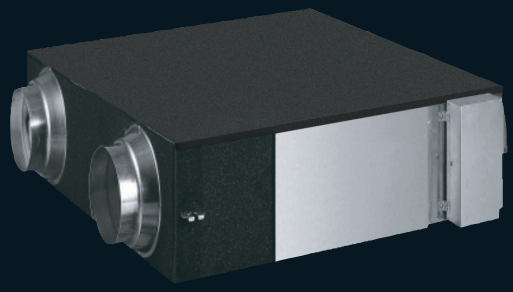
ERV

Energy Recovery Ventilator
0CEE0-01F(0CEE0-01E)

LG TOTAL HVAC SOLUTION PROVIDER

ENGINEERING PRODUCT DATA BOOK



LG
Life's Good

P/No. : MFL63726405

ERV
General Description

Ventilation is a process by which one can exchange indoor air to outdoor air in order to improve the air quality and to maintain environmental temperature conditions.

LG's Energy Recovery Ventilation system, **ERV** , modulates the temperature and humidity of incoming fresh air to match indoor conditions. A balance is thus achieved between indoor and outdoor ambients, enabling the cooling or heating load placed on the air conditioning system to be reduced significantly. **ERV** can be controlled individually or integral with the air conditioning system.

ERV provides efficiency, cost savings, superior performance, compact & light design, linear E.S.P control ensuring vaious design of duct system and easy maintenance. Units are ideal for hotels, dormitories, restaurants, hospitals, retail establishments, theaters, schools, and office buildings.

A lot of information regarding the design & installation of this system is provided in this publication. The new products series contains data on the same pattern. Please utilize all the information for conducting your business efficiently. Make sure the specification, dimension or others technical data are same as provided in engineering data book before you start the project.

We look forward to your continuing support.

LG Electronics Inc.

ERV
Energy Recovery Ventilator

ERV

1. Models List

Nominal Capacity CMH(CFM)	Model Name	Power Supply Phase,V,Hz
250(147)	LZ-H025GBA4	1Ø, 220-240 V, 50 Hz 1Ø, 220 V, 60 Hz
350(206)	LZ-H035GBA4	
500(294)	LZ-H050GBA4	
800(471)	LZ-H080GBA4	
1,000(589)	LZ-H100GBA4	
1,500(883)	LZ-H150GBA4	
2,000(1,177)	LZ-H200GBA4	

2. Model Number Nomenclature

Development Sequence

Function
A : Basic

Model Type
B : Ceiling Concealed Type

Electrical Standard (Volts, Freq., Phase)
220-240 V, 50 Hz, 1Ø / 220 V, 60 Hz, 1Ø

Capacity
Ex) 080 -> 800 CMH 100 -> 1,000 CMH

Heat Exchange Type
H : Total Heat Recovery

Indicates that this is LG's ventilation system

ERV
3. Features & Benefits

The LG heat recovery ventilation system, ERV , is the solution for improving your indoor air quality.

Ventilation is a process by which one can exchange indoor air to outdoor air in order to improve the air quality and to maintain environmental temperature conditions.

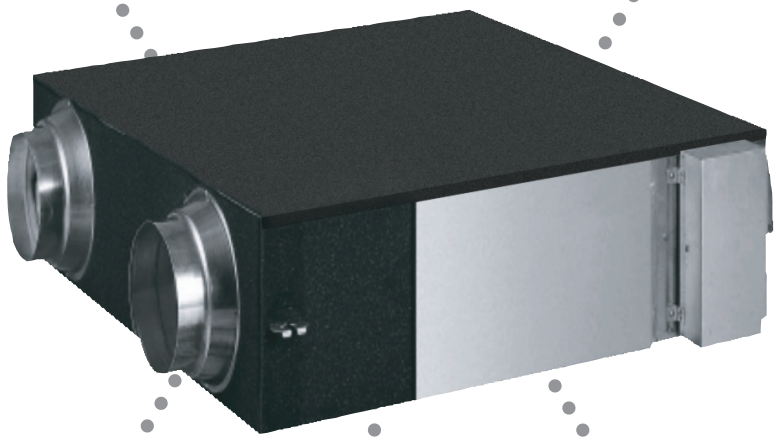
With today's concern for a healthy indoor environment, **ERV** is an integral component of HVAC system. Using **ERV** in the HVAC system allows contaminants to be removed quickly and effectively from the air-conditioned space. A balance is thus achieved between indoor and outdoor ambients, enabling the cooling or heating load on the air conditioning system to be reduced significantly.

Energy Savings

The indoor air is passed through the heat exchanger to prewarm or precool the incoming outside air, saving energy and money.

Low-noise Design

ERV is accoustically engineered and tested for quiet operation. (ensuring comfort to be felt, not heard.)



Air Purifying

Removing common pollutants from home which create an unhealthy environment.

Easy Maintenance

The briefcase-style latches allows easy filter replacement and heat exchanger cleaning.

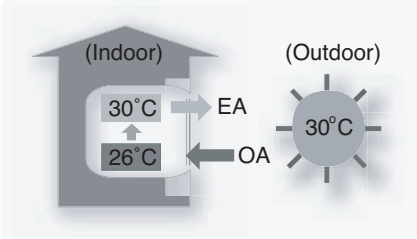
Efficiency & Comfort

ERV exhaust the polluted indoor air to outdoor and supply the fresh outdoor air to indoor in order to maintain the resident's healthy and comfortable indoor environment.

3. Features & Benefits

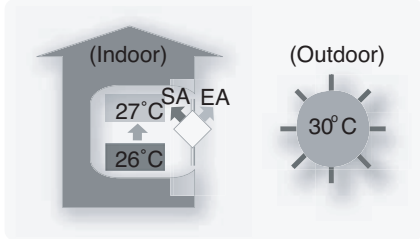
Healthy and Fresh Indoor Environmental Maintenance :

Case of the window ventilation



In order to ventilate the indoor air is to open the window in summer. While opening the window, the conditioned indoor air goes out. Indoor air has to be cooling again.

Case of Enthalpy heat exchange ventilation



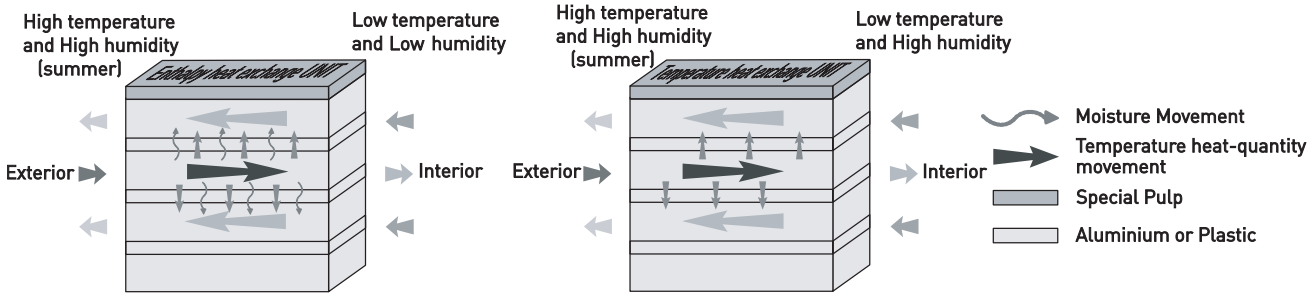
When using the enthalpy heat exchanger,it maintains the temperature and humidity of the indoor and changes the polluted indoor air to the fresh outdoor air.

• Comparing to Enthalpy heat exchange ventilation with the window ventilation,Enthalpy heat exchange enables to economize a electric bill.It also helps the environmental protection due to saving energy.

Enthalpy Heat and Sensible Heat Exchangers Comparisons :

• **Enthalpy Heat Exchanger**
= Temperature heat (temperatures) + Latentheat (humidity)

• **Sensible Heat Exchanger**
= Temperature heat (temperatures)



• The Enthalpy Heat Exchanger consists of Mechanism which is exchanged to the temperature heat (temperatures)as well as the latent heat (moisture heat capacity).When it calculates at the electric heat frequency quantity,it has an energy recovery effect above 3 times than the temperature heat.

3. Features & Benefits

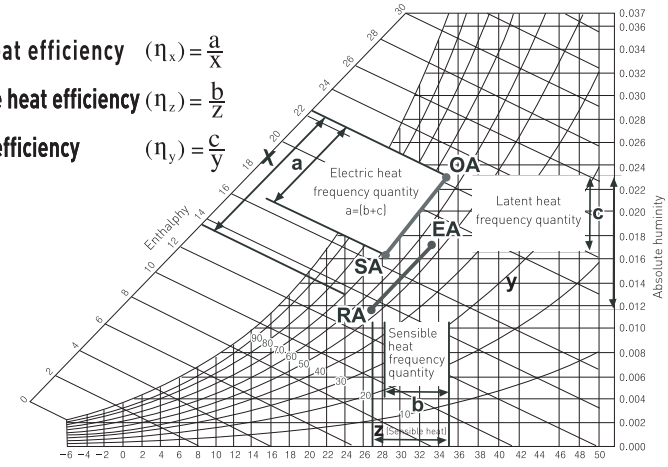
Reclaimed Energy Comparisons in Psychrometric Chart :

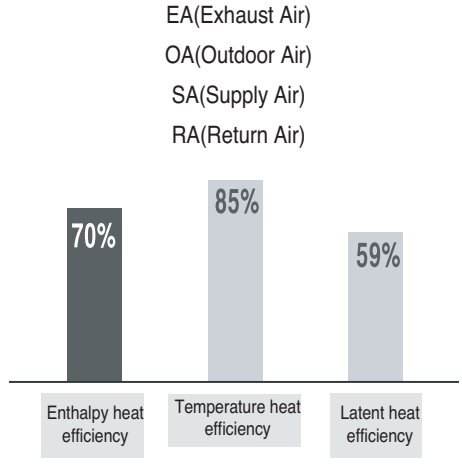
Enthalpy heat exchanger

Enthalpy heat efficiency $(\eta_x) = \frac{a}{x}$

Temperature heat efficiency $(\eta_z) = \frac{b}{z}$

Latent heat efficiency $(\eta_y) = \frac{c}{y}$

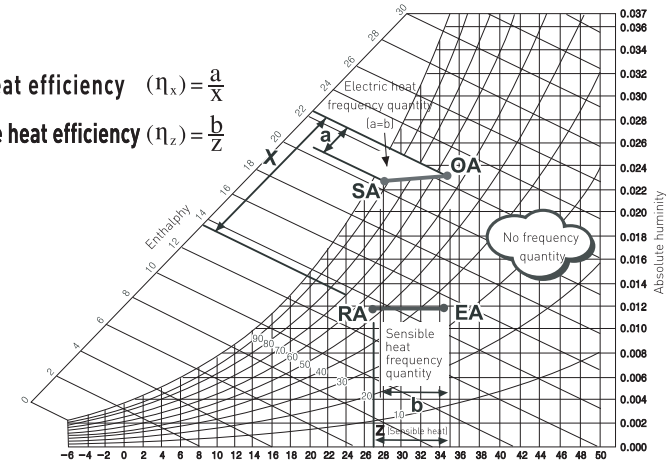


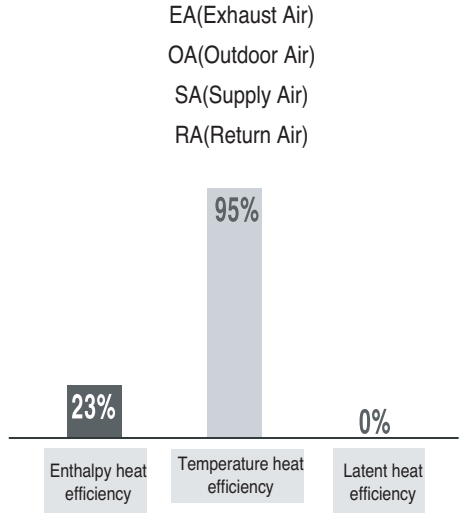


Temperature heat exchanger

Enthalpy heat efficiency $(\eta_x) = \frac{a}{x}$

Temperature heat efficiency $(\eta_z) = \frac{b}{z}$

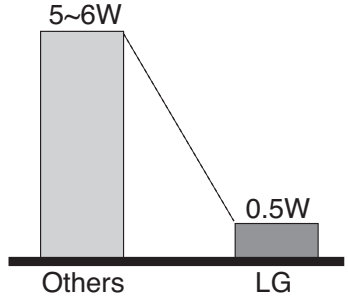




• Like appearing from the picture of the case only of the temperature heat exchange,the efficiency is high. But when it calculates at enthalpy heat frequency quantity,it has a difference above 3 times.

Zero Standby Power Consumption :

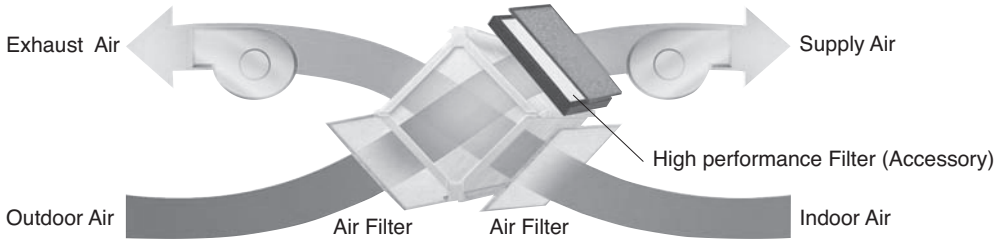
- Due to SMPS (Switching Modulation Power Supply) technology, there is almost zero power consumption in the standby mode.
  It saves energy and cost.



3. Features & Benefits

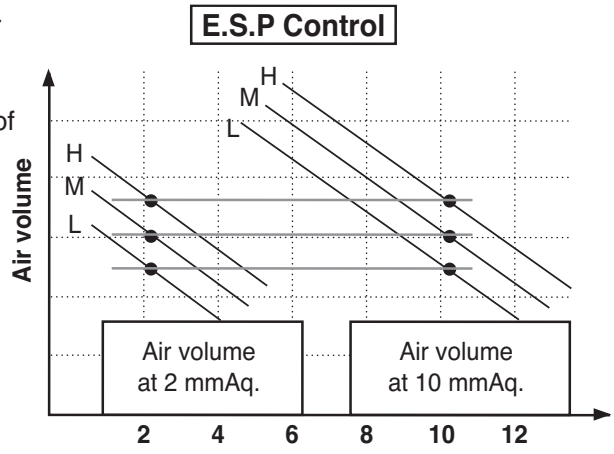
High Efficiency Heat Exchanger :

- Cross flow heat exchanger ensure no mixing of the stale air with the fresh air. Efficiency and comfort is ensured by the high-efficiency energy recovery central core which recovers energy from the indoor air and transfers it to the fresh incoming air without mixing airstreams.The heat exchanger also helps to remove unwanted humidity from air inside your home during winter, and removes the humidity from the outside air before it enters your home in the summer.



EZTuning *:(External Static Pressure Control)*

- Individual air volume control (Supply&Exhaust).
  Generally, when External Static Pressure increases air volume decreases. But by controlling the RPM of BLDC Motor E.S.P is changeable. E.S.P. control provides required constant air volume irrespective of E.S.P. change. Desired E.S.P. can also be set through LCD wired remote. Setting of the desired E.S.P. gives required combination of ESP and airflow.
  So, air volume is kept constant for various duct work system. All **ERV** units feature BLDC Motor.

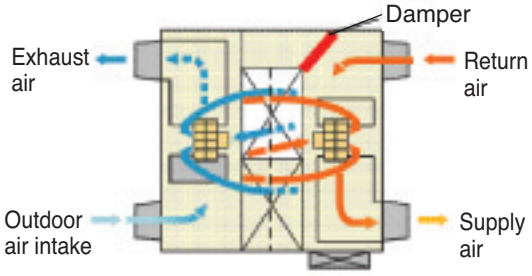


3. Features & Benefits

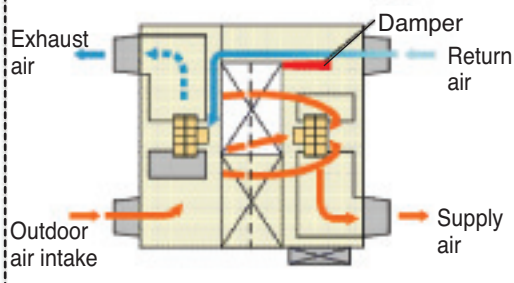
Auto Operation :

- Automatically switches the ventilation mode (Total Heat Exchange Mode/Bypass Mode) according to the operating status of the air conditioner.

• **Total Heat Exchange Mode**
(Cooling operation in summer/ heating operation in winter)



• **Bypass Mode**
(Intermediate season)

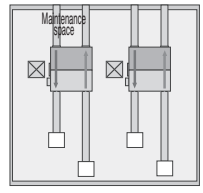


Flexibility of Installation :

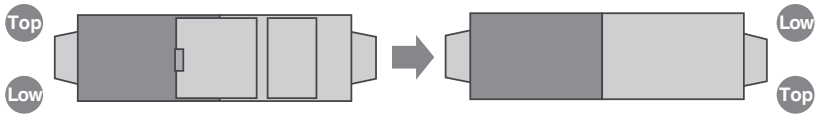
- Possibility of opposite installation of up and lower part

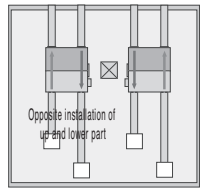
Case of the installation of 2 units, generally it is necessary to two maintenance spaces. If it is installed opposite one unit of up and lower part, it is necessary to one maintencnce space.

(1,500 / 2,000 CMH models are not available)



Installation of 2 units





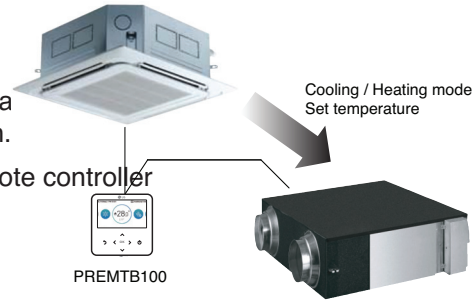
Opposite Installation of up and lower part of one unit

Auto Restart Operation :

- When there's Electricity failure to the unit. After resumption of the Power, It starts in the same mode as prior to the power failure. This is as per the memorized condition. Any change will be memorized automatically to the MICOM & it takes about 2 secs to keep it.

Interlocking with Air Conditioning System :

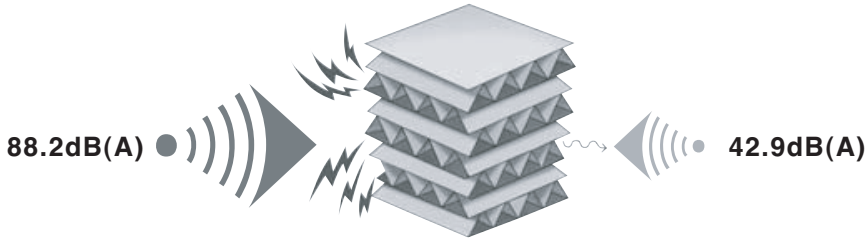
- It is able to install the ventilation system being interlocking with the a
  It can be also controlled individually or integral with the air condition.
- This function can be operated when connecting with specified Remote controller



3. Features & Benefits

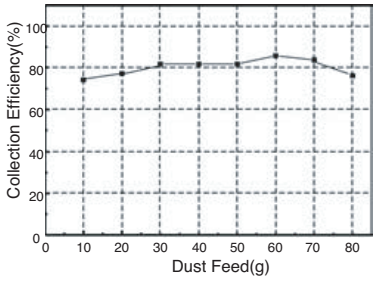
Excellent Sound Arresting Blocking Effect :

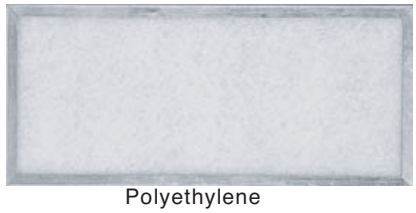
- The enthalpy heat exchanger element is difficult to convey the vibration of air with structure and it has a function of absorbing sounds.if it is installed a building in a serious noise place,it will be much more effective.



(45.3dB(A) Sound arresting blocking effect)

Air Filter :





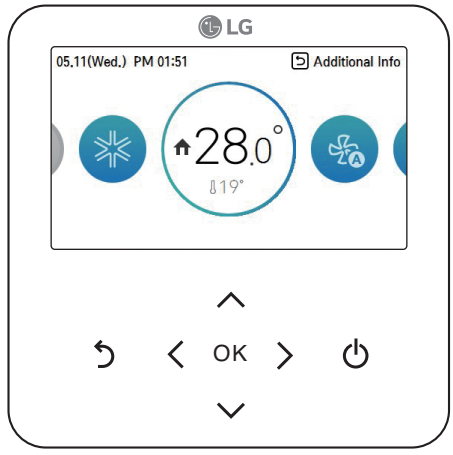
Polyethylene

- Air filter has sufficient effects with collection efficiency above 80%.
  It is even against floating particle from yellow sand.
- Few pressure loss in the static pressure plan.
- Excellent washing characteristic and durability.

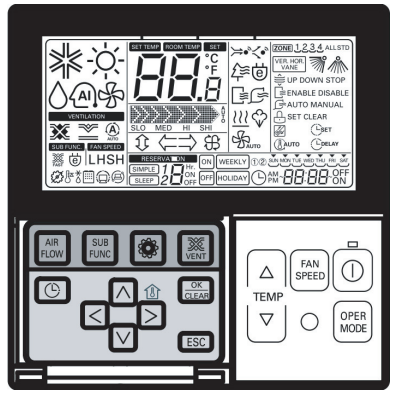
3. Features & Benefits

LCD Wired Remote Control : (Accessory)

- It can control all the functions of the unit. You can check and change operation mode, set timer & also diagnose the error of the unit. It also has the option of weekly program.
- Built-in battery keeps user's operating setup information for 2 hours when the main power line to the wired remote controller is disconnected due to power outage as well.
- It can be installed with air conditioner remote controller, and each controller can control Ventilation and Air conditioner simultaneously.



PREMTB100

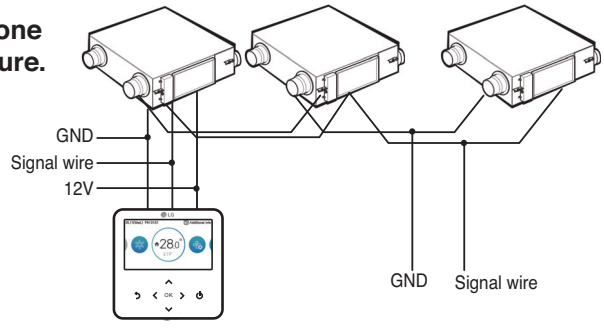


PQRCVSL0 / PQRCVSL0QW

Group Control :

1. When installing more than 2 units of air conditioner to one wired remote controller, please connect as the right figure.

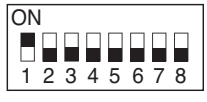
- If it is not event communication indoor unit, set the unit as slave.
- Check for event communication through the product manual.



When controlling multiple ventilation units with event communication function with one remote controller, you must change the master/slave setting from the indoor unit.

- Change the switch setting of the ventilation unit PCB.

#1 switch OFF: Master
(Factory default setting)



#1 switch ON: Slave

3. Features & Benefits

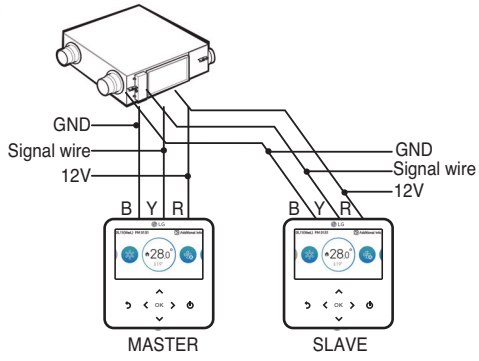
❉ When installing 2 remote controllers to one indoor unit with event communication function, set the master/slave of the remote controller. (Refer to remote controller master/slave selection)

When controlling the group, some functions excluding basic operation setting, fan level Min/Mid/Max, remote controller lock setting and time setting may be limited.

2. When installing more than 2 wired remote controllers to one ventilation unit, please connect as the right picture.

- When installing more than 2 units of wired remote controller to one ventilation unit, set one wired remote controller as master and the others all as slaves, as shown in the right picture.
- You cannot control the group as shown i n the right for some products.
- Refer to the product manual for more detail.

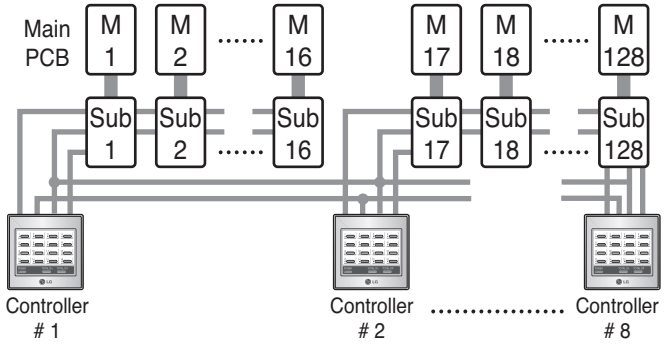
- When controlling in groups, set the master/slave of the remote controller. Refer to installer setting section on how to set master/slave for more detail.



