FUJITSU

REFRIGERANT R32
INVERTER

AIR CONDITIONER

Wall mounted type

DESIGN & TECHNICAL MANUAL

INDOOR

ASBH31KMTA

OUTDOOR

AOBH31KMTA

FUJITSU GENERAL LIMITED

DR_AS192EF_01
2023.02.24

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Part 1. INDOOR UNIT

WALL MOUNTED TYPE:
ASBH31KMTA

WALL MOUNTED
ASBH31KMTA

1. Specifications

Type					Wall mounted
					Inverter, Heat pump
Model name					**ASBH31KMTA**
Power supply					220 V~ 60 Hz
Power supply intake					Outdoor unit
Available voltage range					198—242 V
Capacity		Cooling	Rated	kW	9.08
				Btu/h	31,000
			Min.—Max.	kW	2.9—11.0
				Btu/h	9,900—37,500
		Heating	Rated	kW	9.08
				Btu/h	31,000
			Min.—Max.	kW	2.9—11.0
				Btu/h	9,900—37,500
Input power		Cooling	Rated	kW	2.56
			Min.—Max.		0.66—3.89
		Heating	Rated		2.56
			Min.—Max.		0.93—3.51
Current		Cooling	Rated	A	11.9
		Heating			11.9
EER		Cooling		kW/kW	3.55
COP		Heating			3.55
Sensible capacity		Cooling		kW	6.76
Power factor		Cooling		%	97.8
		Heating			97.8
Moisture removal				L/h (pints/h)	3.9 (6.9)
Maximum operating current*1		Cooling		A	18.5
		Heating			20.5
Fan	Airflow rate	Cooling	HIGH	m^3/h	1,360
			MED		1,130
			LOW		900
			QUIET		720
		Heating	HIGH		1,360
			MED		1,060
			LOW		840
			QUIET		720
	Type × Qty				Crossflow fan × 1
	Motor output			W	78
Sound pressure level*2		Cooling	HIGH	dB (A)	50
			MED		45
			LOW		39
			QUIET		32
		Heating	HIGH		49
			MED		43
			LOW		37
			QUIET		33
Heat exchanger		Dimensions (H × W × D)		mm	462 × 900 × 26.6
		Fin pitch			1.2
		Rows × Stages			2 × 22
		Pipe type			Copper tube
		Fin type			Aluminum
Enclosure		Material			Polystyrene
		Color			White Approximate color of Munsell N9.25/
Dimensions (H × W × D)		Net		mm	340 × 1,150 × 280
		Gross			405 × 1,270 × 450
Weight		Net		kg	16.0
		Gross			22.0
Connection pipe		Size	Liquid	mm (in)	Ø9.52 (Ø3/8)
			Gas		Ø15.88 (Ø5/8)
		Method			Flare
Drain hose		Material			PP+HDPE
		Tip diameter		mm	Ø13.8 (I.D.), Ø15.0 to Ø16.8 (O.D.)
Operation range		Cooling		°C	18 to 32
				%RH	80 or less
		Heating		°C	16 to 30
Remote controller					Wireless (Option: Wired, Mobile app*3 [AIRSTAGE Mobile])

NOTES:

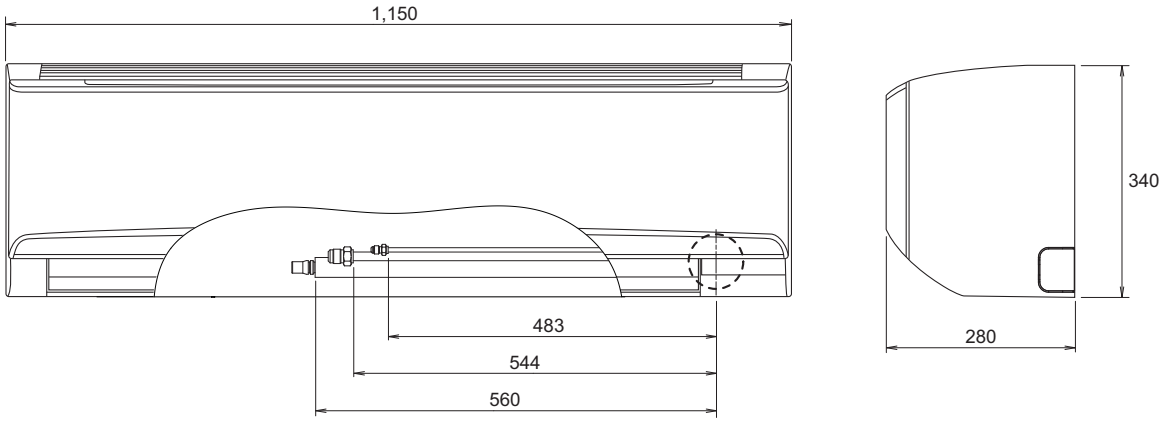
- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 27°CDB/19°CWB, and outdoor temperature of 35°CDB/24°CWB.
  - Heating: Indoor temperature of 20°CDB/15°CWB, and outdoor temperature of 7°CDB/6°CWB.
  - Pipe length: 5 m, Height difference: 0 m. (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- *1: Maximum current is maximum value when operated within the operation range.
- *2: Sound pressure level:
  - Measured values in manufacturer's anechoic chamber.
  - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.
- *3: Available on Google Play™ store or on App Store®. Optional WLAN Adapter is also required. For details, refer to the setting manual.

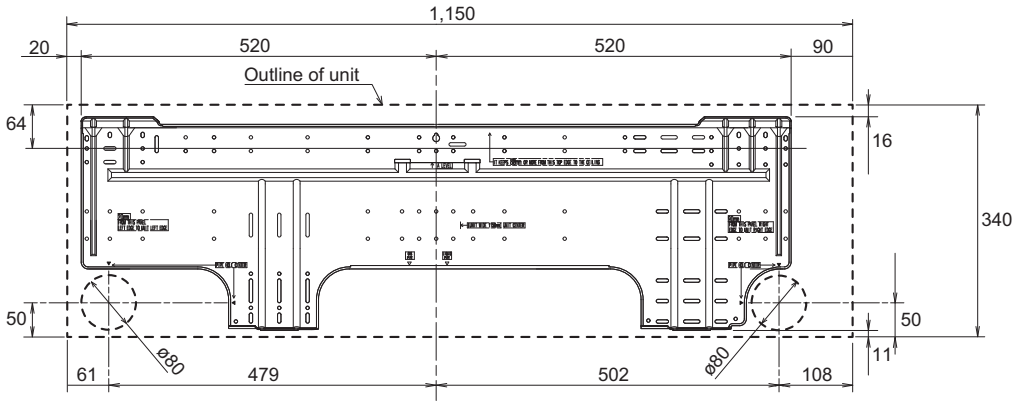
WALL MOUNTED
ASBH31KMTA

2. Dimensions

2-1. Model: ASBH31KMTA

Unit: mm





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ASBH31KMTA

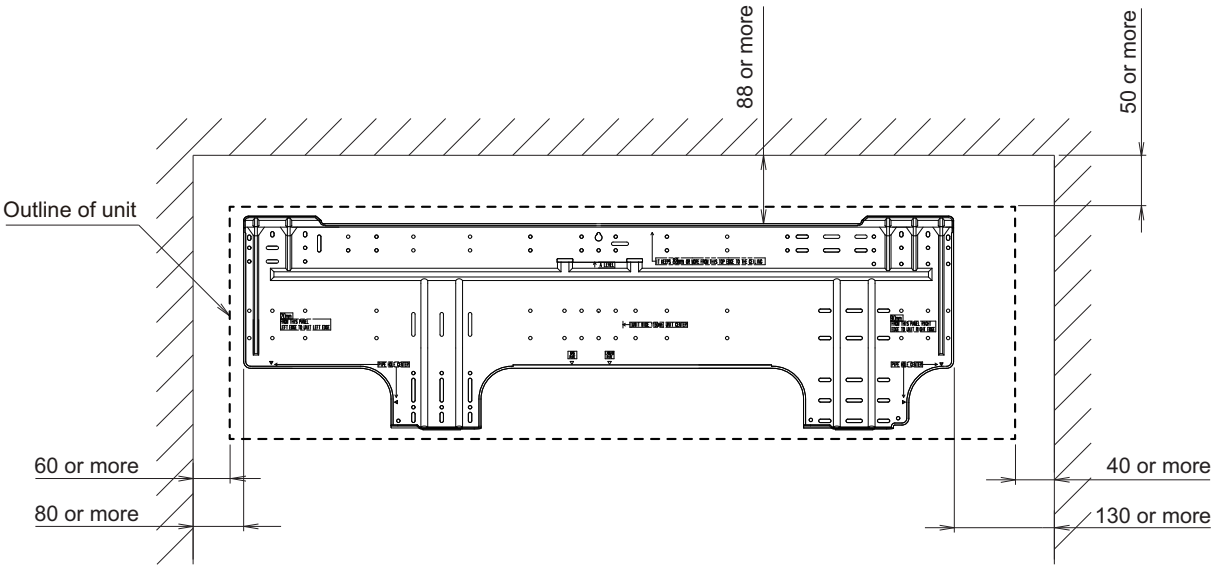
■ Installation space requirement

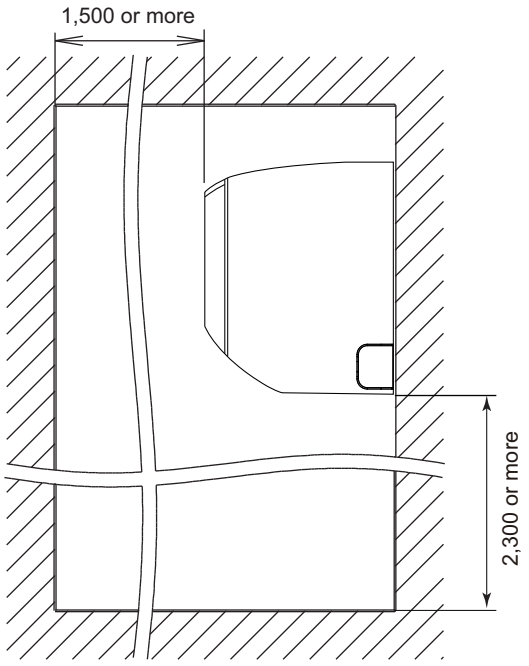
Provide sufficient installation space for product safety.

⚠ CAUTION

Do not place any other electrical products or household belongings under the product. Condensation dripping from the product might get them wet, and may cause damage or malfunction to the property.

Unit: mm

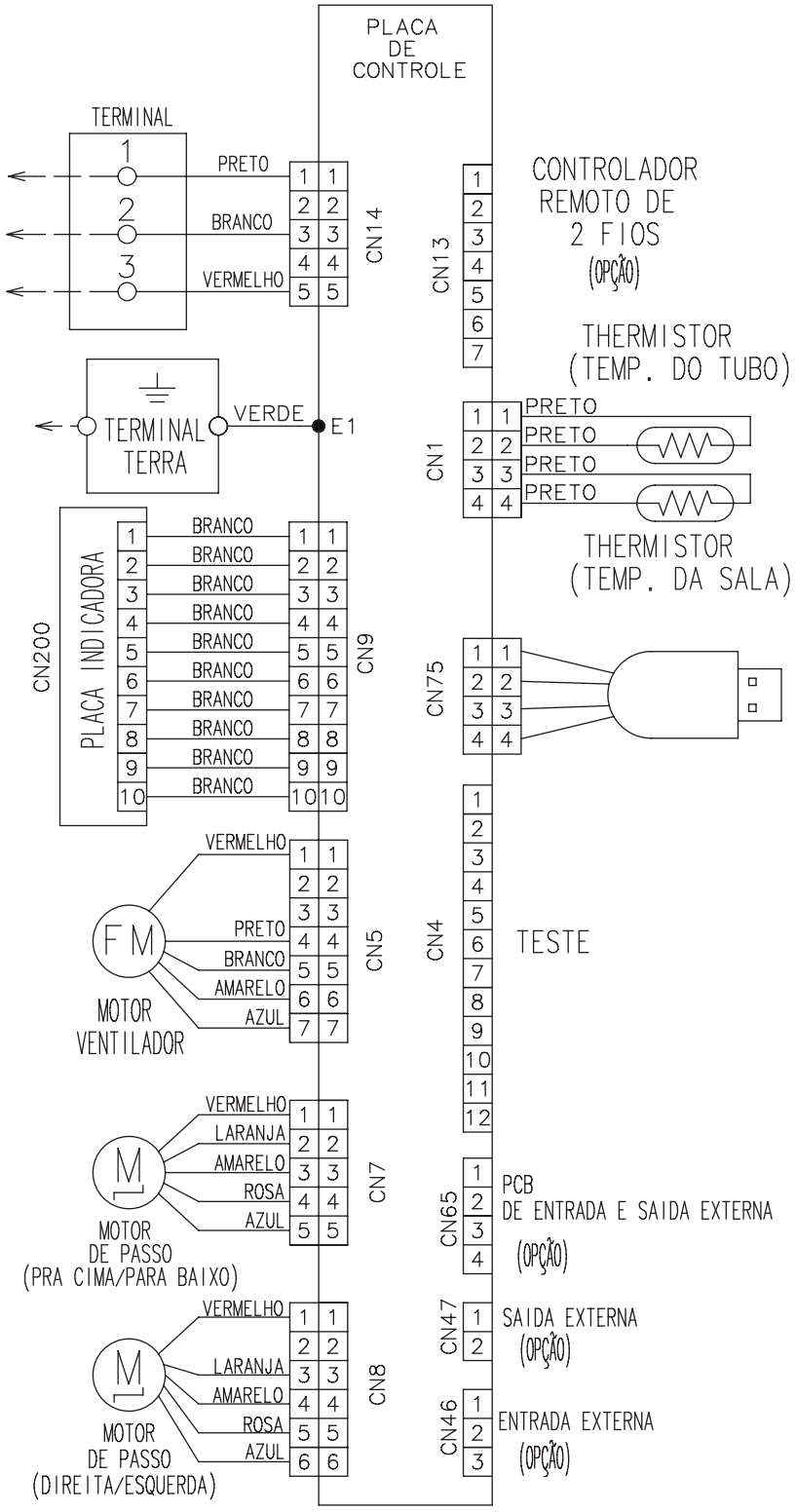




WALL MOUNTED
ASBH31KMTA

3. Wiring diagrams

3-1. Model: ASBH31KMTA



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ASBH31KMTA

4. Capacity table

Capacity tables show each of following values calculated based on the outdoor temperature and the indoor temperature, under given Airflow Rate (AFR):

For cooling capacity: Total Capacity (TC), Sensible Heat Capacity (SHC), and Input Power (IP)

For heating capacity: Total Capacity (TC) and Input Power (IP)

4-1. Cooling capacity

■ Model: ASBH31KMTA

AFR	m^3/h	1,360

		Indoor temperature																				
	°CDB	18			21			23			25			27			29			32		
	°CWB	12			15			16			18			19			21			23		
Outdoor temperature	°CDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kW			kW			kW			kW			kW			kW			kW		
	18	8.21	6.25	1.97	8.70	6.47	2.02	8.99	6.61	2.05	9.38	6.75	2.07	9.67	6.88	2.12	9.91	7.11	2.15	10.26	7.44	2.19
	20	8.22	6.34	1.87	8.71	6.57	1.91	9.00	6.71	1.93	9.38	6.85	1.96	9.68	6.99	2.01	9.91	7.22	2.04	10.27	7.55	2.09
	25	8.01	6.39	2.00	8.48	6.62	2.04	8.76	6.75	2.07	9.15	6.90	2.10	9.43	7.04	2.15	9.66	7.27	2.18	10.00	7.61	2.23
	30	7.80	6.25	2.12	8.26	6.48	2.18	8.54	6.61	2.21	8.91	6.75	2.23	9.18	6.88	2.28	9.41	7.12	2.31	9.74	7.45	2.36
	35	7.72	6.14	2.38	8.17	6.36	2.44	8.44	6.49	2.47	8.81	6.63	2.50	9.08	6.76	2.56	9.30	6.98	2.59	9.64	7.31	2.65
	40	7.05	5.91	2.62	7.47	6.11	2.70	7.72	6.24	2.73	8.05	6.37	2.76	8.30	6.50	2.83	8.50	6.71	2.86	8.81	7.03	2.93
	46	6.50	5.68	2.93	6.89	5.89	3.01	7.11	6.02	3.05	7.42	6.14	3.09	7.65	6.27	3.16	7.84	6.46	3.20	8.11	6.77	3.27
	50	4.59	4.76	2.08	4.87	4.97	2.13	5.03	5.08	2.16	5.25	5.18	2.19	5.41	5.29	2.24	5.54	5.46	2.26	5.73	5.72	2.32

4-2. Heating capacity

■ Model: ASBH31KMTA

AFR	m^3/h	1,360

			Indoor temperature									
			16		18		20		22		24	
Outdoor temperature	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
	-15	-16	7.95	3.86	7.92	3.88	7.86	3.88	7.68	3.88	7.48	3.88
	-10	-11	9.10	4.17	9.05	4.19	9.00	4.19	8.78	4.19	8.56	4.19
	-5	-7	9.97	4.10	9.94	4.10	9.86	4.11	9.63	4.11	9.38	4.13
	0	-2	10.84	4.10	10.79	4.10	10.71	4.11	10.46	4.11	10.18	4.12
	5	3	11.06	3.67	11.01	3.67	10.92	3.68	10.68	3.68	10.40	3.68
	7	6	11.13	3.50	11.08	3.50	11.00	3.51	10.75	3.51	10.47	3.51
	10	8	11.51	3.49	11.46	3.50	11.37	3.50	11.11	3.51	10.82	3.51
	15	10	11.53	3.28	11.48	3.28	11.39	3.28	11.13	3.29	10.84	3.30
	20	15	11.45	2.81	11.39	2.81	11.31	2.81	11.05	2.82	10.76	2.82
	24	18	11.41	2.68	11.36	2.68	11.27	2.68	11.01	2.69	10.73	2.69

