

INSTALLATION MANUAL

AIR CONDITIONER

Please read this installation manual completely before installing the product.
Installation work must be performed in accordance with the national wiring standards by authorized personnel only.
Please retain this installation manual for future reference after reading it thoroughly.

Multi V Fresh Air Intake Unit

Original instruction



MFL69440014
Rev.02_072120

www.lghvac.com

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IMPORTANT!

Please read this instruction sheet completely before installing the product.

This air conditioning system meets strict safety and operating standards. As the installer or service person, it is an important part of your job to install or service the system so it operates safely and efficiently.

WARNING

- The information contained in the manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.
- Failure to carefully read and follow all instructions in this manual can result in equipment malfunction, property damage, personal injury and/or death.

Caution: Improper installation, adjustment, alteration, service or maintenance can void the warranty. The weight of the condensing unit requires caution and proper handling procedures when lifting or moving to avoid personal injury. Use care to avoid contact with sharp or pointed edges.

Safety Precautions

- Always wear safety eye wear and work gloves when installing equipment.
- Never assume electrical power is disconnected. Check with meter and equipment.
- Keep hands out of fan areas when power is connected to equipment.
- R-410A causes frostbite burns.
- R-410A is toxic when burned.

Note to installing dealer: The Owners Instructions and Warranty are to be given to the owner or prominently displayed near the indoor Furnace/Air Handler Unit.

WARNING

When wiring:

Electrical shock can cause severe personal injury or death. Only a qualified, experienced electrician should attempt to wire this system.

- Do not supply power to the unit until all wiring and tubing are completed or reconnected and checked.
- Highly dangerous electrical voltages are used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause accidental injury or death.
- Ground the unit following local electrical codes.
- Connect all wiring tightly. Loose wiring may cause overheating at connection points and a possible fire hazard.

When transporting:

Be careful when picking up and moving the indoor and outdoor units. Get a partner to help, and bend your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut your finger.

When installing...

- ... **in a wall:** Make sure the wall is strong enough to hold the unit's weight. It may be necessary to construct a strong wood or metal frame to provide added support.
- ... **in a room:** Properly insulate any tubing run inside a room to prevent "sweating" that can cause dripping and water damage to wall and floors.
- ... **in moist or uneven locations :** Use a raised concrete pad or concrete blocks provide a solid, level foundation for the outdoor unit. This prevents water damage and abnormal vibration.
- ... **in an area with high winds:** Securely anchor the outdoor unit down with bolts and a metal frame. Provide a suitable air baffle.
- ... **in a snowy area(for Heat Pump Model):** Install the outdoor unit on a raised platform that is higher than drifting snow. Provide snow vents.

When connecting refrigerant tubing:

- Keep all tubing runs as short as possible.
- Use the flare method for connecting tubing.
- Check carefully for leaks before starting the test run.

When servicing:

- Turn the power OFF at the main power box(mains) before opening the unit to check or repair electrical parts and wiring.
- Keep your fingers and clothing away from any moving parts.
- Clean up the site after you finish, remembering to check that no metal scraps or bits of wiring have been left inside the unit being serviced.

TABLE OF CONTENTS

4 FEATURES

5 SAFETY INSTRUCTIONS

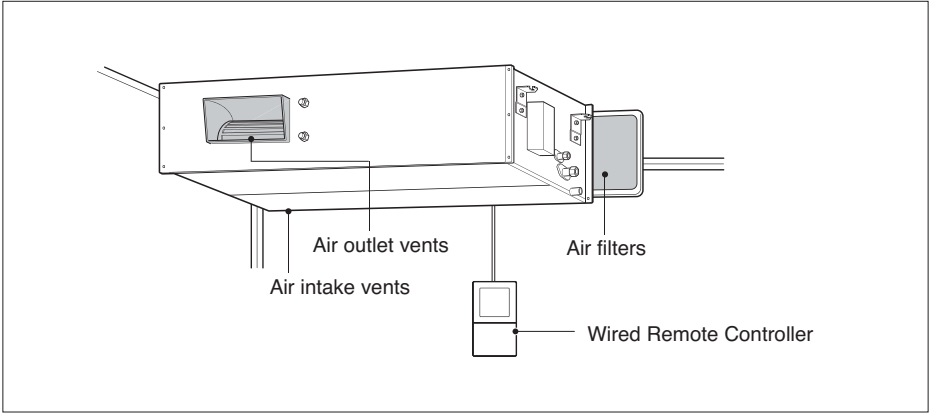
8 INSTALLATION

- 8 Installation Limit
- 11 Selection of the best location
- 12 Ceiling dimension and hanging bolt location
- 13 Indoor Unit Installation
- 13 Wiring Connection
- 16 Flaring work
- 16 Checking the Drainage
- 17 Indoor Unit Drain Piping
- 19 DIP Switch Setting
- 20 Group Control Setting
- 24 Airborne Noise Emission
- 24 Limiting concentration

25 CAPACITY TABLES

28 EXTERNAL STATIC PRESSURE AND AIR FLOW CHARTS

Features



Installation Tool

Name	Drain hose	Clamp metal	Washer for hanging bracket	Clamp (Tie Wrap)	Insulation for fitting	Conduit mounting plate
Quantity	1 EA	2 EA	8 EA	4 EA	1 SET	1 EA
Shape					 for gas pipe  for liquid pipe	

Safety Instructions

The following safety guidelines are intended to prevent unforeseen risks or damage from unsafe or incorrect operation of the appliance.

The guidelines are separated into 'WARNING' and 'CAUTION' as described below.



This symbol is displayed to indicate matters and operations that can cause risk. Read the part with this symbol carefully and follow the instructions in order to avoid risk.



WARNING

This indicates that the failure to follow the instructions can cause serious injury or death.



CAUTION

This indicates that the failure to follow the instructions can cause the minor injury or damage to the product.