<When simultaneously connecting 2 sets of wired remote controller>

Central Control : (Accessory)

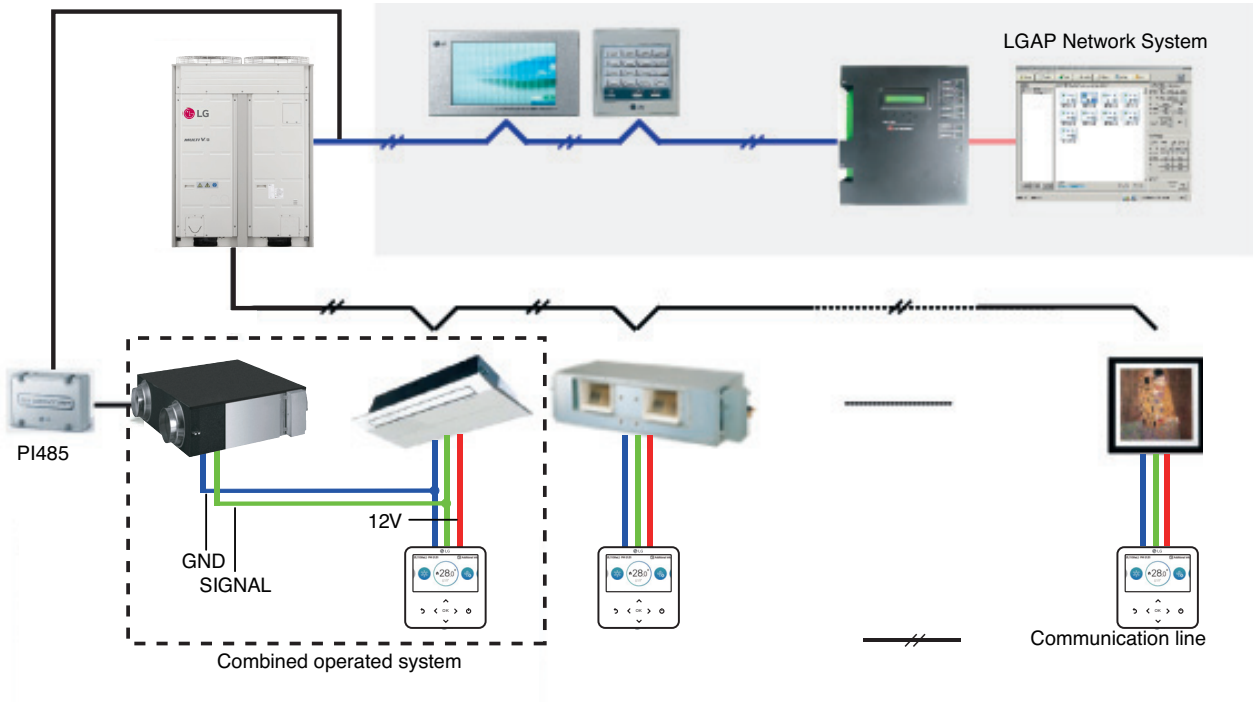
- It enables to control 16 x 8 = 128 units with the help of 8 controllers. All units can be put on and off from one Central Room. For Setting Temperature, Fan speed and other sub functions, access the LCD wired remote controller of each unit.



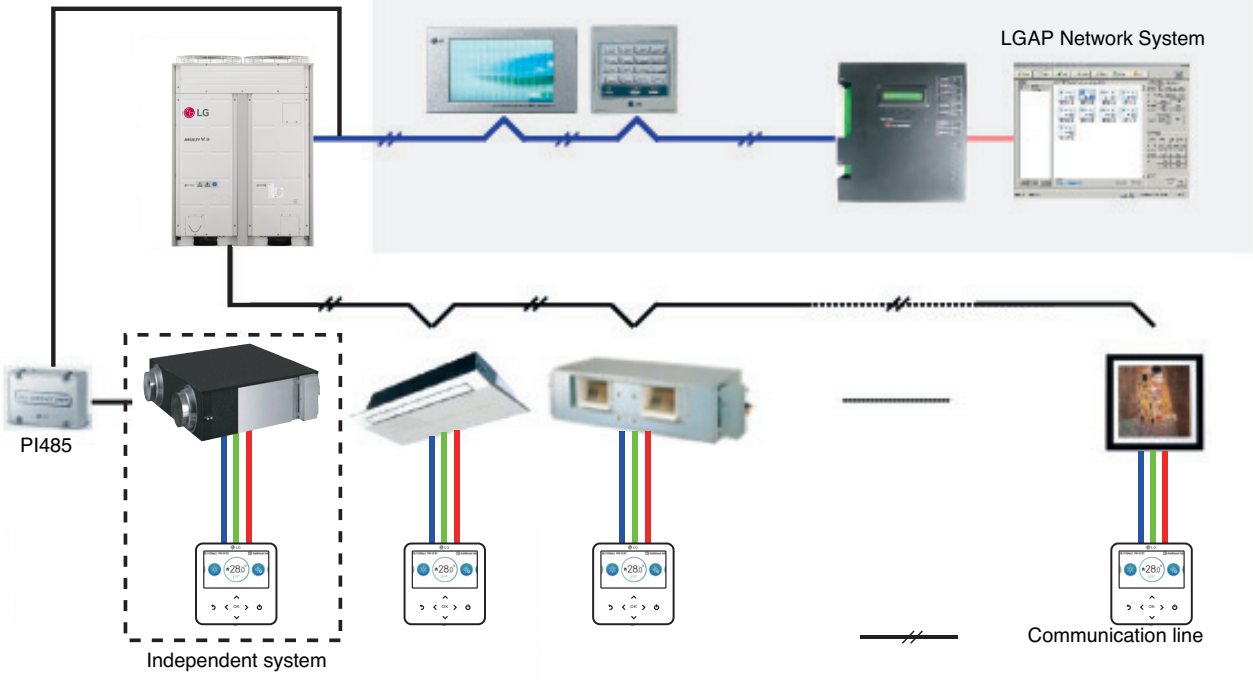
3. Features & Benefits

• This unit can be used as part of the combined operation system used together with indoor units (Multi-V system air conditioners), or as an independent system for processing outside air.

<Combined operation system with Multi-V system(connected with ventilation units and standard indoor units in a single refrigerant circuit)>



<Independent system (connected only with a ventilation unit in a single refrigerant circuit)>



4. List of Functions

Category	Functions	LZ-H025GBA4 LZ-H035GBA4 LZ-H050GBA4 LZ-H080GBA4 LZ-H100GBA4 LZ-H150GBA4 LZ-H200GBA4
Air flow	Air supply outlet	1
	Airflow steps (fan/cool/heat)	3 / - / -
	CO_2 Sensor (AHCS100H0)	O
Air purifying	Long-life prefilter (washable / non-flamable)	O
	High performance Filter (ISO ePM1 75% **)	O (Accessory)
Installation	Drain pump	X
	E.S.P. control*	O
Reliability	Self diagnosis	O
Convenience	Auto Restart	O
	Child lock*	O
	Forced operation	O
	Group control*	O
	Sleep mode	X
	Timer(on/off)	O
	Timer(weekly)*	O
	Two thermistor control*	X

Notes

1. O : Applied, X : Not applied
   Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.
   Accessory line-ups varies by region, so check your local catalogue or local sales material.
2. Some functions can be limited by remote controller.
3. * : These functions need to connect the wired remote controller.

** : It is accordance with EN ISO 16890:2016.

4. List of Functions

Category		Product	Remark	LZ-H025GBA4 LZ-H035GBA4 LZ-H050GBA4 LZ-H080GBA4 LZ-H100GBA4 LZ-H150GBA4 LZ-H200GBA4
Wireless Remote Controller		PQWRHQ0FDB	Heat Pump	X
Wired Remote Controller	Simple	PQRCVCL0Q(W)	Simple	X
		PQRCHCA0Q(W)	for Hotel	X
	Standard	PREMTB001	Standard II (White)	O
		PREMTBB01	Standard II (Black)	O
		PREMTB100 **	Standard III (White)	O
		PREMTBB10 **	Standard III (Black)	O
	Premium	PREMTA000(A/B)	Premium	O
Dry contact	Simple Contact	PDRYCB000	Simple Dry Contact	O
	Communication type	PDRYCB400	2 Points Dry Contact (For Setback)	X
		PDRYCB300	-	X
		PDRYCB500	Dry Contact For Modbus	O
Gateway	IDU PI485	PHNFP14A0	Connected with the Indoor Units	O
	BACnet	PQNFB17C0	ACP BACnet	O
	Lonworks	PLNWKB000	ACP Lonworks	O
	Modbus	PMBUSB00A	Modbus RTU	O
Central Controller	Simple	PQCSZ250S0	AC Ez	O
	AC Ez Touch	PACEZA000	AC Ez Touch	O
	AC Smart	PACS4B000	AC Smart IV	O
		PACS5A000	AC Smart 5	O
	ACP	PACP4B000	ACP IV	O
		PACP5A000	ACP 5	O
	AC Manager	PACM5A000	AC Manager 5	O
ETC	Remote temperature sensor	PQRSTA0	-	X
	Zone controller	ABZCA	-	X
	CO_2 Sensor	AHCS100H0	Internal type	O
	Group control wire	PZCWRCG3	0.25m	X
	2-Remo Control Wire	PZCWRC2	0.25m	X
	Extension Wire	PZCWRC1	10m	X
	High performance Filter (ISO ePM1 75% ***)	AHFT035H0	250CMH	O
		AHFT050H0	350, 500CMH	O
		AHFT100H1	800, 1000, 1500, 2000CMH	O

Notes

1. O: Possible, X: Impossible, - : Not applicable
2. * : Some advanced functions controlled by individual controller cannot be operated.
3. ** : It could not be operated some functions.
4. If you need more detail, please refer to the BECON PDB or the manual of product.
   (http://partner.lge.com/global : Home> Doc.Library> Product> Control(BECON))

*** : It is accordance with EN ISO 16890:2016.

ERV
5. Specifications

Model			Unit	LZ-H025GBA4	LZ-H035GBA4	LZ-H050GBA4
Nominal			CMH(CFM)	250 (147)	350 (206)	500 (294)
Power Supply			Ø/V/Hz	1 , 220 - 240 , 50 - 60		
ERV mode	Step		-	SUPER-HIGH / HIGH / LOW		
	Current	SH / H / L	Amps	0.70 / 0.60 / 0.42	1.10 / 0.95 / 0.60	1.92 / 1.58 / 0.79
	Power Input	SH / H / L	W	97 / 78 / 52	180 / 163 / 88	240 / 220 / 90
	Air Flow	SH / H / L	CMH(CFM)	250 / 250 / 150 (147 / 147 / 88)	350 / 350 / 210 (206 / 206 / 123)	500 / 500 / 320 (294 / 294 / 124)
	External Static Pressure	SH / H / L	Pa(inWTR)	100 / 70 / 50 (0.40 / 0.28 / 0.20)	150 / 130 / 100 (0.60 / 0.52 / 0.40)	150 / 100 / 50 (0.60 / 0.40 / 0.20)
	Temperature Exchange Efficiency	SH / H / L	%	80 / 80 / 83	75 / 75 / 77	78 / 78 / 79
	Enthalpy Exchange Efficiency	Heating(SH / H / L)	%	70 / 70 / 72	68 / 68 / 70	73 / 73 / 75
		Coolin g(SH / H / L)	%	66 / 66 / 68	63 / 63 / 65	66 / 66 / 69
	Sound Pressure Level	SH / H / L	dB(A)	29 / 28 / 24	32 / 30 / 27	34 / 32 / 25
	Sound Power Level	SH	dB(A)	50	62	66
Bypass mode	Step		-	SUPER-HIGH / HIGH / LOW		
	Current	SH / H / L	Amps	0.70 / 0.60 / 0.42	1.10 / 0.95 / 0.60	1.92 / 1.58 / 0.79
	Power Input	SH / H / L	W	97 / 78 / 52	180 / 163 / 88	240 / 220 / 90
	Air Flow	SH / H / L	CMH(CFM)	250 / 250 / 150 (147 / 147 / 88)	350 / 350 / 210 (206 / 206 / 123)	500 / 500 / 320 (294 / 294 / 124)
	External Static Pressure	SH / H / L	Pa(inWTR)	100 / 70 / 50 (0.40 / 0.28 / 0.20)	150 / 130 / 100 (0.60 / 0.52 / 0.40)	150 / 100 / 50 (0.60 / 0.40 / 0.20)
	Sound Pressure Level	SH / H / L	dB(A)	29 / 29 / 25	32 / 30 / 27	35 / 33 / 25
Operation Range		Outdoor Air Temperature	°C / %	-10 ~ 40 / 20 ~ 80		
Heat Exchanger		Type	-	Air to Air cross flow heat exchange		
Net Weight			kg	44		
Dimension		W x H x D	mm	1,014 x 273 x 988		
Duct work*		Qty	EA	4		
		Size(Ø)	mm	Ø200		
Supply Air Fan		Qty	EA	1		
		Type	-	Direct-Drive (Sirocco Fan)		
Exhaust Air Fan		Qty	EA	1		
		Type	-	Direct-Drive (Sirocco Fan)		
Filters		Qty	EA	2		
		Type	-	Cleanable fibrous fleeces		
		Size (W x H x D)	mm	855 x 10 x 160		855 x 6 x 230

Notes:

1. ERV mode : Total Heat Recovery Ventilation mode
2. * : Refer to dimensional drawings.
3. Sound Level :
   - The operating conditions are assumed to be standard.
   - Sound pressure level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed.
   - The sound pressure level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.
4. Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature : 26.5°C DB, 64.5%RH, Outdoor Temperature : 34.5°C DB, 75%RH
5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature : 20.5°C DB, 59.5%RH, Outdoor Temperature : 5°C DB, 65%RH
6. Temperature Exchange efficiency is tested at heating condition.

5. Specifications

Model			Unit	LZ-H080GBA4	LZ-H100GBA4
Nominal Capacity			CMH(CFM)	800 (471)	1,000 (589)
Power Supply			Ø/V/Hz	1 , 220 - 240 , 50 - 60	
ERV mode	Step		-	SUPER-HIGH / HIGH / LOW	
	Current	SH / H / L	Amps	2.77 / 2.16 / 1.44	3.41 / 2.90 / 1.76
	Power Input	SH / H / L	W	390 / 280 / 187	480 / 385 / 210
	Air Flow	SH / H / L	CMH(CFM)	800 / 800 / 660 (471 / 471 / 388)	1,000 / 1,000 / 800 (589 / 589 / 471)
	External Static Pressure	SH / H / L	Pa(inWTR)	200 / 110 / 60 (0.80 / 0.44 / 0.24)	160 / 90 / 50 (0.64 / 0.36 / 0.20)
	Temperature Exchange Efficiency	SH / H / L	%	79 / 79 / 82	77 / 77 / 78
	Enthalpy Exchange Efficiency	Heating(SH / H / L)	%	72 / 72 / 74	70 / 70 / 72
		Coolin g(SH / H / L)	%	63 / 63 / 66	59 / 59 / 63
	Sound Pressure Level	SH / H / L	dB(A)	40 / 37 / 31	41 / 38 / 32
	Sound Power Level	SH	dB(A)	68	70
Bypass mode	Step		-	SUPER-HIGH / HIGH / LOW	
	Current	SH / H / L	Amps	2.77 / 2.16 / 1.44	3.41 / 2.90 / 1.76
	Power Input	SH / H / L	W	390 / 280 / 187	480 / 385 / 210
	Air Flow	SH / H / L	CMH(CFM)	800 / 800 / 660 (471 / 471 / 388)	1,000 / 1,000 / 800 (589 / 589 / 471)
	External Static Pressure	SH / H / L	Pa(inWTR)	200 / 110 / 60 (0.80 / 0.44 / 0.24)	160 / 90 / 50 (0.64 / 0.36 / 0.20)
	Sound Pressure Level	SH / H / L	dB(A)	41 / 38 / 32	41 / 39 / 33
Operation Range		Outdoor Air Temperature	°C / %	-10~40 / 20~80	
Heat Exchanger		Type	-	Air to Air cross flow heat exchange	
Net Weight			kg	62	
Dimension		W x H x D	mm	1,062 x 365 x 1,140	
Duct work*		Qty	EA	4	
		Size(Ø)	mm	Ø250	
Supply Air Fan		Qty	EA	1	
		Type	-	Direct-Drive (Sirocco Fan)	
Exhaust Air Fan		Qty	EA	1	
		Type	-	Direct-Drive (Sirocco Fan)	
Filters		Qty	EA	2	
		Type	-	Cleanable fibrous fleeces	
		Size (W x H x D)	mm	1,056 x 6 x 212.5	

Notes:

1. ERV mode : Total Heat Recovery Ventilation mode
2. * : Refer to dimensional drawings.
3. Sound Level :
   - The operating conditions are assumed to be standard.
   - Sound pressure level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed.
   - The sound pressure level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.
4. Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature : 26.5°C DB, 64.5%RH, Outdoor Temperature : 34.5°C DB, 75%RH
5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature : 20.5°C DB, 59.5%RH, Outdoor Temperature : 5°C DB, 65%RH
6. Temperature Exchange efficiency is tested at heating condition.

5. Specifications

Model			Unit	LZ-H150GBA4	LZ-H200GBA4
Nominal Capacity			CMH(CFM)	1,500 (883)	2,000 (1,177)
Power Supply			Ø/V/Hz	1 , 220 - 240 , 50 - 60	
ERV mode	Step		-	SUPER-HIGH / HIGH / LOW	
	Current	SH / H / L	Amps	5.60 / 5.40 / 2.90	6.80 / 5.90 / 3.60
	Power Input	SH / H / L	W	780 / 540 / 377	960 / 770 / 420
	Air Flow	SH / H / L	CMH(CFM)	1,500 / 1,500 / 1,200 (883 / 883 / 706)	2,000 / 2,000 / 1,600 (1,177 / 1,177 / 942)
	External Static Pressure	SH / H / L	Pa(inWTR)	200 / 110 / 60 (0.80 / 0.44 / 0.24)	160 / 90 / 50 (0.64 / 0.36 / 0.20)
	Temperature Exchange Efficiency	SH / H / L	%	79 / 79 / 82	77 / 77 / 78
	Enthalpy Exchange Efficiency	Heating(SH / H / L)	%	72 / 72 / 74	70 / 70 / 72
		Coolin g(SH / H / L)	%	63 / 63 / 66	59 / 59 / 63
	Sound Pressure Level	SH / H / L	dB(A)	43 / 40 / 34	44 / 41 / 35
	Sound Power Level	SH	dB(A)	71	72
Bypass mode	Step		-	SUPER-HIGH / HIGH / LOW	
	Current	SH / H / L	Amps	5.60 / 5.40 / 2.90	6.80 / 5.90 / 3.60
	Power Input	SH / H / L	W	780 / 540 / 377	960 / 770 / 420
	Air Flow	SH / H / L	CMH(CFM)	1,500 / 1,500 / 1,200 (883 / 883 / 706)	2,000 / 2,000 / 1,600 (1,177 / 1,177 / 942)
	External Static Pressure	SH / H / L	Pa(inWTR)	200 / 110 / 60 (0.80 / 0.44 / 0.24)	160 / 90 / 50 (0.64 / 0.36 / 0.20)
	Sound Pressure Level	SH / H / L	dB(A)	44 / 41 / 35	44 / 42 / 36
Operation Range		Outdoor Air Temperature	°C / %	-10~40 / 20~80	
Heat Exchanger		Type	-	Air to Air cross flow heat exchange	
Net Weight			kg	140	
Dimension		W x H x D	mm	1,313 x 738 x 1,140	
Duct work*		Qty	EA	4 + 2	
		Size(Ø)	mm	Ø250 + Ø350	
Supply Air Fan		Qty	EA	2	
		Type	-	Direct-Drive (Sirocco Fan)	
Exhaust Air Fan		Qty	EA	2	
		Type	-	Direct-Drive (Sirocco Fan)	
Filters		Qty	EA	4	
		Type	-	Cleanable fibrous fleeces	
		Size (W x H x D)	mm	1,056 x 6 x 212.5	

Notes:

1. ERV mode : Total Heat Recovery Ventilation mode
2. * : Refer to dimensional drawings.
3. Sound Level :
   - The operating conditions are assumed to be standard.
   - Sound pressure level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed.
   - The sound pressure level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.
4. Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature : 26.5°C DB, 64.5%RH, Outdoor Temperature : 34.5°C DB, 75%RH
5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature : 20.5°C DB, 59.5%RH, Outdoor Temperature : 5°C DB, 65%RH
6. Temperature Exchange efficiency is tested at heating condition.

5. Specifications

Guide Specification

General

Units shall be completely factory assembled including fan motors, filters, heat exchanger element(s) and controls in a sheet metal casing.

Casing

Unit casing shall be constructed of zinc coated, heavy gauge galvanized steel. All panels in the casing shall be cleaned with permanent, fire retardant, odorless material. Knockouts shall be provided for unit electrical power. Panels shall be fastened by screws.

Heat Exchanger Element

The heat exchanger element shall be assembled without moving parts for higher durability and reliability. The material is flame-retardant for safety. The supply air passage and the exhaust air passage are arranged in right angle the prevent the supply and exhaust air from getting mixed.

Fan Motor

The fan motors shall be of permanently lubricated type with internal thermal protection as standard. The shaft shall be protected against rusting. The fan motors shall be resilient mounted to minimize vibration and noise. All fans shall be statically and dynamically balanced for quiet operation.

Filters

Filters shall be easily accessible from the side of the unit. Filters shall be fabricated from synthetic media and shall be of washable type.

Controls

Wired control shall be available as standard. The controls shall be microprocessor based and provide for a user interface.

6. Operation Details

■ Operation range

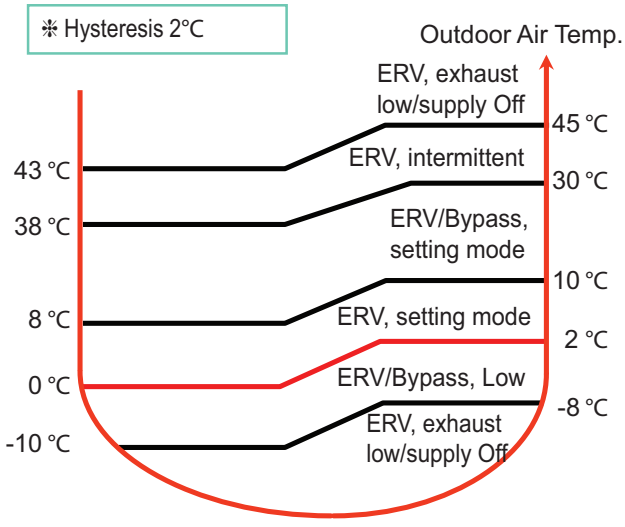
Ventilation will operate in the below range.

