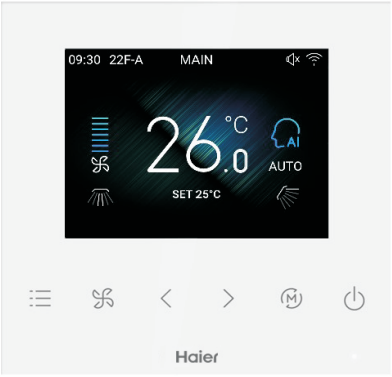
HW-PB101AFK



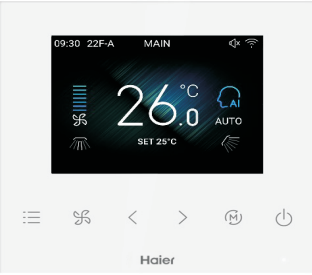
Original manual

TABLE OF CONTENTS

WIRED CONTROL PANEL FUNCTIONS.....**1**
Interface introduction.....1
Key description.....1
Interface description.....1
Wired Controller Wiring Instruction.....**20**

WIRED CONTROL PANEL FUNCTIONS

Interface introduction



Key description

	Mode key in the main interface, OK key in other interface.
	Left/Right key, Temp. adjustment key in the main interface, Up/Down or Left/Right swing angle adjustment key in the swing interface, Left and right switch keys or value adjustment key in other interface.
	Menu key in the main interface, return key in other interface.
	Fan speed control key on the main interface.
	On/Of key

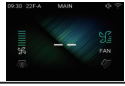
Interface Description

1) The main interface

① Mode interface

Press the Mode key to cycle through five modes: Auto, Cool, Dry, Heat and Fan.

Press the On/Off key to turn on/off.

AUTO		COOL	
DRY		HEAT	
FAN		OFF	

② Other display information

22:00	Clock display area, the date format can be changed using the time function.
26 °C .5	Temperature display area, set temperature can be adjusted using the Left/Right key. When Energy Saving function is not set, the range of the set temperature is 16℃ -30℃ (60°F-86°F) or the adjustment range is limited. When the Energy Saving function is set, the default minimum cooling/dry temperature is 23℃ (74°F),the default maximum heating temperature is 26℃ (78°F).The adjustment step is 0.5℃ (1°F).
MAIN	The status of the wired controller, this area can also display "Sub". "MAIN" means that the wired controller is the main controller, "Sub" means that the wired controller can only control parts of the functions.
22F-A	Control equipment area, the equipment can be selected using the Control Equipment function.
AUTO	Mode：Auto→Cool→Dry→Heat→Fan
	Fan speed, the cycle type of fan speed can be set through the basic setting.
	Extra Function：When the extra function is enabled, the corresponding icon is displayed on the main interface.

2）Swing interface

Press the menu key on the main interface to enter the menu interface. Press the left or right key to select the Swing function, and press the OK key to enter the Swing interface.

There are three types: Up/Down swing, Left/Right swing, 4-way cassette swing. The default information of the swing type is decided by the indoor unit.

Up /down swing		Press the Left/Right key to adjust the up and down swing.
left/right swing		Press the Left/Right key to adjust the left and right swing.
four-way cassette swing		Press the Left/Right key to adjust the louver. The louver will flash, press the Mode key to confirm, then press the Left/Right key to adjust the angle of the louver.

3) Menu interface

From the main interface, press the menu key to enter the menu interface.



It contains: Schedule, Time, Extra, Display, Error, ECO, Installation, Swing, Control Equipment, Name IDU, Group, Details.

Press the Left/Right key to select the appropriate icon and press the Mode key to enter the function.

When the wired controller is OFF, the functions that can be set are: Schedule,Time, Display,Error,Installation,Control Equipment,Name IDU,Group,Details.

Other functions that cannot be set are shown in gray.

① Schedule

Schedule options include segmented timing and random timing. It can be selected by Display setting.The default setting is random timing.

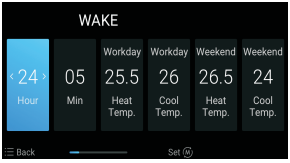
Segmented timing



The segmented timing control is only effective in cooling or heating mode. The time can be set in 24 hours. Temperature can be set from 16ºC (60ºF) to 30ºC (86ºF). "OFF" can also be set, which means power off.