WARNING

Installation

- Do not use a defective or underrated circuit breaker. Use this appliance on a dedicated circuit.
 - There is risk of fire or electric shock.
- For electrical work, contact the dealer, seller, a qualified electrician, or an Authorized Service Center.
 - Do not disassemble or repair the product. There is risk of fire or electric shock.
- Always ground the product.
 - There is risk of fire or electric shock.
- Install the panel and the cover of control box securely.
 - There is risk of fire or electric shock.
- Always install a dedicated circuit and breaker.
 - Improper wiring or installation may cause fire or electric shock.
- Use the correctly rated breaker or fuse.
 - There is risk of fire or electric shock.
- Do not modify or extend the power cable.
 - There is risk of fire or electric shock.
- Do not install, remove, or re-install the unit by yourself (customer).
 - There is risk of fire, electric shock, explosion, or injury.
- Be cautious when unpacking and installing the product.
 - Sharp edges could cause injury. Be especially careful of the case edges and the fins on the condenser and evaporator.
- For installation, always contact the dealer or an Authorized Service Center.
 - There is risk of fire, electric shock, explosion, or injury.
- Do not install the product on a defective installation stand.
 - It may cause injury, accident, or damage to the product.
- Be sure the installation area does not deteriorate with age.
 - If the base collapses, the air conditioner could fall with it, causing property damage, product failure, and personal injury.
- Do not turn on the breaker or power under condition that front panel, cabinet, top cover, control box cover are removed or opened.
 - Otherwise, it may cause fire, electric shock, explosion or death.

Safety Instructions

- Use a vacuum pump or Inert (nitrogen) gas when doing leakage test or air purge. Do not compress air or Oxygen and Do not use Flammable gases. Otherwise, it may cause fire or explosion.
 - There is the risk of death, injury, fire or explosion.

Operation

- Do not let the air conditioner run for a long time when the humidity is very high and a door or a window is left open.
 - Moisture may condense and wet or damage furniture.
- Take care to ensure that power cable could not be pulled out or damaged during operation.
 - There is risk of fire or electric shock.
- Do not place anything on the power cable.
 - There is risk of fire or electric shock.
- Do not plug or unplug the power supply plug during operation.
 - There is risk of fire or electric shock.
- Do not touch(operate) the product with wet hands.
 - There is risk of fire or electrical shock.
- Do not place a heater or other appliances near the power cable.
 - There is risk of fire and electric shock.
- Do not allow water to run into electric parts.
 - There is risk of fire, failure of the product, or electric shock.
- Do not store or use flammable gas or combustibles near the product.
 - There is risk of fire or failure of product.
- Do not use the product in a tightly closed space for a long time.
 - Oxygen deficiency could occur.
- When flammable gas leaks, turn off the gas and open a window for ventilation before turn the product on.
 - Do not use the telephone or turn switches on or off. There is risk of explosion or fire.
- If strange sounds, smell or smoke comes from product. Turn the breaker off or disconnect the power supply cable.
 - There is risk of electric shock or fire.
- Stop operation and close the window in storm or hurricane.
If possible, remove the product from the window before the hurricane arrives.
 - There is risk of property damage, failure of product, or electric shock.
- Do not open the inlet grill of the product during operation.
(Do not touch the electrostatic filter, if the unit is so equipped.)
 - There is risk of physical injury, electric shock, or product failure.
- When the product is soaked (flooded or submerged), contact an Authorized Service Center.
 - There is risk of fire or electric shock.
- Be cautious that water could not enter the product.
 - There is risk of fire, electric shock, or product damage.
- Ventilate the product from time to time when operating it together with a stove, etc.
 - There is risk of fire or electric shock.
- Turn the main power off when cleaning or maintaining the product.
 - There is risk of electric shock.
- When the product is not be used for a long time, disconnect the power supply plug or turn off the breaker.
 - There is risk of product damage or failure, or unintended operation.
- Take care to ensure that nobody could step on or fall onto the outdoor unit.
 - This could result in personal injury and product damage.

⚠ CAUTION

Installation

- Always check for gas (refrigerant) leakage after installation or repair of product.
 - Low refrigerant levels may cause failure of product.
- Install the drain hose to ensure that water is drained away properly.
 - A bad connection may cause water leakage.
- Keep level even when installing the product.
 - To avoid vibration or water leakage.
- Do not install the product where the noise or hot air from the outdoor unit could damage the neighborhoods.
 - It may cause a problem for your neighbors.
- Use two or more people to lift and transport the product.
 - Avoid personal injury.
- Do not install the product where it will be exposed to sea wind (salt spray) directly.
 - It may cause corrosion on the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient operation.
- If you eat the liquid from the batteries, brush your teeth and see doctor. Do not use the remote if the batteries have leaked.
 - The chemicals in batteries could cause burns or other health hazards.

Operation

- Do not expose the skin directly to cool air for long periods of time. (Don't sit in the draft.)
 - This could harm to your health.
- Do not use the product for special purposes, such as preserving foods, works of art, etc. It is a consumer air conditioner, not a precision refrigeration system.
 - There is risk of damage or loss of property.
- Do not block the inlet or outlet of air flow.
 - It may cause product failure.
- Use a soft cloth to clean. Do not use harsh detergents, solvents, etc.
 - There is risk of fire, electric shock, or damage to the plastic parts of the product.
- Do not touch the metal parts of the product when removing the air filter. They are very sharp!
 - There is risk of personal injury.
- Do not step on or put anything on the product. (outdoor units)
 - There is risk of personal injury and failure of product.
- Always insert the filter securely. Clean the filter every two weeks or more often if necessary.
 - A dirty filter reduces the efficiency of the air conditioner and could cause product malfunction or damage.
- Do not insert hands or other objects through the air inlet or outlet while the product is operated.
 - There are sharp and moving parts that could cause personal injury.
- Do not drink the water drained from the product.
 - It is not sanitary and could cause serious health issues.
- Use a firm stool or ladder when cleaning or maintaining the product.
 - Be careful and avoid personal injury.
- Replace the all batteries in the remote control with new ones of the same type. Do not mix old and new batteries or different types of batteries.
 - There is risk of fire or explosion.
- Do not recharge or disassemble the batteries. Do not dispose of batteries in a fire.
 - They may burn or explode.
- If the liquid from the batteries gets onto your skin or clothes, wash it well with clean water. Do not use the remote if the batteries have leaked.
 - The chemicals in batteries could cause burns or other health hazards.
- If you eat the liquid from the batteries, brush your teeth and see doctor. Do not use the remote if the batteries have leaked.
 - The chemicals in batteries could cause burns or other health hazards.

Installation

Installation Limit

! Read completely, then follow step by step.