1. Option S/W 5 On

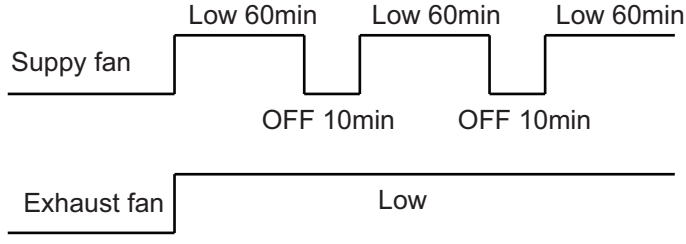
Operation mode	-10°C ↓	-10°C~ 0 °C	0°C~ 8°C	8°C~ 40°C	40°C~ 45°C	45°C ↑
ERV	ERV	ERV	ERV	ERV	ERV	ERV
Bypass	ERV	ERV	ERV	Bypass	ERV	ERV
Fan	exhaust : Low supply : OFF	Low	Setting air flow	Setting air flow	intermittent	exhaust : Low supply : OFF

*ERV : Total Heat Recovery Ventilation mode

**Bypass : not exchange total heat mode(Ventilation :O, Exchange total heat : X)

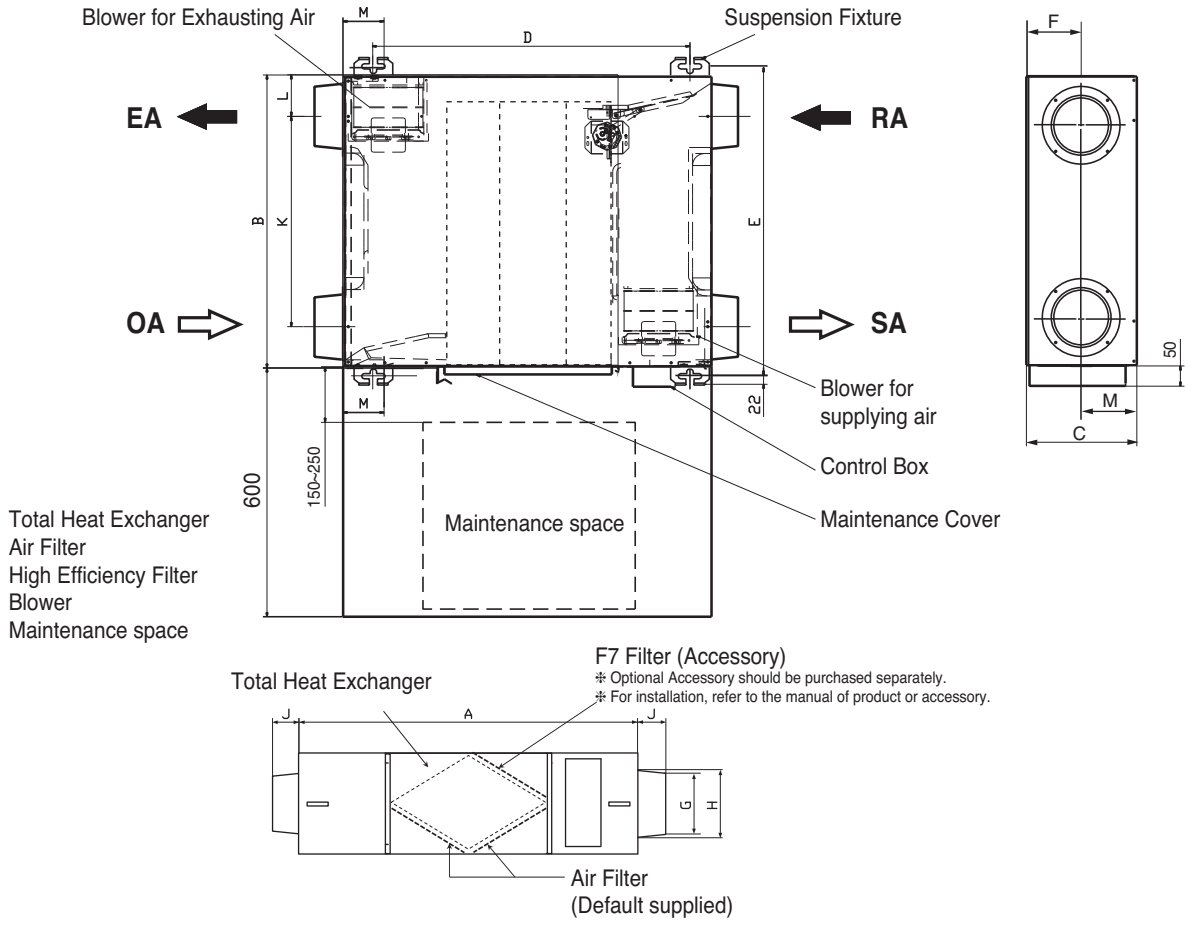


2. Intermittent operation control



7. Dimensional Drawings

Model No. : LZ-H025GBA4 / LZ-H035GBA4 / LZ-H050GBA4

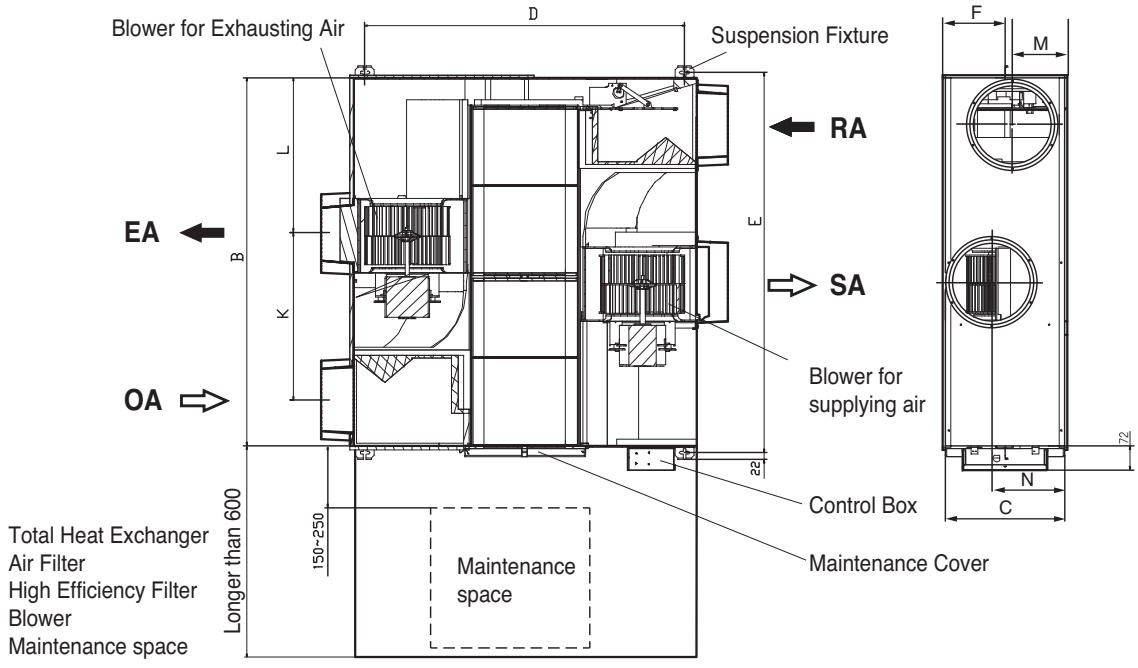


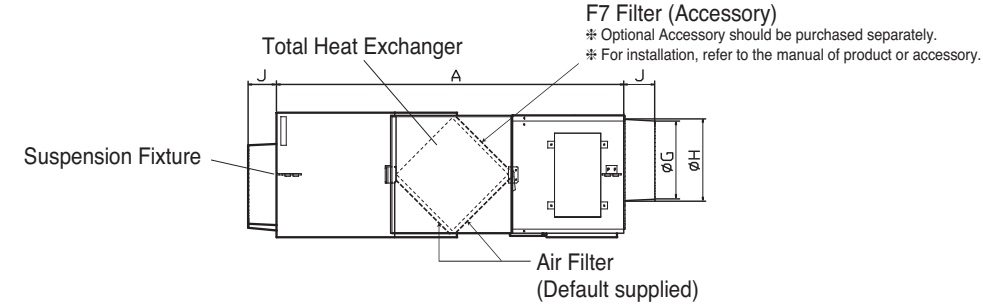
Unit: mm

Model	Figure			Pitch of Suspension Fixture			Nominal Diameter	Duct Connection Flange			Duct Pitch		
	A	B	C	D	E	F		G	H	J	K	L	M
LZ-H025GBA4 LZ-H035GBA4 LZ-H050GBA4	1,014	988	273	939	1,025	135	200	194	252	96	590	198	135

7. Dimensional Drawings

Model No. : LZ-H080GBA4 / LZ-H100GBA4



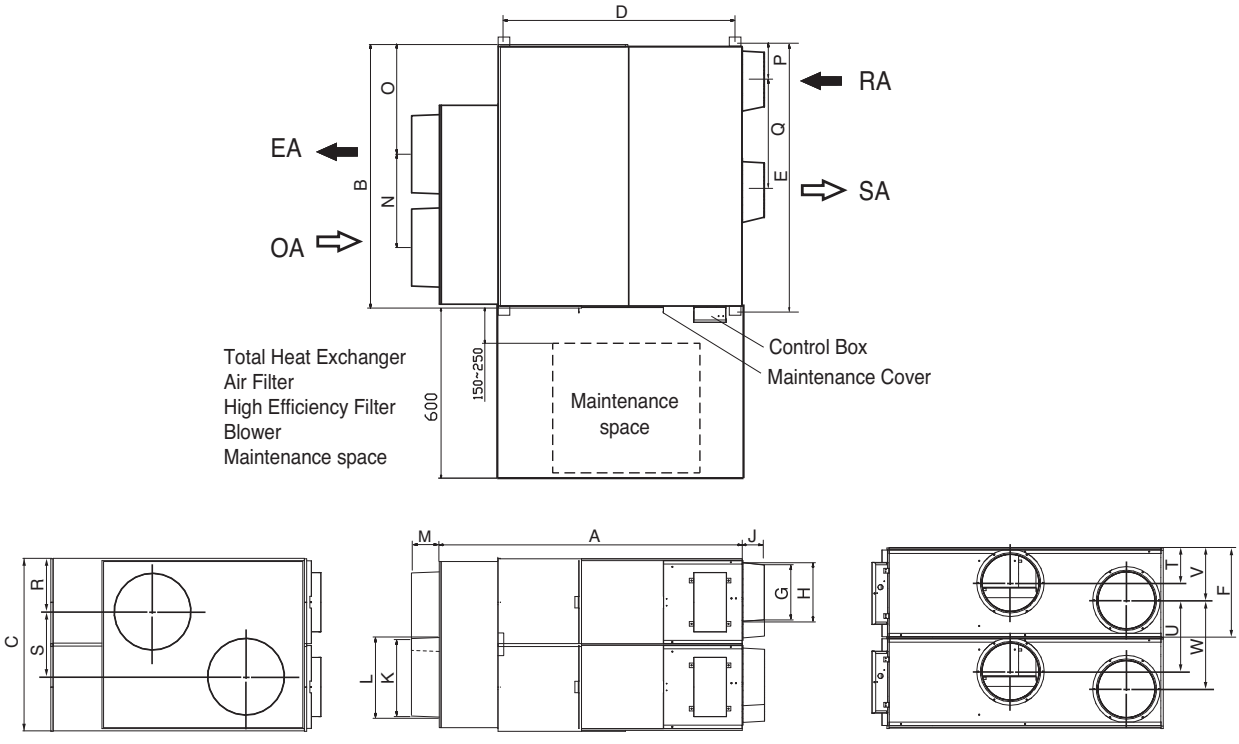


Unit: mm

Model	Figure			Pitch of Suspension Fixture			Nominal Diameter	Duct Connection Flange			Duct Pitch			
	A	B	C	D	E	F		G	H	J	K	L	M	N
LZ-H080GBA4 LZ-H100GBA4	1,062	1,140	365	987	1,176	180	250	242	253	98	513	481	152	213

7. Dimensional Drawings

Model No. : LZ-H150GBA4 / LZ-H200GBA4

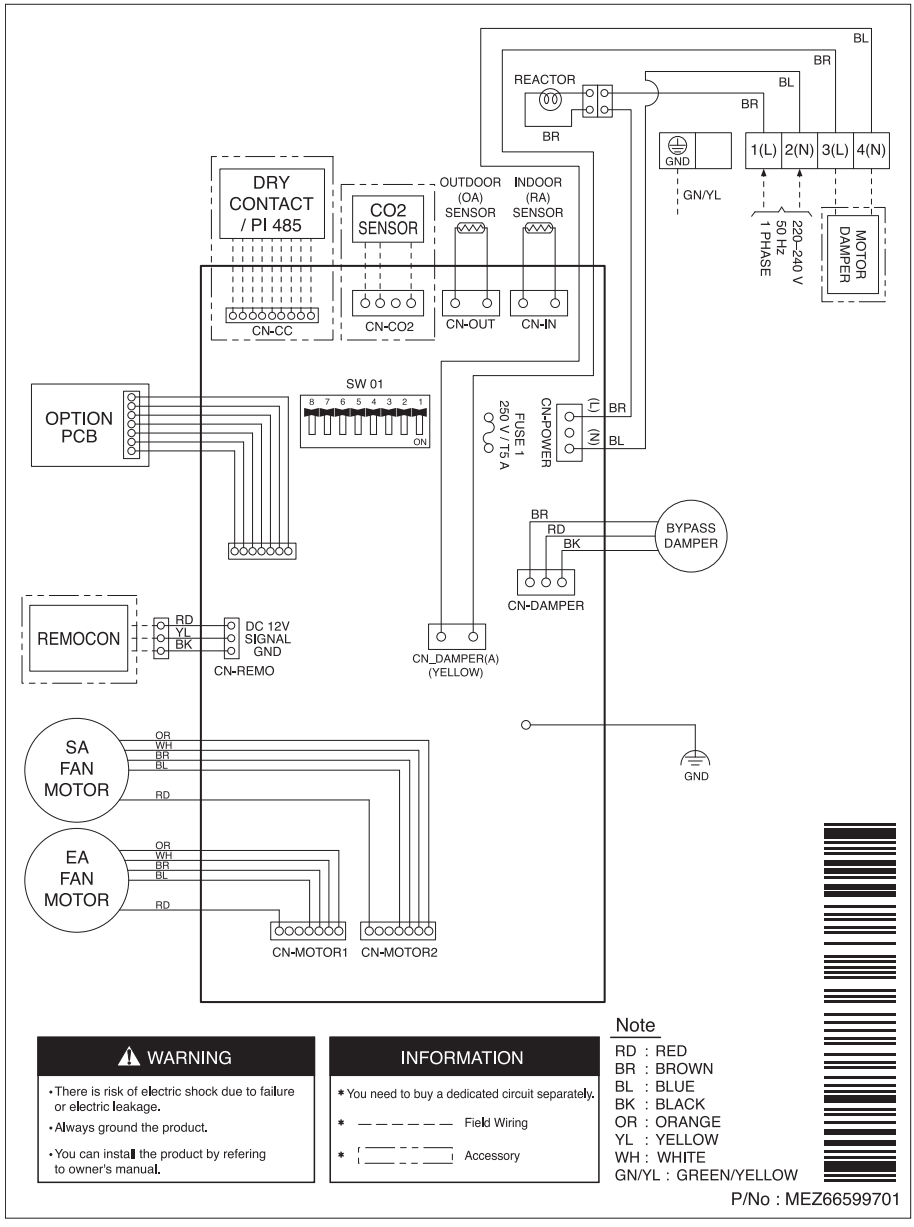


Unit: mm

Model	Figure			Pitch of Suspension Fixture			Duct Connection Flange						Nominal Diameter		Duct Pitch									
	A	B	C	D	E	F	G	H	J	K	L	M	EA	SA	N	O	P	Q	R	S	T	U	V	W
LZ-H150GBA4 LZ-H200GBA4	1,313	1,140	738	987	1,176	150	242	253	98	340	350	130	350	250	410	482	146	512	233	271	138	370	210	370

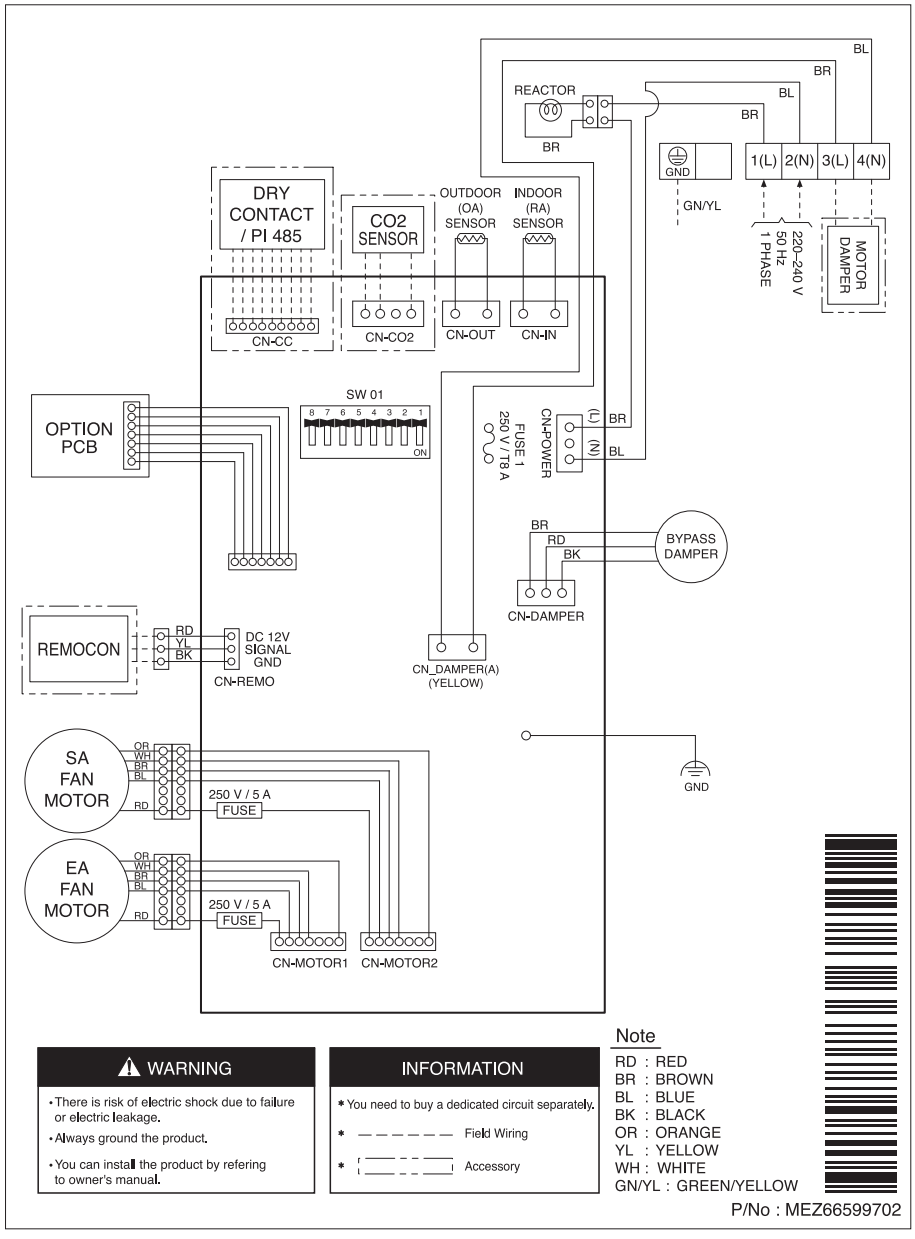
8. Wiring Diagrams

Model No. : LZ-H025GBA4 / LZ-H035GBA4 / LZ-H050GBA4



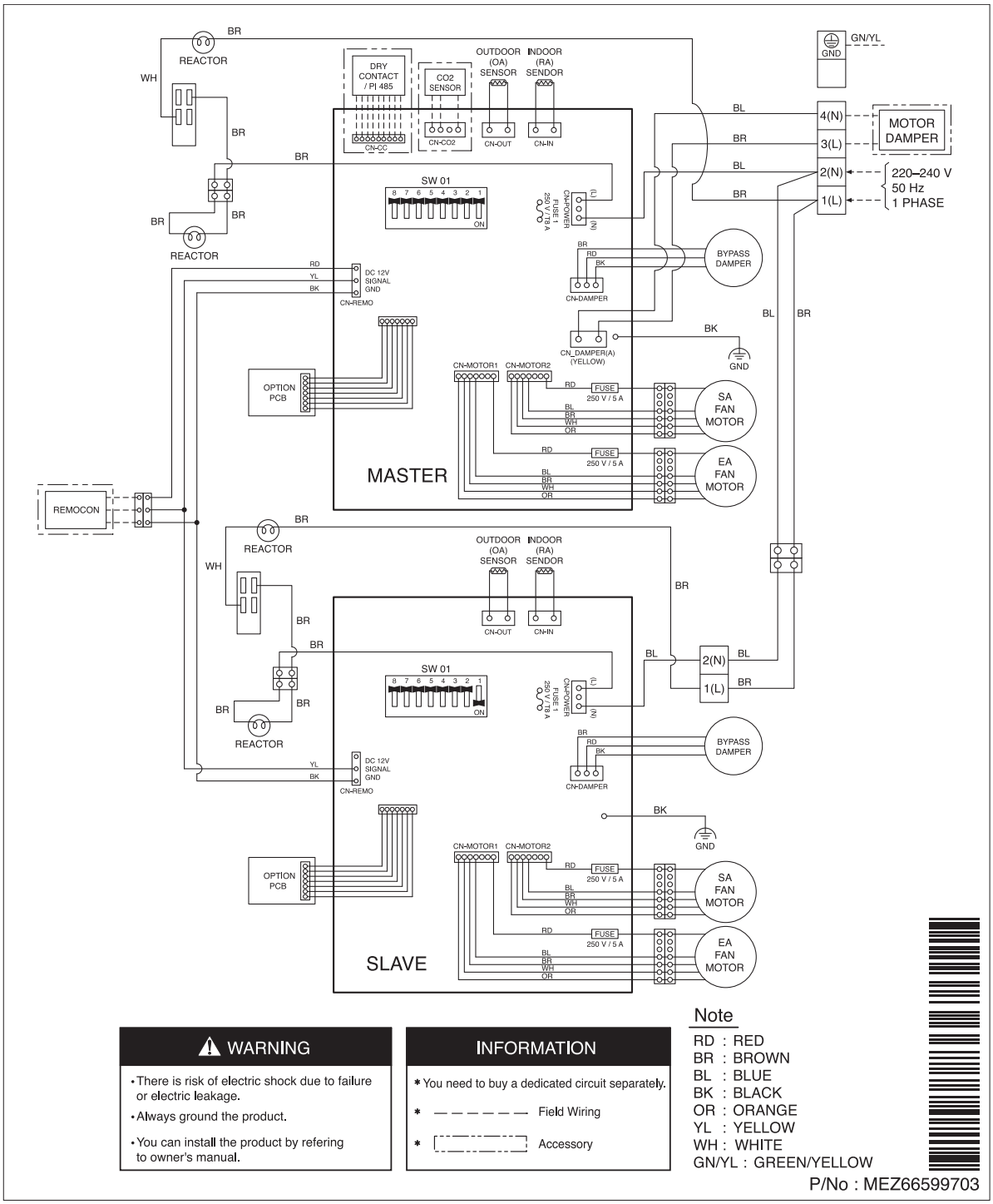
8. Wiring Diagrams

Model No. : LZ-H080GBA4 / LZ-H100GBA4



8. Wiring Diagrams

Model No. : LZ-H150GBA4 / LZ-H200GBA4



⚠ WARNING

- There is risk of electric shock due to failure or electric leakage.
- Always ground the product.
- You can install the product by refering to owner's manual.

INFORMATION

* You need to buy a dedicated circuit separately.
* ——————— Field Wiring
* - - - - - - - Accessory

Note

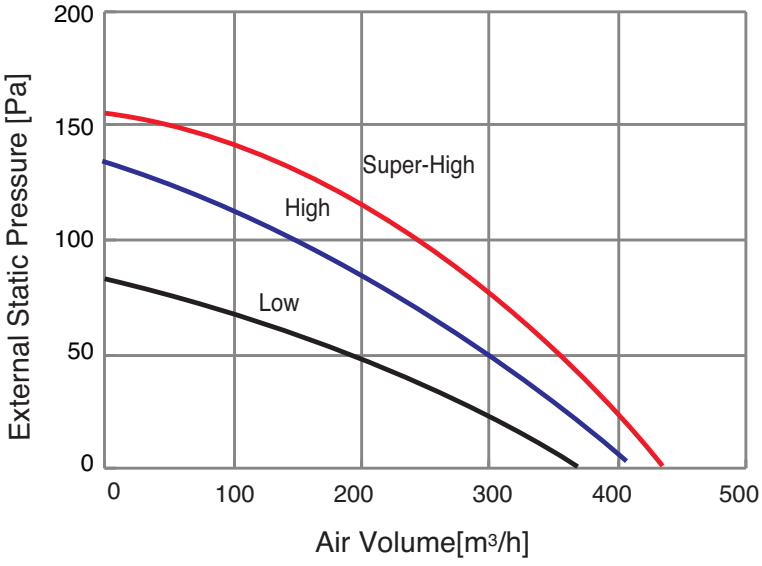
RD : RED
BR : BROWN
BL : BLUE
BK : BLACK
OR : ORANGE
YL : YELLOW
WH : WHITE
GN/YL : GREEN/YELLOW

P/No : MEZ66599703

9. Characteristic Curve

Model No. : LZ-H025GBA4

[Ventilation]



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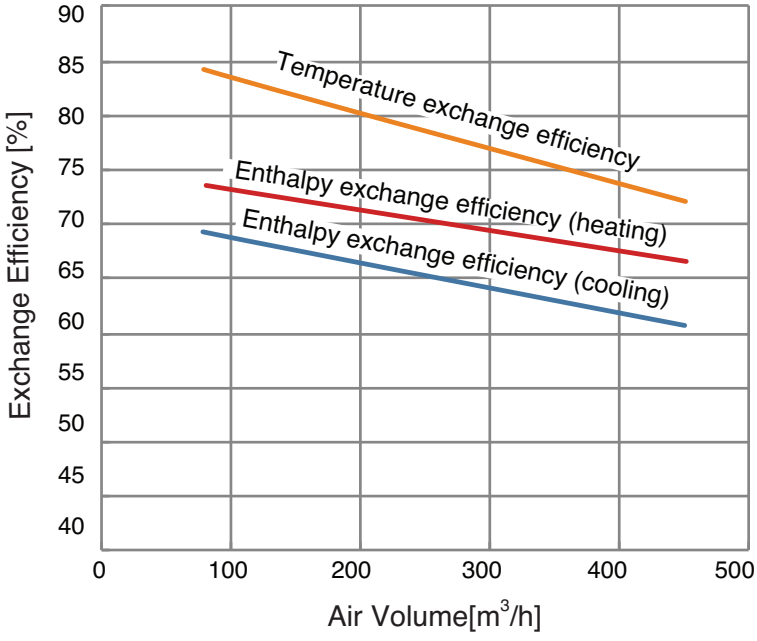
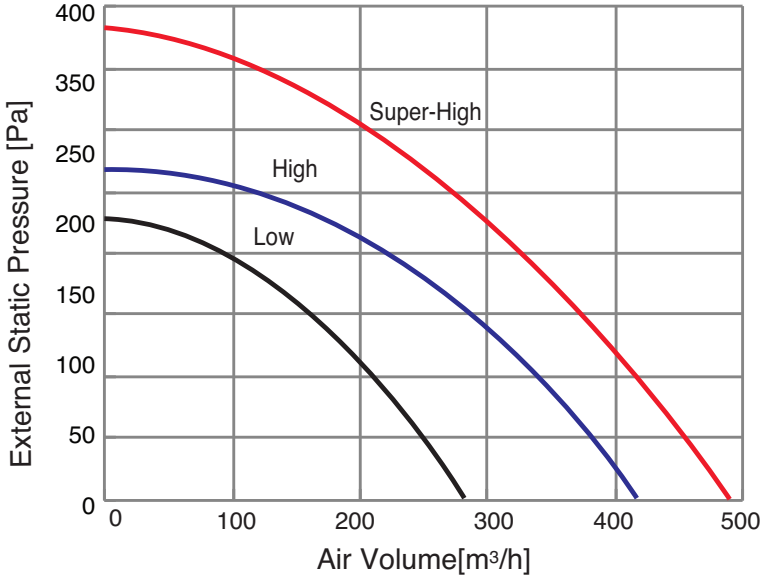