WALL MOUNTED
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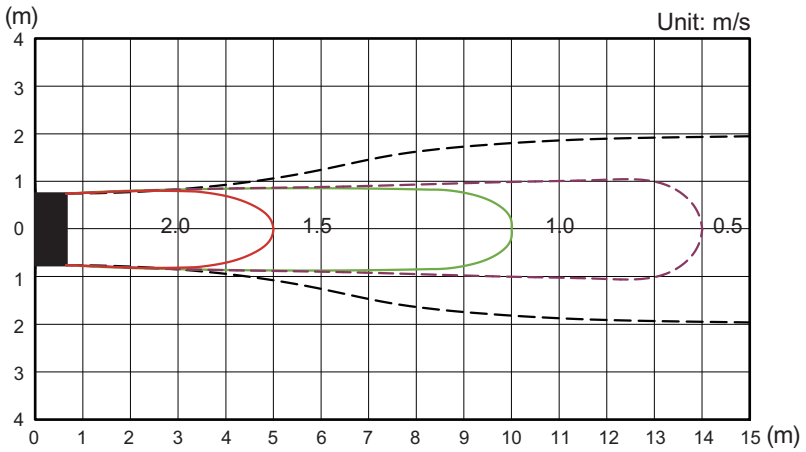
5. Fan performance

5-1. Air velocity distributions

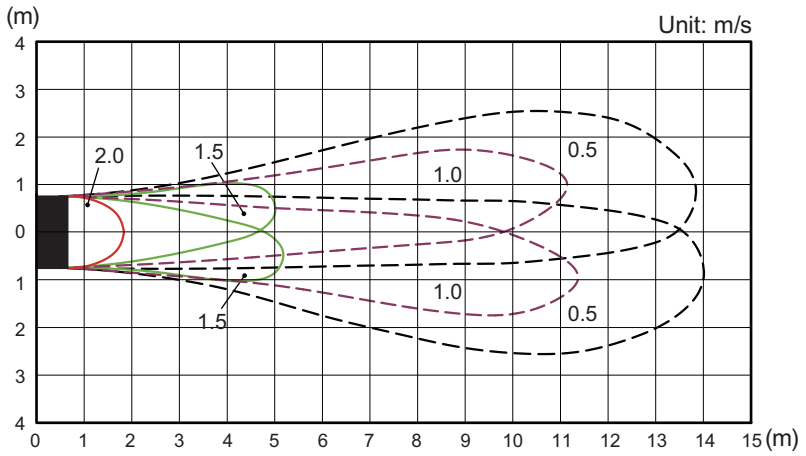
■ Model: ASBH31KMTA

Measuring conditions	Fan speed	Operation mode
	HIGH	FAN

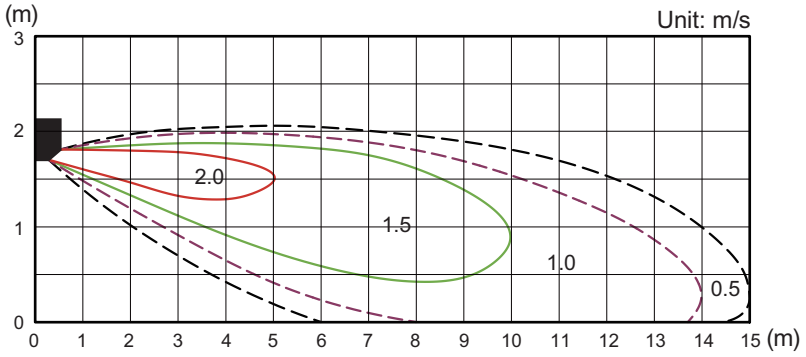
Top view
Horizontal louver: Up
Vertical louver: Center



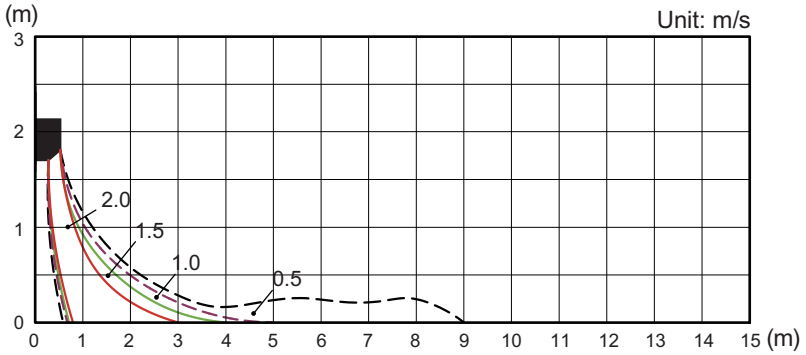
Top view
Horizontal louver: Up
Vertical louver: Left & Right



Side view
Horizontal louver: Up
Vertical louver: Center



Side view
Horizontal louver: Down
Vertical louver: Center



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ASBH31KMTA

5-2. Airflow

■ Model: ASBH31KMTA

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	1,360
	l/s	378
	CFM	800
MED	m^3/h	1,130
	l/s	314
	CFM	665
LOW	m^3/h	900
	l/s	250
	CFM	530
QUIET	m^3/h	720
	l/s	200
	CFM	424

● Heating

Fan speed	Airflow	
HIGH	m^3/h	1,360
	l/s	378
	CFM	800
MED	m^3/h	1,060
	l/s	294
	CFM	624
LOW	m^3/h	840
	l/s	233
	CFM	494
QUIET	m^3/h	720
	l/s	200
	CFM	424

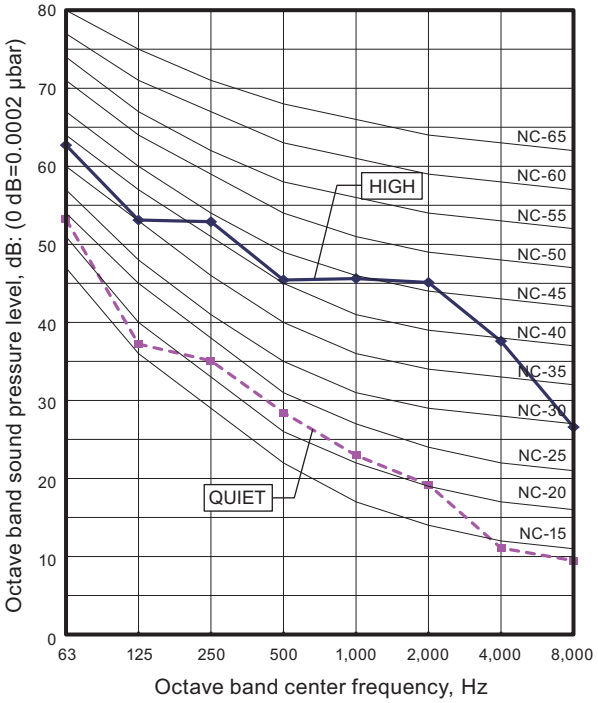
WALL MOUNTED
ASBH31KMTA

6. Operation noise (sound pressure)

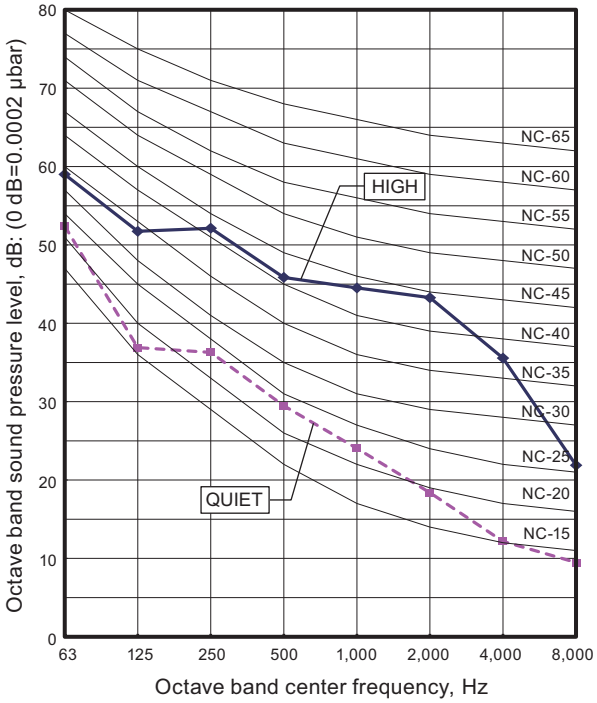
6-1. Noise level curve

■ Model: ASBH31KMTA

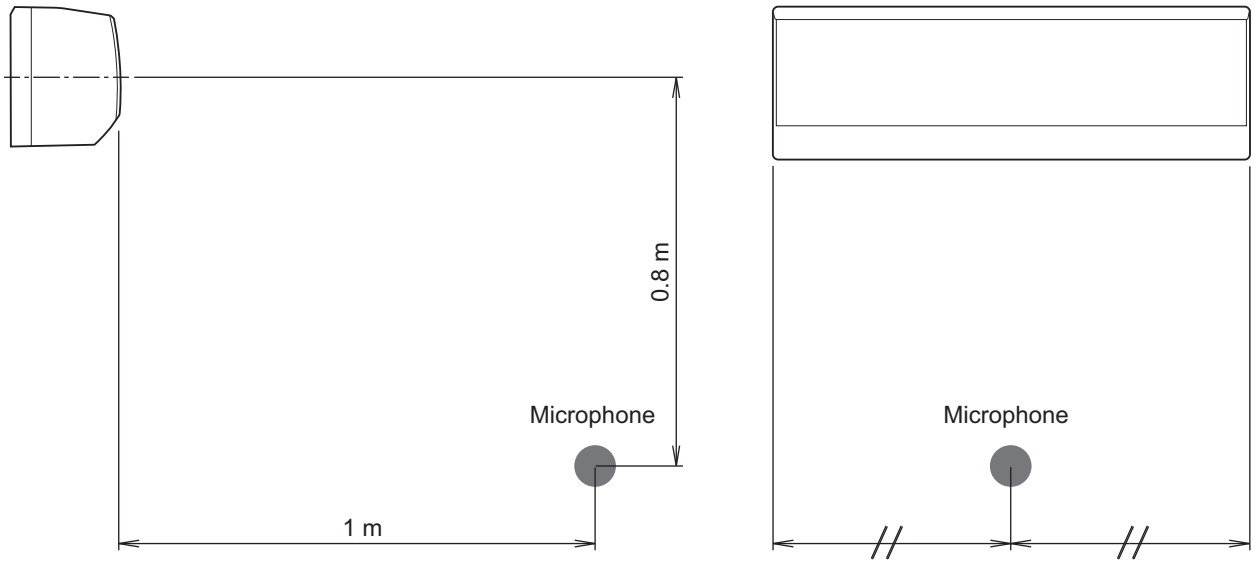
● Cooling



● Heating



6-2. Sound level check point



NOTE: Detailed shape of the actual indoor unit might be slightly different from the one illustrated above.

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ASBH31KMTA

7. Safety devices

Type of protection	Protection form		Model
			ASBH31KMTA
Circuit protection	Current fuse (PCB*)		250 V, 3.15 A
Fan motor protection	Thermal protector program	Activate	150 ±15°C Fan motor stop
		Reset	120 ±15°C Fan motor restart

*PCB: Printed Circuit Board

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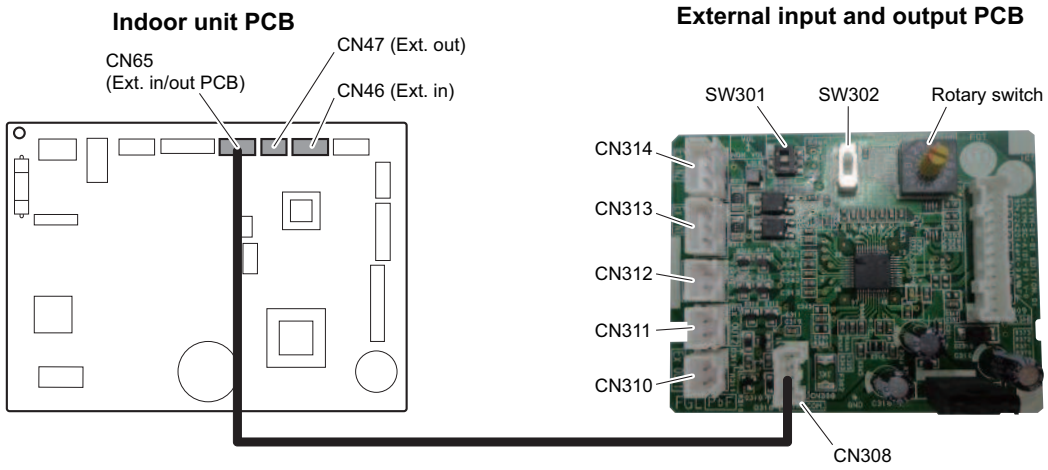
8. External input and output



Connecting point		Input/Output	Function	Input select	Input signal
Indoor unit	CN46	Input	Operation/Stop	Dry contact	Edge
			Forced stop		
	CN47	Output	Operation/Stop	—	—
			Error status		
			Indoor unit fan operation status		
External Input and Output PCB (UTY-XCSXZ2)	CN313 CN314	Input	Operation/Stop	Dry contact/Apply voltage	Edge/Pulse
			Forced stop		
	CN313		Forced thermostat off		Edge
	CN310 CN311 CN312	Output	Operation/Stop	—	—
			Error status		
			Indoor unit fan operation status		

NOTE: For details of the switching function, refer to "Setting of external input and output" on page 17.

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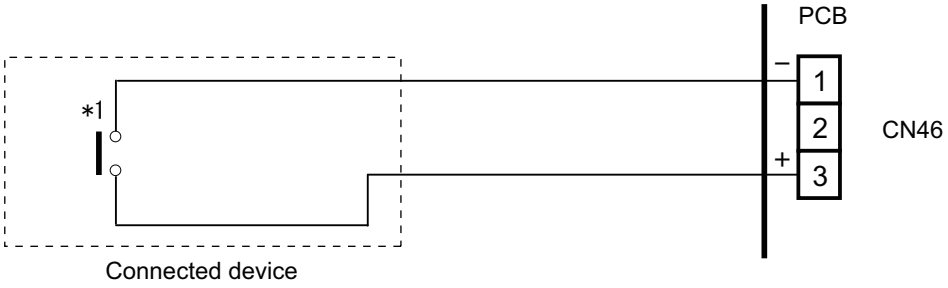
8-1. External input

With using external input function, some functions on this product can be controlled from an external device.

- “Operation/Stop” mode or "Forced stop" mode can be selected with function setting of indoor unit.
- A twisted pair cable should be used. Maximum length of cable is 150 m.
- Use an external input and output cable with appropriate external dimension, depending on the number of cables to be installed.
- The wire connection should be separate from the power cable line.

■ Indoor unit

Indoor unit functions such as Operation/Stop can be done by using indoor unit connectors.



*1: The switch can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.

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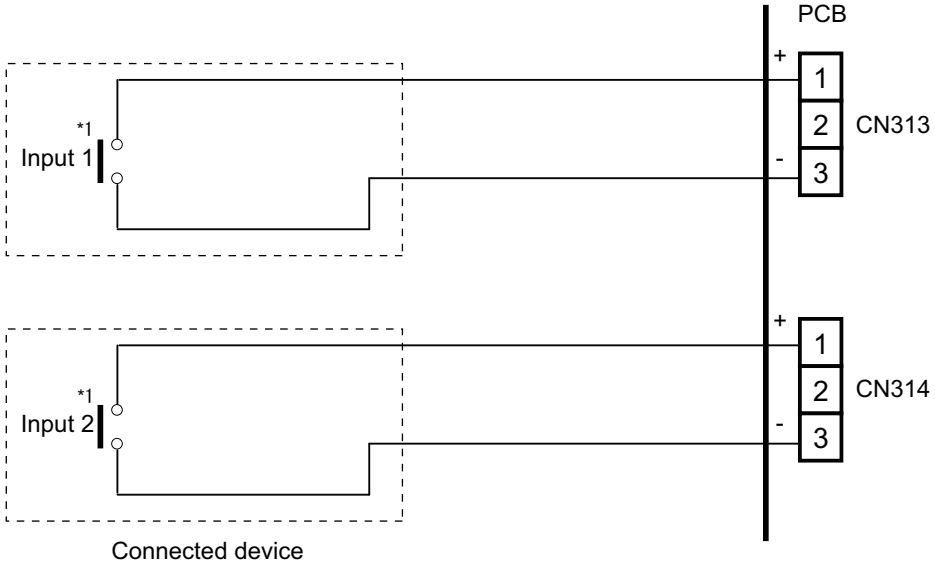
■ External Input and Output PCB

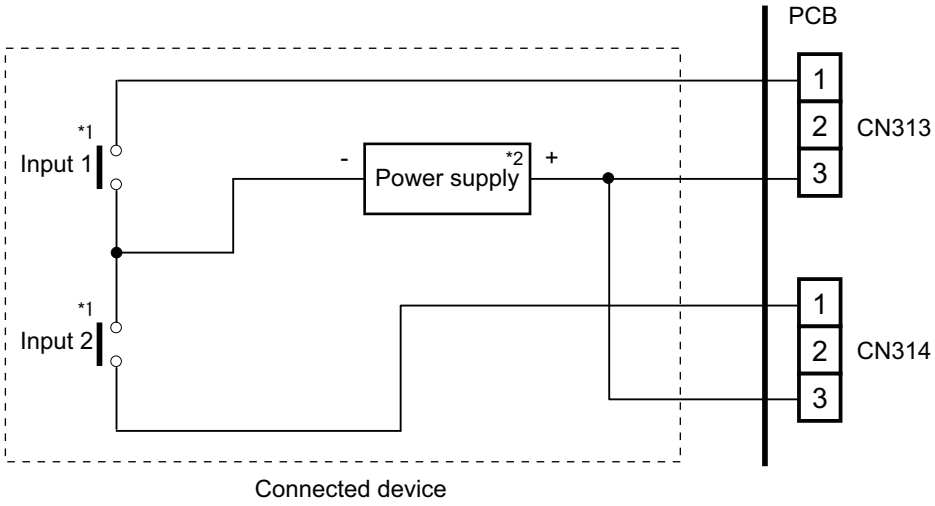
The indoor unit Operation/Stop can be set by using the input connector on the PCB.