1. Fresh Air Intake Unit Combination

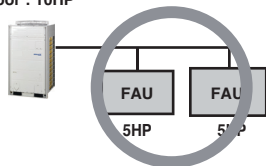
No	Connection Condition	Combination
1	Only Fresh Air Intake Unit installation	1) The total capacity of Fresh Air Intake Unit should be 50~100% of outdoor unit. 2) The max quantity of Fresh Air Intake Unit is 4 Units.
2	Mixture Installation with standard indoor units and Fresh Air Intake Units	1) The total capacity of indoor units (standard Indoor Unit + Fresh Air Intake Unit) should be 50~100% of outdoor unit. 2) The total capacity of Fresh Air Intake Unit should be less than 30% of the total outdoor unit capacity.

! CAUTION

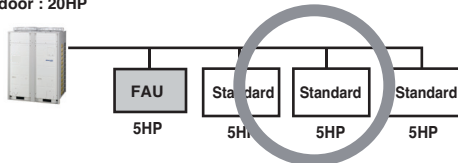
Failure to comply with the above connection conditions for installation, it can cause cooling & heating capacity down.

2. Connection of the Outdoor Unit

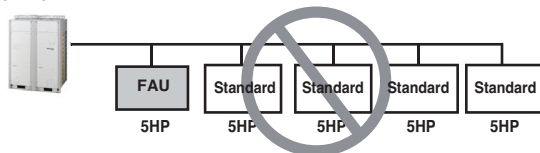
<Only Fresh Air Intake Unit install>
Outdoor : 10HP



<Mixture Install>
Outdoor : 20HP



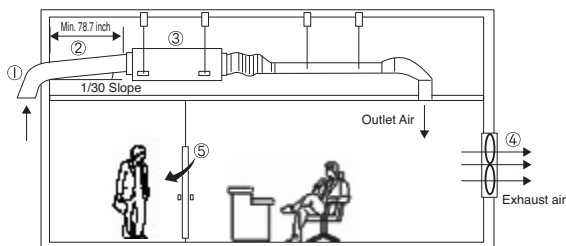
<Wrong Install>
Outdoor : 20HP



* FAU : Fresh Air Intake Unit
Standard: Standard Indoor Unit

► The total capacity of indoor units exceed 100% of outdoor unit.

3. Installation of intake air duct



- ①: Inlet Hood
- ②: Intake Air Duct
- ③: Fresh Air Intake Unit
- ④: Exhaust Fan
- ⑤: Door

① Inlet Hood

Inlet Hood should be installed such that no water enter inside the unit

② Intake Air Duct

The Intake Air Duct must have down-slope about 1/30.

The length of Intake Air Duct should be longer than 78.7 inch.

③ Fresh Air Intake Unit

If wired remote controller is not connected, it will display strange value to the room temperature

④ Exhaust Fan

Fresh Air Intake Unit will make room the positive pressure.

Exhaust fan should be installed to maintain the room pressure.

⑤ Door

It would be possible to raise in the room air pressure because of Fresh Air Intake Unit.

In that case, the door could hurt someone in front of door.

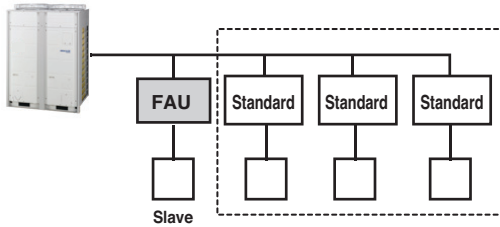
So be careful of the positive pressure to design the door.

4. The Control System

1) In case of connecting with Standard indoor units, Standard indoor unit should be a master unit.

Separate Fresh Air Intake Unit with Standard indoor units

Set only one of Standard indoor units to Master,



Set one of the Standard Indoor Unit to Master

* FAU: Fresh Air Intake Unit
Standard: Standard Indoor Unit

2) In case of using central remote controller, mixture of indoor units and Fresh Air Intake Unit in same zone is not possible.

Separate Fresh Air Intake Unit zone with Standard indoor units zone.



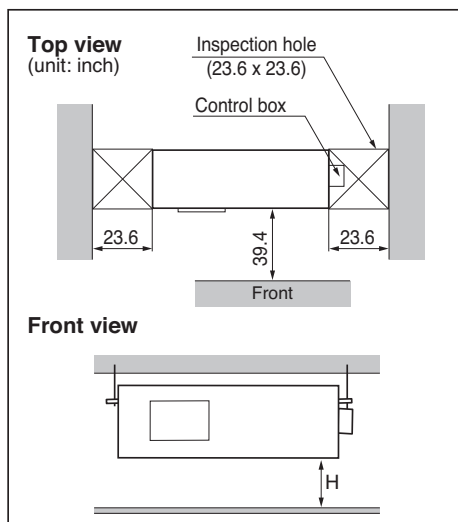
5. Cycle check and SVC

For Fresh Air Intake Unit cycle check and SVC, LG MV 5.8 or later version should be used.

Selection of the best location

Install the air conditioner in the location that satisfies the following conditions.

- The place shall easily bear a load exceeding four times the indoor unit's weight.
- The place shall be able to inspect the unit as the figure.
- The place where the unit shall be leveled.
- The place shall allow easy water drainage.
(Suitable dimension "H" is necessary to get a slope to drain as figure.)
- The place shall easily connect with the outdoor unit.
- The place where the unit is not affected by an electrical noise.
- The place where air circulation in the room will be good .
- There should not be any heat source or steam near the unit.



⚠ CAUTION

In case that the unit is installed near the sea, the installation parts may be corroded by salt. The installation parts (and the unit) should be taken appropriate anti-corrosion measures.

[Inspection Hole Standard]

Number of inspection hole	Distance between false ceiling & actual ceiling	Remarks
1	More than 39.4 inch	Sufficient space in the ceiling for servicing.
2	7.9 inch to 39.4 inch	Insufficient space. Difficult for servicing
Hole size should be more than the size of IDU.	Less than 7.9 inch	Minimum height for motor replacement.

Ceiling dimension and hanging bolt location

■ Installation of Unit

Install the unit above the ceiling correctly.

POSITION OF SUSPENSION BOLT

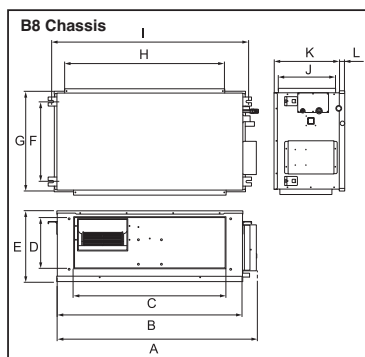
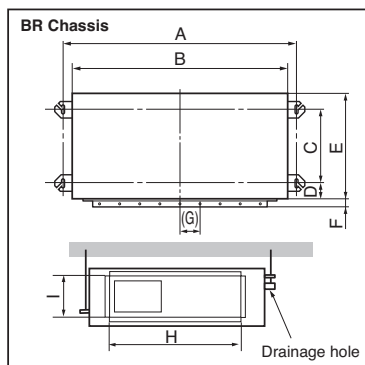
- Apply a joint-canvas between the unit and duct to absorb unnecessary vibration.
- Install the unit leaning to a drainage hole side as a figure for easy water drainage.
- A place where the unit will be leveled and that can support the weight of the unit.
- A place where the unit can withstand its vibration.
- A place where service can be easily performed.

