


Fig.6

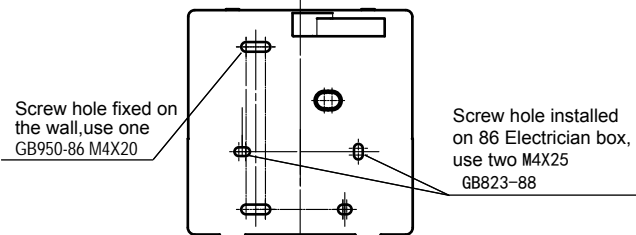


Fig.7.1

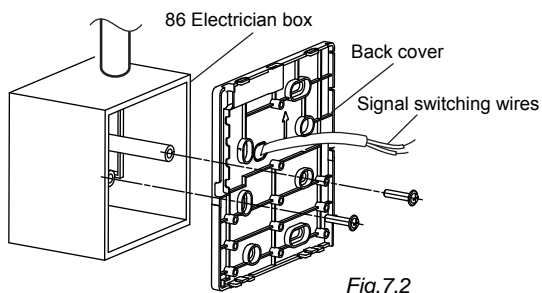


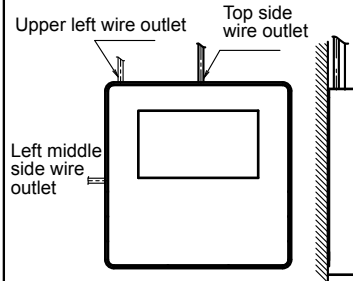
Fig.7.2



### CAUTION

1. Use straight head screwdriver to insert into the buckling position in the bottom of wire controller, and spin the screwdriver to take down the back cover. (Pay attention to spinning direction, otherwise will damage the back cover!) (Fig.5)
2. Use three GB950-86 M4X20 screws to directly install the back cover on the wall. (Fig.6)
3. Use two M4X25 GB823-88 screws to install the back cover on the 86 electrician box, and use one GB950-86 M4X20 screws for fixing on the wall. (Fig.7.1)
4. Adjust the length of two plastic screw bars in the accessory to be standard length from the electrical box screw bar to the wall. Make sure when install the screw bar to the electrical box screw bar, make it as flat as the wall. (Fig.7.2)
5. Use cross head screws to fix the wire controller bottom cover in the electric control box through the screw bar. Make sure the wire controller bottom cover is on the same level after installation, and then install the wire controller back to the bottom cover.
6. Over fasten the screw will lead to deformation of back cover.

### 5. Wiring



#### A. Wiring, three outletting positions

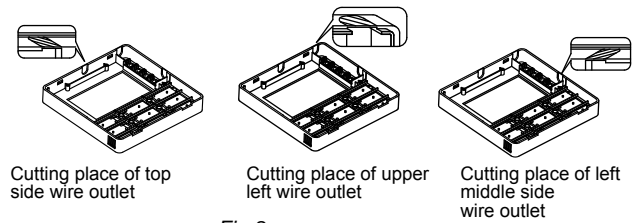


Fig.8

#### B. Shielded wiring

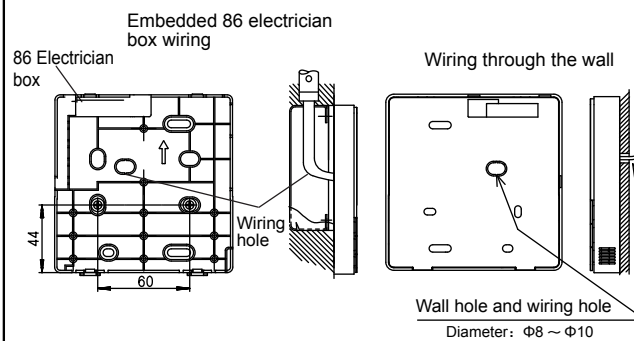


Fig.9

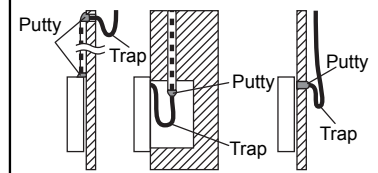


Fig.10



### CAUTION

- Avoid the water enter into the wired remote controller, use trap and putty to seal the connectors of wires during wiring installation. (Fig.10)
- When under installation, reserve certain length of the connecting wire for convenient to take down the wired remote controller while during maintenance.