During ABC communication,the Equipment on the upper interface will not display.

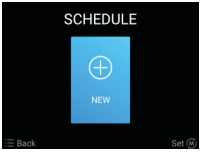
Press the Left/Right key of the controller to select a scene, then press the Mode key to enter the scene settings.



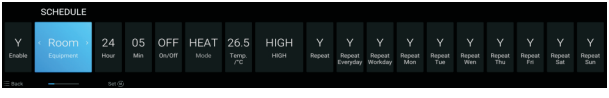
Press the Left/Right key to select the parameters, then press the Mode key to confirm, and press the Left/Right key to adjust the parameter values.
When the cursor is in the temperature control area, press the Mode key to set it OFF.
When finished, press the Menu key to exit the settings.
The segmented timing is valid for all indoor units.

Random timing

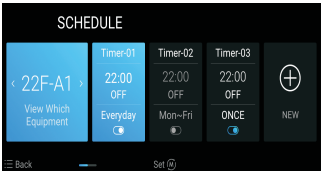
When the display interface selects random timing. The schedule will display the following interface:



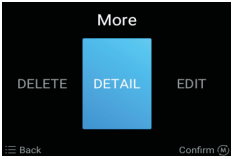
Press the Mode key to display the following interface:



Press the Left/Right key to select the timing parameters, then press the Mode key to confirm, and press the Left/Right key to select the parameter values,and the Menu key to return and save the settings.
During ABC communication,the Equipment on the upper interface is gray and cannot be set.
After setting several schedules, the display will look like this:



Press the Mode key to display the following interface:



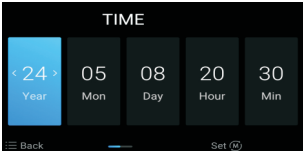
If the user wishes to delete the schedule, select Delete in the upper interface and press the Mode key to pop up:



The user presses the Mode key to perform the corresponding delete operation.

② Time

From the menu interface, enter the time setting interface.



Press the Left/Right key to change parameters and the Mode key to confirm, then use the Left/Right key to change values and press the Mode key to confirm,the Menu key to return.

③ EXTRA FUNCTION

In the menu interface, press the Left/Right key to select extra functions,and press the Mode key to enter the extra function interface.



The Left/Right key selects the function and the Mode key changes the function values. The default information for each function is determined by the indoor unit, except for the child lock.

The child lock function is disabled by default.

The corresponding function icon is displayed in the main interface when a function is set in Extra Function.

Some functions are not available for some models. These are grayed out. The Turbo and Quiet functions conflict and can't be switched on at the same time. Setting one disables the other.The same applies to Health Airflow Up and Down.

Child lock can also be set or cancelled by pressing the Left and Right keys together for 5 seconds on the main interface.

	Quiet function
	Turbo function
	Ventilation function.
	Health function.
	Child lock function. Press the Left and Right keys simultaneously 5 seconds on the main interface to either set or cancel the function.
	Forced Defrost function
	Water pump delay (reserved)

	Self-Cleaning
	10℃ Heating
	Electrical heating
	Low Temp. Dehumidifcation
	Health airfow
	Health airfow up
	Health airfow down
	LED on panel
	Motion sensing
	Motion sensing follow
	Motion sensing evade
	Quiet (outdoor)
	Filter

Note: Each function is usually only available on some models.

Communicates with the central controller

(1) After the controller receives the central command from the central controller. It displays the  icon. At this time, all keys except ON/OFF, fan speed and temperature setting are invalid.

(2) After the controller receives the lock command, it displays the  icon. At this time, all keys are invalid.

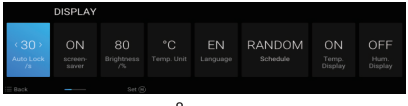
(3) In central or lock state, the backlight is valid, press any key to wake up the screen.