9. Characteristic Curve

Model No. : LZ-H035GBA4

[Ventilation]



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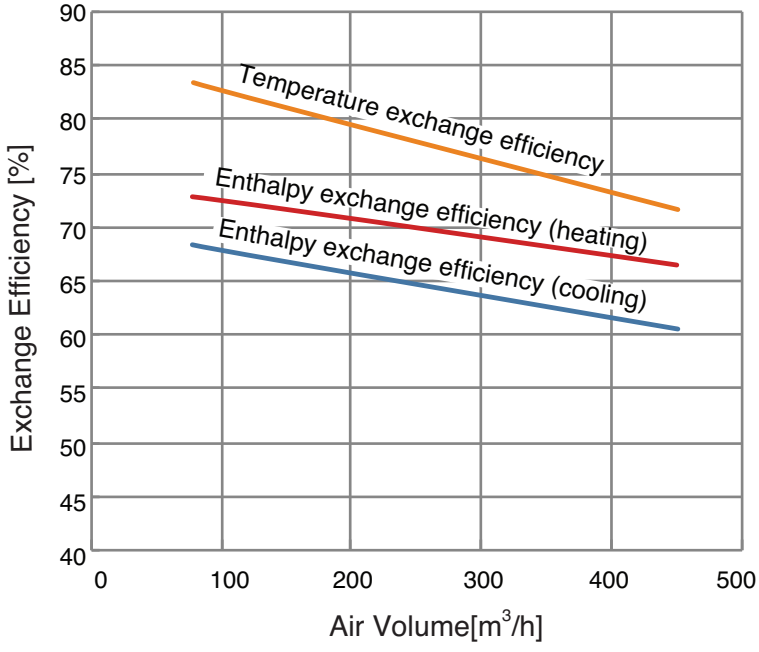
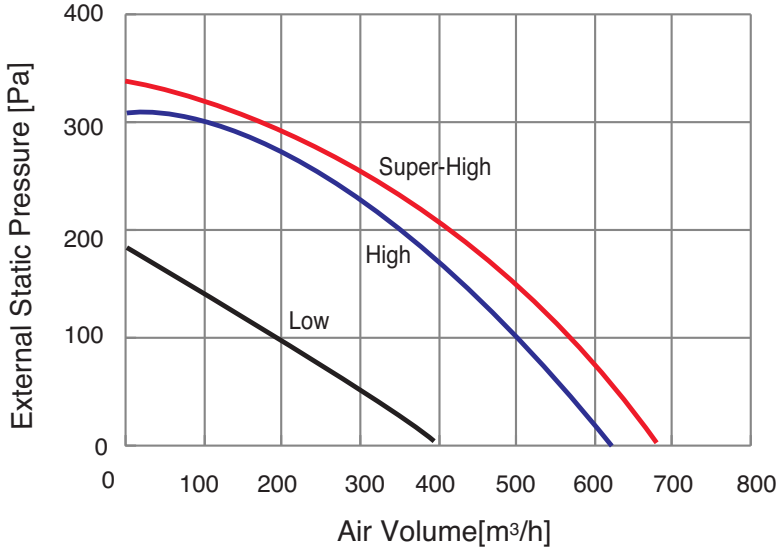


9. Characteristic Curve

Model No. : LZ-H050GBA4

[Ventilation]



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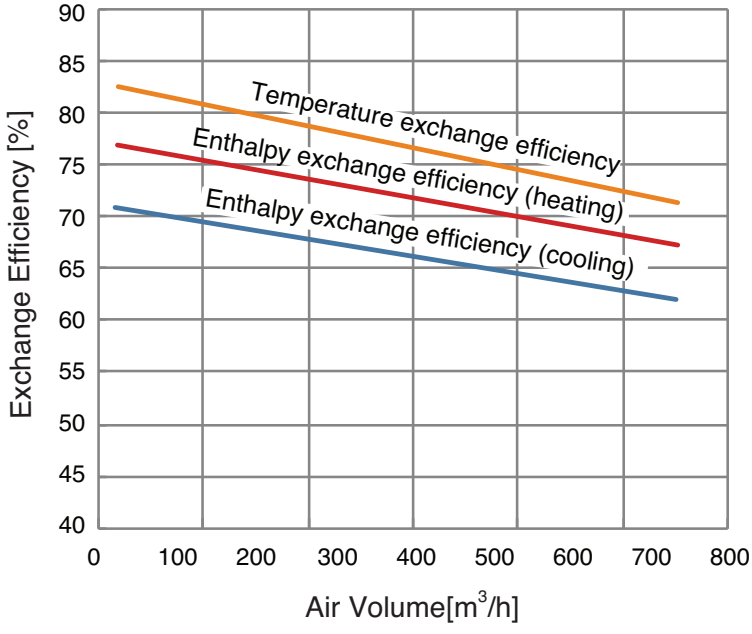
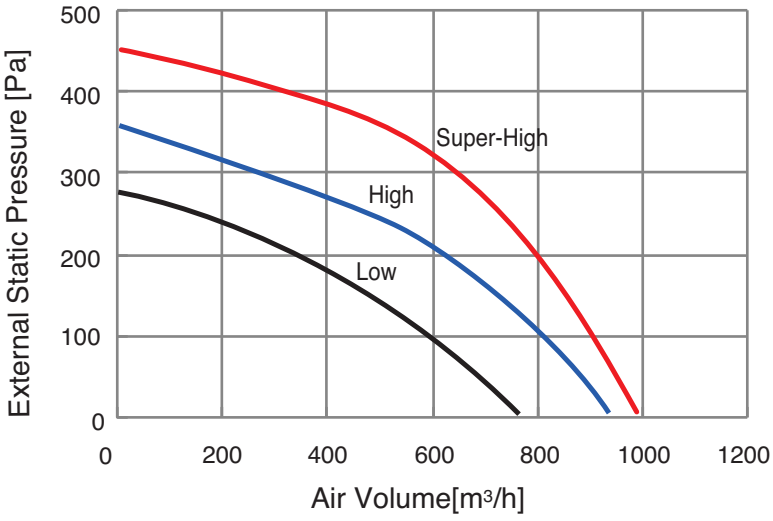


9. Characteristic Curve

Model No. : LZ-H080GBA4

[Ventilation]



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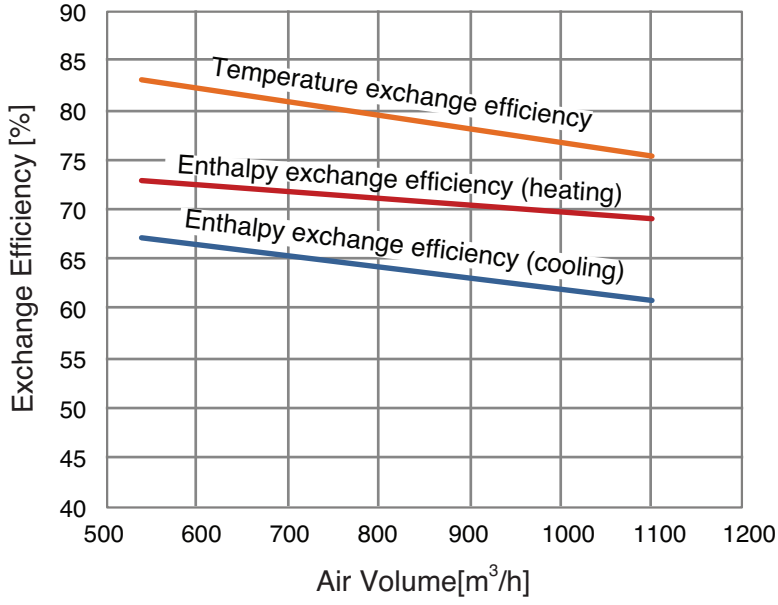
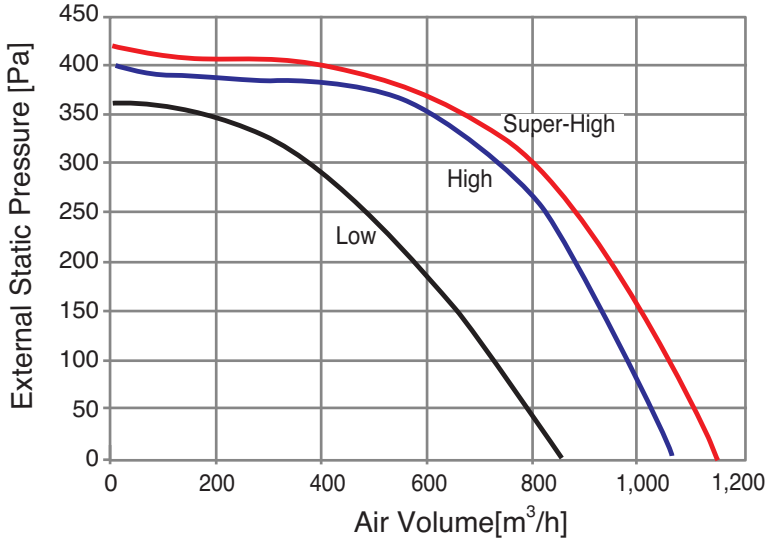


9. Characteristic Curve

Model No. : LZ-H100GBA4

[Ventilation]



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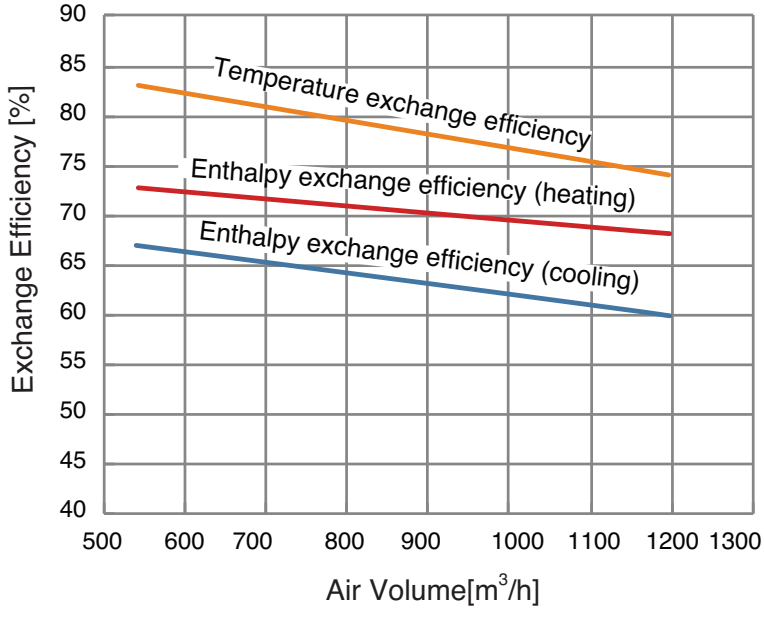
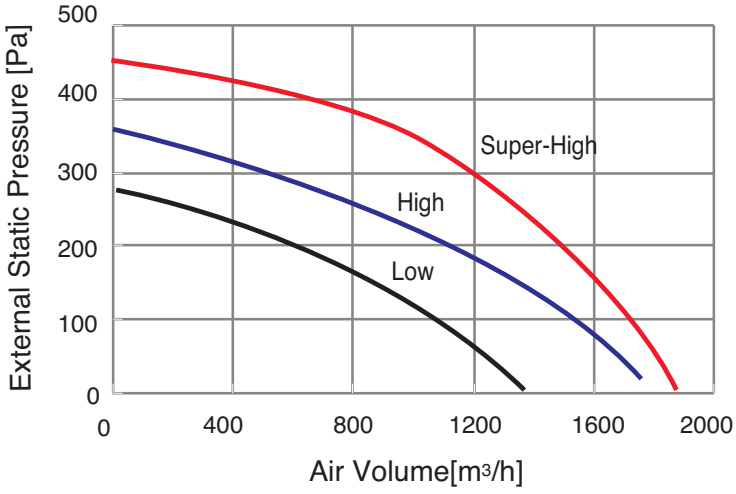


9. Characteristic Curve

Model No. : LZ-H150GBA4

[Ventilation]



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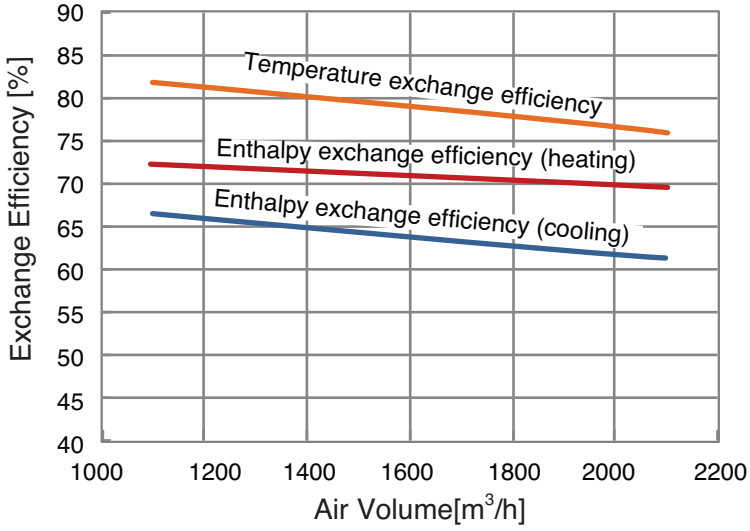
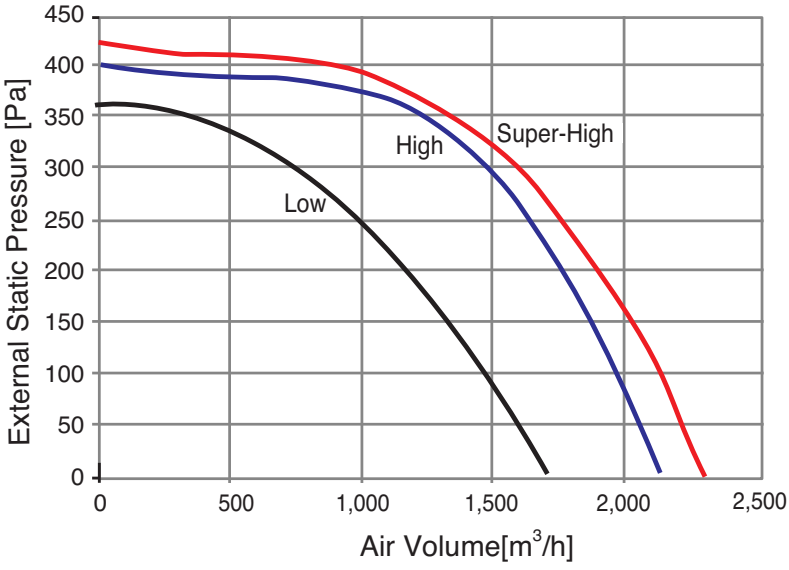


9. Characteristic Curve

Model No. : LZ-H200GBA4

[Ventilation]



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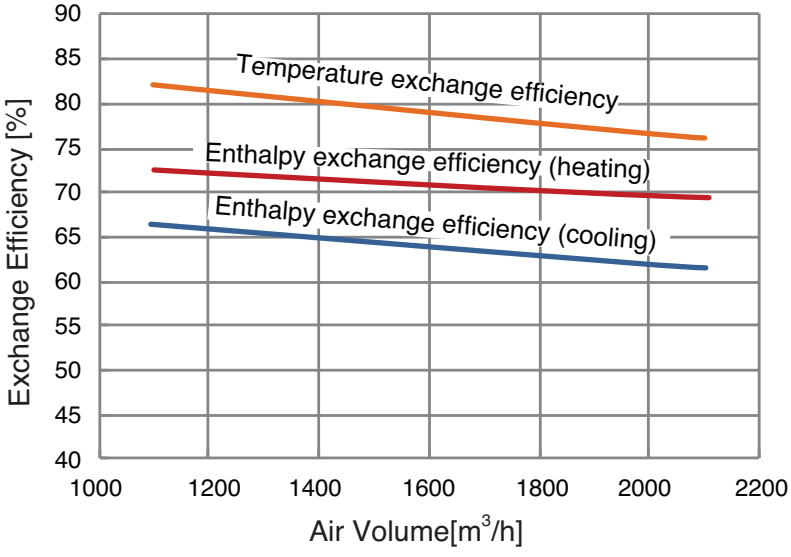


10. External Static Pressure Settings

Installer Setting – E.S.P(PREMTB100)

This is the function that decides the strength of the wind for each wind level and because this function is to make the installation easier.

⚠ CAUTION:

- **If ESP is incorrectly set, the air conditioner may malfunction.**
- **It must be set by the installation specialist with the installation license, and if it is installed or changed without installation license, all problems caused will be the responsibility of the installer, and may void the LG warranty.**

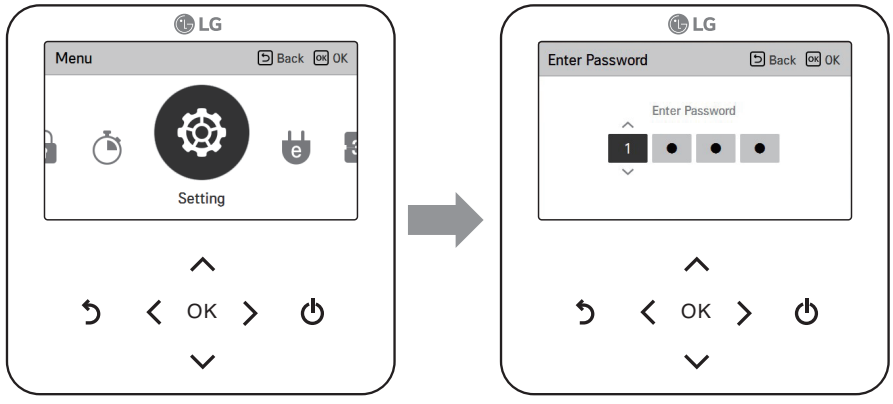
Step1. Installer setting entry

- In the menu screen, press [< , > (left/right)] button to select the setting category, and press [∧ (up)] button for 3 seconds to enter the password input screen for the installer setting.
- Input the password and press [OK] button to move to the installer setting list.

❊ Installer setting password

Main screen ⟶ menu ⟶ setting ⟶ service ⟶ RMC version information ⟶ SW Version

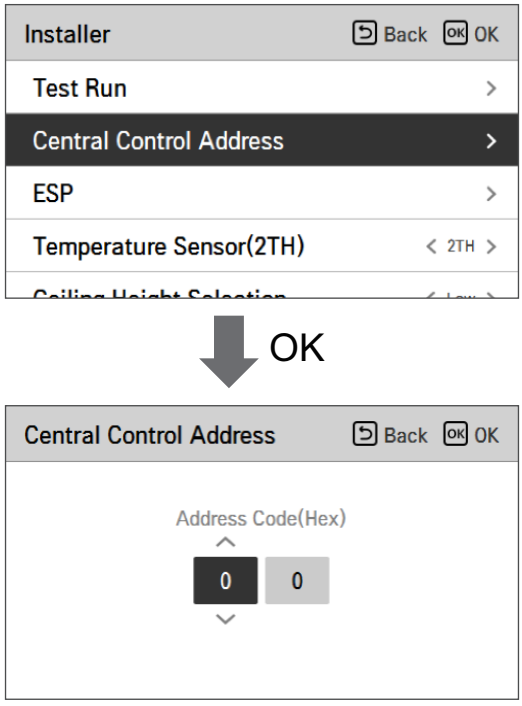
Example) SW version : 1.00.1 a
In the above case, the password is 1001.



10. External Static Pressure Settings

Step2. Supply/Exhaust ESP setting

1) Select the wind strength with inputting [∧, ∨(up/down)] button. (Low, High, Power)
2) Move the setting items with inputting [<, >(left/right)] button.
3) Select the RPM value of wind strength with inputting [∧, ∨(up/down)] button. (0~255)
4) Complete the RPM setting with inputting [OK] button. (Send RPM setting data of indoor unit)



Note :

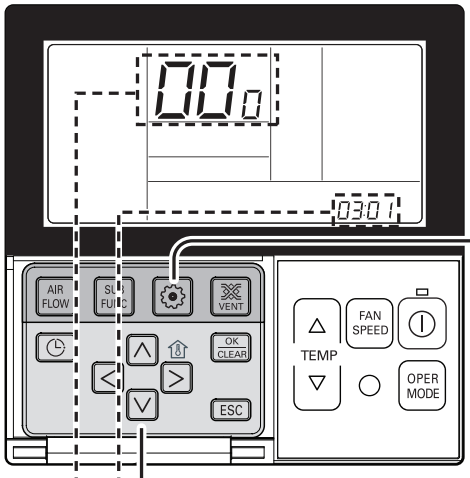
- When setting ESP value on the product without very weak wind or power wind function, it may not work.
- For ventilation products, separate ESP values are used for the supply and exhaust fans.
- Be especially careful not to switch ESP values corresponding to each fan speed.
- The ESP values that can be set may be different for each product and capacity.

10. External Static Pressure Settings

Installer Setting -E.S.P. (PQRCVSL0/PQRCVSL0QW)

This is the function that decides the strength of the wind for each wind level and because this function is to make the installation easier.

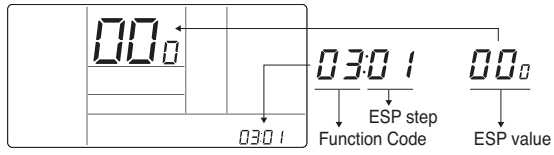
- **If you set ESP incorrectly, the ventilation unit may malfunction.**
- **This setting must be carried out by a certificated-technician.**



1 If pressing ⚙ button long for 3 seconds, it enters into remote controller setter setup mode.
- If pressing once shortly, it enters into user setup mode. Please press more than 3 seconds for sure.

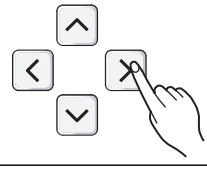
2 If entering into ESP setup mode by using ⚙ button, it indicates as the picture below.

* Function code 03 : Supply fan
04 : Exhaust fan



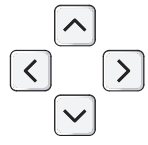
3 Select ESP fan step by pressing ^ v button. (01:low, 02:high, 03:super-high)

4 Move to ESP value setting by pressing > button.
(It is 000 when delivering from the warehouse.)



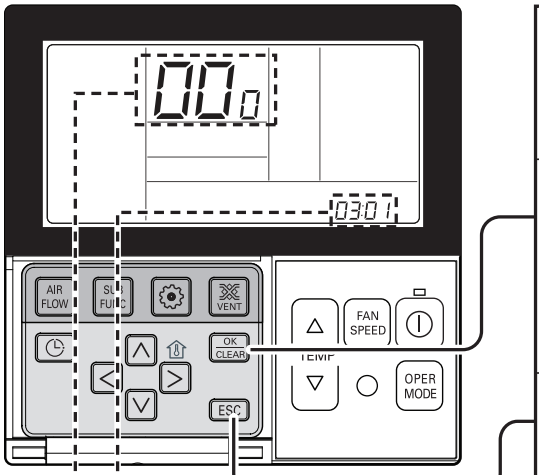
5 Press ^ v button to setup ESP value.

(It is possible to setup ESP value from 1 to 255, and 1 is the smallest and 255 is the biggest.)



- **When setting ESP value on the product without very weak wind or power wind function, it may not work.**

10. External Static Pressure Settings



6 Select ESP fan step again by using < > button and setup ESP value, as No. 4 and 5, that corresponds each wind flow.

7 Press OK CLEAR button to save.

8 Press ESC button to exit.

❊ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.

❊ When exiting without pressing set button, the manipulated value is not reflected.

- **Please be careful not to change the ESP value for each fan step.**
- **ESP value is available for specific range belongs to the product.**

10. External Static Pressure Settings

RPM Table

Model	Mode	External Static Pressure Pa (in.wg)			
		50(0.2)	100(0.4)	150(0.6)	200(0.8)
LZ-H025GBA4	Super high	102	114	127	139
	High	102	114	127	139
	Low	85	105	117	130
LZ-H035GBA4	Super high	120	125	135	145
	High	120	125	135	145
	Low	95	102	117	125
LZ-H050GBA4	Super high	125	141	152	-
	High	125	141	152	-
	Low	98	110	130	-
LZ-H080GBA4	Super high	100	110	120	133
	High	100	110	120	133
	Low	92	98	105	115
LZ-H100GBA4	Super high	112	123	132	138
	High	112	123	120	138
	Low	100	110	120	129
LZ-H150GBA4	Super high	100	110	120	133
	High	100	110	120	133
	Low	92	98	105	115
LZ-H200GBA4	Super high	112	123	132	138
	High	112	123	120	138
	Low	100	110	120	129

11. Electrical Characteristics

Units					Power Supply	IFM		PI
Model	Type	Hz	Voltage	Voltage Range	MCA	kW	FLA	W
LZ-H025GBA4	ZD	50/60	220-240	Max. : 264 Min. : 198	1.10	0.25	0.97	97
LZ-H035GBA4	ZD				1.10	0.25	0.97	180
LZ-H050GBA4	ZD				1.10	0.25	0.97	240
LZ-H080GBA4	ZE				2.61	0.39	2.30	390
LZ-H100GBA4	ZE				2.61	0.39	2.30	480
LZ-H150GBA4	ZF				5.23	0.78	4.60	780
LZ-H200GBA4	ZF				5.23	0.78	4.60	960

Symbols

MCA : Minimum Circuit Amperes (A)
MFA : Maximum Fuse Amperes (A)
kW : Fan Motor Rated Output (kW)
FLA : Full Load Amperes (A)
IFM : Indoor Fan Motor
PI : Maximum Power Input (W)

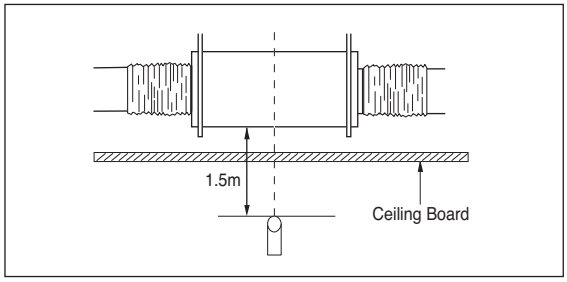
Note

1. Voltage range
   Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above the listed range limits.
2. Maximum allowable voltage unbalance between phases is 2%.
3. MFA/MCA
   MFA = 1.25 x FLA, MCA= MFA / 1.1
   (If MFA is smaller than minimum standard value, Use minimum standard value in region for selecting circuit breaker.)
4. Select wire size based on the MCA
5. Instead of fuse, use Circuit Breaker.