- **Input select**
  Use either one of these types of connectors according to the application. (Both types of connectors cannot be used simultaneously.)
  – **Dry contact**
  In case of internal power supply, set the slide switch of SW301 to "NON VOL" side.



*1: The switches can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.

  – **Apply voltage**
  In case of external power supply, set the slide switch of SW301 to "VOL" side.



*1: The switches can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.
*2: Make the power supply DC 12 V to 24 V, 10 mA or more.

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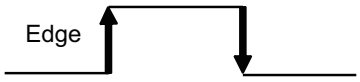
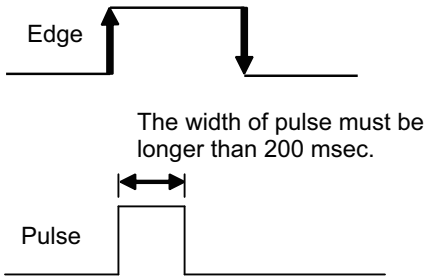
■ Input signal type

- **Indoor unit**
  Input signal type is only "Edge".



- **External Input and Output PCB**
  The input signal type can be selected.
  Signal type (edge or pulse) can be switched by the DIP switch 2 (SW302) on the External Input and Output PCB.



NOTE: The input signal supports the following switch type:
- Edge: Alternate type switch
- Pulse: Momentary type switch

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ASBH31KMTA

8-2. External output

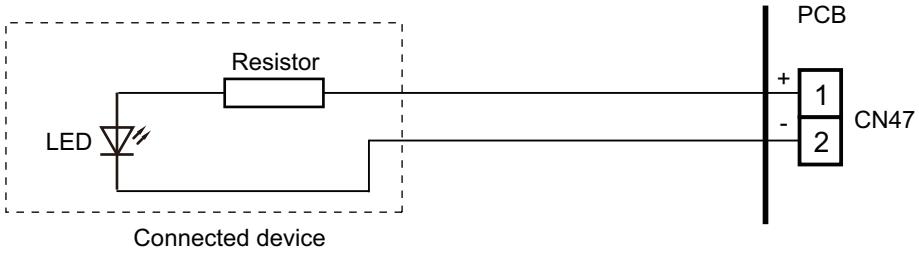
Use an external output cable with appropriate external dimension, depending on the number of cables to be installed.

■ Indoor unit

- A twisted pair cable should be used. Maximum length of cable is 25 m.
- Output voltage: High DC 12 V ±2 V, Low 0 V.
- Permissible current: 50 mA
- For details, refer to "Setting of external input and output" on page 17.

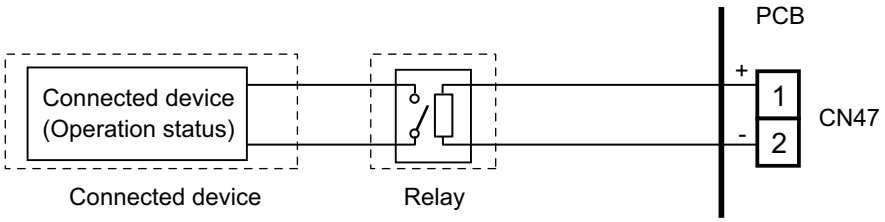
- **When indicator, etc. are connected directly**

Example: Function setting number 60 is set to "00"



- **When connecting with a device equipped with a power supply**

Example: Function setting number 60 is set to "00"



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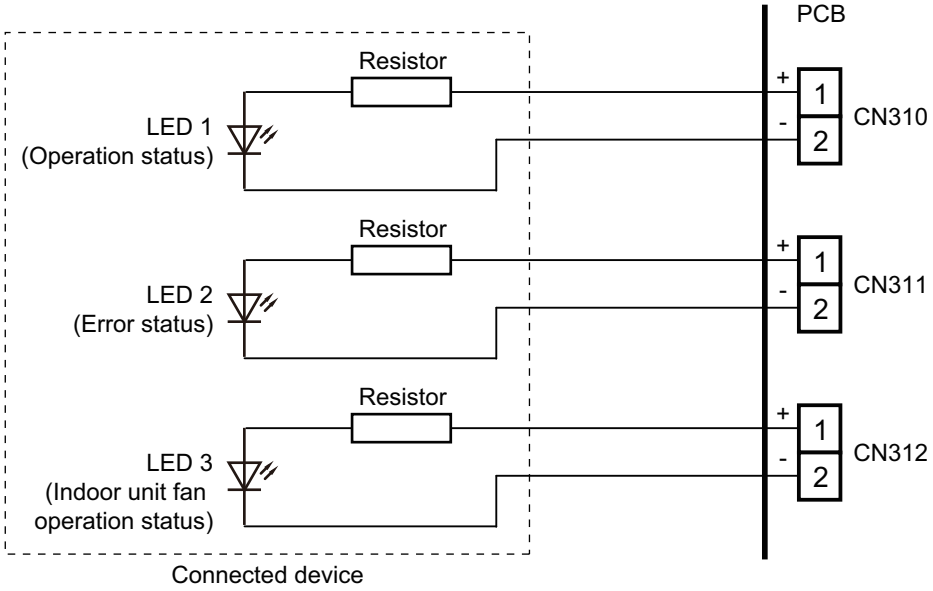
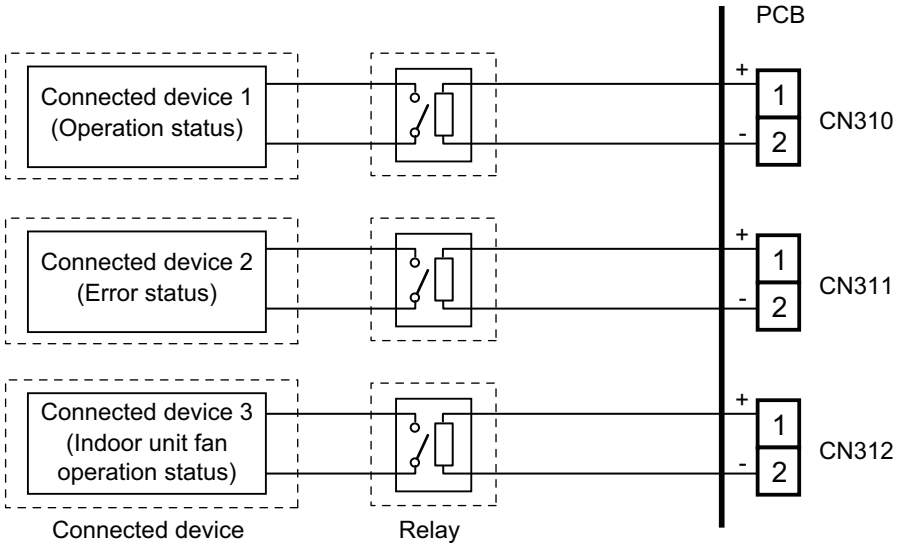
■ External Input and Output PCB

- A twisted pair cable should be used. Maximum length of cable is 25 m.
- Output voltage: High DC 12 V ±2 V, Low 0 V.
- Permissible current: 50 mA
- For details, refer to "Setting of external input and output" on page 17.

- **When indicator or other components are connected directly:**
  Example: Rotary SW on External Input and Output PCB is set to “1”.



- **When connecting with a device equipped with a power supply:**
  Example: Rotary SW on External Input and Output PCB is set to “1”.



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8-3. Setting of external input and output

- **Indoor unit**

Input		
Connection point	**Function setting number 46**	**Function**
CN46	00	Operation/Stop mode 1
	01	(Setting prohibited)
	02	Forced stop mode
	03	Operation/Stop mode 2

Output		
Connection point	**Function setting number 60**	**Function**
CN47	00	Operation/Stop
	01 to 08	(Setting prohibited)
	09	Error status
	10	Indoor unit fan operation status
	11	(Setting prohibited)

- **External Input and Output PCB**

Switch setting		Input		Output		
Rotary switch	**SW302**	**CN313**	**CN314**	**CN310**	**CN311**	**CN312**
1	Edge	Operation/Stop	Not available	Operation/Stop	Error status	Indoor unit fan status
	Pulse	Operation	Stop			
2	Edge*	Forced thermostat off	Not available	Error status	Indoor unit fan operation status	Not available
3 to 9, A		(Setting prohibited)				
B		Forced thermostat off	Not available	Operation/Stop	Indoor unit fan operation status	Not available
C		Forced thermostat off	Not available	Operation/Stop	Error status	Not available
D		Forced thermostat off	Not available	Operation/Stop	Indoor unit fan operation status	Error status

NOTES:

- When the rotary switch is selected to “1”, the operation of the connector input of the indoor unit and the External Input and Output PCB input are the same. The operation content depends on the setting of function setting number 46.
- *: The external input other than “Operation/Stop” is available only when the SW302 is set to “Edge”.

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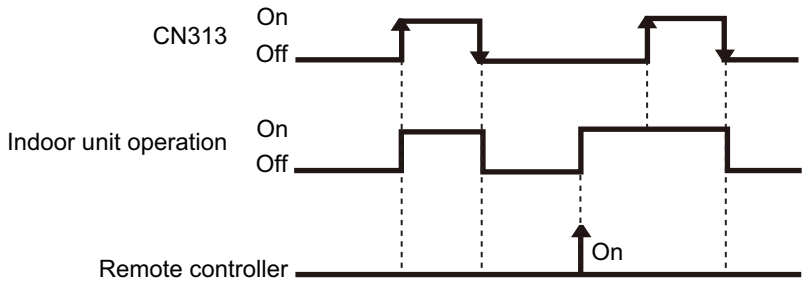
8-4. Details of control input function

■ Operation/Stop mode 1

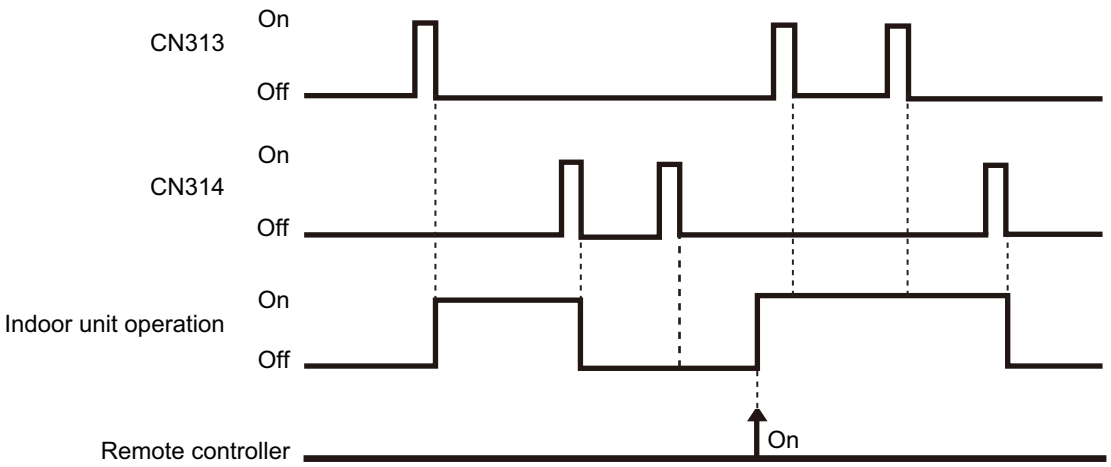
- **In the case of "Edge" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW302				
46-00	—		Input of indoor unit	CN46	Off → On	Operation
					On → Off	Stop
	1	Edge	External Input and Output PCB	CN313	Off → On	Operation
					On → Off	Stop



- **In the case of "Pulse" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW302				
46-00	1	Pulse	External Input and Output PCB	CN313	Pulse	Operation
				CN314		Stop



NOTES:

- The last command has priority.
- The indoor units within the same remote controller group operates in the same mode.

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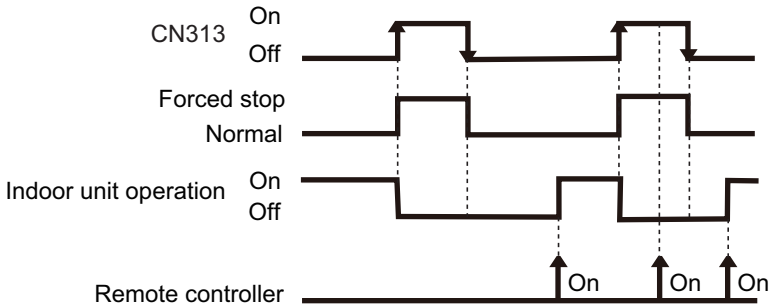
■ Forced stop

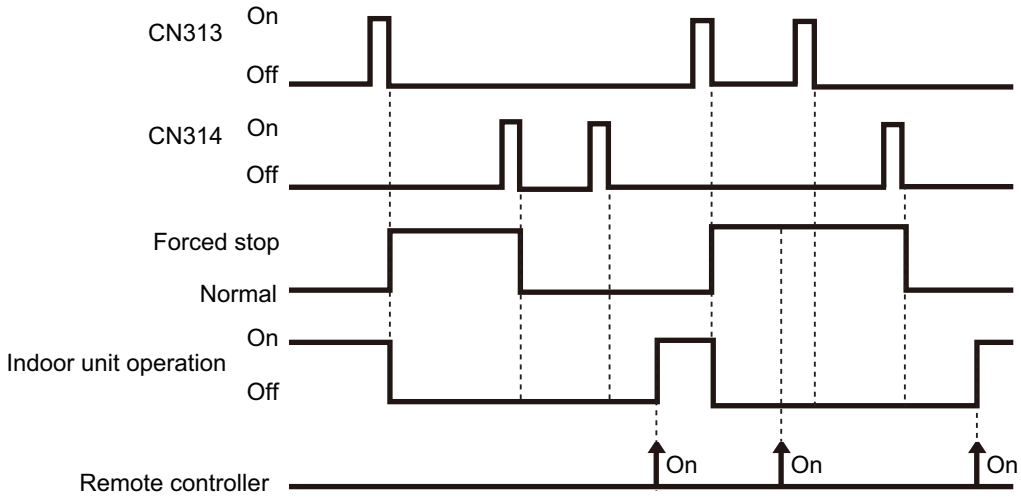
- **In the case of "Edge" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW302				
46-02	—		Input of indoor unit	CN46	Off → On	Forced stop (R.C. disabled)
					On → Off	Normal (R.C. enabled)
	1	Edge	External Input and Output PCB	CN313	Off → On	Forced stop (R.C. disabled)
					On → Off	Normal (R.C. enabled)



- **In the case of "Pulse" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW302				
46-02	1	Pulse	External Input and Output PCB	CN313	Pulse	Forced stop (R.C. disabled)
				CN314		Normal (R.C. enabled)



NOTES:

- When the forced stop is triggered, indoor unit stops and Operation/Stop operation by the remote controller is restricted.
- When forced stop function is used with forming a remote controller group, connect the same equipment to each indoor unit within the group.

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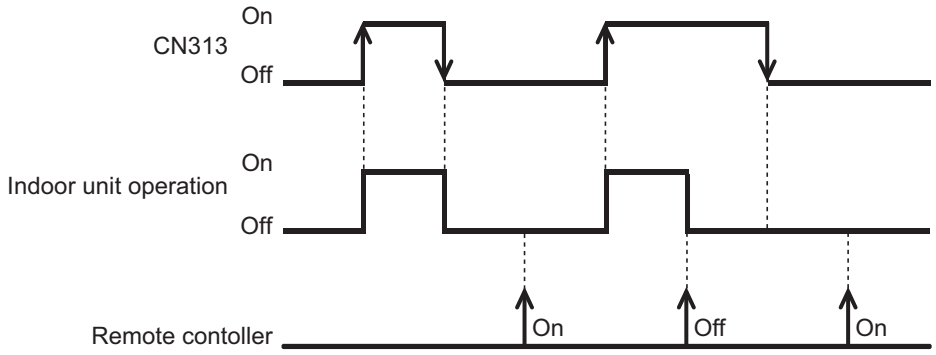
■ Operation/Stop mode 2

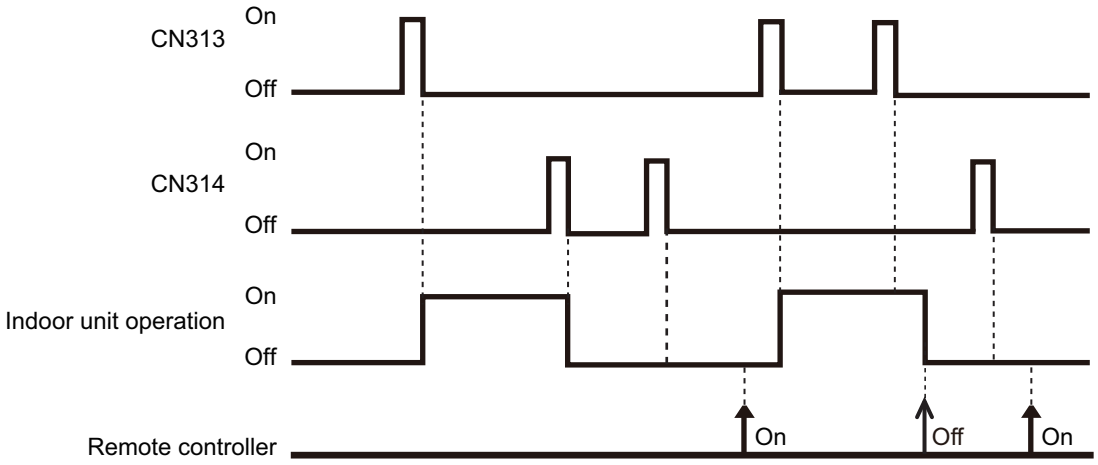
- **In the case of "Edge" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW302				
46-03	—		Input of indoor unit	CN46	Off → On	Operation (R.C. enabled)
					On → Off	Stop (R.C. disabled)
	1	Edge	External Input and Output PCB	CN313	Off → On	Operation (R.C. enabled)
					On → Off	Stop (R.C. disabled)



- **In the case of "Pulse" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW302				
46-03	1	Pulse	External Input and Output PCB	CN313	Pulse	Operation (R.C. enabled)
				CN314		Stop (R.C. disabled)



NOTE: When "Operation/Stop" mode 2 function is used with forming a remote controller group, connect the same equipment to each indoor unit within the group.