Forced cooling/heating (applies to some models only,only valid for ABC communication)
(1) After the controller is in cooling mode and has been switched off, press and hold the ON/OFF key for 10 seconds to enter the forced cooling function. At this time, the controller will be switched on and "LL" will flash in the centre area to indicate that the forced cooling function is on.
(2) After the controller is in heating mode and has been switched off, press and hold the ON/OFF key for 10 seconds to enter the forced heating function. At this time, the controller will be switched on and "HH" will flash in the centre area to indicate that the forced heating function is on.
(3) All keys are invalid except the ON/OFF key in forced cooling/heating mode.
(4) When the forced cooling/heating is set, press the ON/OFF key to cancel this function.
Wi-Fi (Only valid for some models. Please refer to the installation manual of the indoor unit).
Press and hold the ON/OFF key for 10 seconds to enter the Wi-Fi configuration function, the Wi-Fi icon will flash. Then the user can operate the mobile phone to confi gure. After successful pairing, the Wi-Fi icon will still be displayed.
Filter cleaning
The filter time is timed by the indoor unit, after the controller receives the flag from the indoor unit, the icon is displayed on the main interface and the extra function Filter is highlighted. Enter the extra function interface, press the left/right key to select the Filter and press the Mode key to reset. The filter icon will disappear from the main interface.

Other icons description

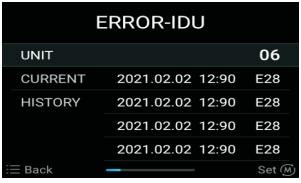
	Error icon
	VIP
	Mode confict
	Wi-Fi icon
	Energy Saving,This icon will be displayed only when Wired Controller ECO function is set.

④ Display Setting



AUTO-LOCK	There are five screen saver time options. The time indicates how long the backlight will stay on after no operation. "ALL" means that the backlight will never go out.
Screen-saver	It is used to set the screen saver ON or OFF.
Brightness	This function is used to control the light intensity.
TEMP. unit	Celsius or Fahrenheit can be selected using this function.
Language	Selects a language. Press the left/right key to select a language, then press OK key to save the settings, otherwise the original settings will be retained.
Schedule	Segmented timing or random timing can be set.
TEMP. display	When the function is switched on, the ambient temperature display interface displays the indoor temperature. Otherwise, the ambient temperature display interface will not display the indoor temperature.
HUM display	This function is reserved.

⑤ Error

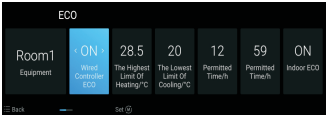


One current error code and up to ten historical error codes are displayed for each unit.
Press the Left/Right key to select the historical error code. When the cursor is on UNIT, press the Left/Right key to select units.
Press the Left and Right keys together for 5 seconds to clear the error history of the current unit.
Press the Left and Right keys together for 15 seconds to clear the error history information of all connected units. The combination method is only valid in the error interface.

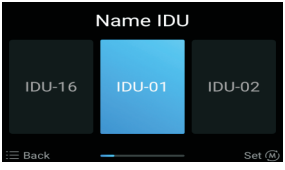
⑥ ECO

The ECO function is set to OFF by default. The default maximum temperature is 26°C (78°F) in heating mode and the default minimum temperature is 23°C (74°F) in cooling/drying mode. The default setting is no override.
Press the Left/Right key to select items, then press the OK key to set the status, then press the Left/Right key to adjust the value.

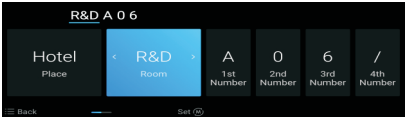
When the ECO function is set, the temperature adjustment is limited.
If overrun is set, the temperature can be adjusted out of the ECO range within the allowed time.
If the allowed time is set to 0, this means that the overshoot cannot occur.
The Wired Controller ECO is valid for all indoor units.
Indoor ECO can only be set if the XY communication response Indoor ECO is valid, otherwise it is grayed out. And when Indoor ECO is effective, the wired controller energy saving is ineffective and is grayed out.
During ABC communication,the Equipment on the lower interface will not display.



⑦ Name IDU(only valid for XY communication)
In the menu interface, press the Left/Right key to select Name IDU, then press the Mode key to enter the Name IDU interface.