12. Sound Pressure Level

12.1 Sound Pressure Level

Overall

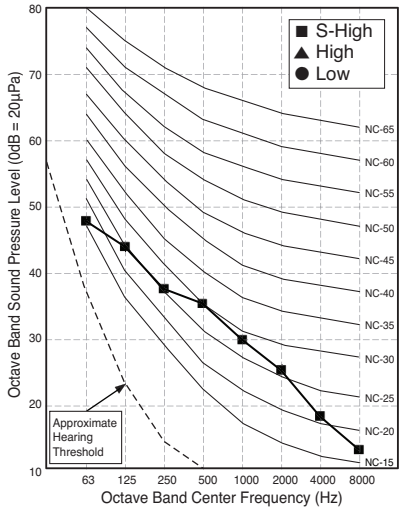


Notes:
- Sound measured at 1.5m away from the center of the unit.
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- Reference accoustic pressure 0dB=20μPa.
- Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment is installed.
- The operating conditions are assumed to be standard.

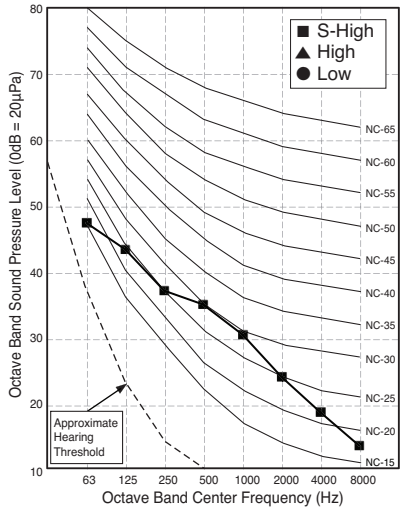
Model	Sound Pressure Level [dB(A)]		
	SH	H	L
LZ-H025GBA4	29	28	24
LZ-H035GBA4	32	30	27
LZ-H050GBA4	34	32	25
LZ-H080GBA4	40	37	31
LZ-H100GBA4	41	38	32
LZ-H150GBA4	43	40	34
LZ-H200GBA4	44	41	35

Sound pressure level

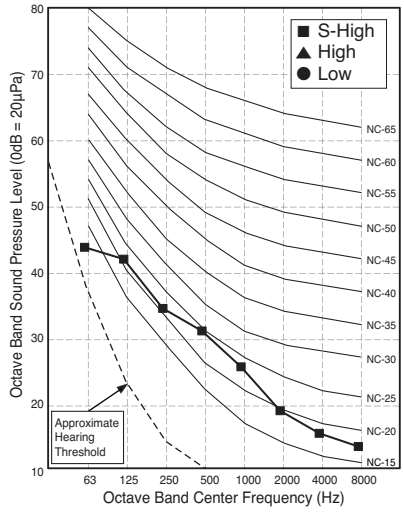
LZ-H025GBA4



LZ-H035GBA4

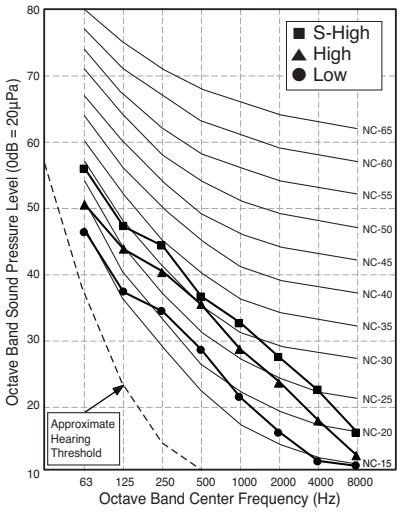


LZ-H050GBA4

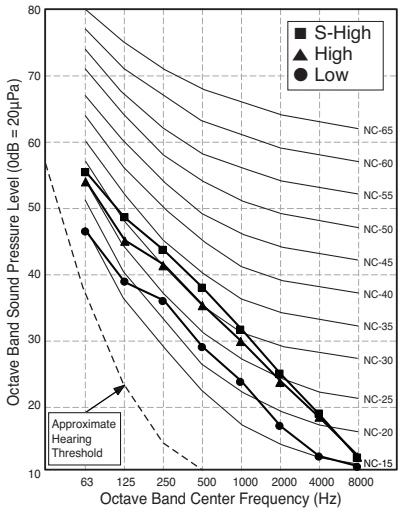


12. Sound Pressure Level

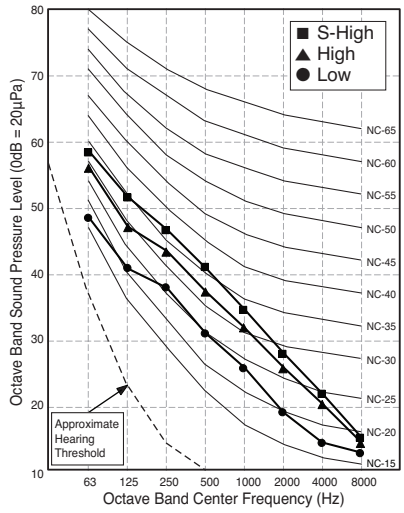
LZ-H080GBA4



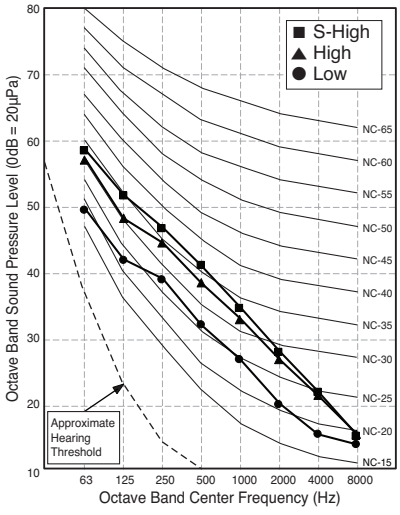
LZ-H100GBA4



LZ-H150GBA4



LZ-H200GBA4



12. Sound Pressure Level

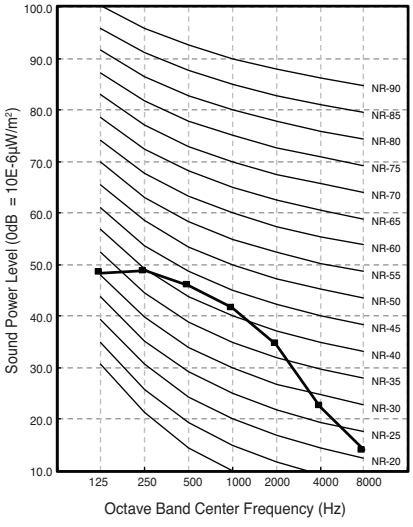
12.2 Sound Power Level

Notes:

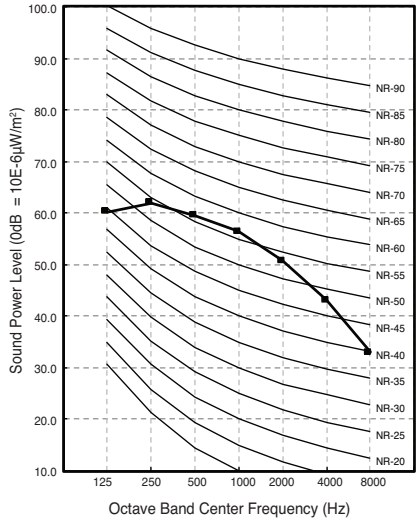
1. Reference acoustic intensity 0dB = 10E-6μW/m^2
2. Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.

Model	Sound Power Level (dB(A)]
	SH
LZ-H025GBA4	50
LZ-H035GBA4	62
LZ-H050GBA4	66
LZ-H080GBA4	68
LZ-H100GBA4	70
LZ-H150GBA4	71
LZ-H200GBA4	72

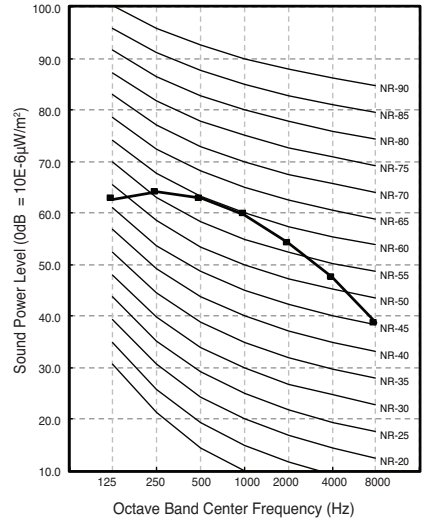
LZ-H025GBA4



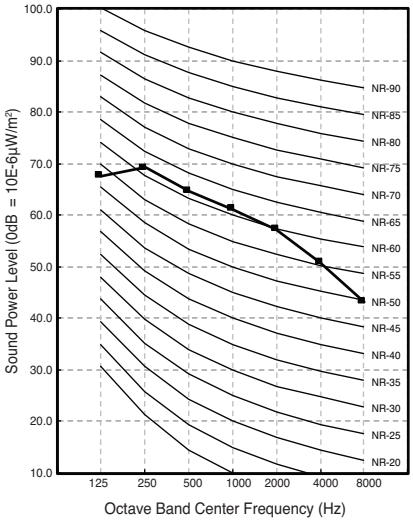
LZ-H035GBA4



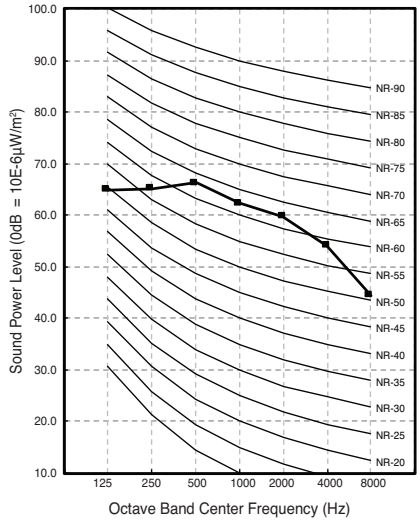
LZ-H050GBA4



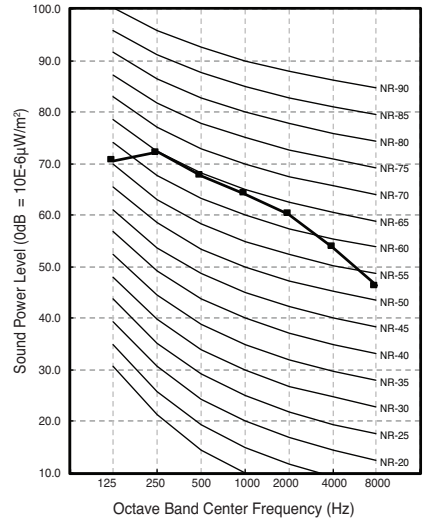
LZ-H080GBA4



LZ-H100GBA4

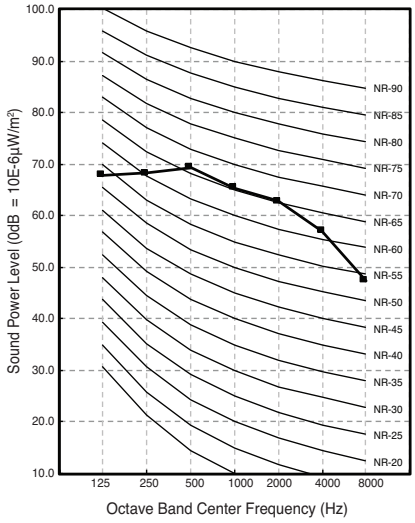


LZ-H150GBA4



12. Sound Pressure Level

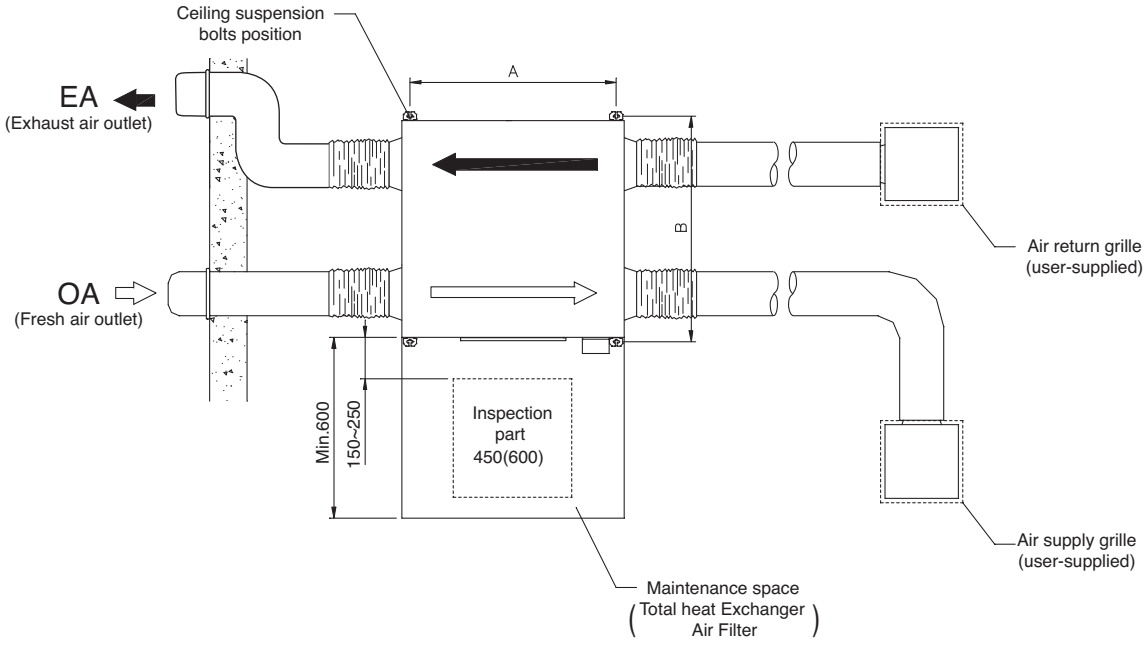
LZ-H200GBA4

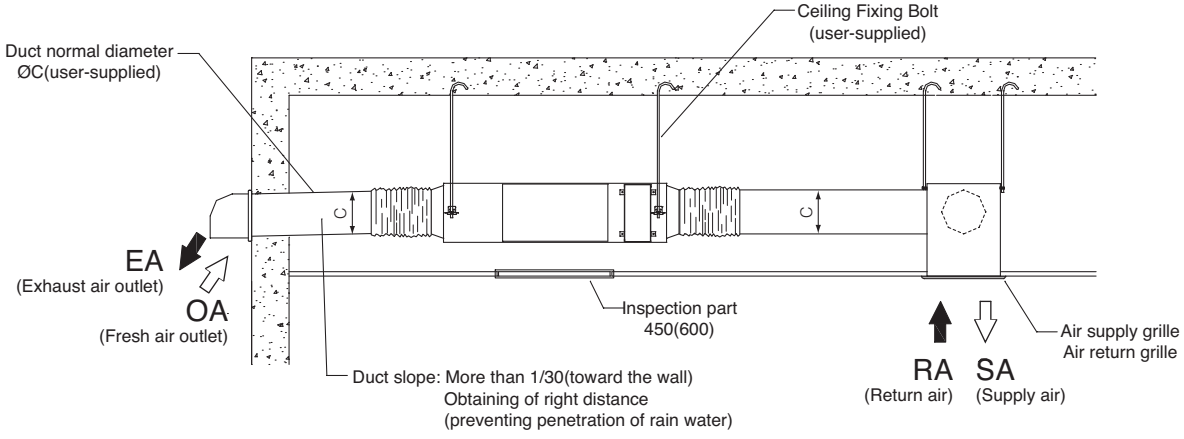


13. Installation

13.1 Typical Installation Map

Model No.: LZ-H025GBA4 / LZ-H035GBA4 / LZ-H050GBA4



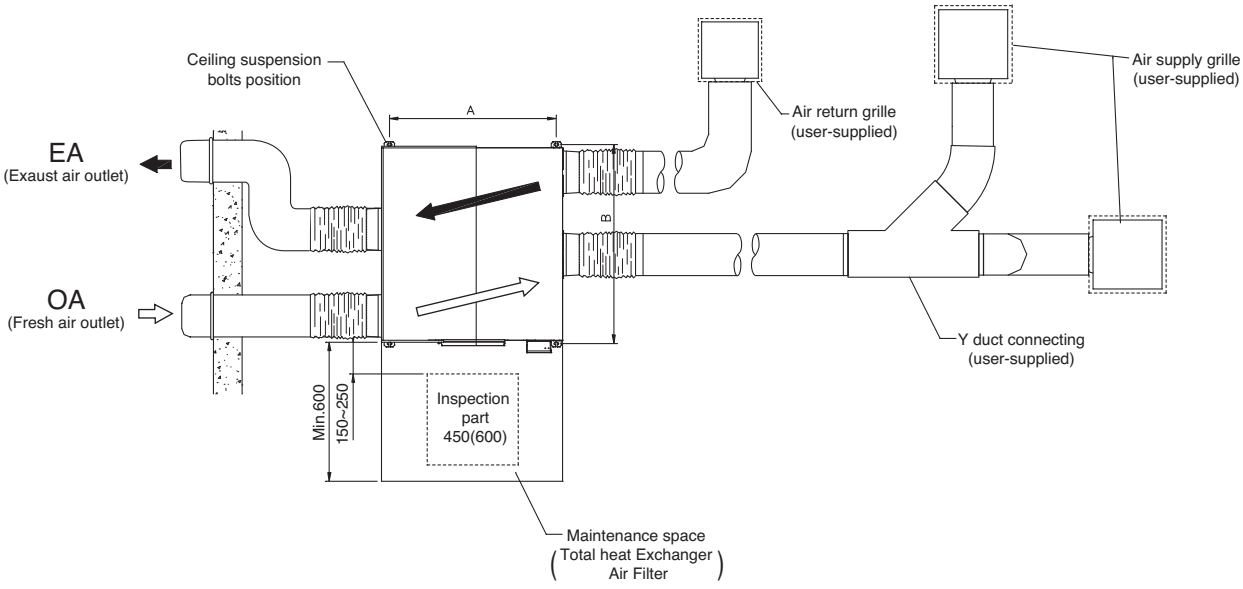


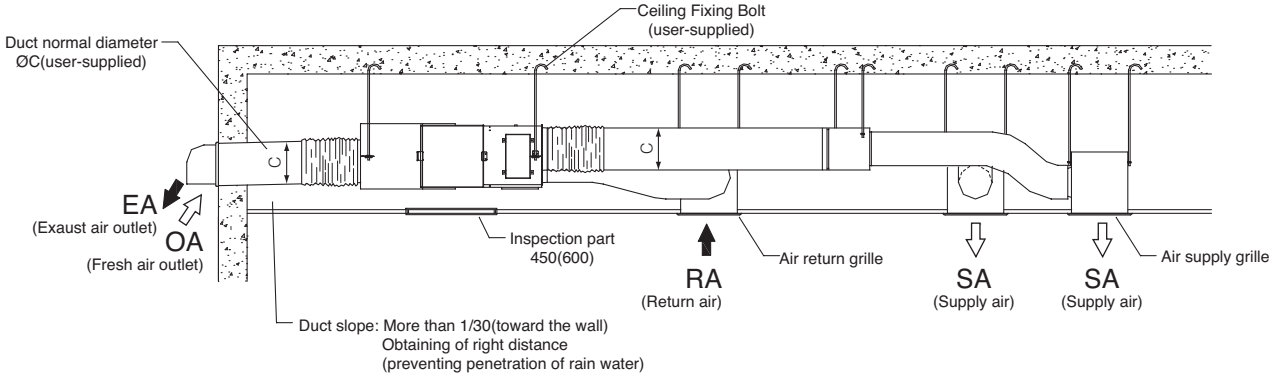
[Unit : mm]

Mode	A	B	C
LZ-H025GBA4 LZ-H035GBA4 LZ-H050GBA4	939	1,025	200

13. Installation

Model No.: LZ-H080GBA4 / LZ-H100GBA4



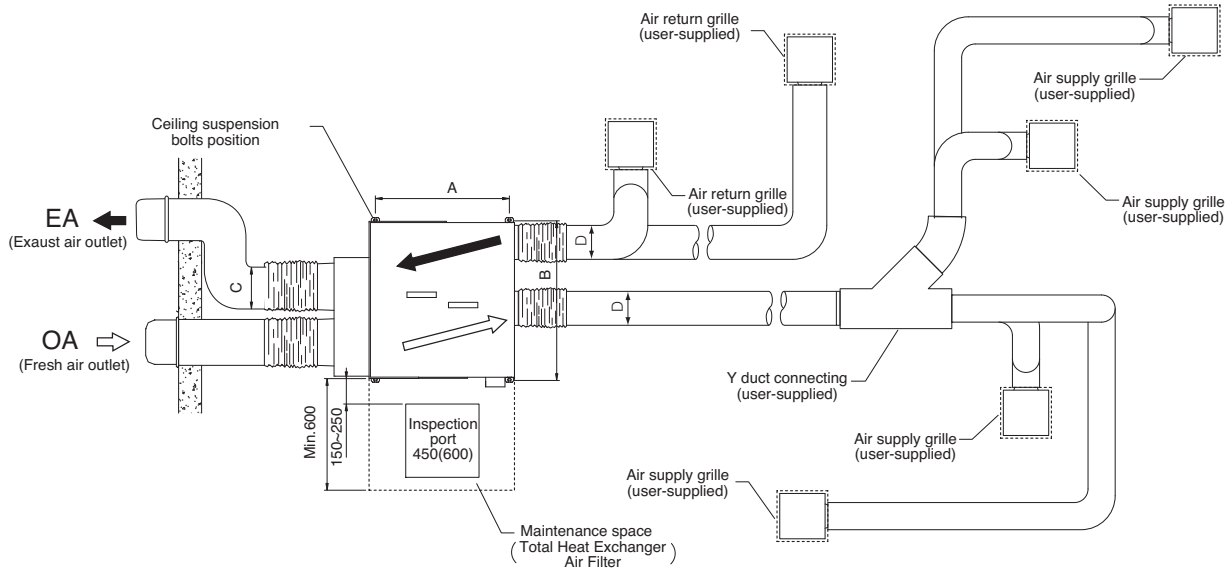


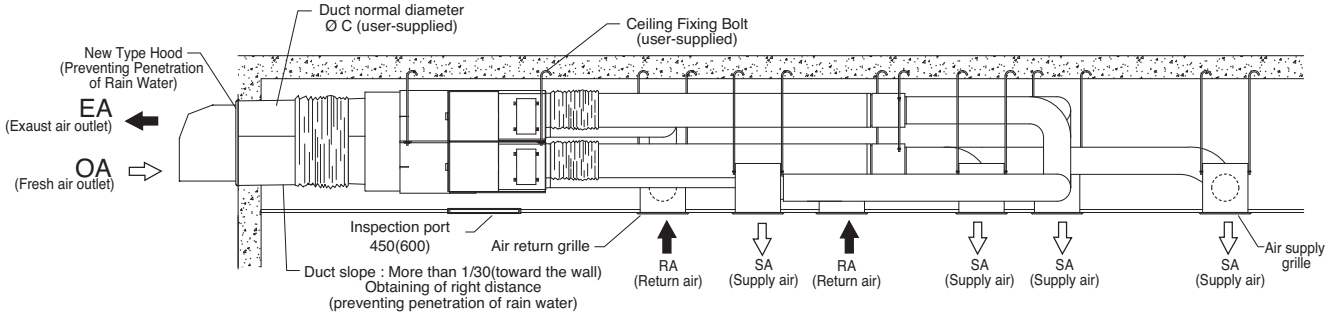
[Unit : mm]

Model	A	B	C
LZ-H080GBA4 LZ-H100GBA4	987	1,176	250

13. Installation

Model No.: LZ-H150GBA4 / LZ-H200GBA4





[Unit : mm]

Model	A	B	C	D
LZ-H150GBA4 LZ-H200GBA4	987	1,176	350	250

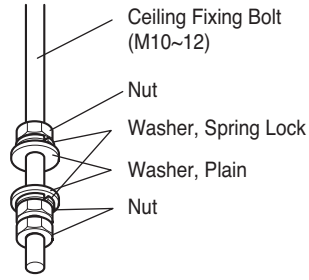
13.2 Installation

Installation of Main Body

Assembly of Washer, Nut

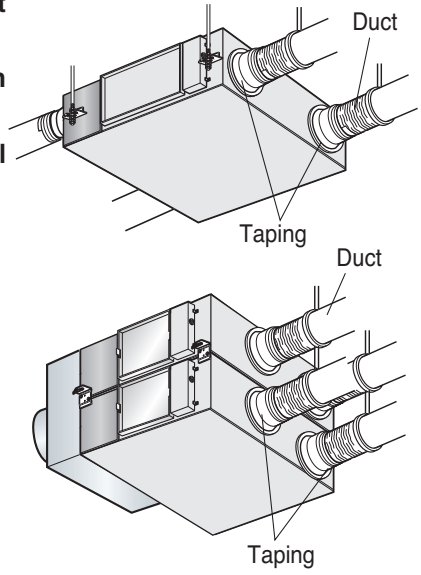
Tighten the commercial washer nut (more than 21mm for the outside diameter of M10, to the commercial ceiling fixing bolt (M10) as shown in the figure.