(Unit : inch)

Dimension Chassis	A	B	C	D	E	F	(G)	H	I
BR	50.5	48.4	18.8	2.2	23.2	1.2	4.7	39.6	11.6

(Unit : inch)

Dimension Chassis	A	B	C	D	E	F	G	H	I	J	K	L
B8	66.2	61.6	45.7	13.0	18.1	22.8	27.6	55.1	64.4	15.4	17.5	0.6



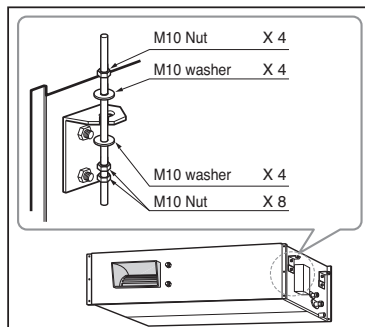
NOTICE

- Thoroughly study the following installation locations:

1. In such places as restaurants and kitchens, considerable amount of oil steam and flour adhere to the fan, the fin of the heat exchanger, resulting in heat exchange reduction, spraying, dispersing of water drops, etc.

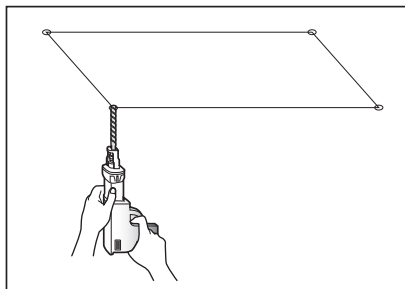
In these cases, take the following actions:

- Make sure that the ventilation fan for smoke-collecting hood on a cooking table has sufficient capacity so that it draws oily steam which should not flow into the suction of the air conditioner.
 - Make enough distance from a cooking room to install the air conditioner in such a place where it may not suck in oil steam.
2. Avoid installing air conditioner in such circumstances where cutting oil mist or iron powder is in suspension in factories, etc.
3. Avoid places where inflammable gas is generated, flows in, is stored or vented.
4. Avoid places where sulfurous acid gas or corrosive gas is generated.
5. Avoid places near high frequency generators.

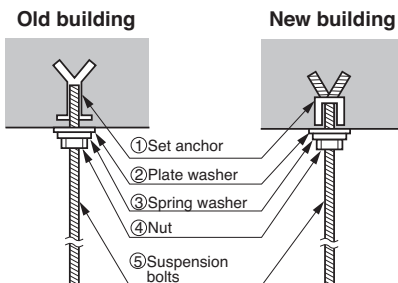


Indoor Unit Installation

- Select and mark the position for fixing bolts.
- Drill the hole for set anchor on the face of ceiling.



- Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
- Mount the suspension bolts to the set anchor firmly.
- Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.



CAUTION

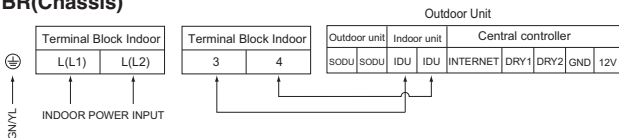
Tighten the nut and bolt to prevent unit falling.

Wiring Connection

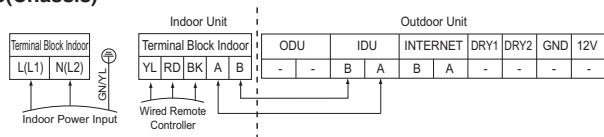
Connect the wires to the terminals on the control board individually according to the outdoor unit connection.

- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.

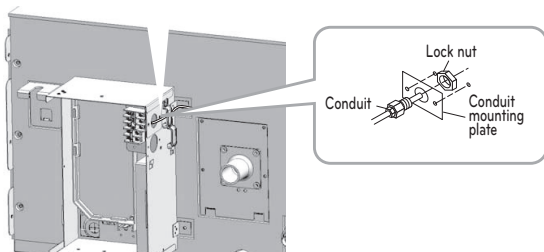
BR(Chassis)



B8(Chassis)



Connection method of the connecting cable(Example)



⚠ WARNING

Make sure that the screws of the terminal are free from looseness.

Clamping of cables

- 1) Arrange 2 power cables on the control panel.
- 2) First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3) For the cooling model, fix the other side of the clamp with a screw strongly. For the heat pump model, put the 0.75 mm² cable(thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel.

⚠ CAUTION

The Power cord connected to the unit should be selected according to the following specifications.

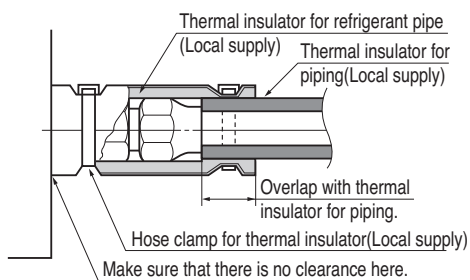
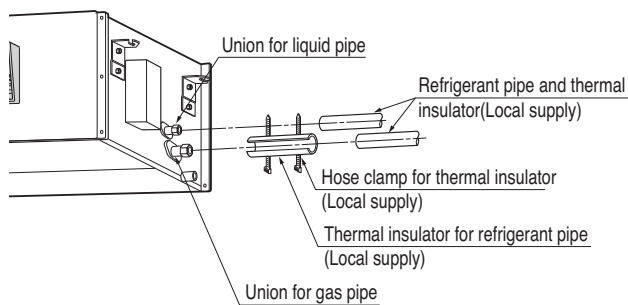
INSULATION, OTHERS

Insulate the joint and tubes completely.

• Thermal Insulation

All thermal insulation must comply with local requirement.