### 6. Front cover installation

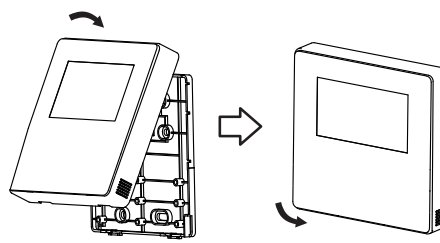


Fig.11

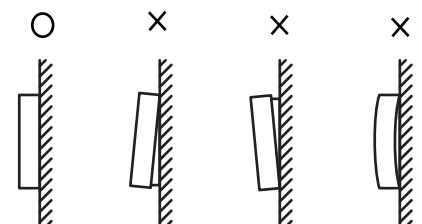


Fig.12



### CAUTION

- After adjusting the front cover and then buckle the front cover; avoid clamping the communication switching wire during installation. (Fig.11)
- Correct install the back cover and firmly buckle the front cover and back cover, otherwise will make the front cover drop off. (Fig. 12)

## WIRED REMOTE CONTROLLER INITIAL PARAMETER SETTING

Wired remote controller initial parameters setting:

1. Change the related functions of the controller through adjusting the initial parameters, details refer to table 1.
2. The wired remote controller initial parameter include two codes "XY", the first code "X" means function class, the second code "Y" means detailed configuration of this function.
3. Setting method:
  - ① Simultaneously long press "Mode" and "Fan" button of the wired remote controller for 5 seconds to enter the parameter setting state;
  - ② The value of this first code "X" is "0", press the temperature setting button and to adjust the second code value;
  - ③ After setting the second code value, press button to switch the first code to the next value;
  - ④ When the first code value is "6", press button again to exit the parameters setting.
4. The parameters setting function only under the situation which need to adjust the default functions' setting states; otherwise there is no need to do the setting.

Table 1

First code	Function	Second code				
		0	1	2	3	4
0	Cool-only/ Cool-Heat selection	Cool-Heat (Default)	Cool-only	/	/	/
2	Power-off memory	Yes (Default)	None	/	/	/
3	Filter cleaning reminding	Cancel the reminding function	1250 hours	2500 hours (Default)	5000 hours	10000 hours
6	Centigrade/ Fahrenheit display	Centigrade (Default)	Fahrenheit	/	/	/
7	3-pipe system/ 2-pipe system	3-pipe system (Default)	2-pipe system	/	/	/
8	Setting ΔT value	/	1°C	2°C (Default)	3°C	4°C

# OPERATION    MANUAL

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*Wired Remote Controller*

Thank you very much for purchasing our product.  
Before using your unit, please read this manual carefully and keep it for future reference.

- This manual gives detailed description of the precautions that should be brought to your attention during operation.
- In order to ensure correct service of the wired remote controller please read this manual carefully before using the unit.
- For convenience of future reference, keep this manual after reading it.



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# I. Safety precautions

The following contents are stated on the product and the operation manual, including usage, precautions against personal harm and property loss, and the methods of using the product correctly and safely. After fully understanding the following contents (identifiers and icons), read the text body and observe the following rules.


## ■ Identifier description


Identifier	Meaning
 <b>Warning</b>	Means improper handling may lead to personal death or severe injury.
 <b>Caution</b>	Means improper handling may lead to personal injury or property loss.
<p>[Note]: 1. “Harm” means injury, burn and electric shock which need long-term treatment but need no hospitalization 2. “Property loss” means loss of properties and materials.</p>	

## ■ Icon description

Icon	Meaning
	It indicates forbidding. The forbidden subject-matter is indicated in the icon or by images or characters aside.
	It indicates compulsory implementation. The compulsory subject-matter is indicated in the icon or by images or characters aside.

## ■ Warning

 Warning	Delegate installation	Please entrust the distributor or professionals to install the unit. The installers must have the relevant know-how. Improper installation performed by the user without permission may cause fire, electric shock, personal injury or water leakage.
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 Usage Warning	Forbid	Do not spray flammable aerosol to the wired remote controller directly. Otherwise, fire may occur.
	Forbid	Do not operate with wet hands or let water enter the wired remote controller. Otherwise, electric shock may occur.

## II. Main parameters and functions

### ● Main parameters

Table 2-1

Input voltage	DC +5V
Ambient temperature	-5~43°C
Ambient humidity	RH40%~RH90%

### ● Main functions

- 1) Compatible with V4+ heat recycling 3-pipe system and V4+ 2-pipe system.
- 2) Timer function;
- 3) Power down memory function;
- 4) Query function;
- 5) Indoor unit error display function.

### III.Wired remote controller outlook



#### CAUTION


This controller has not economic operating function.




## IV.Operation instructions

### ● On and Off the air-conditioner

Press the On/Off button to control the indoor unit on and off status.

When the unit is turned off, press the ON/OFF button, the unit will be turned on and the operating icon  lights up.

When the unit is turned on, press the ON/OFF button, the unit will be turned off and the operating icon  lights off.

### ● Set the operating mode


Press the mode button to set the operating mode, after each button press the operation mode will circle as follow:  
AUTO→COOL→DRY→HEAT→FAN  
→AUTO

When the controller has been set to cool-only, then there is no HEAT mode.