- For the ceiling fixing bolt, perform work less than 50mm under the ceil fixing bracket.



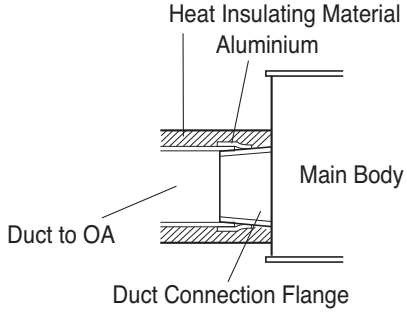
Connection of Duct

1. **After securely connect the duct with the duct connection flange, wrap it with a commercial aluminium tape so that air cannot be leaked.**
2. **Adjust the duct from the ceiling so that no force is applied to the main body of the ventilation system.**
3. **Always use two ducts at the outdoor with the heat insulating material for prevention of dewing.**



CAUTION:

- **Check that there are no foreign materials (paper, vinyl, etc) or cutoff powders in the duct before connecting the duct.**
- **Take care so that shock may not be applied to the damper plate within the main body when performing the duct connection work.**
- **It is recommended to perform adiabatic treatment even to the duct pipe at the indoor side where ambient temperature is expected when the main body of the ventilation system for cooling in summer.**
- **Take care so that work may not be performed as in the left figure. Otherwise, it may cause reduction of air volume or abnormal noise.**



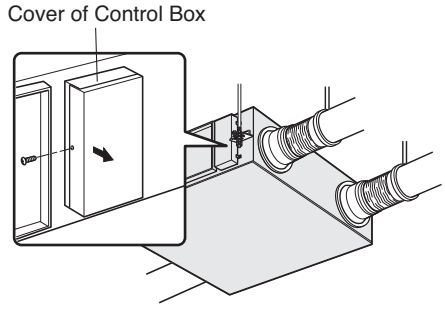
Rapid Bending | **Excessive Bending** | **Too Close Bending to Outlet** | **Rapid Reduction of Duct Diameter**

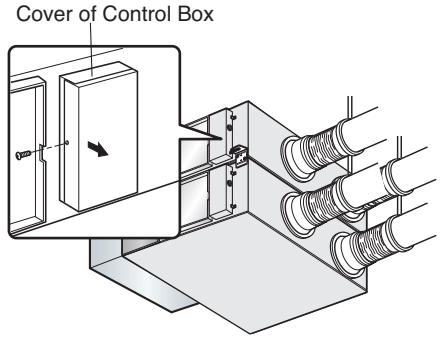
13.3 Wiring Connection

Method to Connect Power Cord

1. Release two screws and then open the cover of the control box.

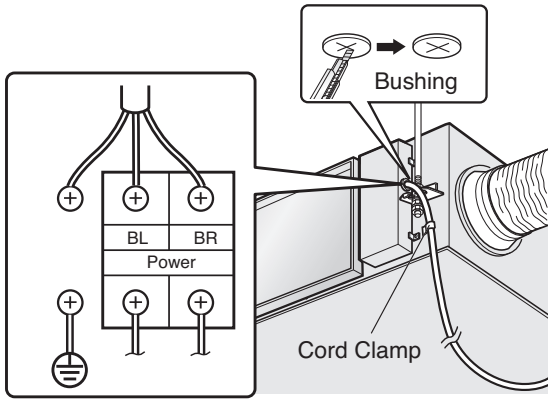
• With reference to the above wiring diagram, accurately connect the main power cords into the terminal block.

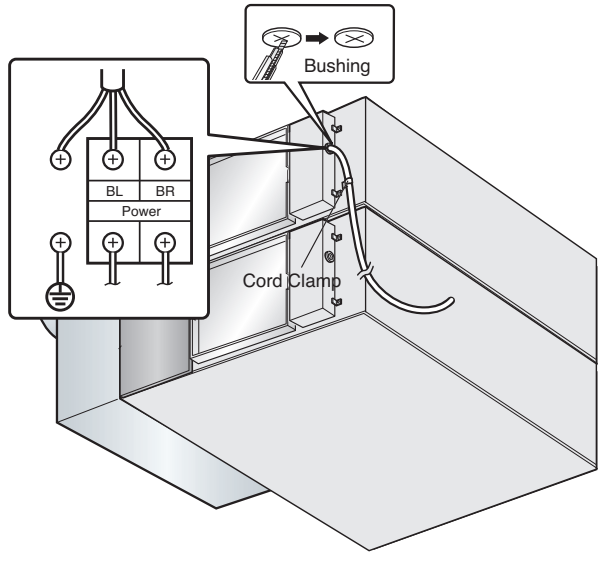




2. After inserting the power cord into the bushing, fully insert it into the terminal block for connection.

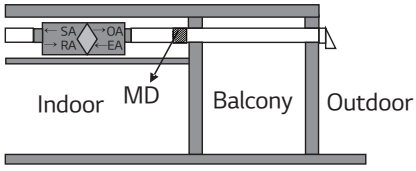
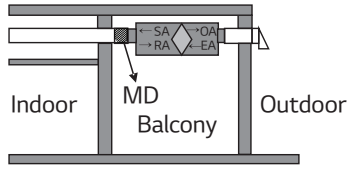
• Fix the power cords with the clamp.
• Make sure that the power cords may not be removed by pulling them.





13.4 M.D(Motorized damper) installation criteria

- When installing ventilation system indoors : Installation at the entrance end of the outdoor duct (OA&EA) of ventilation system.
- When installing a ventilation system outside or in a space equivalent to the outside : Installation at the entrance end of the indoor duct(SA&RA) of ventilation system

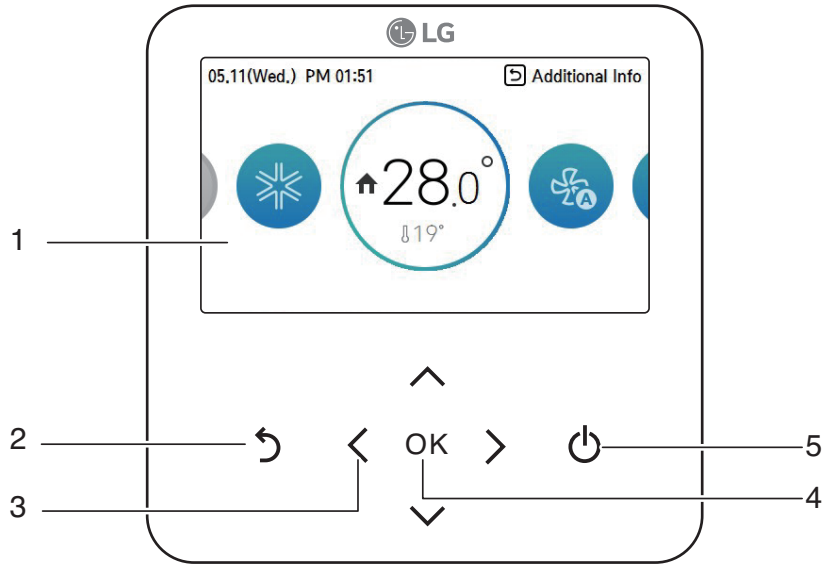
When installing ventilation system indoors	When installing a ventilation system outside or in a space equivalent to the outside
	

- Refer to the product normal operation outdoor temperature conditions : -10°C ~ 40°C
  - There is a risk of occurrence of condensation inside the ventilation system if it is out of the operating range of the above product.
  - Install MD(Motorized damper) at the inlet duct of the drainage facility and ventilation system as there is a risk of condensation when installing in an indoor or outdoor space.
  - Do not install in humid places such as bathrooms.
  - Install MD(Motorized damper) to prevent inflow of outside air in foggy areas or areas with strong outside air.
  - Do not operate the ventilation system because water droplets may enter the room during rainfall and strong winds.

14. LCD Wired Remote Control

14.1 Operating Instruction (Accessory) - PREMTB100

LG RS3 Standard Wired Remote Controller



Functions (Button Descriptions)		
No.	Name	Functions
1	Operation display window	Operation and Settings status display
2	Back button	When you move to the previous stage from the menu's setting stage
3	Up/down/left/right button	When you change the menu's setting value
4	OK button	When you save the menu's setting value
5	On/Off button	When you turn ON/OFF the air conditioner

14. LCD Wired Remote Control

14.1.1 Ventilation operating scene and ventilation operating method

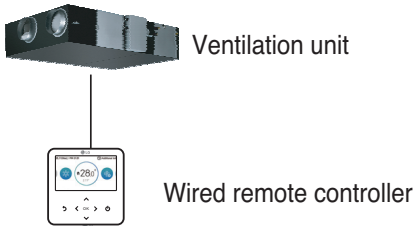
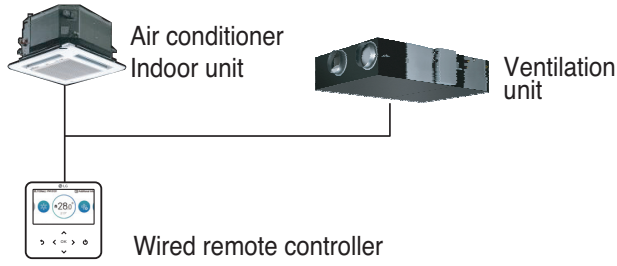
This unit's remote controller can be installed with two types; Single Operation & Interlinked Operation

1) Single Operation

- It controls using the wired remote controller at a place where ventilation unit is connected only.

2) Interlinked Operation

- It controls using the wired remote controller at a place where the air conditioner indoor unit and the ventilation product are connected and installed at the same time.
- When the power is applied, the remote controller recognizes the product and operates normally.

Single Operation	Interlinked Operation
	

❊ The wiring method is the same as the air conditioner user manual. (Refer to the remote controller manual group control page contents)

14. LCD Wired Remote Control

14.1.2 Operation Control

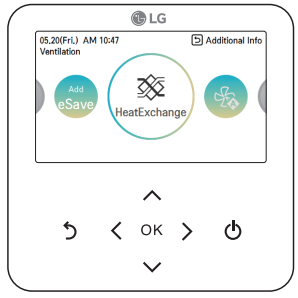
1) On / Off

■ Single operation

Air conditioner and ventilator will be turned on or off.

• Press ⏻ (On/Off) button on the remote controller. It displays as the below figure.

< Air conditioner main screen>



<Genernal Ventilation main screen>

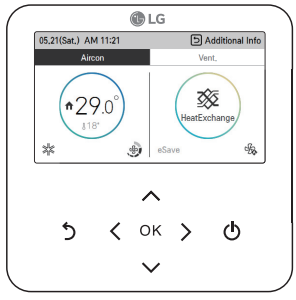
<Dx Ventilation main screen>

■ Interlinked operation

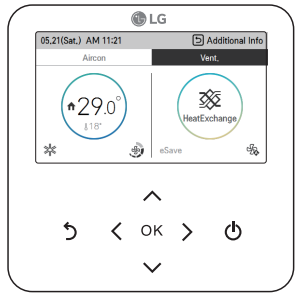
It can only be used when the air conditioner is interlinked with ventilation product.

• Press ⏻ (On/Off) button on the remote controller.
When you control the air conditioner and the ventilation product with one remote controller, the screen is displayed as in the below figure.

- You can set the air conditioner by pressing [<(left)] button and pressing [OK] button to move to the air conditioner screen.
- You can set the ventilation by pressing [>(right)] button and pressing [OK] button to move to the ventilation screen.



<Air conditioner mode>



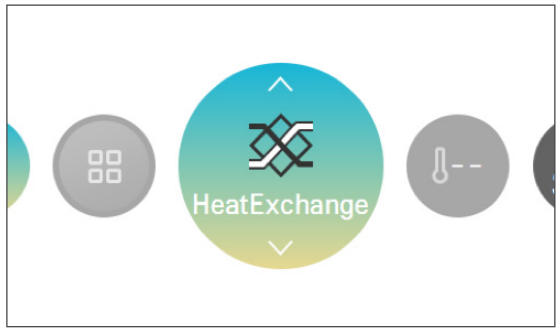
<Ventilation mode>

❉ Ventilation product means general ventilation product and direct expansion ventilation product.

14. LCD Wired Remote Control

2) Operation mode

• In the main screen, press [< , >(left/right)] button to select the operation mode category, and press [∧, ∨ (up/down)] button to set the operation mode.



■ Ventilation operation mode (general / direct expansion ventilation product)

Mode	Description
Auto	It automatically operates in the optimum ventilation mode by measuring the indoor/outdoor air temperature of the ventilation system.
Heat Exchange	It is the mode of ventilation with both supply/discharge through the heat exchanger. It is adequate to use in summer/winter where the indoor/outdoor temperature difference is big.
Bypass	It is the ventilation where the exhausted air is ventilated without going through the exchanger. It is adequate to use in spring/fall or when the indoor contamination is severe.

■ Air conditioner operation mode (direct expansion ventilation product)

Mode	Description
Cool	It cools down the room to desired temperature.
Heat	It provides warm wind to the room.
Auto	It automatically provides the appropriate fan speed based on the temperature of the room.
Stop	It stops the product's air conditioner operation.

Note :
• Some products may not support some operation modes.
• The air conditioner operation mode is composed separately from the ventilation operation mode.

14. LCD Wired Remote Control

3) Fan speed control

- In the main screen, press [< , >(left/right)] button to select the fan speed category, and press [∧, ∨(up/down)] button to set the fan speed.
  It circulates in the order of 'low ↔ high ↔ power ↔ auto'.

❉ The auto Fan can be used only when the air contamination (CO2) sensor is installed.

4) Returning to the screen

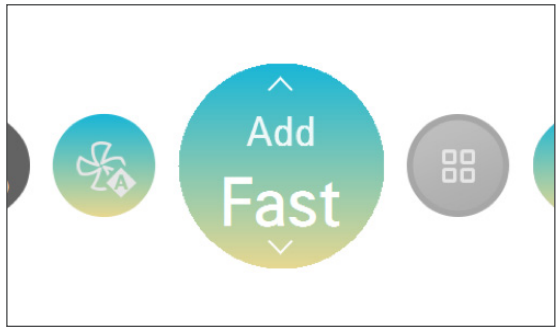
- In the main screen, after moving to the category by pressing [< , >(left/right)] button, if there is no remote controller operation, after 10 seconds, it returns to the main screen basic position. (basic position: indoor temperature display part)
- In the screens except the main screen, if there is no remote controller operation for 1 minute, it moves to the main screen.

14.1.3 Additional Function

1) Fast/Energy saving ventilation mode

It is a function to operate ventilation function more efficiently through the ventilation additional functions, fast / energy saving settings.

- In the main screen, press [< , >(left/right)] button to select the additional operation category, and press [∧, ∨ (up/down)] button to set the additional operation.



Additional Operation	Description
Fast	It ventilates in short period of time. It is the function to operate the ventilation function more efficiently through the express setting which is an additional operation of the ventilation product.
Energy saving	It performs the energy saving function while ventilating efficiently.

Note :

- The general ventilation and the direct expansion ventilation's additional operation are the same.
- The ventilation product's additional functions (air cleaning / heater / humidification / fan auto) setting methods are the same as the air conditioner.

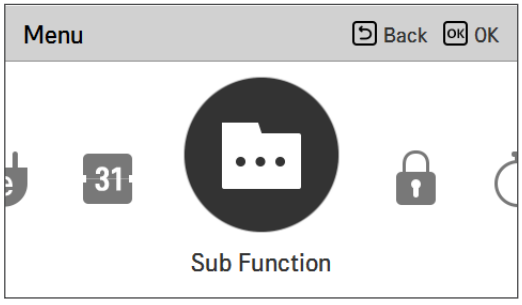
14. LCD Wired Remote Control

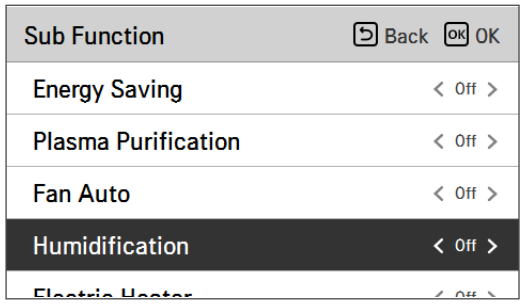
2) Humidification operating mode

It is the function to activate the humidifier installed in the product when the indoor air is dry.

■ Additional function setting list

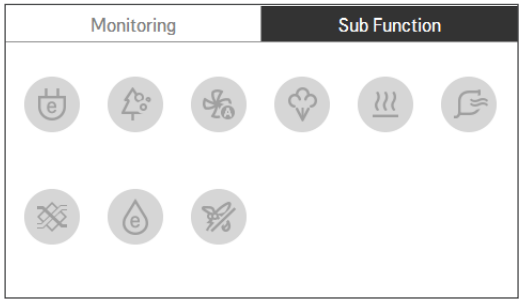
- In the menu screen, press [< , >(left/right)] button to select the additional function category, and press [OK] button to move to the additional function setting list screen.
- In the additional function setting list screen, if you press [∧, ∨ (left/right)] button, you can turn on/off the corresponding additional function.

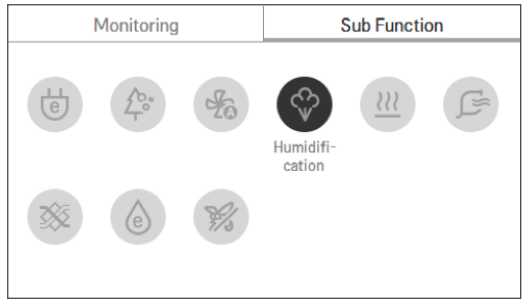




■ Additional function screen

- In the main screen, press [Back] button to move to the monitoring/additional function screen, and press [< , >(left/right)] button to move to the additional function screen.
- In the additional function screen, select the additional function category to set, and if you press [OK] button, you can turn on/off the corresponding function.





Note :

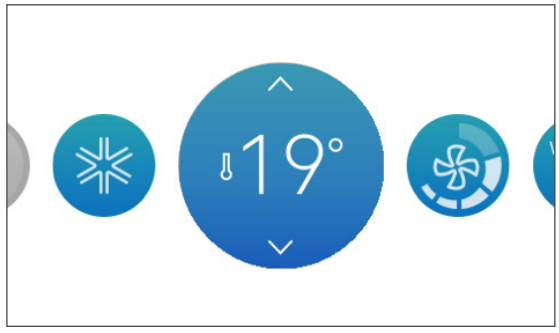
- Humidification function might not be operated at the partial product.
- When you choose heating operating mode, humidity mode is automatically selected.

14. LCD Wired Remote Control

3) Temperature setting / Room Temperature check

You can easily control to the desired temperature and check the current indoor temperature.

- In the main screen, press [< , >(left/right)] button to select the desired temperature category, and press [∧, ∨(up/down)] button to set the desired temperature.
- In the cooling, heating, and AI/auto mode, the desired temperature control is possible.



Mode	Description
Cool	If the desired temperature is higher than the indoor temperature, the cooling is not performed. Set the desired temperature lower than the indoor temperature. You can select in the range of 18°C ~ 30°C (16°C ~ 30°C).
Heat	If the desired temperature is lower than the indoor temperature, the heating is not performed. Set the desired temperature higher than the indoor temperature. You can select in the range of 16°C ~ 30°C.
AI / Auto	For cooling/heating product, you can select in the range of 18°C ~ 30°C. For cooling exclusive product, you can select Hot, A little hot, Adequate, A little Cold, and Cold.

Note :

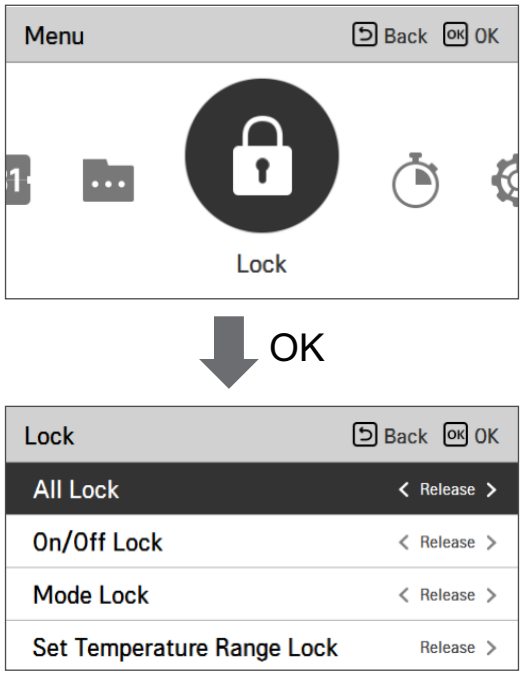
- 5°C is proper for the difference between room and outside temperature.
- Ventilation unit can't make room temperature reach to the set temperature because the air is supplied from outdoor.
- General ventilation in single operation cannot control room temperature. If this is needed, do not install the ventilation unit alone, but rather install another indoor unit.

14. LCD Wired Remote Control

14.1.4 Locking Setting

It is the function to lock the button operation of the remote controller so that children or other persons cannot use it without permission.
It is the function to limit the desired temperature range that can be set in the wired remote controller.

- In the menu screen, press [< , >(left/right)] button to select “lock setting” category, and press [OK] button to move to the lock setting list screen.
- In the lock setting list, if you press [∧, ∨(up/down)] button, you can turn on/off the corresponding lock function.



Lock	Description
All lock	It locks all button operation of the remote controller.
On/Off lock	It locks the On/Off button operation of the remote controller.
Mode lock	It locks the operation mode button operation of the remote controller.
Temperature range lock	It is the function that can limit the range of the desired temperature that can be set in the wired remote controller. It works as soon as you press the [∧, ∨(up/down)] Lower limit: 16°C~30°C Upper limit: 18°C~30°C

Note :

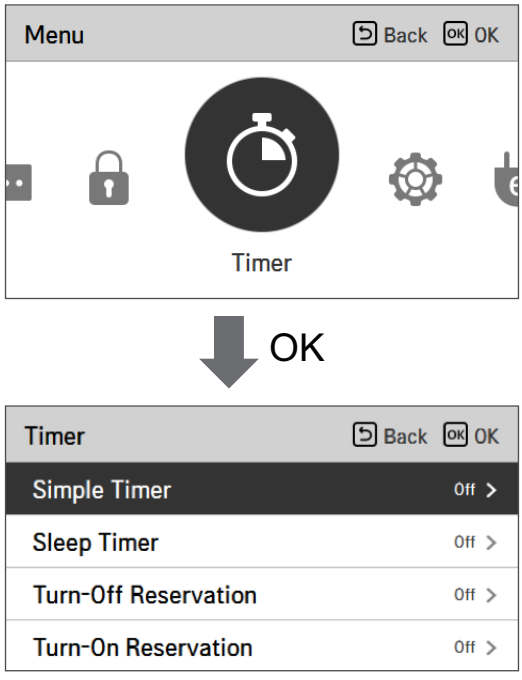
- In the central controller, when the central control temperature range lock is set, the wired remote controller’s temperature lock setting is cleared.
- The temperature change by external equipment is reflected regardless of the remote controller temperature range lock.

14. LCD Wired Remote Control

14.1.5 Timer Setting

1) Timer entrance and setting method

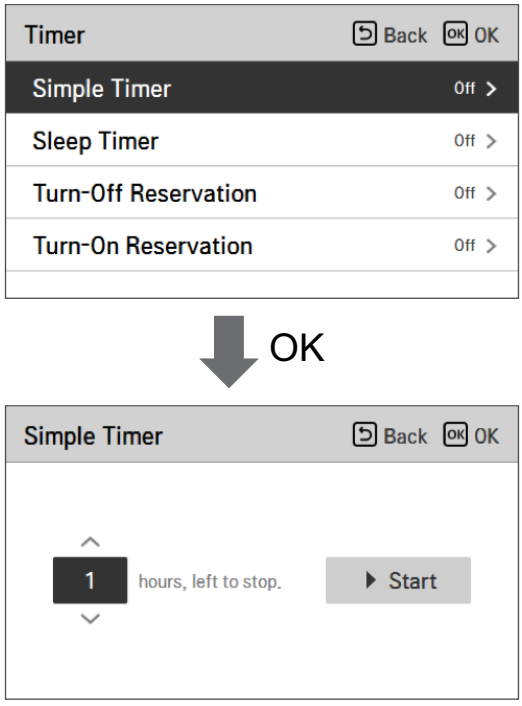
- In the menu screen, press [< , >(left/right)] button to select the timer category, and press [OK] button to move to the timer setting list screen.
- In the timer setting list screen, press [∧, ∨(up/down)] button to select the timer to set, and press [OK] button to move to the detail screen.
- After setting the value, when you press [OK] button, the timer is activated.
- After setting the value, if you press [Back] button, the changed value will not be reflected.