Indoor Unit

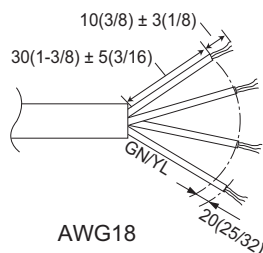


• Outdoor Air Damper Control (Optional)

The OA damper can be used through CN_OUT terminal on the main PCB.
The relay specification of CN_OUT should not exceed 250 VAC, 3A.

⚠ CAUTION

The connecting cable connected to the indoor and outdoor unit should be complied with the following specifications (This equipment shall be provided with a cord set complying with the national regulation).



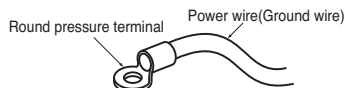
Unit: mm (inch)

If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer of its service agent.

◆ Precautions when laying power and ground wiring

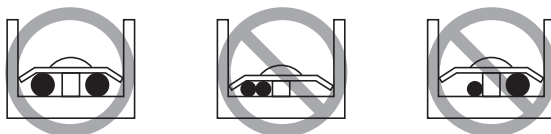
Use round pressure terminals for connections to the power terminal block.

When laying ground wiring, you must use round pressure terminals.



When none are available, follow the instructions below.

- Do not connect wiring of different thicknesses to the power terminal block. (Slack in the power wiring may cause abnormal heat.)
- When connecting wiring which is the same thickness, do as shown in the figure below.

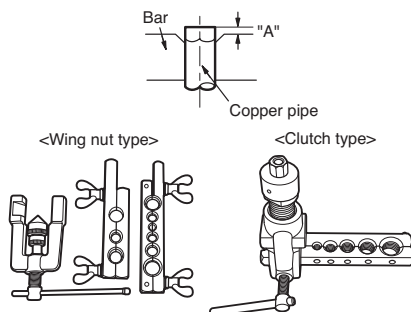


- For wiring, use the designated power wire and connect firmly, then secure to prevent outside pressure being exerted on the terminal block.
- Use an appropriate screwdriver for tightening the terminal screws. A screwdriver with a small head will strip the head and make proper tightening impossible.
- Over-tightening the terminal screws may break them.

Flaring work

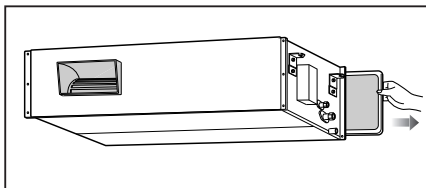
- Firmly hold copper pipe in a bar with the dimension shown in below table table below.
- Carry out flaring work with the flaring tool.

Pipe diameter Inch (mm)	A Inch (mm)		Thickness Inch (mm)
	Wing nut type	Clutch type	
Ø 1/4 (Ø 6.35)	0.04~0.05 (1.1~1.3)	0~0.02 (0~0.5)	0.03 (0.7)
Ø 3/8 (Ø 9.52)	0.06~0.07 (1.5~1.7)		0.03 (0.8)
Ø 1/2 (Ø 12.7)	0.06~0.07 (1.6~1.8)		0.03 (0.8)
Ø 5/8 (Ø 15.88)	0.06~0.07 (1.6~1.8)		0.04 (1.0)
Ø 3/4 (Ø 19.05)	0.07~0.08 (1.9~2.1)		0.04 (1.0)



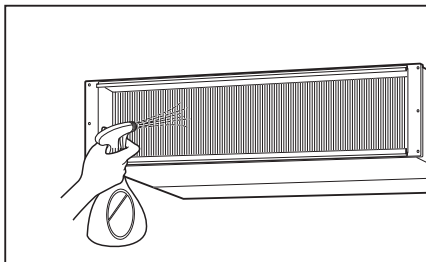
Checking the Drainage

1. Remove the Air Filter.



2. Check the drainage.

- Spray one or two glasses of water upon the evaporator.
- Ensure that water flows drain hose of indoor unit without any leakage.

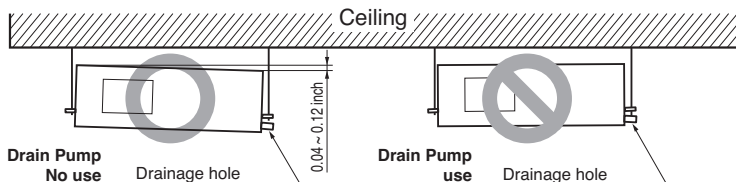


⚠ CAUTION

1. **Install declination** of the indoor unit is very **important for the drain** of the duct type air conditioner.
2. Minimum thickness of the insulation for the connecting pipe shall be 0.2 inch.

Front of view

- The unit must be horizontal or declined to the drain hose connected when finished installation.



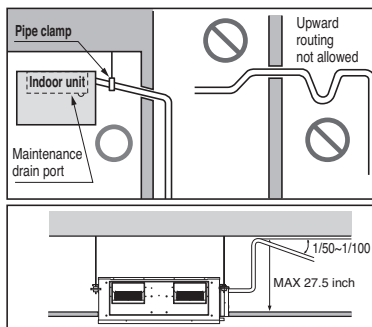
Indoor Unit Drain Piping

- Drain piping must have down-slope (1/50 to 1/100): be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert extra force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 1.25 inch.

Piping material: Polyvinyl chloride pipe inner diameters $\varnothing$ 0.98 inch and pipe fittings

- Be sure to install heat insulation on the drain piping.

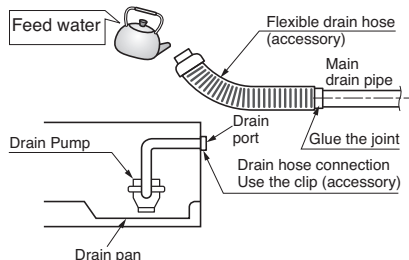
Heat insulation material: Polyethylene foam with thickness more than 0.3 inch.



Drain test

The air conditioner uses a drain pump to drain water.

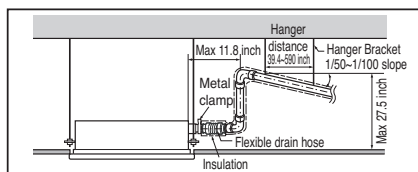
Use the following procedure to test the drain pump operation:



- Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- Be sure to check the drain pump for normal operation and noise when electrical wiring is complete.
- When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.

⚠ CAUTION

The supplied flexible drain hose should not be strained. A strained hose may cause leakage of water.