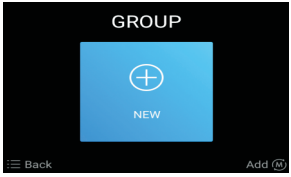


Users can name the indoor unit according to the installation scenario and location.
Press Left/Right key to select items, then press Mode key to confirm, press Left/Right key to adjust values and press Mode key to confirm,press Menu key to return.

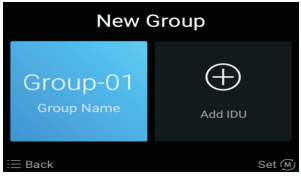


⑧Group(only valid for XY communication)

In the menu interface, press the left/right keys to select Group, and press the Mode key to enter the Group interface.



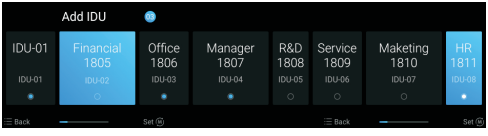
Press the Mode key to add a new group.



First, users can name the group based on the installation scenario and location. Press the Left/Right key to select items, press the Mode key to confirm, press the Left/Right key to adjust values, and press the Mode key to confirm,press the Menu key to return.



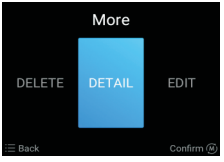
Users can then add the indoor unit to this group. Press the Left/Right key to select the indoor unit, then press the Mode key to confirm.



The group interface will then display the group list.

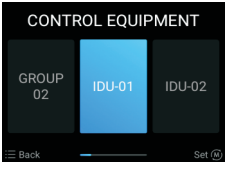


In this interface, press Mode key to enter the following interface, press Left/Right key to select items, then press Mode key to confirm, users can delete or edit this group, or query the detail of this group.



⑨ Control Equipment (only valid for XY communication)

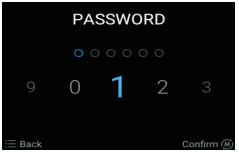
In the Menu interface, press the Left/Right key to select Control Equipment,and press the Mode key to enter the Control Equipment interface.



The user can select a single indoor unit or a group to be controlled, and the selection is displayed on the main interface. If a group is selected, the controller will control all the indoor units belonging to this group at the same time.

⑩ Installation

When the cursor is in the installation setting, press OK to display the password interface.



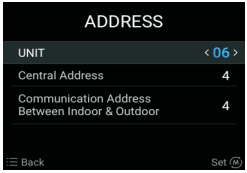
Press the left/Right key to select the password value, press the Mode key to confirm and press the Fan key to clear the incorrect password.
The password is "841226".
If you enter an incorrect password, you will be prompted to correct it.



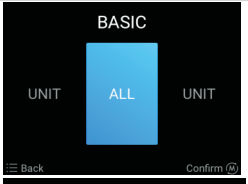
Enter the correct password to access the installation setup interface.



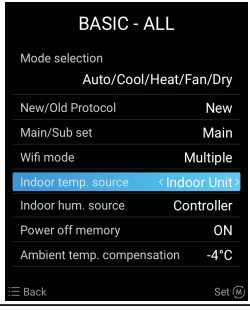
Address setting
(Applies to some models only)
Press the Left/Right key to select items, then press OK key to set status, then press the Left/Right key to adjust values.
When the cursor is on UNIT, press the Left/Right key to select units.
Note:
During XY communication, after the address is set and confirmed, the wired controller will turn off and restart automatically.
During XY communication, the address setting function can only be executed in the state of single control(One wired controller controls one indoor unit). When one wired controller controls multiple indoor units, only the address of the main indoor unit can be set.
Whether the communication address can be set depends on the indoor unit. If the communication address is greyed out, it cannot be set.



Basic setting:
After entering, first select All or UNIT and press and confirm with OK key.

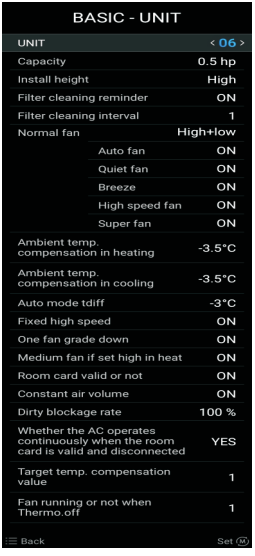


ALL:
Press Left/Right key to select items, then press OK key to set status, press Left/Right key to set values.
Some information is grey and cannot be set.