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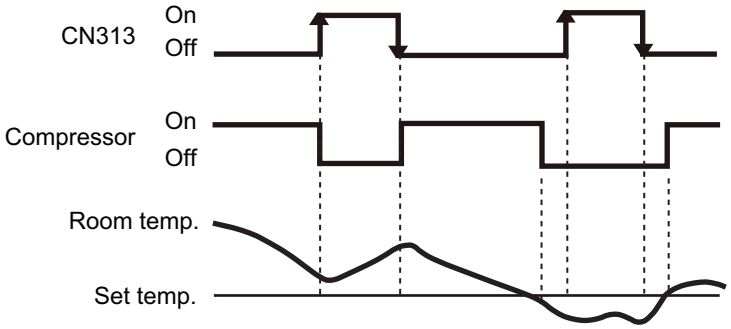
■ Forced thermostat off

External Input and Output PCB Rotary switch	External input		Input signal	Command
2, B, C, D	External Input and Output PCB	CN313	Off → On	Thermostat off
			On → Off	Normal operation



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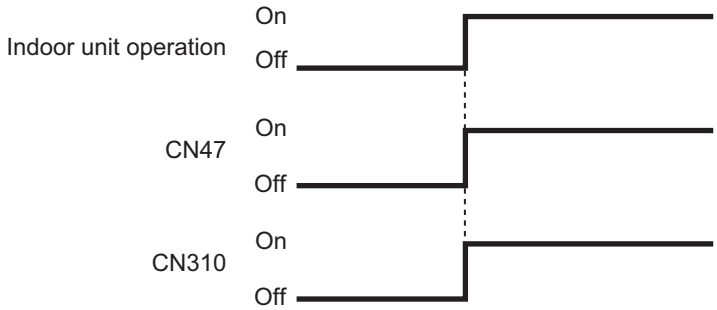
8-5. Details of control output function

■ Operation status

Function setting	External Input and Output PCB Rotary switch	External output		Output signal	Status
60-00	1, 2	Output of indoor unit	CN47	Off → On	Operation
				On → Off	Stop
—	1, B, C, D	External Input and Output PCB	CN310	Off → On	Operation
				On → Off	Stop

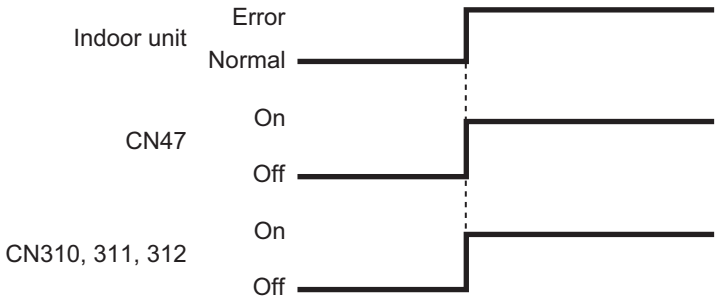
The output is low when the unit is stopped.



■ Error status

Function setting	External Input and Output PCB Rotary switch	External output		Output signal	Status
60-09	—	Output of indoor unit	CN47	Off → On	Error
				On → Off	Normal
—	2	External Input and Output PCB	CN310	Off → On	Error
				On → Off	Normal
—	1, C	External Input and Output PCB	CN311	Off → On	Error
				On → Off	Normal
—	D	External Input and Output PCB	CN312	Off → On	Error
				On → Off	Normal

The output is on when an error is generated for the indoor unit.



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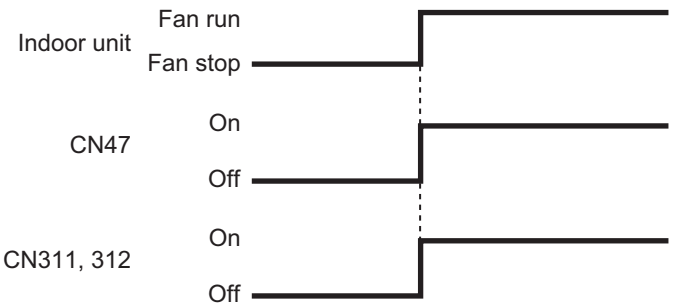
■ Indoor unit fan operation status

Function setting	External Input and Output PCB Rotary switch	External output		Output signal	Status
60-10	C	Output of indoor unit	CN47	Off → On	Fan run
				On → Off	Fan stop
—	2, B, D	External Input and Output PCB	CN311	Off → On	Fan run
				On → Off	Fan stop
—	1	External Input and Output PCB	CN312	Off → On	Fan run
				On → Off	Fan stop

Output signal	Condition
On	The indoor unit fan is operating.
Off	The fan is stopped or during cold air prevention. During thermostat off when in dry mode operation.



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9. Group connection

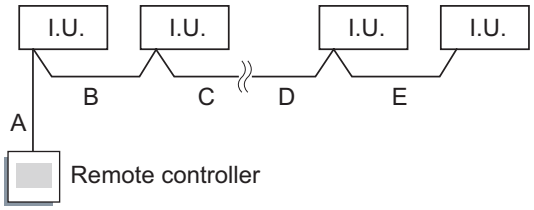
NOTE: Group control cannot be used together with WLAN Adapter.

Installation procedure for group control system:

A number of indoor units can be operated at the same time using a single remote controller.

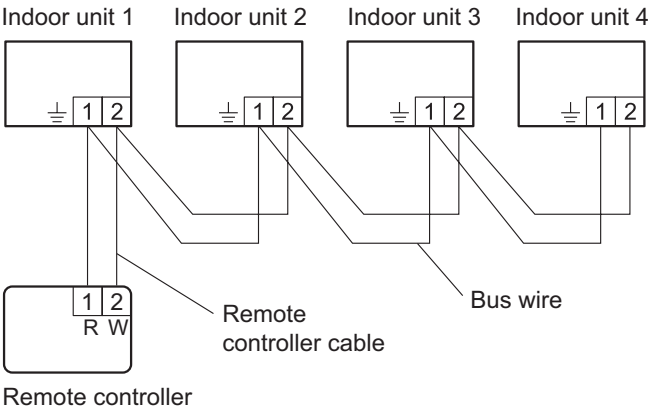
NOTE: When different type of indoor units (such as wall-mounted type and cassette type, cassette type and duct type, or other combinations) are connected using group control system, some functions may no longer be available.

1. Connect up to 16 indoor units in a system.



A, B, C, D, E: Remote controller cable	
Wiring length limitation	A + B + C + D + E ≤ 500 m

Example of wiring method



2. Automatic address setting
   After the remote controller connection in the system, the automatic address setting runs in the initial starting up. Do not change the remote controller address for the indoor unit.

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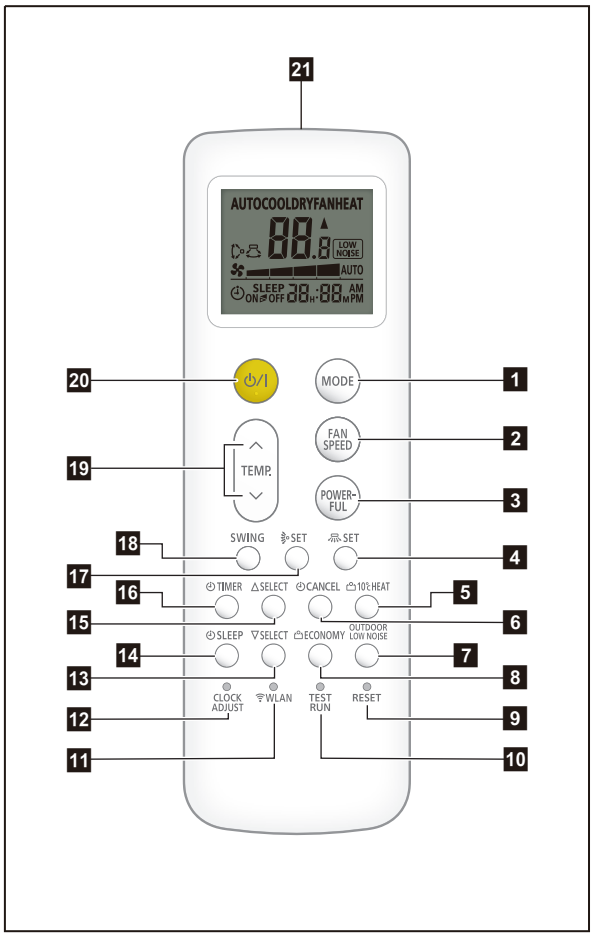
10. Remote controller

10-1. Wireless remote controller

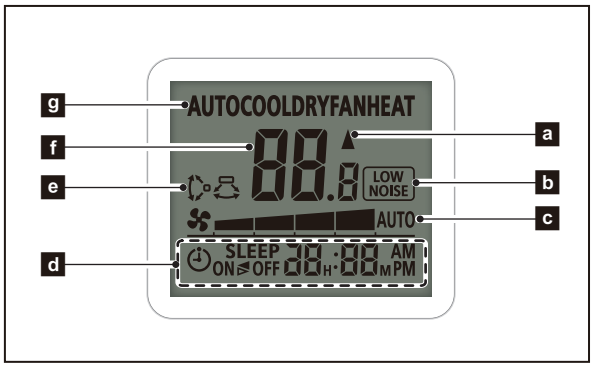
■ Overview



1 **MODE button**
2 **FAN SPEED button**
3 **POWERFUL button**
4 **SET button (Left/right airflow)**
5 **10 °C HEAT button**
6 **CANCEL button**
7 **OUTDOOR LOW NOISE button**
8 **ECONOMY button**
9 **RESET button**
10 **TEST RUN button**
11 **WLAN button**
12 **CLOCK ADJUST button**
13 **SELECT (Down) button**
14 **SLEEP button**
15 **SELECT (Up) button**
16 **TIMER button**
17 **SET button (Up/down airflow)**
18 **SWING button**
19 **TEMP. (Up/down) button**
20 **START/STOP button**
21 **Signal transmitter**

NOTE: Functions may differ by type of the indoor unit. For details, refer to the operation manual.

Display panel



a **Signal transmit indicator**
b **LOW NOISE mode indicator**
c **Fan speed indicator**
d **Clock and Timer indicator**
e **Swing indicator**
f **Temperature indicator**
g **Operating mode indicator**

To facilitate explanation, the accompanying illustration has been drawn to show all possible indicators; in actual operation, however, the display will only show those indicators appropriate to the current operation.

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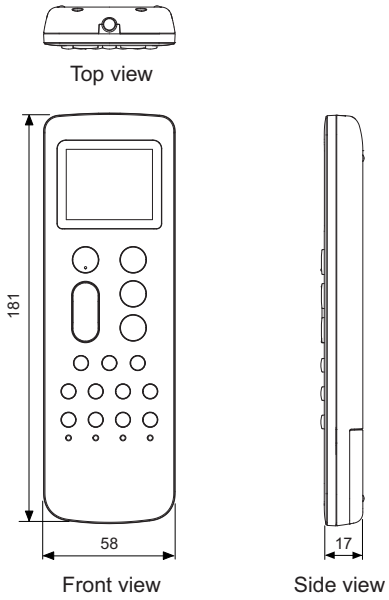
■ Specifications

● Controller

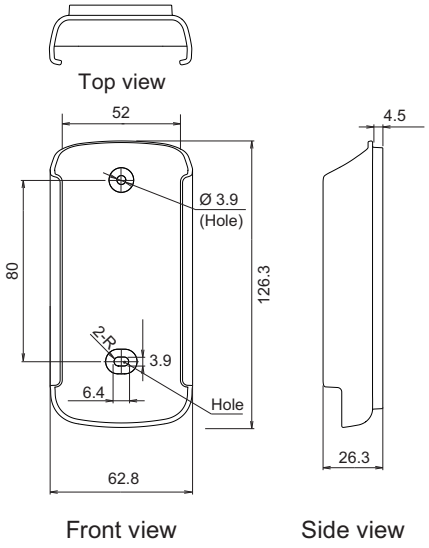
Unit: mm



Size (H × W × D)	mm	181 × 58 × 17
Weight	g	116 (without batteries)

● Holder

Unit: mm



Size (H × W × D)	mm	126.3 × 62.8 × 26.3
Weight	g	28

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11. Function settings

To adjust the functions of this product according to the installation environment, various types of function settings are available.

NOTE: Incorrect settings can cause a product malfunction.

11-1. Function settings by using remote controller

Some function settings can be changed on the remote controller. After confirming the setting procedure and the content of each function setting, select appropriate functions for your installation environment.

■ Setting procedure by using wireless remote controller

The function number and the associated setting value are displayed on the LCD of the remote controller. Follow the instructions written in the local setup procedure supplied with the remote controller, and select appropriate setting according to the installation environment.

Before connecting the power supply of the indoor unit, reconfirm following items:

- Cover for the electrical enclosure on the outdoor unit is in place.
- There is no wiring mistake.
- Piping air tightness test and vacuuming have been performed firmly.
- All the necessary wiring work for outdoor unit has been finished.

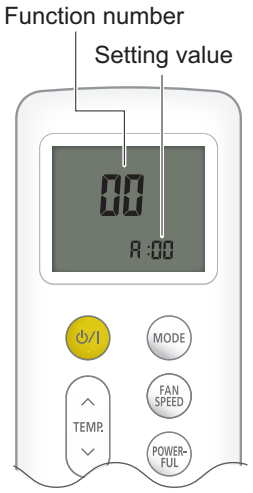
After reconfirming the items listed above, connect the power supply of the indoor unit.

NOTES:

- Settings will not be changed if invalid numbers or setting values are selected.
- When optional wired remote controller is used, refer to the installation manual enclosed with the remote controller.

Entering function setting mode:

While pressing the FAN SPEED button and TEMP. (∧) button simultaneously, press the RESET button to enter the function setting mode.



Selecting the function number and setting value:

1. Press MODE button.
2. Press the TEMP. (∧) (∨) buttons to select the function number. (Press MODE button to switch between the left and right digits.)
3. Press the FAN SPEED button to proceed to value setting. (Press FAN SPEED button again to return to the function number selection.)
4. Press the TEMP. (∧) (∨) buttons to select the setting value. (Press MODE button to switch between the left and right digits.)
5. Press the POWERFUL button once. Please confirm the beeping sound.
6. Press the START/STOP button once to fix the Function setting. Please confirm the beeping sound.
7. Press the RESET button to cancel the function setting mode.
8. After completing the function setting, be sure to disconnect the power supply and then reconnect it.

⚠ CAUTION

After disconnecting the power supply, wait 30 seconds or more before reconnecting it. The function setting will not become active unless the power supply is disconnected and then reconnected.

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■ Contents of function setting

Each function setting listed in this section is adjustable in accordance with the installation environment.

NOTE: Setting will not be changed if invalid numbers or setting values are selected.

● Function setting list

	Function no.	Functions
1)	11	Filter sign
2)	30/31	Room temperature control for indoor unit sensor
3)	35/36	Room temperature control for wired remote controller sensor
4)	40	Auto restart
5)	42	Room temperature sensor switching
6)	44	Remote controller custom code
7)	46	External input control
8)	48	Room temperature sensor switching (Aux.)
9)	49	Indoor unit fan control for energy saving for cooling
10)	60	Switching functions for external output terminal

1) Filter sign

Select appropriate intervals for displaying the filter sign on the indoor unit according to the estimated amount of dust in the air of the room.

If the indication is not required, select "No indication" (03).

Function number	Setting value	Setting description	Factory setting
11	00	Standard (400 hours)	
	01	Long interval (1,000 hours)	
	02	Short interval (200 hours)	
	03	No indication	♦

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2) Room temperature control for indoor unit sensor

Depending on the installed environment, correction of the room temperature sensor may be required. Select the appropriate control setting according to the installed environment.

The temperature of the room temperature sensor is corrected as follows:

Corrected temp. = Temp. of the room temp. sensor - Correction temp. value

Example of correction:

When the temperature of the room temp. sensor is 26°C and the setting value is “03” (-1.0°C), corrected temp. will be 27°C (26°C - [-1.0°C]).

The temperature correction values show the difference from the Standard setting "00" (manufacturer’s recommended value).