⚠ CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

- 1) Never fail to have an individual power specialized for the air conditioner. As for the method of wiring, be guided by the circuit diagram posted on the inside of control box cover.**
- 2) Provide a circuit breaker switch between power source and the unit.**
- 3) The screws which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)**
- 4) Specification of power source**
- 5) Confirm that electrical capacity is sufficient.**
- 6) Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.**
- 7) Confirm that the cable thickness is as specified in the power sources specification. (Particularly note the relation between cable length and thickness.)**
- 8) Never fail to equip a leakage breaker where it is wet or moist.**
- 9) The following troubles would be caused by voltage drop-down.**
 - Vibration of a magnetic switch, damage on the contact point, fuse breaking, disturbance by the normal function of an overload protection device.
 - Proper starting power is not given to the compressor.

HAND OVER

Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

DIP Switch Setting

1. Indoor Unit

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
SW7	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	Off
	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off

⚠ CAUTION

For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF.

2. Outdoor Unit

In case that the products meet specific conditions, “Auto addressing” function can start automatically with the improved speed by turning the DIP switch #3 of the outdoor unit and resetting the power.

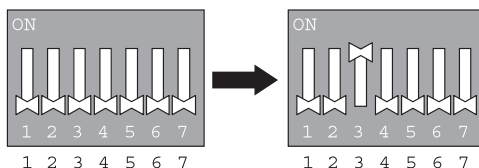
* Specific conditions:

- All names of the indoor units are ARNU****4.
- The serial number of Multi V super IV (outdoor units) is after October 2013.

DIP switch 7 segment



Outdoor Unit PCB



Outdoor Unit DIP Switch

Group Control Setting

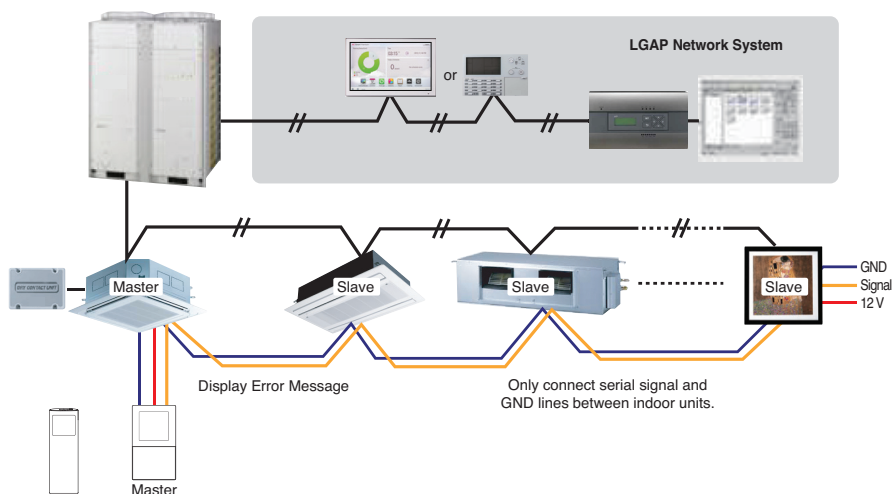
⚠ CAUTION

If you want to use the two setpoint function, you should be installed the both new thermostat and 4 series products.

* Model name of wired remote controller called New thermostat : PREMTC00U

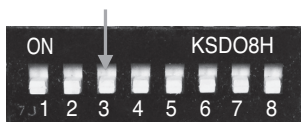
1. Group Control 1

■ Wired remote controller 1 + Standard Indoor Units



■ DIP Switch in PCB

① Master Setting - No. 3 Off



② Slave Setting - No. 3 On



Indoor Unit DIP Switch

Some products have no DIP switch on PCB. It is possible to set indoor units to Master or Slave by using the wireless remote controller instead of DIP switch.

For the details of the setting, please refer to the manual of the wireless remote controller.

1. It is possible to 16 indoor units(Max.) by one wired remote controller.
Set only one indoor unit to Master, set the others to Slave.
2. It is possible to connect with every type of indoor units.
3. It is possible to use wireless remote controller at the same time.
4. It is possible to connect with Dry Contact and Central controller at the same time.
- The Master indoor unit is possible to recognize Dry Contact and Central Controller only.
5. In case that any error occurs at indoor unit, the error code is displayed on the wired remote controller.
It is possible to control the other indoor units except the error units.

※ It is possible to connect indoor units since Feb. 2009.

※ It can be the cause of malfunctions when there is no setting of master and slave.

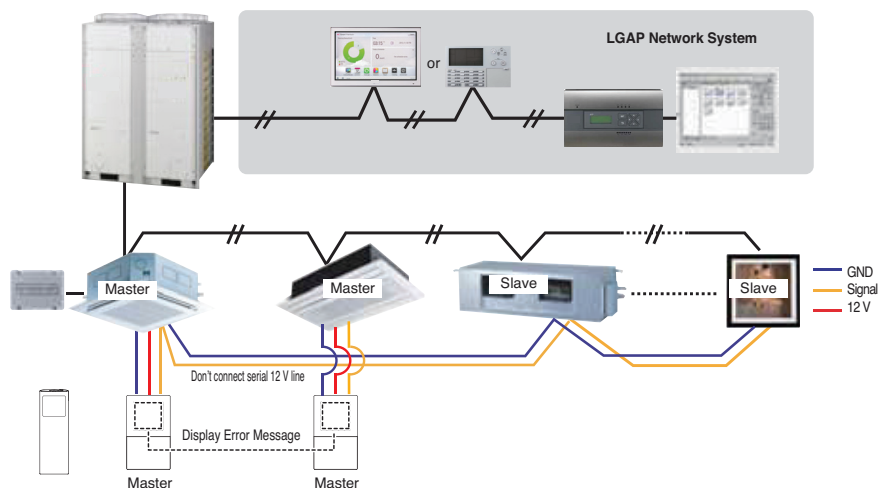
※ In case of Group Control, it is possible to use following functions.

- Selection of operation, stop or mode
- Temperature setting and room temperature check
- Current time change
- Control of flow rate (High/Middle/Low)
- Reservation settings

It is not possible to use some functions.