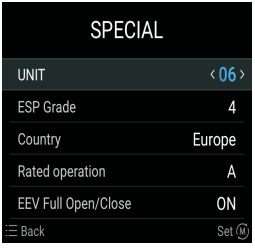
UNIT:

Press the Left/Right key to select items, then press the OK key to set status, press the Left/Right key to set the values.
When the cursor is on UNIT, press the Left/Right key to select units.
Some information is grey and can't be adjusted.



Special setting:

Press the Left/Right key to select items, then press the OK key to set status,press the Left/Right key to set the values.
When the cursor is on UNIT,press the Left/Right key to select units.
Some information is grey and can't be adjusted.



Parameter setting:
(Applicable to some models only)
Press the Left/Right key to select items, then press the OK key to set status, press the Left/Right key to set the values.
When the cursor is on UNIT, press the Left/Right key to select units.
Some information is grey and can't be adjusted.

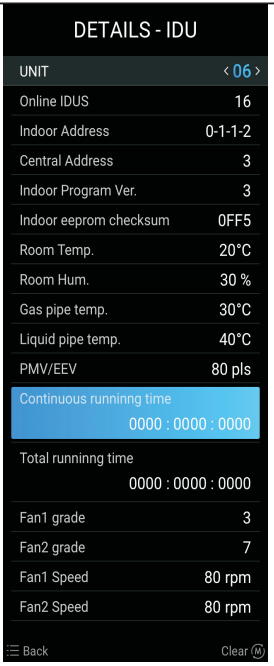


⑪ Details(applies to some models only)

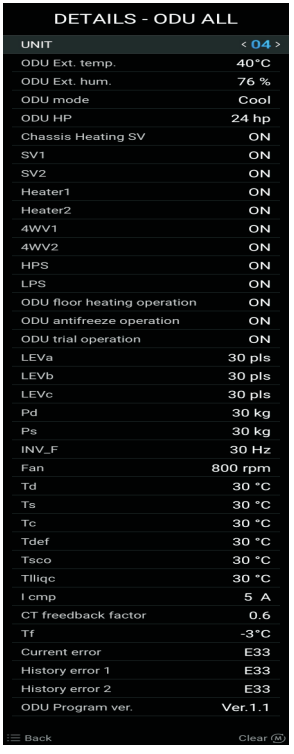
During XY communication,press the Left/Right key to select IDU or OUT ALL or OUT UNIT or SVP BOX, you can check IDU details and ODU details and SVP BOX details respectively. The corresponding parameter information is displayed in this function.
During ABC communication, you can only check the IDU details.

IDU DETAIL:

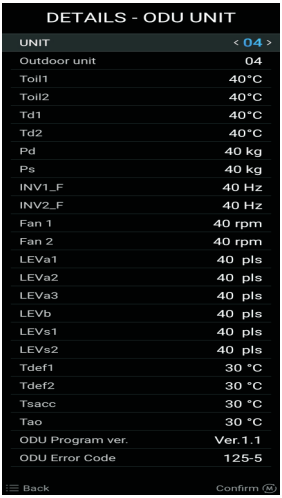
Press the Left/Right key to select items.
When the cursor is on UNIT, press the Left/Right key to select units.
Some information is greyed out and can't be queried.
During ABC communication,some information will not display.



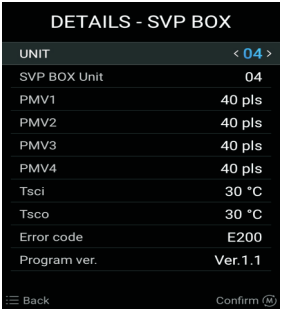
ODU ALL DETAIL:
(only valid for XY communication)
Press the Left/Right key to select items.
When the cursor is on UNIT, press the Left/Right key to select units.
Some information is greyed out and can't be queried.