Function number		Setting value	Setting description		Factory setting
30 (For cooling)	31 (For heating)	00	Standard setting		♦
		01	No correction 0.0 °C		
		02	-0.5 °C	More cooling Less heating	
		03	-1.0 °C		
		04	-1.5 °C		
		05	-2.0 °C		
		06	-2.5 °C		
		07	-3.0 °C		
		08	-3.5 °C		
		09	-4.0 °C		
		10	+0.5 °C	Less cooling More heating	
		11	+1.0 °C		
		12	+1.5 °C		
		13	+2.0 °C		
		14	+2.5 °C		
		15	+3.0 °C		
		16	+3.5 °C		
		17	+4.0 °C		

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3) Room temperature control for wired remote controller sensor

Depending on the installed environment, correction of the wire remote temperature sensor may be required. Select the appropriate control setting according to the installed environment.

To change this setting, set Function 42 to Both “01”.

Ensure that the Thermo Sensor icon is displayed on the remote controller screen.

Function number		Setting value	Setting description		Factory setting
35 (For cooling)	36 (For heating)	00	Standard setting		♦
		01	No correction 0.0°C		
		02	-0.5 °C	More cooling Less heating	
		03	-1.0 °C		
		04	-1.5 °C		
		05	-2.0 °C		
		06	-2.5 °C		
		07	-3.0 °C		
		08	-3.5 °C		
		09	-4.0 °C		
		10	+0.5 °C	Less cooling More heating	
		11	+1.0 °C		
		12	+1.5 °C		
		13	+2.0 °C		
		14	+2.5 °C		
		15	+3.0 °C		
		16	+3.5 °C		
		17	+4.0 °C		

4) Auto restart

Enables or disables automatic restart after a power interruption.

Function number	Setting value	Setting description	Factory setting
40	00	Enable	♦
	01	Disable	

NOTE: Auto restart is an emergency function such as for power outage etc. Do not attempt to use this function in normal operation. Be sure to operate the unit by remote controller or external device.

5) Room temperature sensor switching

(Only for wired remote controller)

When using the wired remote controller temperature sensor, change the setting to "Both" (01).

Function number	Setting value	Setting description	Factory setting
42	00	Indoor unit	♦
	01	Both	

00: Sensor on the indoor unit is active.

01: Sensors on both indoor unit and wired remote controller are active.

NOTE: Remote controller sensor must be turned on by using the remote controller.

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6) Remote controller custom code

(Only for wireless remote controller)

The indoor unit custom code can be changed. Select the appropriate custom code.

Function number	Setting value	Setting description	Factory setting
44	00	A	♦
	01	B	
	02	C	
	03	D	

7) External input control

"Operation/Stop" mode or "Forced stop" mode can be selected.

Function number	Setting value	Setting description	Factory setting
46	00	Operation/Stop mode 1 (Remote controller enabled)	♦
	01	(Setting prohibited)	
	02	Forced stop mode	
	03	Operation/Stop mode 2 (Remote controller disabled)	

NOTE: If this function is necessary, the rotary switch on the External input and output PCB should be set to 1.

8) Room temperature sensor switching (Aux.)

To use the temperature sensor on the wired remote controller only, change the setting to "Wired remote controller" (01).

This function will only work if the function setting 42 is set at "Both" (01).

When the setting value is set to "Both" (00), more suitable control of the room temperature is possible by setting function setting 30 and 31 too.

Function number	Setting value	Setting description	Factory setting
48	00	Both	♦
	01	Wired remote controller	

9) Indoor unit fan control for energy saving for cooling

Enables or disables the power-saving function by controlling the indoor unit fan rotation when the outdoor unit is stopped during cooling operation.

Function number	Setting value	Setting description	Factory setting
49	00	Disable	
	01	Enable	
	02	Remote controller	♦

00: When the outdoor unit is stopped, the indoor unit fan operates continuously following the setting on the remote controller.

01: When the outdoor unit is stopped, the indoor unit fan operates intermittently at a very low speed.

02: Enable or disable this function by remote controller setting.

NOTE: Set to "00" or "01" when connecting a remote controller that cannot set the Fan control for energy saving function or connecting a network converter. To confirm if the remote controller has this setting, refer to the operating manual of each remote controller.

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10) Switching functions for external output terminal

Functions of the external output terminal can be switched. For details, refer to “External input and output”.

Function number	Setting value	Setting description	Factory setting
60	00	Operation status	♦
	01—08	(Setting prohibited)	
	09	Error status	
	10	Indoor unit fan operation status	
	11	(Setting prohibited)	

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11-2. Custom code setting for wireless remote controller

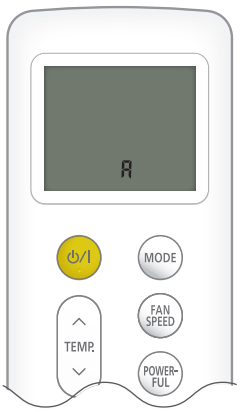
To interconnect the air conditioner and the wireless remote controller, assignment of the custom code for the wireless remote controller is required.

NOTE: Air conditioner cannot receive a signal if the air conditioner has not been set for the custom code.

When 2 or more air conditioners are installed in a room, and the remote controller is operating an air conditioner other than the one you wish to set, change the custom code of the remote controller to operate only the air conditioner you wish to set. (4 selections possible.)

Confirm the setting of the remote controller custom code and the function setting. If these do not match, the remote controller cannot be used to operate for the air conditioner.

1. Press the START/STOP button until only the clock is displayed on the remote controller display.
2. Press the MODE button for at least 5 seconds to display the current custom code. (Initially set to A.)
3. Press the TEMP. (∧) (∨) buttons to change the custom code between A →b →c →d. Match the code on the display to the air conditioner custom code. (Initially set to A.)
4. Press the MODE button again to return to the clock display. The custom code will be changed.



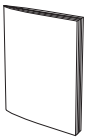
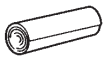
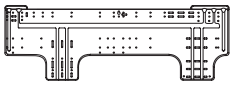
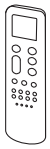
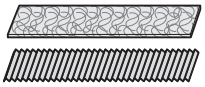
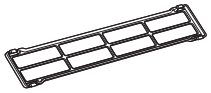
NOTES:

- If no button is pressed within 30 seconds after the custom code is displayed, the system returns to the original clock indicator. In this case, start again from step 1.
- The air conditioner custom code is set to A prior to shipment. To change the custom code, contact your retailer.
- If you do not know the assigned code for the air conditioner, try each of the custom code (A →b →c →d) until you find the code which operates the air conditioner.

WALL MOUNTED
ASBH31KMTA

12. Accessories

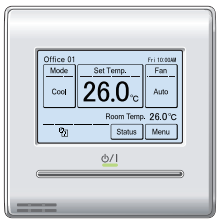
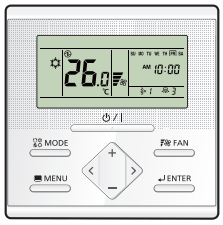
12-1. Model: ASBH31KMTA

Part name	Exterior	Qty	Part name	Exterior	Qty
Operation manual		1	Drain hose insulation		1
Installation manual		1	Cloth tape		1
Wall hook bracket		1	Self-tapping screw (Large)		8
			Self-tapping screw (Small)		2
Remote controller		1	Air cleaning filters		1
Remote controller holder		1	Air cleaning filter holder		2

WALL MOUNTED
ASBH31KMTA

13. Optional parts

13-1. Controllers

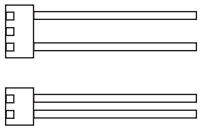
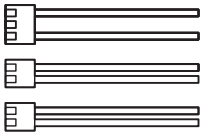
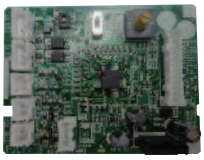
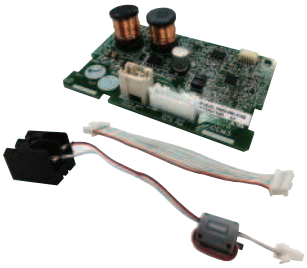
Exterior	Part name	Model name	Summary
	Wired Remote Controller	UTY-RNRYZ*	Easy finger touch operation with LCD panel. Backlit LCD enables easy operation in a dark room. Wire type: Non-polar 2-wire Optional Communication Kit is necessary for installation.
	Wired Remote Controller	UTY-RLRY	High visibility and easy operation. Room temperature can be accurately controlled using the thermo sensor. Wire type: Non-polar 2-wire Optional Communication Kit is necessary for installation.

NOTES:

- Available functions may differ by the remote controller. For details, refer to the operation manual.
- When using the group controlling system of the Wired Remote Controller, using WLAN Adapter is prohibited.

WALL MOUNTED
ASBH31KMTA

13-2. Others

Exterior	Part name	Model name	Summary
	External Connect Kit	UTY-XWZX	Use to connect with various peripheral devices and air conditioner PCB. Connecting point: CN47 on Main PCB
	External Connect Kit	UTY-XWZXZ5	Required when external device is connected. Connecting point: CN47 on Main PCB
	External Input and Output PCB	UTY-XCSXZ2	Use to connect with external devices and air conditioner PCB. Optional External Connect Kit is necessary for installation. Connecting point: CN65 on Main PCB
	Communication Kit	UTY-TWRXZ2	Use to connect Non-polar 2-core wired remote controller.
	WLAN Adapter	UTY-TFSXH3	Remotely manage an air conditioning system using mobile devices such as smartphones and tablets. Appropriate application for each region is required to use this option. For details, contact FGL sales company. Connecting point: Main PCB via USB connector
	Modbus Converter	UTY-VMSX	For connection between indoor unit with UART interface and a Modbus open network. Connecting point: CN65 on Main PCB
	KNX Convertor	UTY-VKSX	For connection between indoor unit with UART interface and a KNX open network. Connecting point: CN65 on Main PCB
	External Switch Controller	UTY-TERX	Air conditioner switching can be controlled by connecting other external sensor switches. Use the terminal for wired remote controller.

Part 2. OUTDOOR UNIT

SINGLE TYPE:

AOBH31KMTA

1. Specifications

Type				Inverter, Heat pump
Model name				**AOBH31KMTA**
Power supply				220 V~ 60 Hz
Power supply intake				Outdoor unit
Available voltage range				198—242 V
Starting current			A	11.9
Fan	Airflow rate	Cooling	m^3/h	4,450
		Heating		4,450
	Type × Qty			Propeller fan × 1
	Motor output		W	120
Sound pressure level*1		Cooling	dB (A)	56
		Heating		57
Heat exchanger type		Dimensions (H × W × D)	mm	Main 1: 966 × 905 × 18.19 Main 2: 966 × 905 × 18.19
		Fin pitch		Main 1: 1.45 Main 2: 1.45
		Rows × Stages		Main 1: 1 × 46 Main 2: 1 × 46
		Pipe type		Copper tube
		Fin type	Type (Material)	Aluminum
			Surface treatment	Blue fin
Compressor	Type			DC twin rotary
	Motor output		W	1,830
Refrigerant		Type		R32
		Charge	g	2,300
Refrigerant oil		Type		RmM68AF
		Amount	cm^3	800
Enclosure		Material		Steel sheet
		Color		Beige Approximate color of Munsell 10YR 7.5/1.0
Dimensions (H × W × D)	Net		mm	998 × 940 × 320
	Gross			1,176 × 1,027 × 445
Weight	Net		kg	62
	Gross			71
Connection pipe	Size	Liquid	mm (in)	Ø9.52 (Ø3/8)
		Gas		Ø15.88 (Ø5/8)
	Method			Flare
	Pre-charge length		m	25
	Max. length			50
	Max. height difference			30
	Additional charge		g/m	40
Operation range*2		Cooling	°C	18 to 50*3
		Heating		-15 to 24
Drain hose		Material		LDPE
		Tip diameter	mm	Ø13.0 (I.D.), Ø16.0 to Ø16.7 (O.D.)

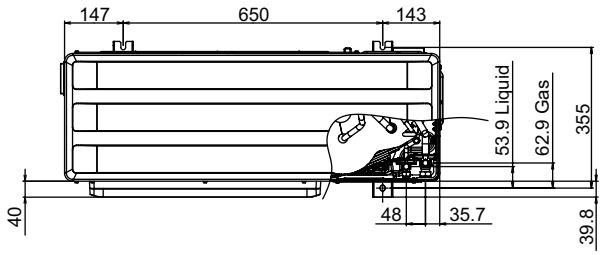
NOTES:

- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 27°CDB/19°CWB, and outdoor temperature of 35°CDB/24°CWB.
  - Heating: Indoor temperature of 20°CDB/15°CWB, and outdoor temperature of 7°CDB/6°CWB.
  - Pipe length: 5 m, Height difference: 0 m.
- Protective function might work when using it outside the operation range.
- *1: Sound pressure level
  - Measured values in manufacturer's anechoic chamber.
  - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.
- *2: The protection circuits might activate to stop the unit's operation outside the temperature range.
- *3: Suction temperature of the outdoor unit.

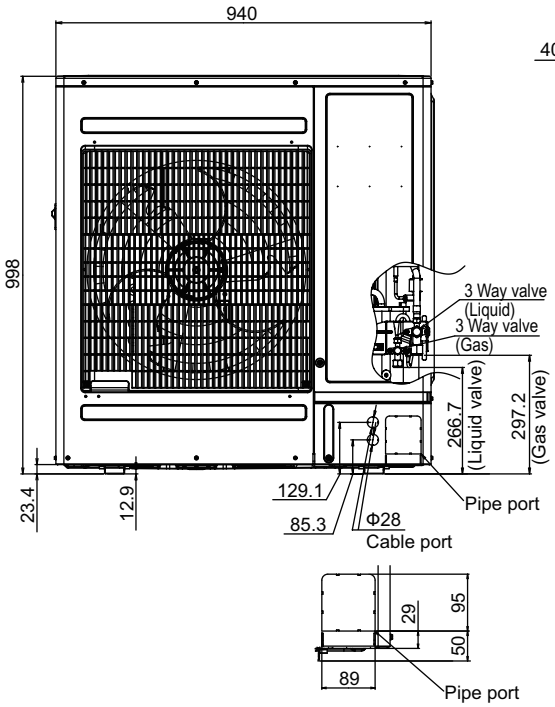
2. Dimensions

2-1. Model: AOBH31KMTA

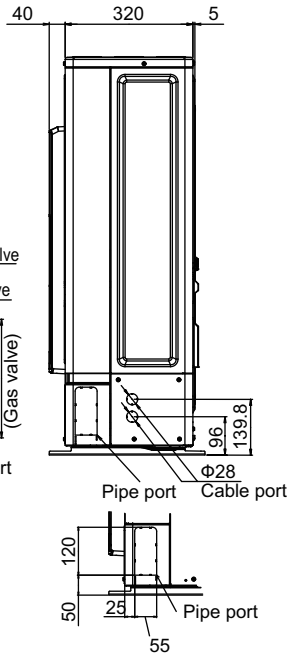
Unit: mm



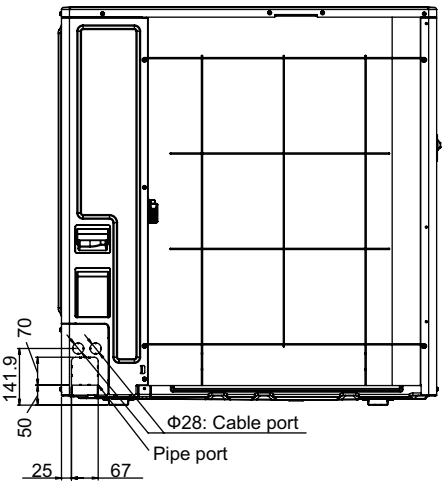
Top view



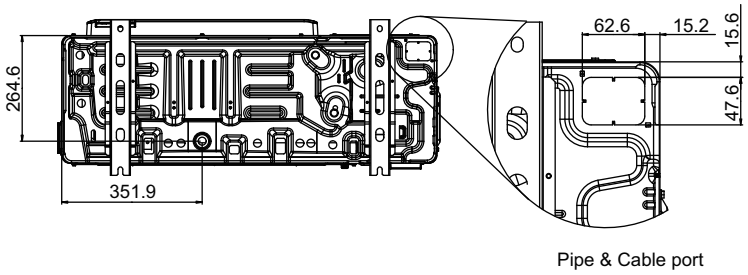
Front view



Side view



Rear view



Bottom view

3. Installation space

3-1. Model: AOBH31KMTA

OUTDOOR UNIT
AOBH31KMTA

■ Space requirement

Provide sufficient installation space for product safety.

⚠ CAUTION

Keep the space shown in the installation examples.

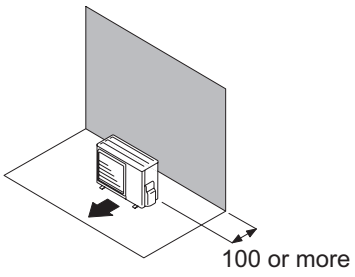
If the installation is not performed accordingly, it could cause a short circuit and result in a lack of operating performance.

● Single outdoor unit installation

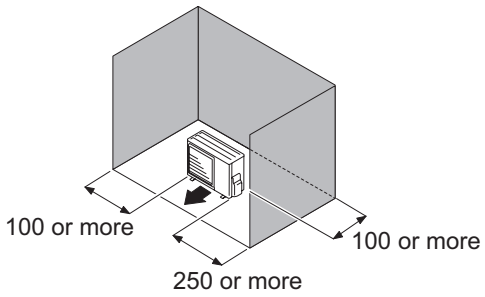
- **When the upper space is open:**

Unit: mm

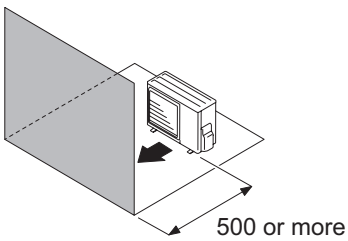
When there are obstacles at the rear only.