2. Group Control 2

■ Wired remote controllers + Standard Indoor Units

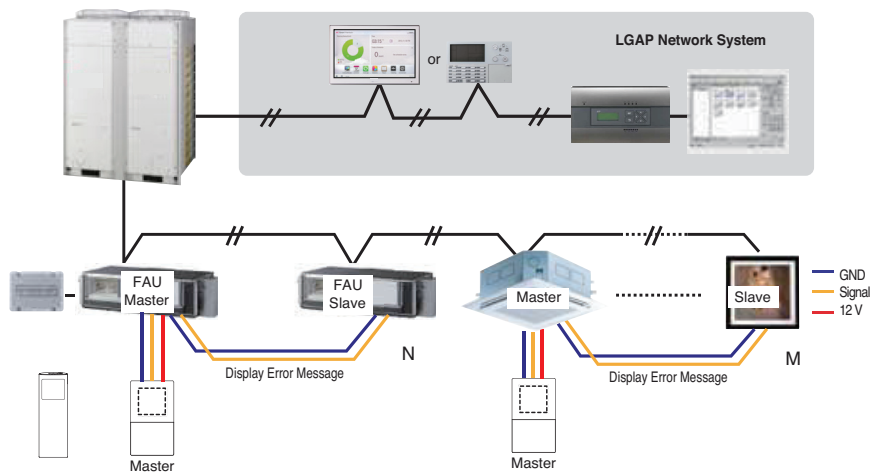


※ It is possible to control 16 indoor units(Max.) with the master wired remote control.

※ Other than those, it is same with the Group Control 1.

3. Group Control 3

■ Mixture connection with indoor units and Fresh Air Intake Unit



* In case of connecting with standard indoor unit and Fresh Air Intake Unit, separate Fresh Air Intake Unit with standard units. (N, M ≤ 16) (Because setting temperature are different.)

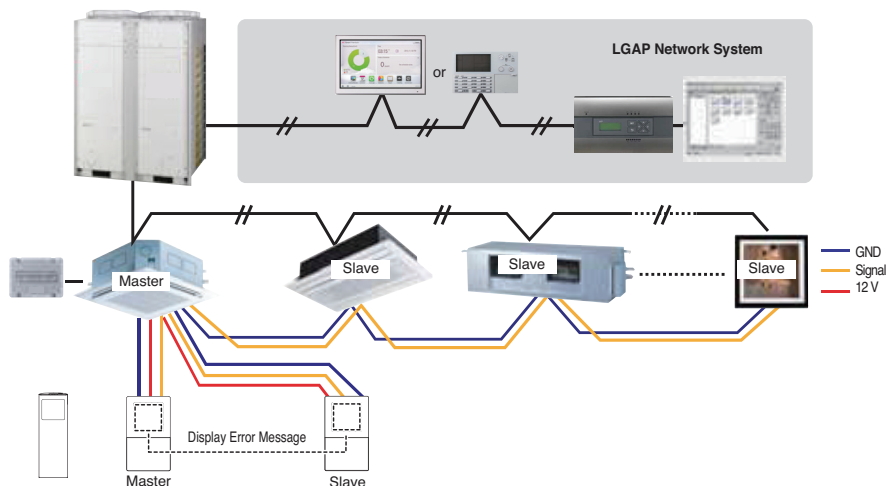
✱ Other than those, it is same with Group Control 1.



* FAU : Fresh Air Intake Unit
Standard: Standard Indoor Unit

4. 2 Remote Control

■ Wired remote controller 2 + Indoor unit 1



1. It is possible to connect two wired remote controllers (Max.) with one indoor unit.
Set only one indoor unit to Master, set the others to Slave.
Set only one wired remote controller to Master, set the others to Slave.
2. Every types of indoor unit is possible to connect two remote controller.
3. It is possible to use wireless remote controller at the same time.
4. It is possible to connect with Dry Contact and Central controller at the same time.
5. In case that any error occurs at indoor unit, the error code is displayed on the wired remote controller.
6. There isn't limits of indoor unit function.

5. Accessories for group control setting

It is possible to set group control by using below accessories.

Indoor unit 2 EA +Wired remote controller 1 EA	Indoor unit 1 EA +Wired remote controller 2 EA
※ PZCWRCG3 cable used for connection Master Slave PZCWRCG3 Master	※ PZCWRC2 cable used for connection PZCWRC2 Master Slave

Airborne Noise Emission

The A-weighted sound pressure emitted by this product is below 70 dB.

** The noise level can vary depending on the site.

The figures quoted are emission level and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factor that influence the actual level of exposure of the workforce include the characteristics of the work room and the other sources of noise, i.e. the number of equipment and other adjacent processes and the length of time for which an operator exposed to the noise. Also, the permissible exposure level can vary from country to country. This information, however, will enable the user of the equipment to make a better evaluation of the hazard and risk.

Limiting concentration

Limiting concentration is the limit of Freon gas concentration where immediate measures can be taken without hurting human body when refrigerant leaks in the air. The limiting concentration shall be described in the unit of kg/m³ (lbs/ft³) (Freon gas weight per unit air volume) for facilitating calculation

Limiting Concentration: 0.44 kg/m³ (0.0000158 lb/inch³)(R410A)

■ Calculate refrigerant concentration

$$\text{Refrigerant concentration} = \frac{\text{Total amount of replenished refrigerant in refrigerant facility (kg(lb(s)))}}{\text{Capacity of smallest room where indoor unit is installed (m}^3\text{(ft}^3\text{))}}$$

Capacity Tables

Capacity (Chassis): 48 k Btu/h (B8)

Cooling

Capacity Index	Outdoor Air Temp. °F DB	Outdoor Air Temp. °F WB								
		59			63			69		
		TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F
		MBh	MBh		MBh	MBh		MBh	MBh	
48 k	70.0	17.4	12.3	52.9	18.4	10.9	54.8	-	-	-
	73.0	17.4	14.7	52.5	17.7	13.3	54.4	28.0	12.6	55.4
	77.0	17.4	17.1	53.2	17.7	15.7	55.1	27.3	15.0	56.1
	81.0	-	-	-	17.4	17.4	56.7	24.9	17.4	56.7
	84.0	-	-	-	-	-	-	23.9	19.8	56.4
	88.0	-	-	-	-	-	-	22.9	22.2	57.1
	91.0	-	-	-	-	-	-	-	-	32.1
	95.0	-	-	-	-	-	-	-	-	31.4
	99.0	-	-	-	-	-	-	-	-	31.0
	104.0	-	-	-	-	-	-	-	-	-
	109.0	-	-	-	-	-	-	-	-	-
	113.0	-	-	-	-	-	-	-	-	-
	118.0	-	-	-	-	-	-	-	-	-