ODU UNIT DETAIL:
(only valid for XY communication,applies to some models only)
Press the Left/Right key to select items.
When the cursor is on UNIT or Outdoor unit, press the Left/Right key to select units.
Some information is greyed out and can't be queried.



SVP BOX DETAIL:
(only valid for XY communication,applies to some models only)
Press the Left/Right key to select items.
When the cursor is on UNIT or SVP BOX unit, press the Left/Right key to select units.
Some information is greyed out and can't be queried.



Difference between the function of the Main wired controller and the Sub wired controller

Comparison item	Main wired controller	Sub wired controller
Function	All functions are available	Only the following operations can be performed: (1) ON/OFF, Mode, Fan speed, Temperature setting, Swing, Energy Saving, Clock function are available. (2) Parameter inquiry and fault inquiry.

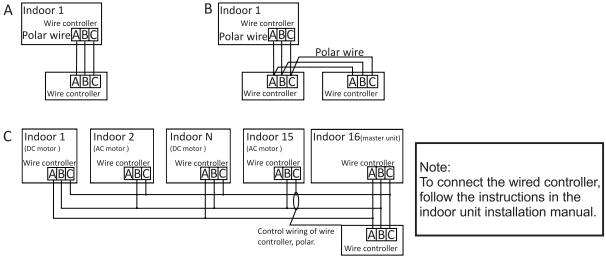
Special function settings

In the off state, when the backlight is on, alternately press the fan speed key → mode key → fan speed key → mode key → fan speed key → mode key → fan speed key → mode key a total of 8 times. The buzzer will sound once to enter the special function setting interface where you can set the human wake up function, touch button sound and self-lighting on/off. Scroll through the functions using the Left/Right key and confirm with the Mode key.
The configurable functions are:

Function	Interface Display	Function Description	Default
Human wake-up (reserved)	Child lock icon + temperature display area ON/OFF (fashing)	ON --- Human wake-up function on OFF --- Human wake-up function of	OFF
touch button sound	Quiet icon + temperature display area ON/OFF (fashing)	ON --- Touch button has sound OFF --- Touch buttons have no sound	ON
self-lighting	Led on panel icon + temperature display area ON/OFF (fashing)	ON --- Self lighting on OFF --- Self lighting of	ON

Wired Controller Wiring Instruction

ABC Wiring Connections of Wire Controller



Note:
To connect the wired controller, follow the instructions in the indoor unit installation manual.

There are three ways to connect the wired controller to the indoor units:

1.Single control as shown in Figure A: One wired controller controls one indoor unit, and the indoor unit is connected to the wired controller with 3 polar wires.

2.Two wired controllers controlling one indoor unit as shown in Figure B. One of the wired controllers can be set as the main wired controller and the other as the sub wired controller. The connection between the main and sub wired controllers, as well as the wired controllers connected to the indoor units, all require the 3 pieces of polar wires.

3.Group control as shown in Figure C: One wired controller can control up to 16 indoor units. 3 pieces of polar wires are required to connect the wired controller and the master unit. (the indoor unit directly connected to the wired controller). And other units are connected to the master unit by 2 pieces or 3 pieces of polar wire depending on the indoor units, please refer to the corresponding indoor unit installation manual. For AC motor units, please connect with B&C 2 wires; for DC motor units, please connect with A & B & C 3 wires.

ABC Communication wiring

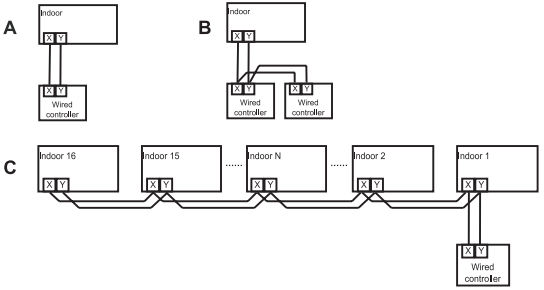
Communication wiring length (m/ft)	Dimensions of wiring
<100m/328ft	0.3mm^{2}x3-core shielded wire (22AWG,3wire)
≥100m/328ft and <200m/656ft	0.5mm^{2}x3-core shielded wire (20AWG,3wire)
≥200m/656ft and <300m/984ft	0.75mm^{2}x3-core shielded wire (18AWG,3wire)

Note:

• One side of the shielded sheet of communication cable must be earthed.