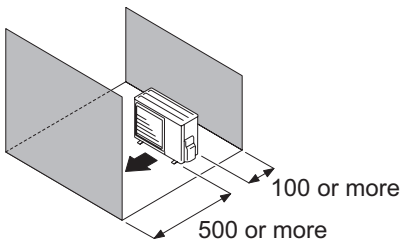
When there are obstacles at the rear and sides.



When there are obstacles at the front only.



When there are obstacles at the front and rear.

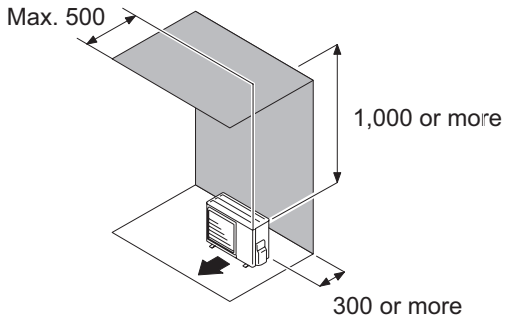


OUTDOOR UNIT
AOBH31KMTA

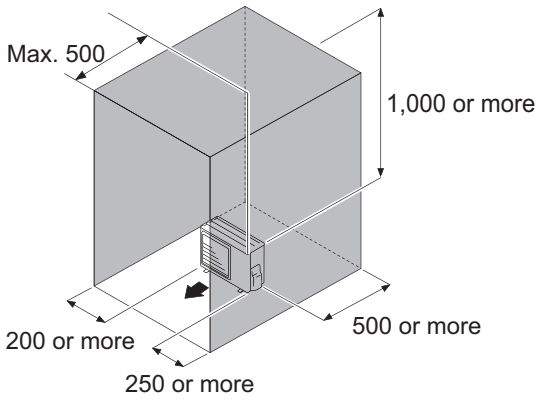
- **When an obstruction in the upper space:**

Unit: mm

When there are obstacles at the rear and above.



When there are obstacles at the rear, sides, and above.



OUTDOOR UNIT
AOBH31KMTA

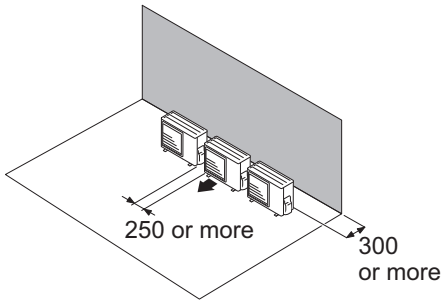
● Multiple outdoor unit installation

- Provide at least 250 mm of space between the outdoor units if multiple units are installed.
- When routing the piping from the side of an outdoor unit, provide space for piping.
- No more than 3 units must be installed side by side.
  When 4 units or more are arranged in a line, provide the space as shown in the following example "**When an obstruction in the upper space:**".

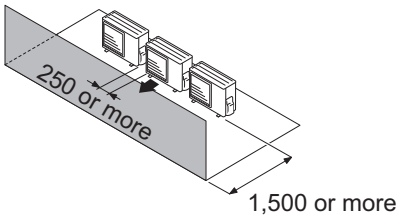
- **When the upper space is open:**

Unit: mm

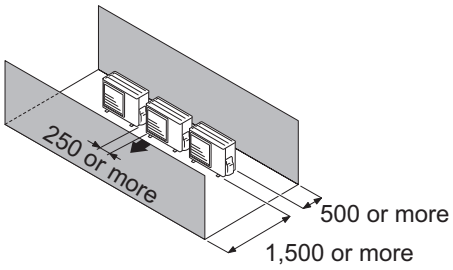
When there are obstacles at the rear only.



When there are obstacles at the front only.



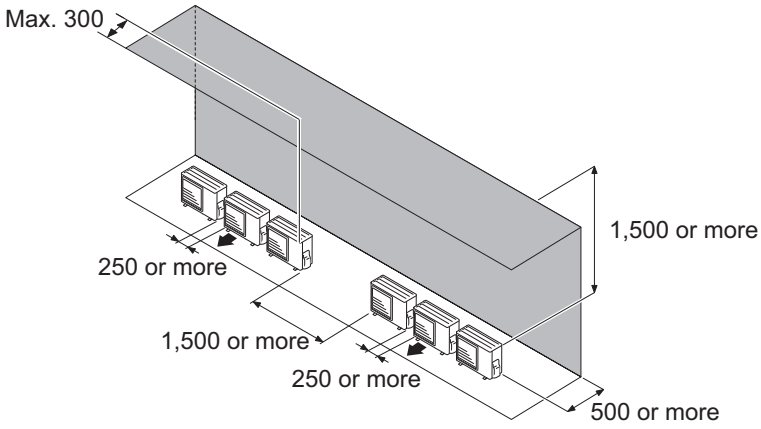
When there are obstacles at the front and rear.



- **When an obstruction in the upper space:**

Unit: mm

When there are obstacles at the rear and above.

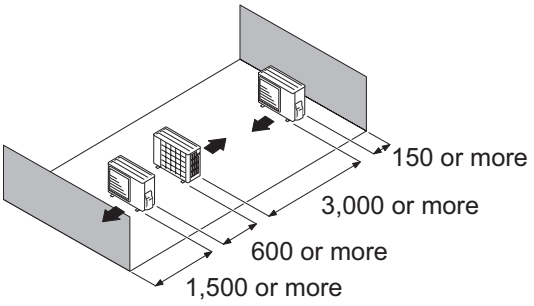


OUTDOOR UNIT
AOBH31KMTA

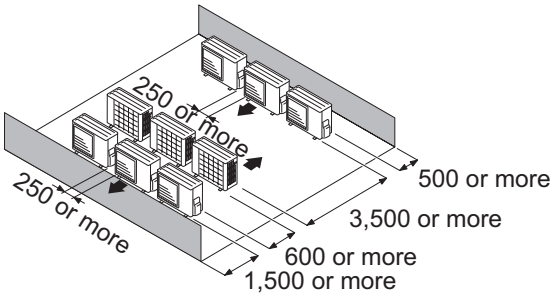
● Outdoor unit installation in multi-row

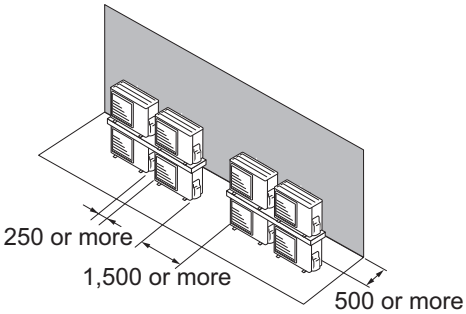
Unit: mm

Single parallel unit arrangement



Multiple parallel unit arrangement



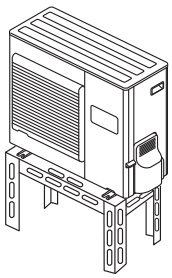


NOTES:

- If the space is larger than stated above, the condition will be the same as when there is no obstacle.
- Height above the floor level should be 50 mm or more.
- When installing the outdoor unit, be sure to open the front and left side to obtain better operation efficiency.

⚠ CAUTION

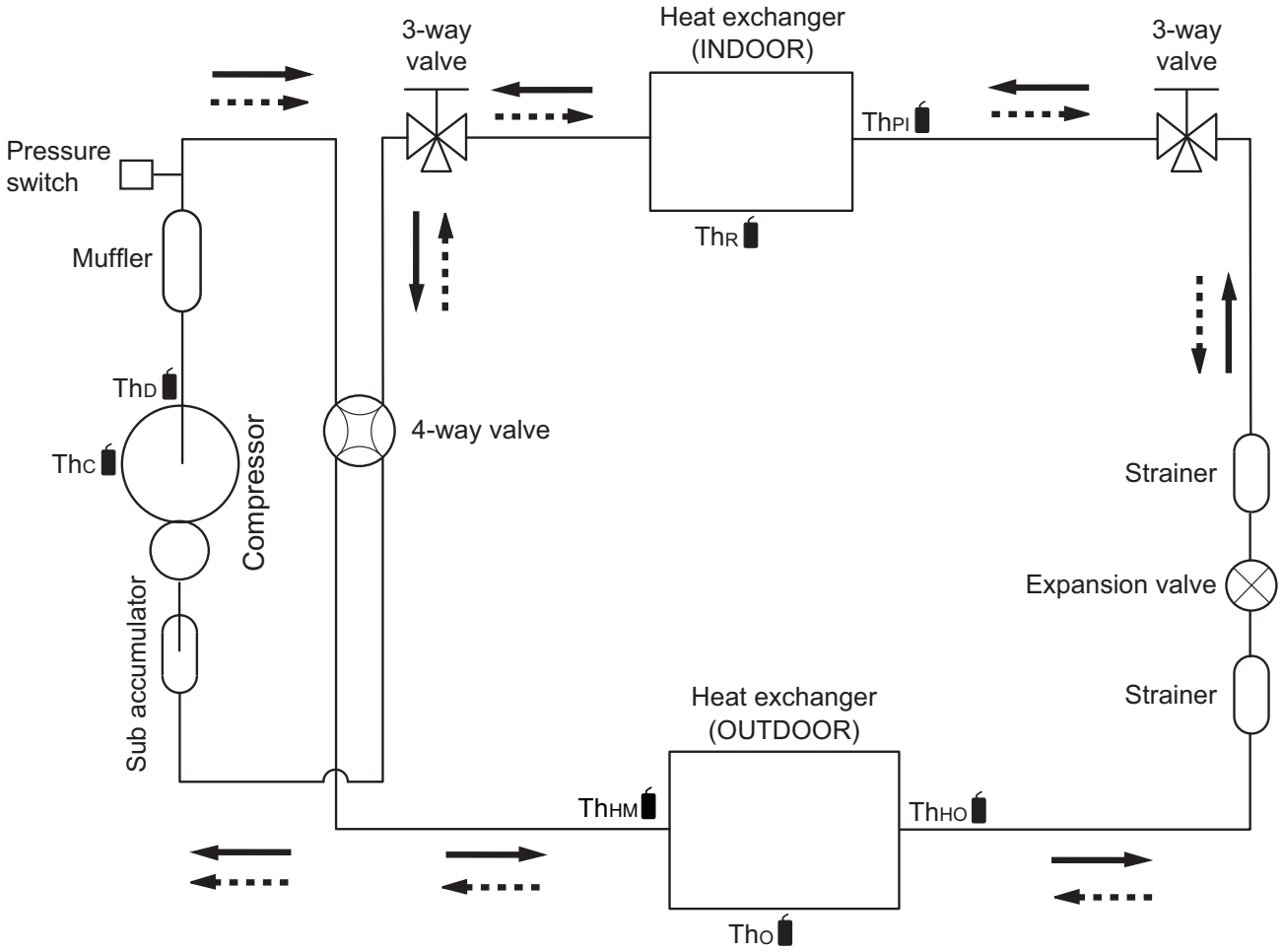
- Do not install the outdoor unit in two-stage where the drain water could freeze. Otherwise the drainage from the upper unit may form ice and cause a malfunction of the lower unit.
- When the outdoor temperature is 0 °C or less, do not use the accessory drain pipe and drain cap. If the drain pipe and drain cap are used, the drain water in the pipe may freeze in extremely cold climate. (For reverse cycle model only.)
- In area with heavy snowfall, if the inlet and outlet of the outdoor unit is blocked with snow, it might become difficult to get warm, and it is likely to cause product malfunction. Construct a canopy and a pedestal, or place the unit on a high stand that is locally installed.



OUTDOOR UNIT
AOBH31KMTA

4. Refrigerant circuit

4-1. Model: AOBH31KMTA



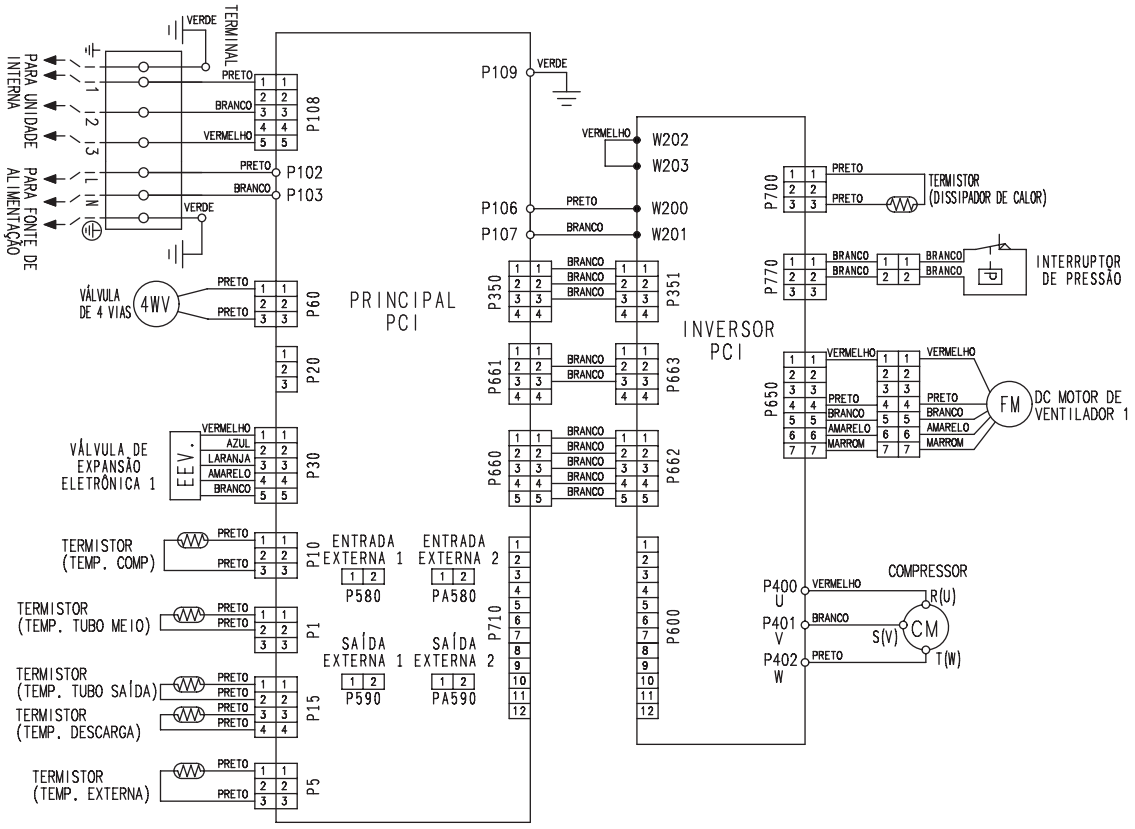
: Cooling
: Heating

ThC : Thermistor (Compressor temperature)
ThD : Thermistor (Discharge temperature)
ThHM : Thermistor (Heat exchanger middle temperature)
ThO : Thermistor (Outdoor temperature)
ThHO : Thermistor (Heat exchanger out temperature)
ThPI : Thermistor (Pipe temperature)
ThR : Thermistor (Room temperature)

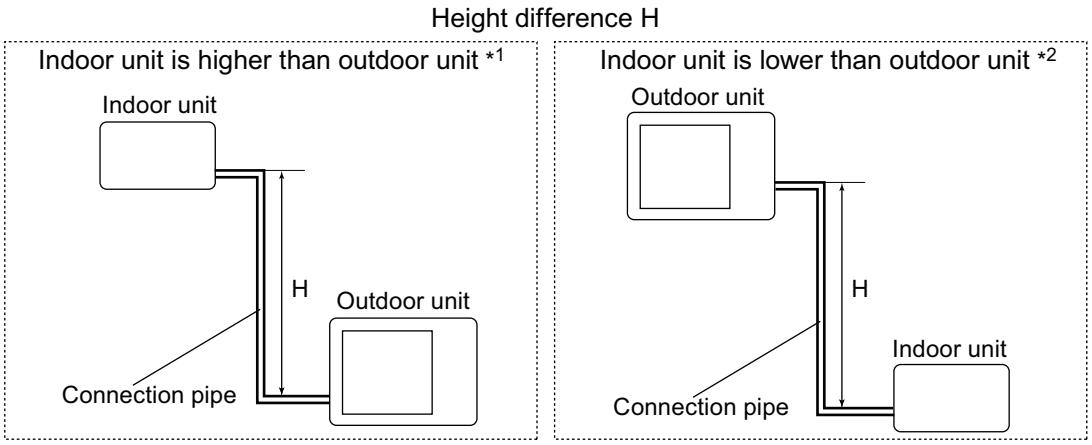
5. Wiring diagrams

5-1. Model: AOBH31KMTA

OUTDOOR UNIT
AOBH31KMTA



6. Capacity compensation rate for pipe length and height difference



6-1. Model: AOBH31KMTA

NOTE: Values mentioned in the table are calculated based on the maximum capacity.