14. LCD Wired Remote Control

2) Simple timer

You can easily set the timer in the range of 1~7 hours in the units of 1 hour.

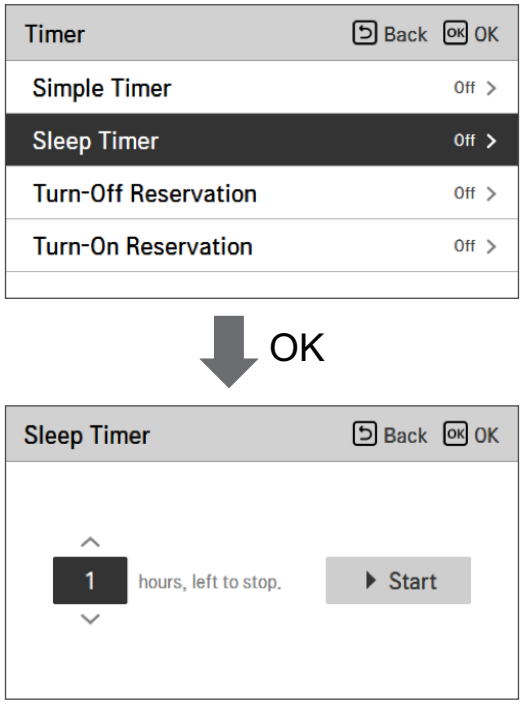


Notes :

- If the product operation is On, the easy timer turns off the operation after the corresponding time.
- If the product operation is Off, the easy timer turns on the operation after the corresponding time.
- If the easy timer operation is turned On/Off before the timer operation, the set timer will be cleared.

3) Sleep timer

Sleep timer is the function to operate the air conditioner in sleep mode before going to sleep for certain hours and stop the operation.

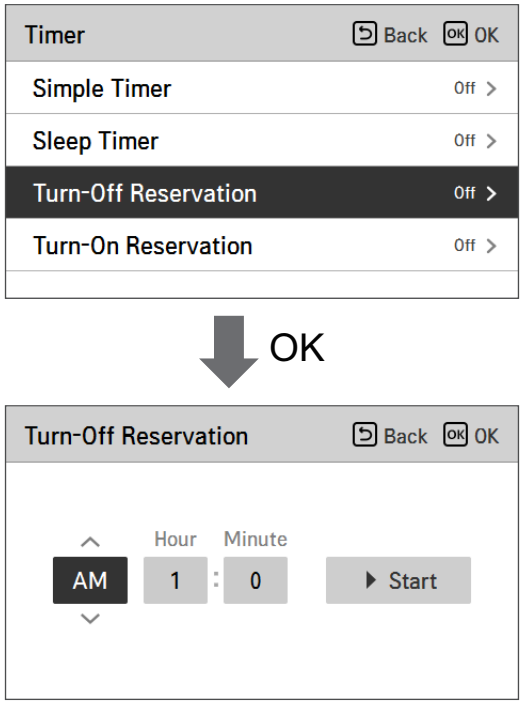


Notes :

- You can set the sleep timer while the product is in operation.
- If the sleep timer operation is turned On before the timer operation, the set timer will be cleared.

4) Turn-off Reservation

The product is automatically turned Off at the set timer time.

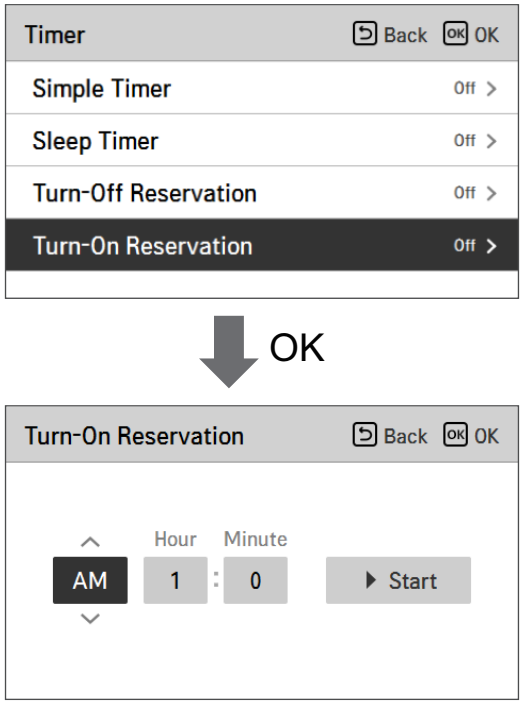


Notes :

- Even if the Turn-off Reservation operation is turned On/Off after the setting and before the timer operation, the set timer is not cleared.

5) Turn-on Reservation

The product is automatically turned On at the set timer time.



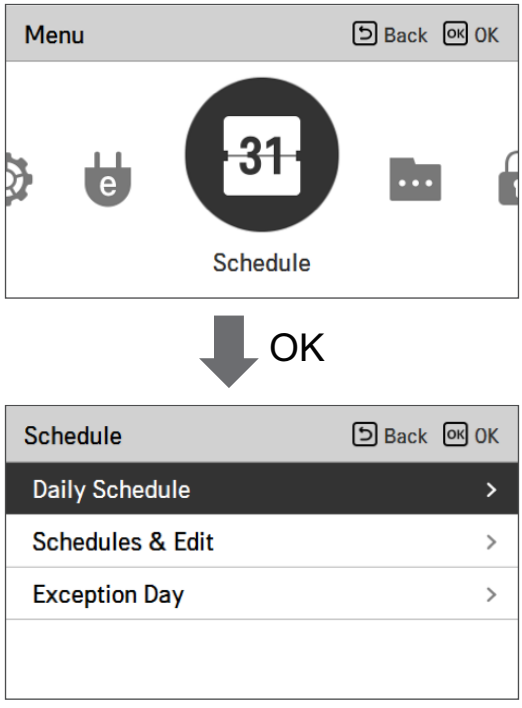
Notes :

- Even if the Turn-on Reservation operation is turned On/Off after the setting and before the timer operation, the set timer is not cleared..

13.1.6 Schedule setting

1) How to enter schedule

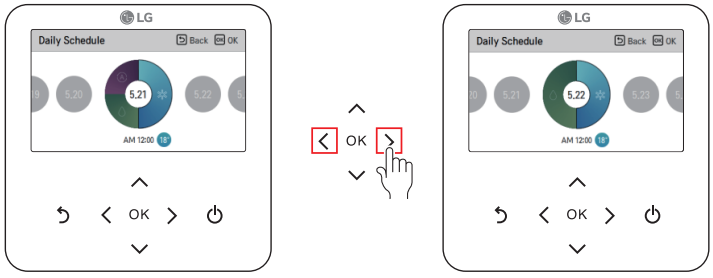
- In the menu screen, press [< , >(left/right)] button so select the schedule category, and press [OK] button to move to the schedule setting list screen.
- In the schedule setting list screen, press [∧, ∨(up/down)] button to select the menu to set, and press [OK] button to move to the detail screen.



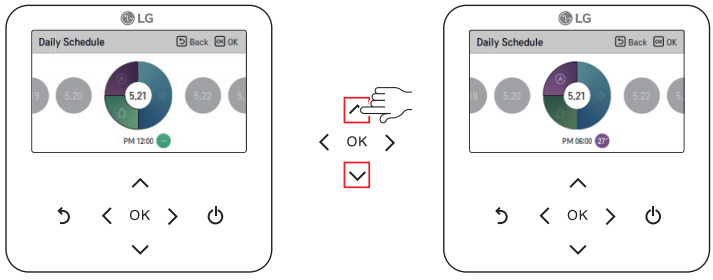
2) Daily schedule

It is the function that can check the status of the timer (schedule) saved in the remote controller.

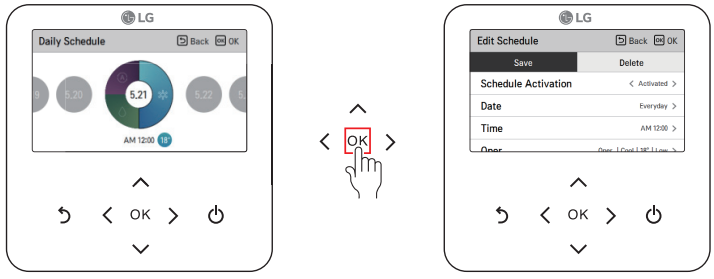
- In the schedule list, select the daily schedule status category, and press [OK] button to move to the detail daily schedule status screen.
- You can use the remote controller's [< , >(left/right)] button to check the timer information of other dates.



- You can use the remote controller's [∧,∨(up/down)] button to check the corresponding date's other timer information.



- Select the timer information, and press [OK] button to move to the corresponding timer's edit screen.

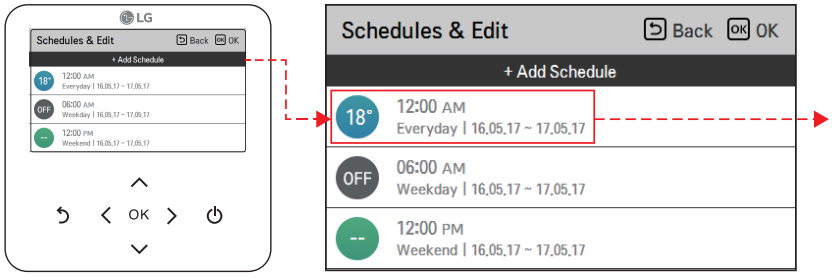


14. LCD Wired Remote Control

3) Schedules & Edit

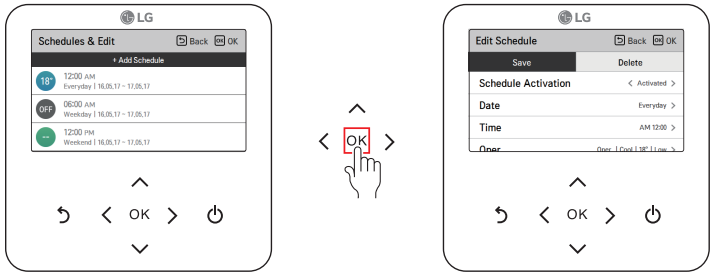
It is the function that can check the status of the timer (schedule) saved in the remote controller.

- In the schedule list, select the daily schedule status category, and press [OK] button to move to the daily schedule status detail screen.
- You can use the remote controller's [< , >(left/right)] button to check other date's timer information.



You can check the set timer's operation information (operation On/Off, operation mode, desired temperature), timer time, period, and day of week.

- You can edit the saved schedule's timer information.
  - Select the schedule to edit using [∧, ∨(up/down)] button, and press [OK] button to move to the edit screen.



- Select the timer information, and press [OK] button to move to the corresponding timer's edit screen.

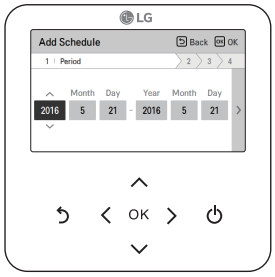
< If schedule is changed >

< If schedule is deleted >

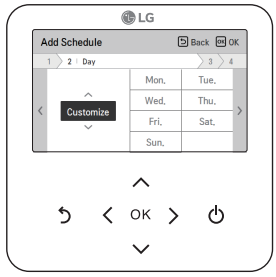
14. LCD Wired Remote Control

4) Schedules & Edit – Add Schedule

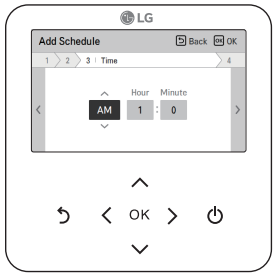
• Description of each stage in Add schedule



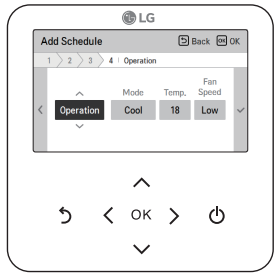
Stage 1. Period setting



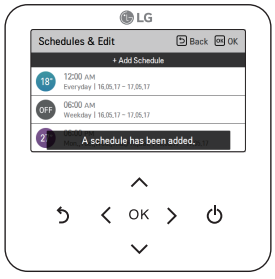
Stage 2. Day of week setting



Stage 3. Time setting



Stage 4. Operation setting



Add schedule is completed

Category	Description
Stage 1	It sets the period to perform the timer.
Stage 2	It sets the day of week to perform the timer. - You can select ‘Everyday / Weekend / Weekdays / Individual selection’.
Stage 3	It sets the start time for the timer.
Stage 4	It sets the timer operation information. - If ‘Stop’ is selected, you cannot set the mode / temperature / fan speed.

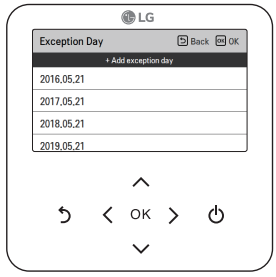
* When stages 1~4 are completed, along with the message of ‘schedule is added’, it moves to View and edit schedule screen.

14. LCD Wired Remote Control

5) Exception day

It is the function to automatically stop the operation on the set timer day.

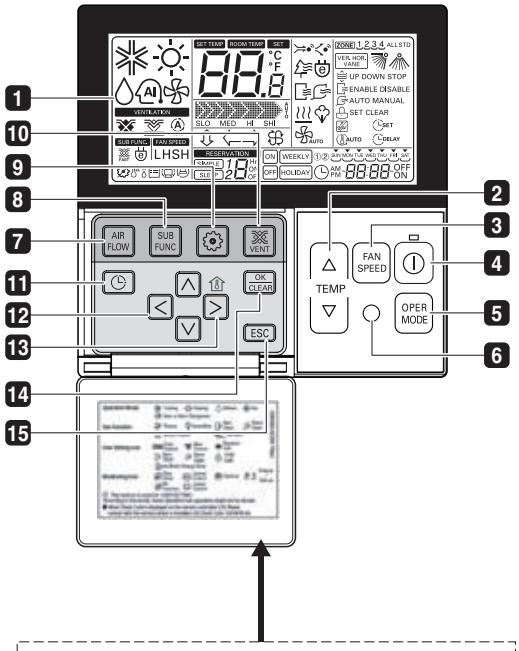
- In the schedule list, select the exception day category, and press [OK] button to move to the Exception day designation detail screen.
- In the exception day, you can check, and add/change/delete the exception day information saved in the remote controller.
  - To add an exception day, in the Exception day registration detail screen, designate year/month/day, and press [OK] button to save the Exception day.
  - Select the Exception day to edit using [∧, ∨(up/down)] button, and press [OK] button to move to the edit screen.



- In the exception day edit screen, you can check, delete/change the corresponding exception day's setting contents.
- When you change the exception day information, you need to save it after the change.

14. LCD Wired Remote Control

14.2 Operating Instruction (Accessory) - PQRCVSL0 / PQRCVSL0QW



Please attach the inform label inside of the door.
Please choose proper language depend on your country.

1 OPERATION INDICATION SCREEN

2 SET TEMPERATURE BUTTON

3 FAN SPEED BUTTON

4 ON/OFF BUTTON

5 OPERATION MODE SELECTION BUTTON

6 WIRELESS REMOTE CONTROLLER RECEIVER

- Some products don't receive the wireless signals.

7 AIR FLOW BUTTON

8 SUBFUNCTION BUTTON

9 FUNCTION SETTING BUTTON

10 VENTILATION BUTTON

11 RESERVATION

12 UP,DOWN,LEFT,RIGHT BUTTON

- To check the indoor temperature, press button.

13 ROOM TEMPERATURE BUTTON

14 SETTING/CANCEL BUTTON

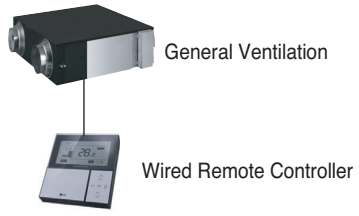
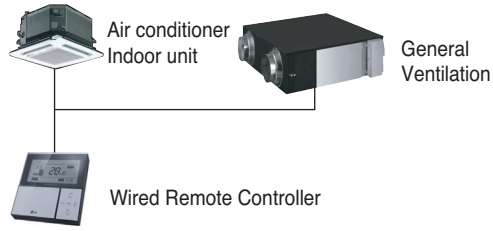
15 EXIT BUTTON

※ Some functions may not be operated and displayed depending on the product type.

14. LCD Wired Remote Control

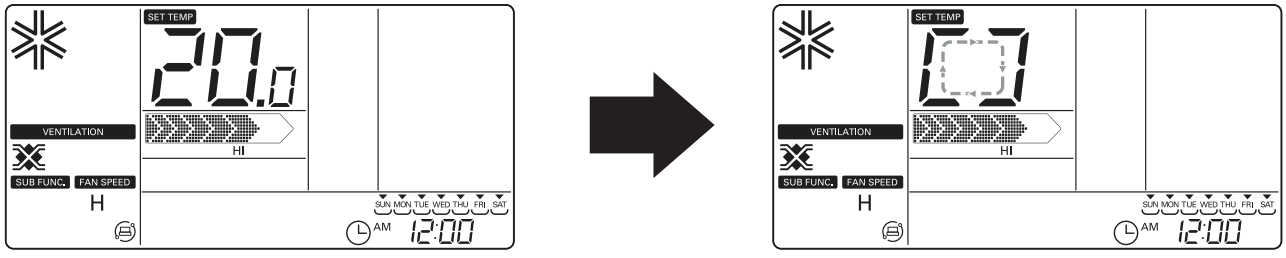
14.2.1 Ventilation operating scene and ventilation operation method

1. Control using remote controller where air conditioner indoor unit and the ventilation product is installed at the same time.

Single Operation	Interlinked Operation
	

❉ Connecting wires is the same as air conditioner user manual. (Refer to page about Group control)

2. Press 'Ventilation' button on the wired remote controller and enter Ventilation control mode to check the operation of ventilation product.



3. To convert back to air conditioner mode, press 'Ventilation' button at the ventilation mode.

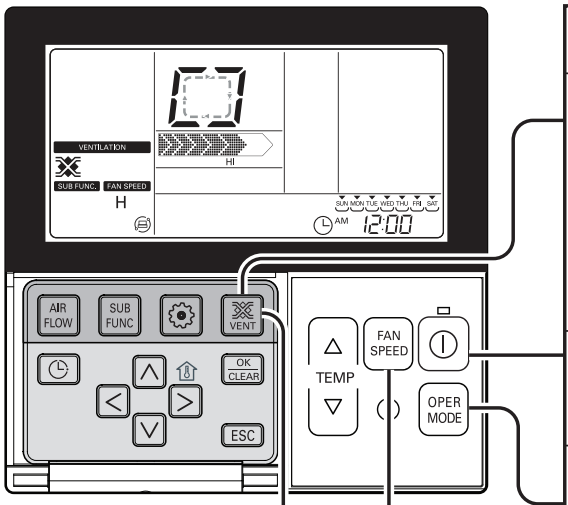
- If no button pressed for 15 seconds or more at ventilation mode, it automatically converts back to air conditioner mode.
- Ventilation product represent general ventilation product and direct expansion ventilation product.

14. LCD Wired Remote Control

14.2.2 Interlinked operation with general ventilation

It is used when air conditioner is interlinked with ventilation product.

It is a function that cools and refreshes indoor air using the ventilation product at the same time operating the air conditioning function.



Ventilation interlinked operation

1 Press VENT button on the remote controller control panel.
- It is only used when air conditioner and general ventilation is interlinked.('Interlinked operation' displayed on the remote controller display)

2 Pressing 'Start/Stop' button at ventilation mode will start ventilation.

3 Pressing OPER MODE button will change the ventilation operation mode.
Pressing operation selection button will change the mode in the order of 'Heat exchange ' normal ' automatic'
❊ It only displays on the remote controller display when it is in ventilation mode, and it displays the desired temperature when it returns to air condition mode.

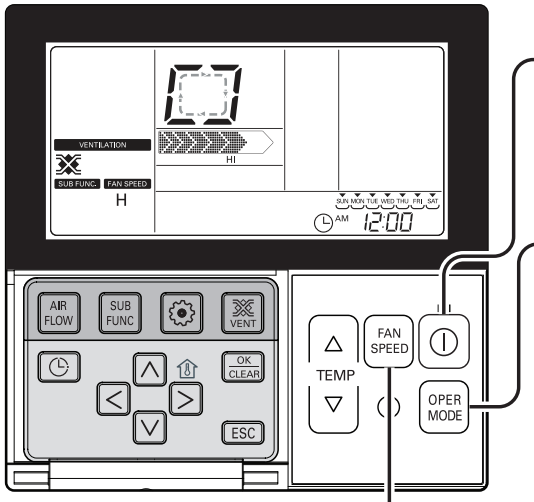
4 Pressing FAN SPEED button in general ventilation mode will change airflow speed.
Pressing airflow speed button will change the mode in the order of 'weak ' strong ' extra strong'.
If CO_2 sensor is installed, it can select from 'weak ' strong ' very strong ' automatic'.

5 Changing back to air conditioner mode
1)Automatic Conversion : when no button is pressed for 15 seconds or longer, it automatically converts back to air conditioner mode.
2) Manual Conversion : Pressing VENT button in ventilation mode will manually convert.

14. LCD Wired Remote Control

14.2.3 Single operation with general ventilation

It is a function to cool and refresh the indoor air using general ventilation product.



Ventilation single operation

1 Press ⏻ button on the remote controller.

2 Pressing OPER MODE button will change the ventilation mode.

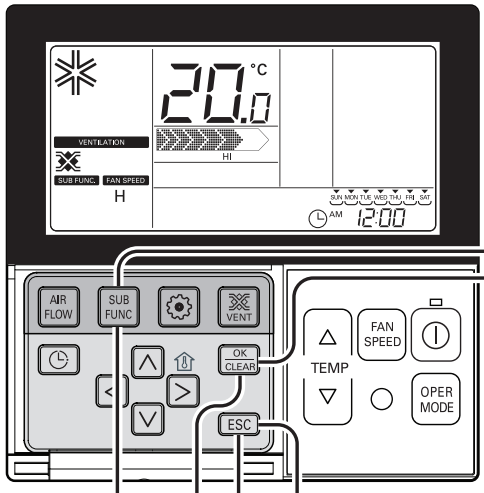
Ventilation mode	Remote Controller Display	Contents
Heat exchange		Circulate indoor air without loss of heat
Normal		Directly circulate indoor air without going through heat exchanger
Automatic		Circulate indoor air with automatically comparing indoor and outdoor air

3 Pressing FAN SPEED button will change the strength of the wind
- Pressing the button can select from 'weak ’ strong ’ very strong'.
- If CO_2 sensor is installed, it can select from 'weak ’ strong ’ very strong ’ automatic'.

14. LCD Wired Remote Control

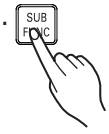
14.2.4 Fast/Energy saving ventilation mode

It is a function to operate ventilation function more efficiently through the ventilation additional functions, fast / power saving settings.

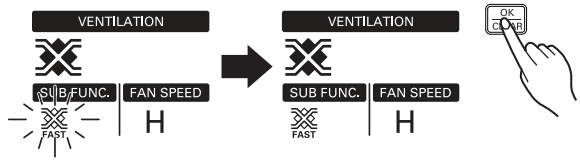


Fast : ventilates fast

1 Press SUB FUNC button in ventilation mode.
- It converts in the order of 'fast → power saving' in ventilation mode.



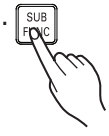
2 'Fast' is blinking on the display, and pressing OK CLEAR button will stabilize 'fast' icon, and the function is set.



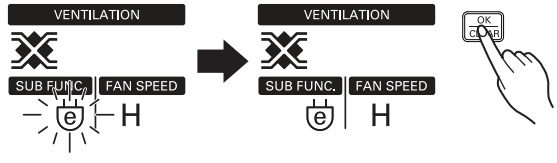
3 Pressing ESC button will exit the settings.

Power Saving : efficiently ventilates and performs power savings.

1 Press SUB FUNC button in ventilation mode.
- It converts in the order of 'fast → power saving' in ventilation mode.



2 'Power Saving' is blinking on the display, and pressing OK CLEAR button will stabilize 'Power Saving' icon, and the function is set.



3 Pressing ESC button will exit the settings.

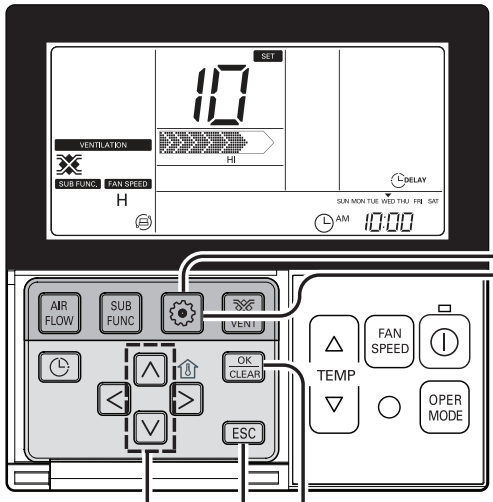
❊ General ventilation and direct expansion ventilation have the same additional functions.

❊ Ventilation/Heater/Humidifier additional function settings are the same as air conditioner.

14. LCD Wired Remote Control

14.2.5 Ventilation Product Function Setting

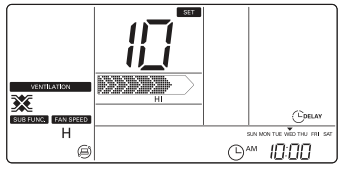
1) Delay Time Setting



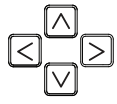
Delay Time : It operates after delay time in ventilation operation.