### ● Auto operation mode(3-pipe system) :

1) 3-pipe system auto operation mode can automatically switch to COOL mode or HEAT mode depending on the temperature difference between setting temperature( $T_s$ ) and indoor temperature( $T_f$ ), and the fan speed is adjustable.

2) The wired remote controller will set the unit to operate on heating mode when  $T_s - T_f$  is greater than  $\Delta T$ , and changeover to cooling mode when  $T_s - T_f$  is less than  $-\Delta T$ . The minimum operating mode switching interval is 15 minutes.

3) Under 3-pipe system auto operation mode, the auto mode icon “” flashes, and the COOL or HEAT icon will be lighted up depending on the actual operation mode.

4) The default  $\Delta T$  is  $2^{\circ}\text{C}$ , the value can be changed from  $1\sim 4^{\circ}\text{C}$ . Please refer to WIRED REMOTE CONTROLLER INITIAL PARAMETER SETTING of the installation manual for detailed setting methods.

5) The auto operation mode of the controller can not be changed by other control terminals, such as wireless remote controller, central remote controller, etc.



### CAUTION

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1) The wired remote controller can be used in a 2-pipe system, in that case the controller should be set to 2-pipe system mode. Please refer to the INSTALLATION MANUAL for details.

2) For a 2-pipe system, auto operation mode will set the unit to operate on COOL mode and the fan speed is set to auto and is not adjustable.

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### ● Fan speed setting

Under COOL, HEAT and FAN modes, press the fan speed button can adjust the fan speed setting.

After each fan speed button press will circle as follow:

AUTO→LOW→MID→HIGH→AUTO.

Under AUTO and DRY modes the fan speed is not adjustable and the default fan speed is auto.

### ● Temperature setting

Under AUTO, COOL, DRY, HEAT modes, press the temperature setting buttons and to set the temperature, the adjusting range is 17°C~30°C (or 62°F~88°F).



The setting temperature cannot be adjusted under FAN mode.

### ● Timer on and Timer off setting

Press the timer/clock setting button, then enter into the timer on setting status, and the screen will display and .

Press and buttons to adjust the timer. when the timer setting is less than 10 hours, each press or will increase or decrease 0.5 hour. When the timer setting is more than 10 hours, each press or will increase or decrease 1 hour, the maximum timer setting is 24 hours.

After finish adjusting the timer on setting, press the button or wait for 5 seconds to confirm and exit the timer on setting.

Under the timer on setting status, press the timer/clock setting button, then enter into the timer off setting status, and the screen will display  and .

The setting method of timer off is the same as the timer on.

Under timer setting state, set the timer on and timer off to be 0.0h can cancel timer on and timer off.



### CAUTION



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If the wired remote controller has been set timer on/ off, press the ON/OFF to turn on/ turn off the unit then the timer will be canceled simultaneously.


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## • Clock setting


Long press the timer/clock setting button for 2 seconds, then enter into the clock setting status.


The hour position of the clock will flash, and can press  and  to adjust the hour value.

After finishing the hour setting, press left button  or right button  to switch to minute position setting, then the minute position will flash, press  and  to adjust the minute value.




After finish the clock setting, press the  button or wait for 5 seconds to confirm and exit the setting state.

## • Quiet operation



Under COOL, HEAT, FAN modes, press the  button to set into the quiet operation, it is used to reduce the running noise through setting the fan speed to low.

Under AUTO, DRY mode, the fan speed is auto and the  button doesn't work.

## • Lock the wired remote controller


Press the temperature adjusting buttons  and  simultaneously, the wired remote controller enters into locking state, and the lock  icon will be lighted up.


Under the locking state, the wired remote controller will not respond to the buttons pressing and the control instruction from the wireless remote controller.

Simultaneously press the  and  temperature adjusting buttons and

again can cancel the locking state.

## • Air filter cleaning reminding function

The wired remote controller records the total running time of the indoor unit, when the accumulated running  reaches the pre-setted value, the air filter cleaning reminding icon will be lighted up, to remind that

Long press  for 2 seconds, and reset the reminding icon and the wired remote controller will re-accumulate the total running time of the indoor unit.






### CAUTION

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The default setting value of the reminding function is 2500 hours, and it can change to be 1250 hours, 5000 hours or 10000 hours. The setting methods please refer to the installation manual.



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
## • Swing Function

Press the swing button  to activate the swing function when the fan of indoor unit is turned on, and the swing icon  will be lighted up. Press this button again can deactivate the swing function, and the swing icon  lights off. This function is effective when it is used with the relative indoor unit.

- **Query function:**

Long press the FAN SPEED button and Quiet /OK button to display the temperature from temperature sensor.

Use  and  button to switch display of room temperature(tf) , middle evaporator temperature t2 and evaporator-outlet temperature t2b.

Press  button or wait 5s will exit the query function and back to normal display.

## **V.TECHNIQUE CERTIFICATION AND REQUIREMENT**

- **EMC should conform to the CE certification.**

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