• The total length of communication wire must not exceed 300 meters.

XY Wired Connections of Wired Controller



Note:
- The various wiring methods above are all schematic diagrams, and the actual installation of the wired controller can be connected to any indoor unit.

There are three methods to connect the wired controller to the indoor units.

1. Single control as shown in Figure A. One wired controller controls one indoor unit, and the indoor unit is connected to the wired controller with 2 wires.

2. Two wired controllers control one indoor unit as shown in Figure B. One of the wired controllers can be set as the main wired controller and the other as the sub wired controller. The connection between the main and sub wired controller, as well as the connection between the wired controllers and the indoor units, all require the 2 pieces of wire.

3. Group control as shown in Figure C. One wired controller can control up to 16 indoor units. All indoor units are connected to the wired controller with 2 wires. It is necessary to set up the primary indoor unit and the secondary indoor unit of the system. Otherwise, the indoor unit and the wired controller will be damaged. Only the primary indoor unit can supply power to the wired controller, and the secondary indoor unit cannot supply power. Please follow the instructions in the indoor unit installation manual.

XY Communication wiring

Communication wiring length	Dimensions of wiring
≤250m	0.75mm^2 x2-core shielded wire

Note:

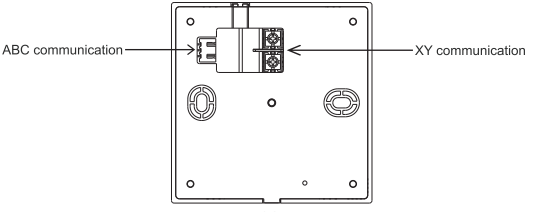
- One side of the shielded layer of Communication wire must be earthed.

Controller Installation

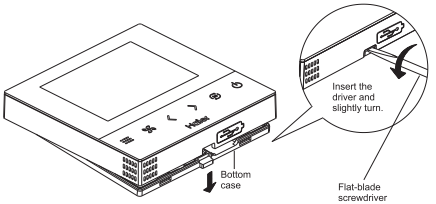
1. The wired controller supports two communication methods.

① ABC communication: For models that support ABC communication.

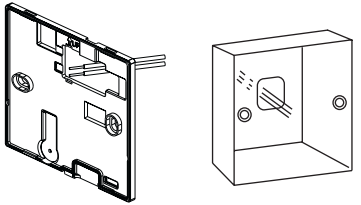
②XY communication: For models that support XY communication. This requires technical installation wiring.Connect the XY terminal of the wiring harness to the indoor unit.



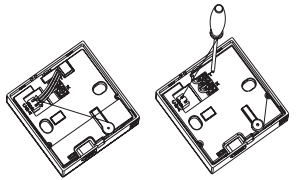
2. Remove the top case from the bottom case.



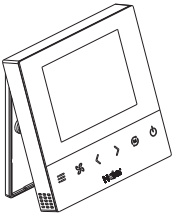
3. Feed the communication cable through the hole in the back cover.



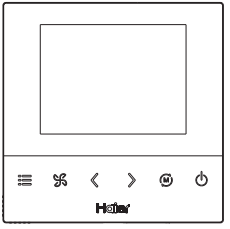
4. Attach the back cover to the bracket. Then connect the communication cable to the XY terminal or the ABC terminal of the wired controller.



5. Finally, replace the front cover of the wired controller with the back cover.



6. Complete the installation.



Note：

- The wiring harness must be a shielded twisted pair and one side of the shielded layer of the communication wire must be earthed.
- The communication wire between the wired controller and the indoor unit must be at least 30cm away from the power wire.
- If it is necessary to wire within 30cm of the power wire, the wire must be turned into an iron conduit and grounded to Class D on one side. Failure to do so may result in malfunction due to mains interference.
- If there are cracks in the cable through any part of the wire controller, please seal them with ethylene tape. Otherwise, water droplets and insects may enter the Wire Controller box and cause malfunction.
- The wired controller must be installed at a distance of at least 0.5m from the fluorescent lamp.
- It is recommended to install at a height of 1.3m to 1.5m for the best viewing angle.