1 Press ⚙ Settings button.

2 Pressing ⚙ button repeatedly will move to the delay time menu.
Then delay time icon is displayed, and the delay time blinks at the temperature display area.



3 Pressing △ ▽ button will change the delay time settings.
❉ Boundary of delay time settings : 00 ~ 60 minutes (in the units of 1 minute)

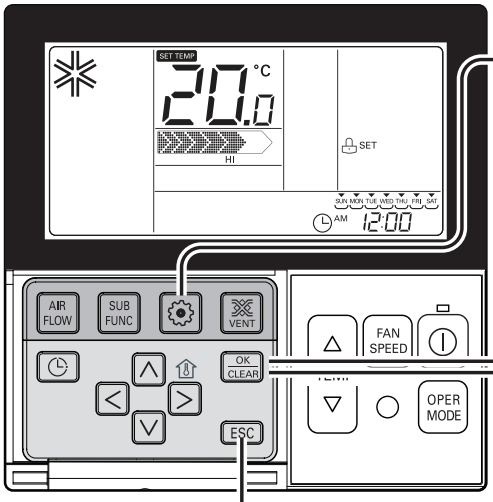


4 When the desired delay time is displayed, press OK CLEAR button to finish the settings.

5 Press ESC button when the setting is finished.
❉ If no button input for 1 minute after the setting, it exits the settings mode automatically.
❉ When exiting without pressing set button, the manipulated value is not reflected.

14. LCD Wired Remote Control

2) Child Lock Setting



1 Press ⚙ button repeatedly until the 🔒 is flashing.

2 If moving to 'setup' icon area by using < > button, 'setup' icon blinks, and child lock function is setup if pressing OK CLEAR button at that time.

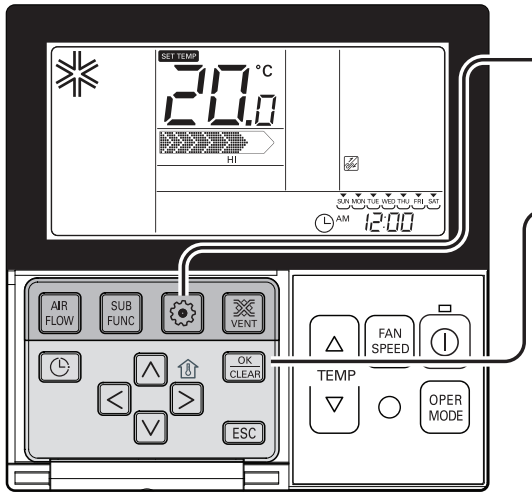
3 When cancelling lock function, if moving to 'cancel' icon by pressing < > button and then, pressing OK CLEAR button, child lock function is cancelled.

4 Press ESC button to exit.

❊ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.

❊ When exiting without pressing set button, the manipulated value is not reflected.

14.2.6 Filter Sign Clear



1 Press ⚙ button repeatedly until the 🧹 is flashing.

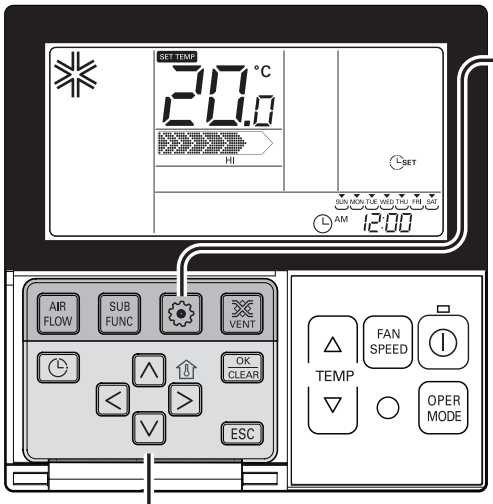
2 When the 🧹 is flashing, press the OK CLEAR to clear this display

• When filter is covered by dust, it will reduce cooling/heating efficiency and accumulate more electric power. Therefore. do clean the filter whenever cleaning time is expired.

❊ Filter cleaning indication is automatically cancelled without the separate cancellation after certain period of time.

14. LCD Wired Remote Control

14.2.7 Changing Current Time

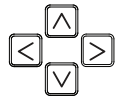


1 Please press function setup button. If pressing function setup button repeatedly, it moves to time setup menu. 'Time setup' icon is indicated at that time and date blinks at current time indication area.

Ex) Changing Current Time as 'Monday / AM 10:20'.

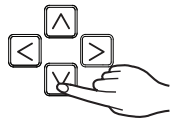
2 Press [<] [>] key to adjust the current day.

SUN MON TUE WED THU FRI SAT

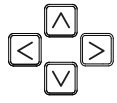


3 Press [V] key to move to AM/ PM setting mode (the 'AM/ PM segment will flash).

AM 12:00

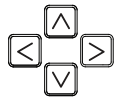


4 Setting AM/ PM value by pressing [^] [V] button.



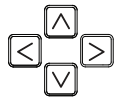
5 Press [<] [>] button to move to 'Hour' setting mode. (the 'Hour' segment will flash)

AM 12:00

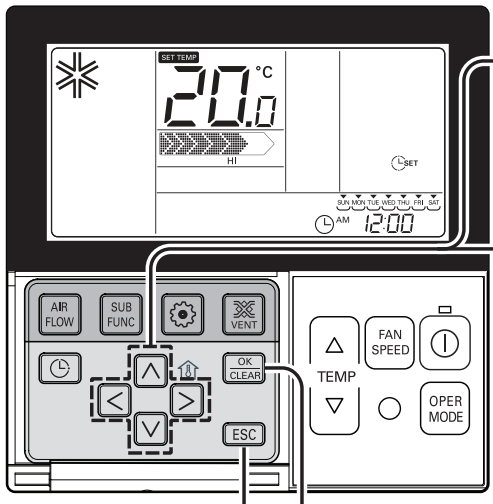


6 Setting Hour value by pressing [^] [V] button.

AM 10:00

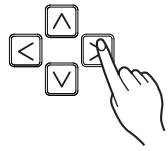


14. LCD Wired Remote Control



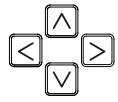
7 Press < > button to move to 'Minute' setting mode. (the 'Minute' segment will flash)

AM 10:00



8 Setting Minute value by pressing ∧ ∨ button.

AM 10:20



9 Press OK CLEAR button to finish.

AM 10:20

10 In the process, press ESC button to release and exit from setting mode.
(In case of exit with incomplete information, it will return to the previous setting)

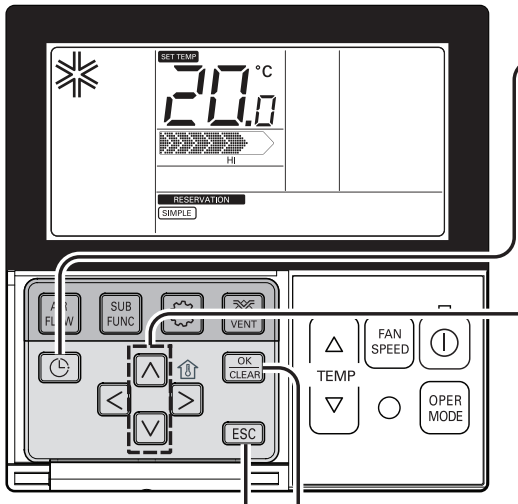
※ When exiting without pressing set button, the manipulated value is not reflected.

14. LCD Wired Remote Control

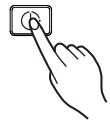
14.2.8 Ventilation Product Reservation Setting

1) Simple Timer

You can set the reservation conveniently in the units of 1 hour from 1 hour to 7 hours.



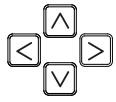
1 Press ⏲ button to enter the Programming mode.
(the SIMPLE segment flashing)



Ex) Setting Simple Reservation time as '3'.

2 Press ∧ ∨ button to adjust reservation time.

1 → 3



3 Press OK CLEAR button to finish setting.

3

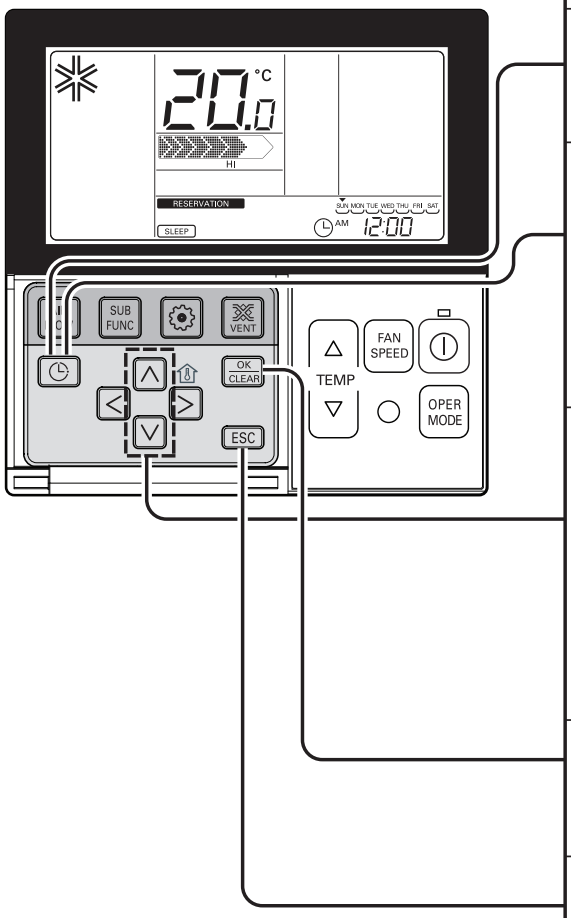
4 Press ESC button to exit.

❊ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.

❊ When exiting without pressing set button, the manipulated value is not reflected.

14. LCD Wired Remote Control

2) Sleep Timer



Sleep Reservations : Sets to operate ventilation lightly during the sleep.

1 Press ⏲ button to enter the reservation settings mode.

2 Press ⏲ button again to move to Sleep. 'Sleep' icon blinks and the reservation time is displayed.

RESERVATION
SLEEP 0 Hr.

3 Use ∧ ∨ button to set the reservation time.
Reservation time can be set between 1 ~ 12 hours.

RESERVATION
SLEEP 0 Hr. ➡ RESERVATION
SLEEP 7 Hr.

4 When Sleep reservation setting is finished, press OK CLEAR button.

5 Pressing ESC button will exit the settings mode.

❊ If no button input for 60 seconds after the setting, it exits the settings mode automatically.

❊ When exiting without pressing set button, the manipulated value is not reflected.

- When the reservation is set, 'Sleep' is displayed at the bottom of LCD screen.

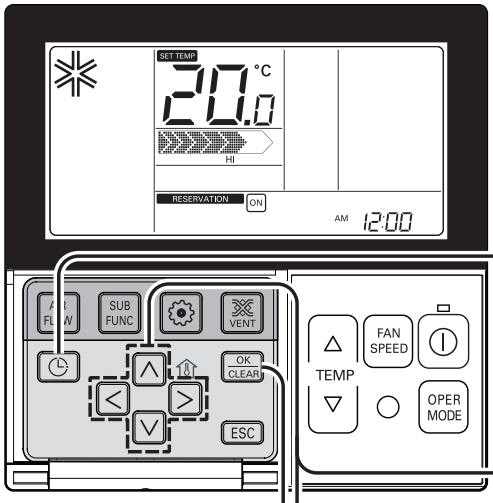
RESERVATION
SLEEP
SUN MON TUE WED THU FRI SAT
AM 12:00

- When the reservation is cancelled, 'Sleep' mark disappears.

6 When the sleep reservation setting is finished, it operates lightly for the set time.

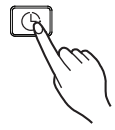
14. LCD Wired Remote Control

3) Turn-On Reservation



1 Press ⏲ button.

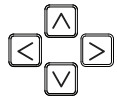
Ex) Setting ON Reservation
Time as 'AM 10:20'.



2 Repeat pressing ⏲ button to enter the ON reservation setting mode.
(ON segment flashing)

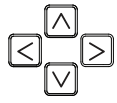
3 Press △ ▽ button to adjust AM/ PM setting.

AM 12:00

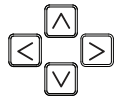


4 Press < > button to Hour setting mode. When the Hour icon flash, please setting time.
The setting range is within 1~12.

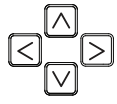
AM 12:00



AM 10:00

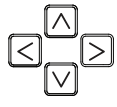


5 Press < > button to shift to Minute setting mode. When the Minute icon flash, please setting minute the setting range is within 00~59.



AM 10:00

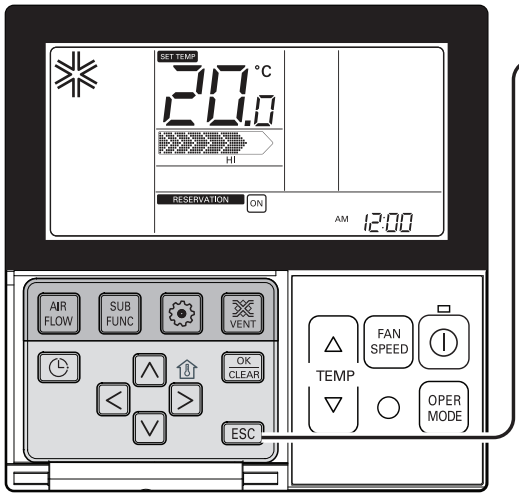
AM 10:20



6 Press OK CLEAR button to finish setting.

AM 10:20

14. LCD Wired Remote Control

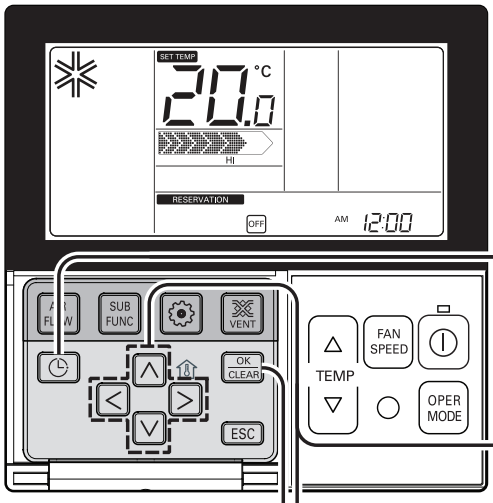


7 Press ESC button to exit.

- ❊ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.
- ❊ When exiting without pressing set button, the manipulated value is not reflected.
  - If reservation is set, 'turned on' indication shows up at the lower part of LCD screen, and air-conditioner product runs at the time that is set.
  - If reservation is cancelled, 'turned on' indication disappears.

14. LCD Wired Remote Control

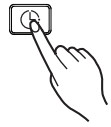
4) Turn-Off Reservation



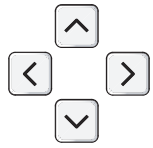
1 Press ⏲ button.

Ex) Setting OFF Reservation
Time as 'AM 10:20'.

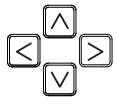
2 Repeatedly pressing ⏲ button to enter the OFF reservation setting mode.
(OFF segment flashing)

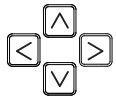


3 Press ∧ ∨ button to adjust AM/ PM setting.

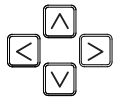


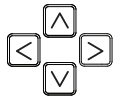
4 Press < > button to shift to Hour setting mode. When the Hour icon flash, please setting time.
The setting range is within 1~12.





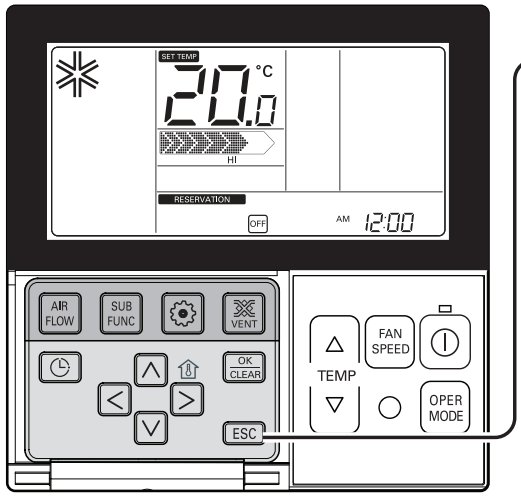
5 Press < > button to shift to Minute setting mode. When the Minute icon flash, please setting minute the setting range is within 00~59.





6 Press OK CLEAR button to finish setting.

14. LCD Wired Remote Control



7 Press ESC button to exit.

- ❊ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.
- ❊ When exiting without pressing set button, the manipulated value is not reflected.
  - If reservation is set, 'turned off' indication shows up at the lower part of LCD screen, and air-conditioner product runs at the time that is set.
  - If reservation is cancelled, 'turned off' indication disappears.

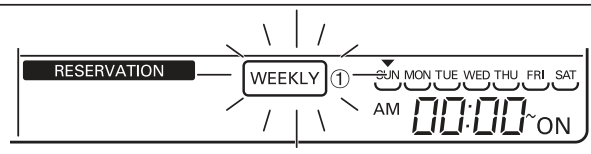
14. LCD Wired Remote Control

5) Weekly Reservation

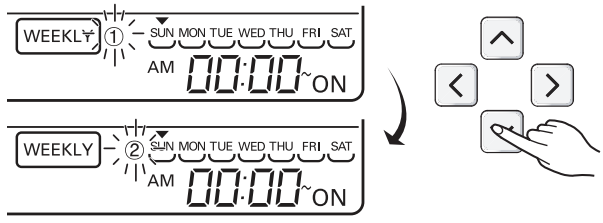
You can set the daily reservation in weekly unit.
Weekly reservation keeps operating until before you cancel it once you setup

1 Please move to reservation setup mode by pressing reservation button.
❊ You can setup two weekly reservations for one day, and up to fourteen reservations for a week.
For example, to setup (Tuesday morning 11:30 turned on ~ afternoon 12:30 turned off), you setup in order below.

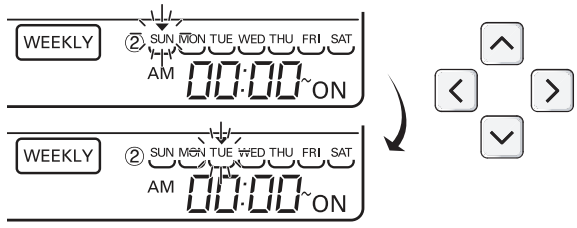
2 Please move to 'weekly' by repeatedly pressing reservation button. 'Weekly' blinks at this time.



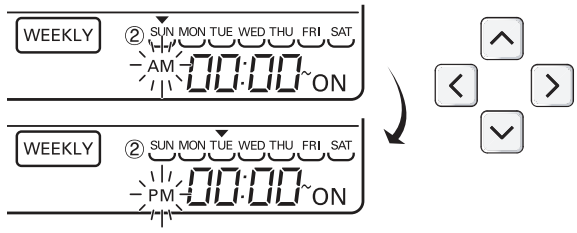
3 Please select weekly reservation ① or weekly reservation ② by using ∧ ∨ button.
❊ You can setup two reservations, weekly reservation 1 and weekly reservation 2, for a day.



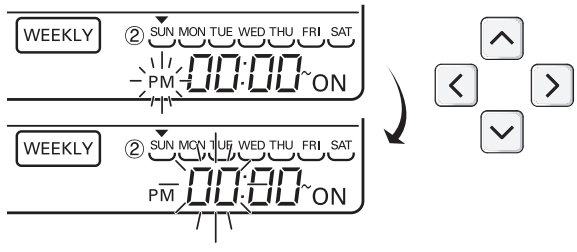
4 Please move to 'date' setup part by using < > button. If 'date' indication blinks, please setup date. You can setup date from Monday to Sunday.



5 Please move to 'AM/PM' setup part of turning on by using ∧ ∨ button.



6 Please move to 'hour' setup part of turning on by using < > button.
- It is the part to setup the time at which air-conditioner is turned on.

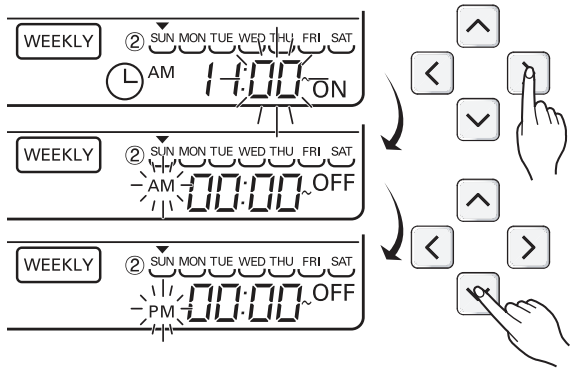


7 Please change time by using ∧ ∨ button.
- You can setup hour 0~12.

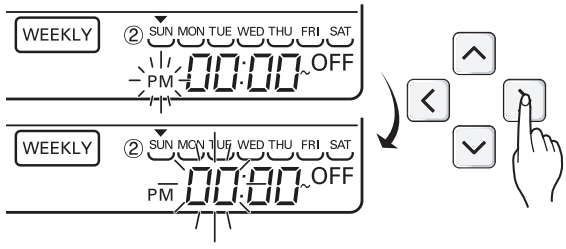
8 Please move to 'minute' setup part of turning on by using > button.

9 If 'minute' indication blinks, please setup 'minute' by using ∧ ∨ button

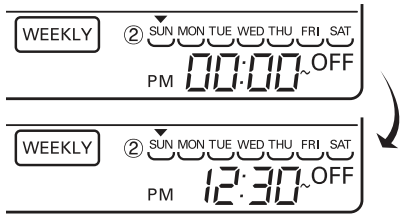
10 Please move to 'AM/PM' setup part of turning off by using [>] button.
- AM/PM setup is identical with turning on time setup.



11 Please move to 'hour' setup part of turning off by using Right button.
- It is the part to reserve the time at which air-conditioner is turned off.
- If 'hour' indication blinks, please setup 'hour'.



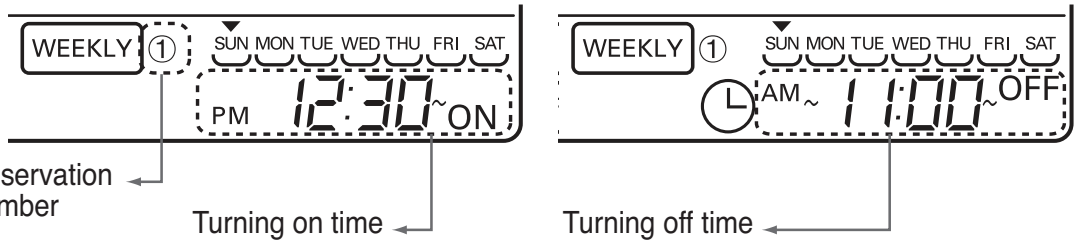
❊ Please setup 'hour' and 'minute' identically with the method to setup turning on time.



12 If finishing weekly reservation setup, please press setup/cancellation button. Weekly reservation setup for the day that you set is finished.

13 If you setup with the method identical with above by selecting the day that you'd like to setup, it operates weekly reservation.
If you setup both turning on reservation time and turning off reservation time identically, it doesn't operate reservation drive.

Weekly reservation explanation

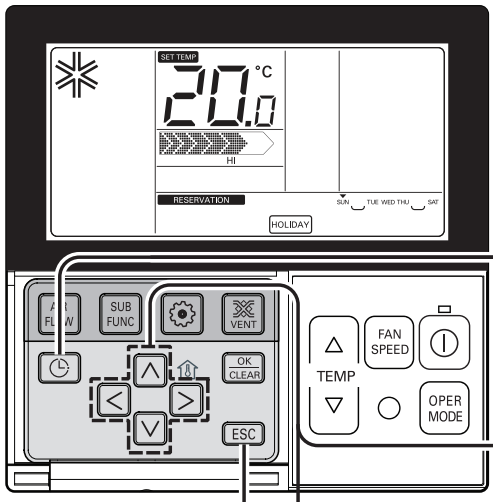


SUN MON TUE WED THU FRI SAT
← Under bar: the indication that there is weekly reservation for corresponding day

14. LCD Wired Remote Control

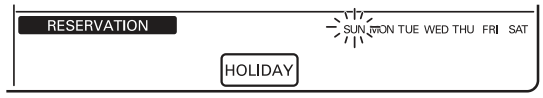
6) Holyday Reservation

It automatically stops at reserved day that you set.

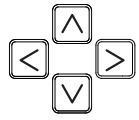


1 Please press ◷ button.
It enters into reservation setup mode.

2 Please move to 'holiday' by repeatedly pressing ◷ button.



3 Please move to 'date' that you want to setup holiday by using < > button.



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SUN MON TUE WED THU FRI SA

4 Please appoint or cancel holiday by using ∧ ∨ or OK CLEAR button.
For example, when you setup Monday/Friday to holiday
- 'Monday', 'Friday' letter disappears.

5 Please press ESC button if finishing holiday setup.

❊ If it comes to appointed holiday, air-conditioner automatically stops. Once you setup holiday appointment, until before you cancel holiday setup, air-conditioner automatically stops within one hour even though you run air-conditioner.

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Life's Good

P/No.: MFL63726405

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Printed in Korea June / 2022

The air conditioners manufactured by LG have received ISO9001 certificate for quality assurance and ISO14001 certificate for environmental management system.
The specifications, designs, and information in this brochure are subject to change without notice.