COOLING			Pipe length (m)						
			5	7.5	10	20	30	40	50
Height difference H (m)	Indoor unit is higher than outdoor unit *1	30	—	—	—	—	0.930	0.926	0.921
		20	—	—	—	0.953	0.947	0.941	0.936
		10	—	—	0.981	0.968	0.963	0.956	0.951
		7.5	—	0.988	0.985	0.972	0.966	0.960	0.954
		5	0.992	0.992	0.989	0.976	0.970	0.964	0.958
		0	1.000	1.000	0.997	0.984	0.978	0.972	0.966
	Indoor unit is lower than outdoor unit *2	-5	1.000	1.000	0.997	0.984	0.978	0.972	0.966
		-7.5	—	1.000	0.997	0.984	0.978	0.972	0.966
		-10	—	—	0.997	0.984	0.978	0.972	0.966
		-20	—	—	—	0.984	0.978	0.972	0.966
		30	—	—	—	—	0.978	0.972	0.966

HEATING			Pipe length (m)						
			5	7.5	10	20	30	40	50
Height difference H (m)	Indoor unit is higher than outdoor unit *1	30	—	—	—	—	0.937	0.920	0.905
		20	—	—	—	0.954	0.937	0.920	0.905
		10	—	—	0.990	0.954	0.937	0.920	0.905
		7.5	—	1.000	0.990	0.954	0.937	0.920	0.905
		5	1.000	1.000	0.990	0.954	0.937	0.920	0.905
		0	1.000	1.000	0.990	0.954	0.937	0.920	0.905
	Indoor unit is lower than outdoor unit *2	-5	0.995	0.995	0.986	0.949	0.932	0.915	0.901
		-7.5	—	0.993	0.983	0.946	0.930	0.913	0.898
		-10	—	—	0.981	0.944	0.927	0.910	0.896
		-20	—	—	—	0.935	0.918	0.901	0.887
		30	—	—	—	—	0.909	0.892	0.878

7. Additional charge calculation

7-1. Model: AOBH31KMTA

OUTDOOR UNIT
AOBH31KMTA

Refrigerant type		R32
Factory charge amount	g	2,300

■ Refrigerant charge

Total pipe length	m	25 or less	30	40	50 (Max.)	40 g/m
Additional charge amount	g	0	200	600	1,000	

8. Airflow

8-1. Model: AOBH31KMTA

OUTDOOR UNIT
AOBH31KMTA

● Cooling

m^3/h	4,450
l/s	1,236
CFM	2,619

● Heating

m^3/h	4,450
l/s	1,236
CFM	2,619

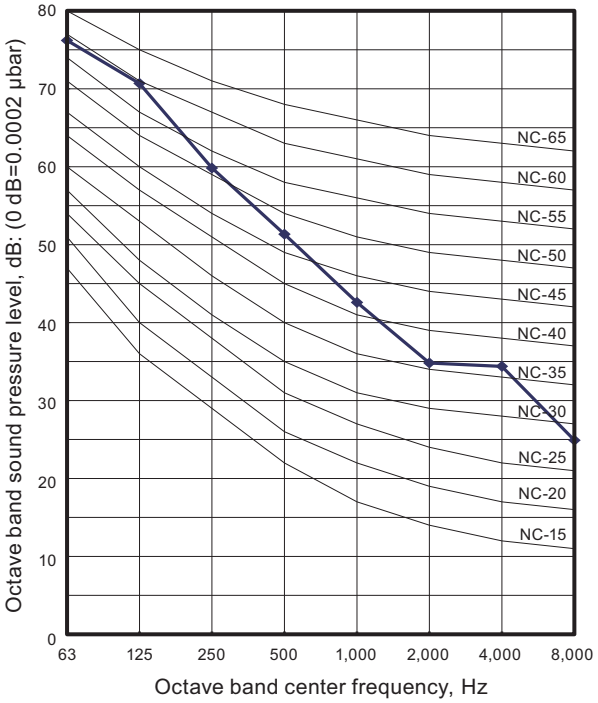
OUTDOOR UNIT
AOBH31KMTA

9. Operation noise (sound pressure)

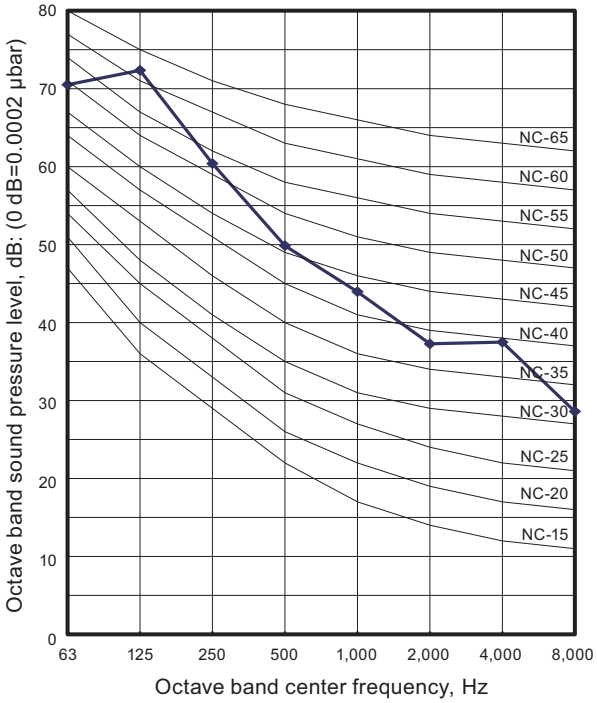
9-1. Noise level curve

■ Model: AOBH31KMTA

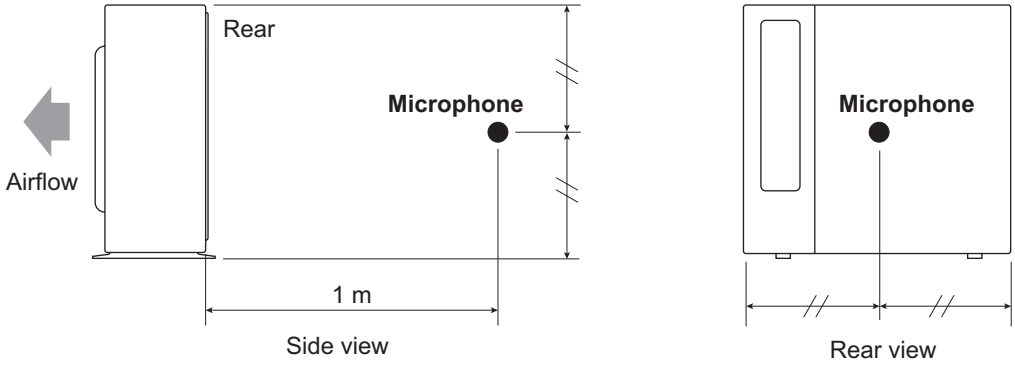
● Cooling



● Heating



9-2. Sound level check point



NOTE: Detailed shape of the actual outdoor unit might be slightly different from the one illustrated above.

10. Electrical characteristics

Model name				AOBH31KMTA
Power supply	Voltage		V	220
	Frequency		Hz	60
Maximum operating current*1			A	20.5
Starting current			A	11.9
Wiring spec.*2	Circuit breaker current		A	25
	Power cable		mm^2	2.5—4.0
	Connection cable*3	Cross-sectional area	mm^2	1.5
		Limited wiring length	m	51

OUTDOOR UNIT
AOBH31KMTA

NOTES:

- *1: Maximum operating current is the total current of the indoor unit and the outdoor unit.
- *2: Selected sample based on Japan Electrotechnical Standards and Codes Committee E0005. As the regulations of wire size and circuit breaker differ in each country or region, select appropriate devices complied to the regional standard.
- *3: Limit voltage drop to less than 2%. If voltage drop is 2% or more, increase cable conductor size.

OUTDOOR UNIT
AOBH31KMTA

11. Safety devices

Type of protection	Protection form		Model
			AOBH31KMTA
Circuit protection	Current fuse (PCB*)		250 V, 30 A or 35.5 A 250 V, 3.15 A 250 V, 10 A × 2
Fan motor protection	Thermal protection program	Activate	150 ±15°C Fan motor stop
		Reset	120 ±15°C Fan motor restart
Compressor protection	Thermal protection program (Discharge temp.)	Activate	110°C Compressor stop
		Reset	After 7 minutes Compressor restart
	Thermal protection program (Compressor temp.)	Activate	108°C Compressor stop
		Reset	80°C or less Compressor restart
	Thermal protection program (Outdoor temp.) (Only in COOL or DRY mode)	Activate	-20°C Compressor stop
		Reset	-15°C Compressor restart

*PCB: Printed Circuit Board

OUTDOOR UNIT
AOBH31KMTA

12. External input and output

With using external input and output functions, this product can be operated inter-connectedly with an external device.

Connector	Input	Output	Remarks
P580	Low noise mode	—	See external input/output settings for details.
PA580	Peak cut mode	—	
P590	—	Error status	
PA590	—	Compressor status	

12-1. External input

With using external input function, on/off status of “Low noise mode” and “Peak cut mode” can be specified by the external signal.

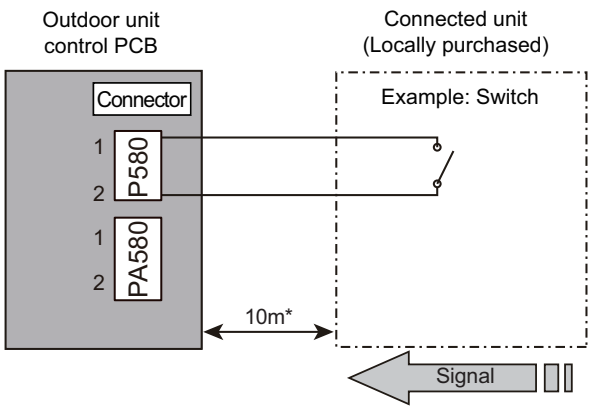
■ Low noise mode

In following condition, the operating noise of the outdoor unit reduces comparing from the one in normal operating condition:

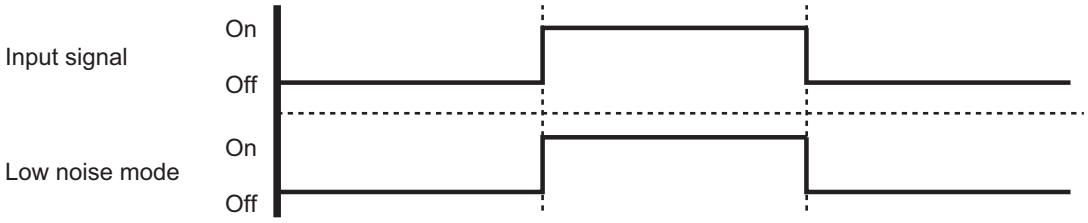
The air conditioner is set to the “Low noise mode” when closing the contact input of a commercial timer or on/off switch to a connector on the control PCB of the outdoor unit.

NOTE: Product performance may drop depending on some conditions such as the outdoor temperature.

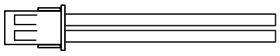
- **Circuit diagram example**



- Contact capacity: DC 24 V or more, 10 mA or more.
- *: Make the distance from the PCB to the connected unit within 10 m.
- Construct a circuit as shown in this figure with using optional parts mentioned below.
- Input signal: On in “Low noise mode”
- Input signal: Off in normal operation
- To set the level of “Low noise mode,” refer to "Low noise mode" on page 58 (under “Local setting procedure”.)



- **Optional part**

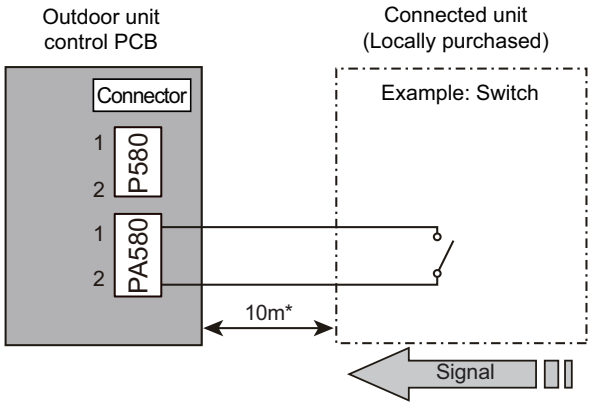
Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External input wire 

OUTDOOR UNIT
AOBH31KMTA

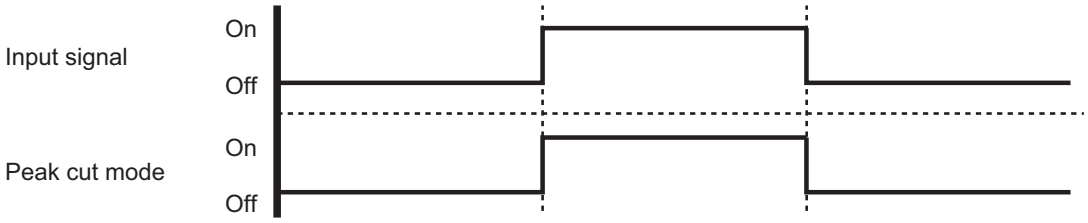
■ Peak cut mode

By performing following on-site work, operation that suppresses the current value can be enabled:
The air conditioner is set to the “Peak cut mode” when closing the contact input of a commercial timer or on/off switch to a connector on the control PCB of the outdoor unit.

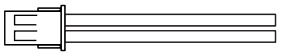
- **Circuit diagram example**



- Contact capacity: DC 24 V or more, 10 mA or more.
- *: Make the distance from the PCB to the connected unit within 10 m.
- Construct a circuit as shown in this figure with using optional parts mentioned below.
- Input signal: On in “Peak cut mode”
- Input signal: Off in normal operation
- To set the level of “Peak cut mode,” refer to "Peak cut mode" on page 59 (under “Local setting procedure”.)



- **Optional part**

Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External input wire 

OUTDOOR UNIT
AOBH31KMTA

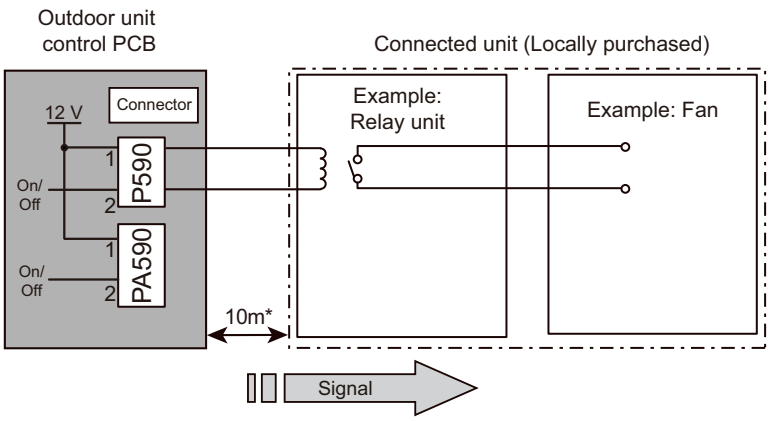
12-2. External output

With using external output function, some status signals are transmitted to the control PCB, and the related LED lamp indicates the status of this product.

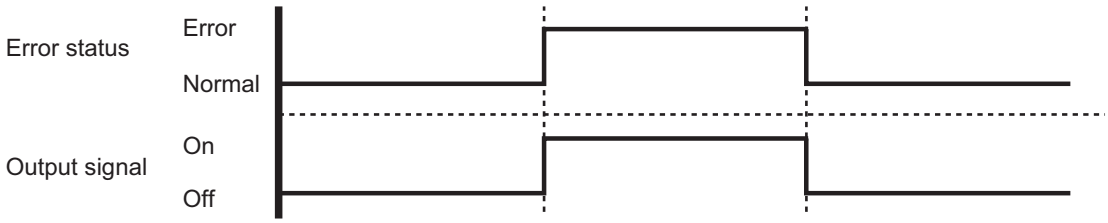
■ Error status output

Signal on air conditioner error status is generated when a malfunction occurs.

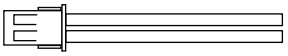
- **Circuit diagram example**



- Output voltage (Vcc): DC 12 V 50 mA or less
- *: Make the distance from the PCB to the connected unit within 10 m.



- **Optional part**

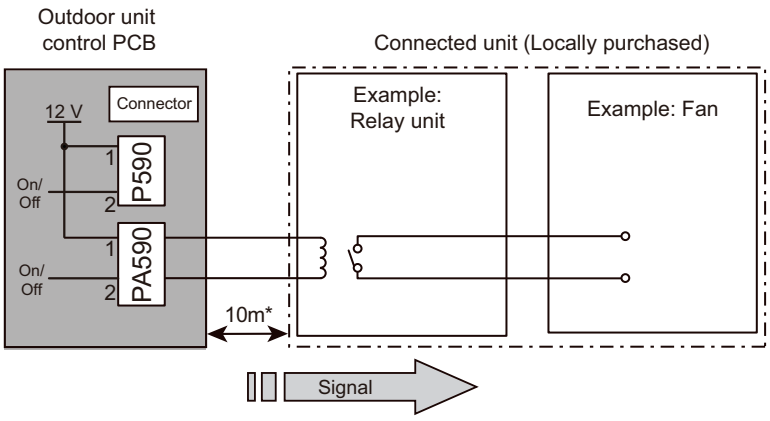
Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External output wire 

OUTDOOR UNIT
AOBH31KMTA

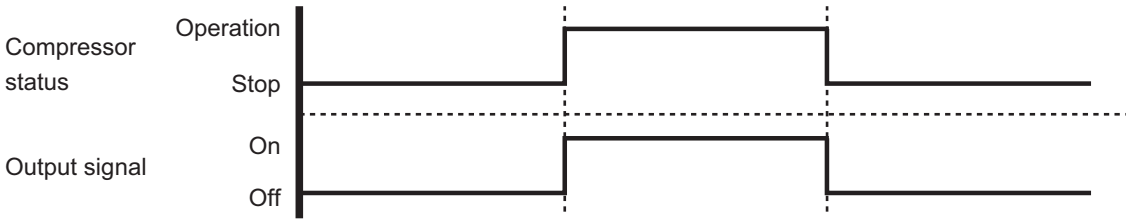
■ Compressor status output

Signal on compressor operation status is generated when the compressor is running.

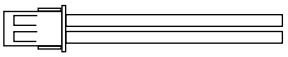
- **Circuit diagram example**



- Output voltage (Vcc): DC 12 V 50 mA or less
- *: Make the distance from the PCB to the connected unit within 10 m.



- **Optional part**

Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External output wire 

OUTDOOR UNIT
AOBH31KMTA

13. Function settings

Perform appropriate function setting locally according to the installation environment.

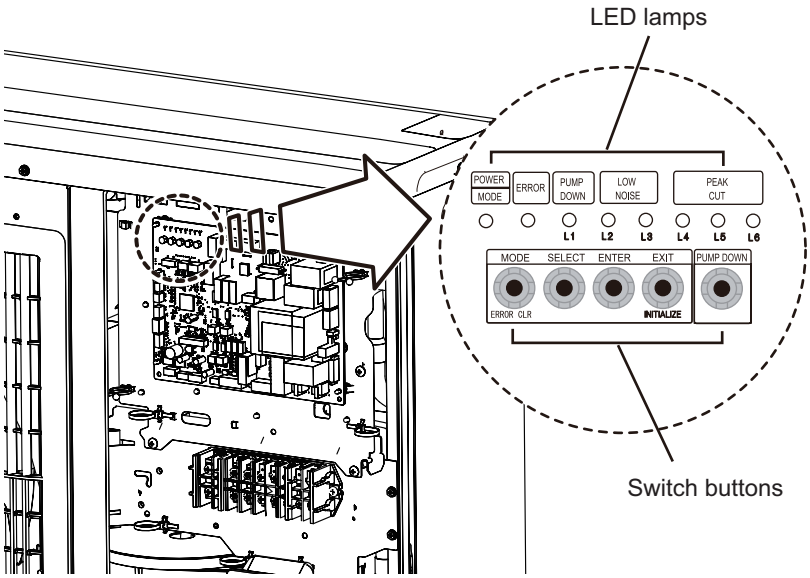
NOTE: Incorrect settings can cause a product malfunction.

⚠ CAUTION

- Before setting up the switch buttons, discharge the static electricity from your body.
- Never touch the terminals or the patterns on the parts that are mounted on the PCB.

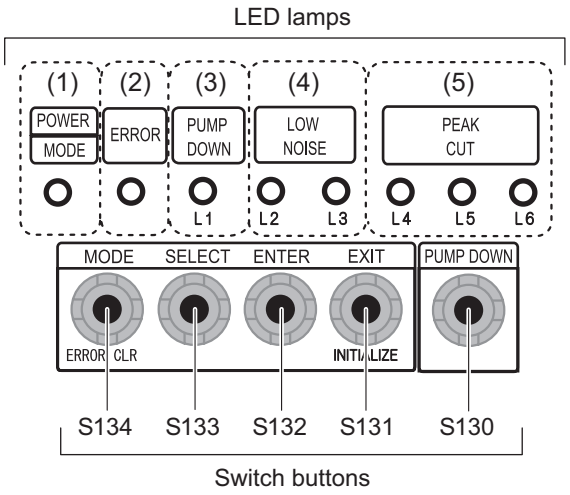
13-1. Control PCB and switch buttons location

Control PCB of the outdoor unit is located as shown in the following figure.



OUTDOOR UNIT
AOBH31KMTA

■ Switch buttons and the functions



LED lamp			Function or operation method
(1)	POWER/MODE	Green	Lights on while power on. Blinks to show the local setting on the outdoor unit or the error code.
(2)	ERROR	Red	Blinks during error operation.
(3)	PUMP DOWN (L1)	Orange	Lights on during pump down operation.
(4)	LOW NOISE MODE (L2 and L3)	Orange	Lights on during “Low noise mode” when local setting is activated. (Light pattern of L2 and L3 indicates the low noise level.)
(5)	PEAK CUT MODE (L4, L5, and L6)	Orange	Lights on during “Peak cut mode” when local setting is activated. (Light pattern of L4, L5, and L6 indicates the peak cut level.)

Switch button		Function or operation method
S134	MODE	Switches between “Local setting” and “Error code display”.
S133	SELECT	Switches between the individual “Local settings” and the “Error code displays”.
S132	ENTER	Switches between the individual “Local settings” and the “Error code displays”.
S131	EXIT	Returns to “Operation status display”.
S130	PUMP DOWN	Starts the pump down operation.

OUTDOOR UNIT
AOBH31KMTA

13-2. Local setting procedure

NOTE: Before performing the function setting, be sure to stop the operation of the air conditioner.

■ Low noise mode

1. Press the MODE switch button (S134) for 3 seconds or more to switch to “Local setting mode”.
2. After confirming the LED lamp of POWER/MODE blinks 9 times, press the ENTER switch button (S132).

POWER / MODE	ERROR	PUMP DOWN (L1)	LOW NOISE (L2)	LOW NOISE (L3)	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
Blinks (9 times)	○	○	○	○	○	○	○

Sign “ ○ ”: Lights off

3. Press the SELECT switch button (S133), and adjust the LED lamp as shown below. Then the LED lamp indicates the current setting.

	LOW NOISE (L2)	LOW NOISE (L3)
LOW NOISE MODE	○	Blink

4. Press the ENTER switch button (S132).

	LOW NOISE (L2)	LOW NOISE (L3)
LOW NOISE MOD E	○	●

Sign “ ●”: Lights on

5. Press the SELECT switch button (S133), and adjust the LED lamps as shown below.

	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
MODE 1: Low	○	○	Blink
MODE 2: Lower	○	Blink	○

6. Press the ENTER switch button (S132) and fix it.

	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
MODE 1: Low	○	○	●
MODE 2: Lower	○	●	○

7. To return to “Operating status display (Normal operation)”, press the EXIT switch button (S131).

In case of missing how many times you pressed the SELECT and ENTER switch buttons:

1. To return to “Operation status display (Normal operation)”, press the EXIT switch button once.
2. Restart from the beginning of setting procedure.

OUTDOOR UNIT
AOBH31KMTA

■ Peak cut mode

1. Press the MODE switch button (S134) for 3 seconds or more to switch to “Local setting mode”.
2. After confirming the LED lamp of POWER/MODE blinks 9 times, press the ENTER switch button (S132).

POWER / MODE	ERROR	PUMP DOWN (L1)	LOW NOISE (L2)	LOW NOISE (L3)	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
Blinks (9 times)	○	○	○	○	○	○	○

Sign “ ○ ”: Lights off

3. Press the SELECT switch button (S133), and adjust the LED lamp as shown below. Then the LED lamp indicates the current setting.

	LOW NOISE (L2)	LOW NOISE (L3)
PEAK CUT MOD E	Blink	○

4. Press the ENTER switch button (S132).

	LOW NOISE (L2)	LOW NOISE (L3)
PEAK CUT MODE	●	○

Sign “ ● ”: Lights on

5. Press the SELECT switch button (S133), and adjust the LED lamps as shown below.

	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
0 % of rated input ratio	○	○	Blink
50 % of rated input ratio	○	Blink	○
75 % of rated input ratio	○	Blink	Blink
100 % of rated input ratio	Blink	○	○

6. Press the ENTER switch button (S132) and fix it.

	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
0 % of rated input ratio	○	○	●
50 % of rated input ratio	○	●	○
75 % of rated input ratio	○	●	●
100 % of rated input ratio	●	○	○

7. To return to “Operating status display (Normal operation)”, press the EXIT switch button (S131).

NOTE: When pressed number is lost during setting, you must redo the setting procedure. Return to “Operation status display (Normal operation)” by pressing the EXIT switch button once, and restart from the beginning of the setting procedure.

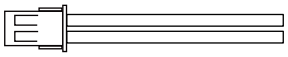
14. Accessories

14-1. Model: AOBH31KMTA

OUTDOOR UNIT
AOBH31KMTA

Part name	Exterior	Qty	Part name	Exterior	Qty
Installation manual		1	Drain cap		3
Drain pipe		1	One-touch bush		2

15. Optional parts

Exterior	Part name	Model name	Summary
	External Connect Kit	UTY-XWZXZ3	Use to operate the external input and output functions of outdoor unit.

OUTDOOR UNIT
AOBH31KMTA

AIRSTAGE

CERTIFICADO DE GARANTIA
FUJITSU GENERAL DO BRASIL LTDA.

FUJITSU

A **FUJITSU GENERAL DO BRASIL LTDA.**, inscrita no CNPJ sob o nº 43.244.771/0001-37, aqui denominada **"FGB"**, através de suas **revendas autorizadas e assistências técnicas credenciadas**, concede garantia sobre qualquer vício ou defeito de fabricação dos condicionadores de ar das marcas **FUJITSU** e **FUJITSU/AIRSTAGE**, conforme os prazos e condições deste Certificado de Garantia.

1. CONDIÇÕES E PRAZO DA GARANTIA CONTRATUAL

1.1. Para validade da garantia, os condicionadores de ar das marcas **FUJITSU** e **FUJITSU/AIRSTAGE** devem ser instalados, obrigatoriamente, por uma assistência técnica credenciada à **FGB**, de acordo com o respectivo Manual de Instalação do produto, devendo o produto ser utilizado/operado conforme o Manual de Instruções.
1.2. A relação atualizada das assistências técnicas credenciadas à **FGB** se encontra disponível no *website* oficial desta fabricante: https://www.fujitsu-general.com/br.
1.3. O prazo de **garantia contratual** é de **2 (dois) anos para peças e componentes e 5 (cinco) anos somente para o compressor**, estando incluído o prazo da garantia legal que corresponde aos primeiros 90 (noventa) dias contados a partir da data de emissão da nota fiscal de compra do produto.
1.4. Caso o produto não seja instalado por uma assistência técnica credenciada à **FGB** e/ou seja instalado em desacordo com o respectivo Manual de Instalação, terá somente a garantia durante o prazo legal que corresponde aos primeiros 90 (noventa) dias contados a partir da data de emissão da nota fiscal de compra do produto.
1.5. Os prazos de garantia são contados a partir da data de emissão da nota fiscal de compra do produto novo, que deverá conter o nome do consumidor e a especificação do modelo do produto.

2. COBERTURA DA GARANTIA

2.1. Dentro do prazo de garantia, as peças e os componentes que apresentarem problemas serão substituídos por peças ou componentes iguais ou equivalentes, sem cobrança de mão de obra para reparo/conserto e sem cobrança pelo fornecimento das peças e componentes que forem necessários para substituição ou, até mesmo, do condicionador de ar, se necessário.
2.2. A substituição de peças e componentes será priorizada, conforme § 1º do art. 18 do Código de Defesa do Consumidor, sendo que o condicionador de ar (produto) será substituído por outro igual ou equivalente somente em último caso.
2.3. A garantia é válida somente para o consumidor que consta identificado na nota fiscal de compra do produto (primeiro usuário), a qual deverá ser apresentada junto com este Certificado de Garantia para fins de cobertura em garantia para reparo ou substituição do produto, nos termos deste.
2.4. Qualquer vício ou defeito constatado pelo consumidor deverá ser comunicado imediatamente a uma assistência técnica credenciada para verificação do problema e reparo. Caso seja necessário, o consumidor deverá contatar a **FGB** no telefone que consta no item 3.1 para receber as orientações de atendimento.

3. CENTRAL DE ATENDIMENTO TELEFÔNICO DA FGB

3.1. Para esclarecimentos de dúvidas ou outras informações, o consumidor deverá entrar em contato com a **CAT - CENTRAL DE ATENDIMENTO TELEFÔNICO** da **FGB** pelo telefone 0800-330-0020 (ligação gratuita), de preferência tendo à mão a Nota Fiscal de compra do condicionador de ar, o modelo do equipamento, o número de série (que consta na etiqueta afixada em cada unidade do produto) e informar quem foi o responsável pela instalação do produto para possibilitar o seu atendimento.

4. EXCLUSÃO DE COBERTURA DA GARANTIA

4.1. Itens e hipóteses não cobertos pela garantia

4.1.1. Os custos de instalação do produto, bem como os custos de preparação do local para a instalação são de responsabilidade exclusiva do consumidor e podem compreender: aterramento, dreno de água, instalação elétrica e/ou reparo na instalação elétrica, alvenaria, dentre outros, bem como os materiais utilizados para esses fins, tais como tubulação de cobre, cabos, conduítes, calhas para acabamento, etc. A **FGB** também não se responsabiliza pelos materiais usados na instalação e preparo para instalação.
4.1.2. Despesas com a instalação ou desinstalação dos condicionadores de ar em local de difícil acesso pelo técnico para executar os serviços de manutenção, tais como utilização de andaime, EPI, etc.
4.1.3. Serviços de limpeza, conservação e manutenção preventiva, por serem de responsabilidade do consumidor, não estão cobertos pela garantia. Recomenda-se consultar uma assistência técnica credenciada à **FGB** para orientações sobre a periodicidade da manutenção preventiva do seu produto.
4.1.4. Danos no produto decorrentes de movimentação incorreta e avarias durante o transporte, quando não houver recusa do consumidor no ato do recebimento do produto.

4.2. Itens e despesas cobertos somente pela garantia legal

Os subitens e despesas a seguir são cobertos somente pela garantia legal de 90 (noventa) dias contados da data de emissão da nota fiscal de compra do produto:

4.2.1. As peças plásticas, controle remoto e componentes sujeitos ao desgaste natural, tais como filtros, gás refrigerante, óleo, rolamentos, etc.

4.2.2. Despesas de transporte para locomoção do técnico para atendimento no domicílio do consumidor quando o produto estiver instalado fora do perímetro urbano da sede da assistência técnica credenciada serão de responsabilidade da **FGB** durante os primeiros 90 (noventa) dias contados da data de emissão da nota fiscal de compra do produto. A partir do 91º (nonagésimo primeiro) dia, tais despesas são de responsabilidade única e exclusiva do consumidor.

4.2.3. Despesas com o transporte do condicionador de ar, embalagens para o transporte e qualquer outro risco durante o deslocamento do produto para reparação ou realização de testes na assistência técnica credenciada serão de responsabilidade da **FGB** durante os primeiros 90 (noventa) dias contados da data de emissão da nota fiscal de compra do produto. A partir do 91º (nonagésimo primeiro) dia, tais despesas são de responsabilidade única e exclusiva do consumidor.

4.3. Eventos que cancelam a cobertura da garantia

4.3.1. Tentativa ou execução de instalação, desinstalação, conserto ou reparo pelo consumidor ou por pessoa, por técnico ou por assistência técnica que não seja credenciada à **FGB.**

4.3.2. Alteração e/ou remoção do número de série ou da etiqueta de identificação do produto ou modificação das características originais do produto.

4.3.3. Danos decorrentes de falhas ou sobrecargas no fornecimento de energia elétrica.

4.3.4. Danos decorrentes de erros na instalação do produto ou na infraestrutura de instalação do produto, caso estejam em desacordo com o Manual de Instalação do produto.

4.3.5. Ligação do produto em rede elétrica/tensão inadequada, ocorrência de batidas, quedas, exposição à temperatura anormal (muito baixa ou muito alta) e/ou utilização de agentes químicos corrosivos.

4.3.6. Danos causados por sujeira, ar, partículas, substâncias ou corpos estranhos dentro do sistema frigorígeno, ou, ainda pela entrada de insetos e pequenos animais (lagartixa, perereca, etc.) no produto.

4.3.7. Danos decorrentes da utilização do produto com gás refrigerante ou óleo diferentes dos especificados nos manuais, ou, ainda, mistura indevida de gases no sistema frigorígeno.

4.3.8. Produto atingido por fogo, raio, inundação, enchente, vendaval, tempestade e danos ou perda total em circunstâncias provenientes de outras hipóteses de caso fortuito ou força maior.

4.3.9. Danos decorrentes de falta de manutenção preventiva ou corretiva.

4.3.10. Uso indevido do condicionador de ar em desacordo com as orientações do Manual de Instruções.

4.3.11. Para o uso de condicionadores de ar em ambientes com alta concentração de compostos salinos, ácidos ou alcalinos, ou de enxofre será válida somente a garantia legal de 90 (noventa) dias contados da data de emissão da nota fiscal de compra do produto.

4.3.12. Falta de apresentação da nota fiscal de compra do produto (para garantia legal ou contratual) e falta de apresentação da nota fiscal ou do recibo de instalação (para garantia contratual).

4.3.13. Reinstalação do produto em local diverso do instalado originalmente.

5. INFORMAÇÕES IMPORTANTES

5.1. A garantia é válida somente para os condicionadores vendidos e instalados no território brasileiro.

5.2. Este Certificado de Garantia anula qualquer outra garantia assumida por terceiros, não estando nenhuma empresa ou pessoa autorizada a fazer exceções ou assumir compromissos em nome da **FGB.**

5.3. A garantia contratual concedida por este Certificado fica limitada aos reparos e substituições de peças, componentes e produtos, quando necessário. O mau funcionamento ou a paralisação do condicionador de ar ou sistema, em hipótese alguma irá onerar a **FGB** por eventuais perdas e danos do consumidor, limitando-se a responsabilidade da **FGB** às condições estabelecidas neste Certificado de Garantia.

5.4. Este Certificado de Garantia é entregue dentro da embalagem da unidade interna do produto.

5.5. O Manual de Instruções é entregue dentro da embalagem da unidade interna do produto.

5.6. O Manual de Instalação é entregue dentro da embalagem do produto.

Importante

Para validade da garantia contratual, os condicionadores de ar das marcas **FUJITSU** e **FUJITSU/AIRSTAGE** devem ser instalados, obrigatoriamente, por uma assistência técnica credenciada à **FGB.**

Para sua segurança, acesse o *website* da **FGB** para consultar a lista atualizada das assistências técnicas credenciadas pelo *link* https://www.fujitsu-general.com/br ou entre em contato com a CAT – Central de Atendimento Telefônico pelo telefone 0800-330-0020 (ligação gratuita).

A instalação ou manutenção por assistência não credenciada, além da perda da garantia, poderá causar danos ao seu condicionador de ar.