Capacity Index	Outdoor Air Temp. °F DB	Outdoor Air Temp. °F WB								
		79			82			86		
		TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F
		MBh	MBh		MBh	MBh		MBh	MBh	
48 k	70.0	-	-	-	-	-	-	-	-	-
	73.0	-	-	-	-	-	-	-	-	-
	77.0	-	-	-	-	-	-	-	-	-
	81.0	-	-	-	-	-	-	-	-	-
	84.0	46.7	16.4	61.2	-	-	-	-	-	-
	88.0	45.4	18.8	61.8	51.5	18.1	62.8	-	-	-
	91.0	44.4	20.8	62.0	48.1	19.1	64.4	54.9	16.4	68.2
	95.0	43.3	23.2	63.6	47.8	21.2	66.5	54.3	18.8	69.8
	99.0	40.3	25.2	63.8	46.7	23.5	66.2	52.2	21.2	69.5
	104.0	38.9	29.0	63.6	45.7	23.9	70.7	51.2	24.6	69.7
	109.0	-	-	-	44.4	25.6	73.3	49.5	29.0	68.6
	113.0	-	-	-	-	-	-	47.4	31.4	69.2
	118.0	-	-	-	-	-	-	44.4	33.8	70.9

Heating

Capacity Index	Outdoor Air Temp. °F DB	Outdoor Air Temp. °F WB								
		19	23	27	32	36	39	43	50	57
		TC	TC	TC	TC	TC	TC	TC	TC	TC
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
48 k	23	61.7	-	-	-	-	-	-	-	-
	27	-	46.6	-	-	-	-	-	-	-
	32	-	-	46.1	-	-	-	-	-	-
	37	-	-	-	44.7	44.7	-	-	-	-
	45	-	-	-	-	40.6	40.6	40.6	-	-
	52	-	-	-	-	-	35.6	35.6	35.6	-
	59	-	-	-	-	-	-	31.4	31.4	31.4

Note) TC: Total Capacity (MBh), SHC: Sensible Heat Capacity (MBh),
WB: Wet Bulb (°C), DB: Dry Bulb (°C)

NOTICE

- The data shown in the graph illustrates the supported operating ranges under the following conditions:
 - Indoor and Outdoor Unit
 - Effective piping length: 295.3 inch
 - Height differential: 0 inch
- The actual temperature may not match the temperature setting under some circumstances due to the outdoor-air processing load or mechanical protection controls.
- The system will not operate in fan mode when the outdoor air temperature is 23 °F or below.

Capacity (Chassis): 76 k Btu/h (B8)**Cooling**

Capacity Index	Outdoor Air Temp. °F DB	Outdoor Air Temp. °F WB											
		59			63			69			73		
		TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F
		MBh	MBh		MBh	MBh		MBh	MBh		MBh	MBh	
76 k	70.0	27.3	17.7	50.4	32.4	17.7	50.4	-	-	-	-	-	-
	73.0	27.0	20.8	50.0	30.7	20.8	50.0	42.3	19.4	51.5	-	-	-
	77.0	26.6	23.9	50.6	29.7	23.9	50.6	40.9	22.9	51.7	54.6	21.8	52.8
	81.0	-	-	-	30.0	27.0	51.2	40.3	25.6	52.7	53.6	23.5	55.0
	84.0	-	-	-	-	-	-	39.2	28.7	52.3	52.2	26.3	54.9
	88.0	-	-	-	-	-	-	38.9	32.1	52.5	51.2	29.3	55.5
	91.0	-	-	-	-	-	-	-	-	-	50.2	32.4	55.1
	95.0	-	-	-	-	-	-	-	-	-	49.1	35.5	56.7
	99.0	-	-	-	-	-	-	-	-	-	47.8	37.5	57.5
	104.0	-	-	-	-	-	-	-	-	-	-	-	-
	109.0	-	-	-	-	-	-	-	-	-	-	-	-
	113.0	-	-	-	-	-	-	-	-	-	-	-	-
	118.0	-	-	-	-	-	-	-	-	-	-	-	-

Capacity Index	Outdoor Air Temp. °F DB	Outdoor Air Temp. °F WB											
		79			82			86			90		
		TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F
		MBh	MBh		MBh	MBh		MBh	MBh		MBh	MBh	
76 k	70.0	-	-	-	-	-	-	-	-	-	-	-	-
	73.0	-	-	-	-	-	-	-	-	-	-	-	-
	77.0	-	-	-	-	-	-	-	-	-	-	-	-
	81.0	-	-	-	-	-	-	-	-	-	-	-	-
	84.0	66.2	24.9	56.4	-	-	-	-	-	-	-	-	-
	88.0	65.5	28.0	57.0	78.5	26.3	58.9	-	-	-	-	-	-
	91.0	64.5	31.0	56.7	76.4	29.0	58.9	81.2	25.9	62.3	-	-	-
	95.0	63.8	33.8	58.6	73.4	31.7	60.9	78.8	28.3	64.7	91.1	27.6	65.4
	99.0	62.8	36.8	58.2	71.3	34.5	60.9	78.1	31.4	64.3	90.1	29.7	66.2
	104.0	60.1	40.9	58.7	71.0	39.2	60.6	76.8	35.8	64.4	89.4	34.5	65.9
	109.0	-	-	-	68.6	40.6	64.1	76.4	39.2	65.6	86.0	37.5	67.5
	113.0	-	-	-	-	-	-	73.7	41.3	67.3	82.9	40.6	68.1
	118.0	-	-	-	-	-	-	71.3	44.0	69.3	80.5	42.7	70.8

Heating

Capacity Index	Outdoor Air Temp. °F DB	Outdoor Air Temp. °F WB									
		19	23	27	32	36	39	43	50	57	
		TC	TC	TC	TC	TC	TC	TC	TC	TC	
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	
76 k	23	81.2	-	-	-	-	-	-	-	-	-
	27	-	77.1	-	-	-	-	-	-	-	-
	32	-	-	73	-	-	-	-	-	-	-
	37	-	-	-	61.8	61.8	-	-	-	-	-
	45	-	-	-	-	55.6	55.6	55.6	-	-	-
	52	-	-	-	-	-	49.5	49.5	49.5	-	-
	59	-	-	-	-	-	-	43.7	43.7	43.7	43.7

Note) TC: Total Capacity (MBh), SHC: Sensible Heat Capacity (MBh),
WB: Wet Bulb (°C), DB: Dry Bulb (°C)

NOTICE

- The data shown in the graph illustrates the supported operating ranges under the following conditions:
 - Indoor and Outdoor Unit
 - Effective piping length: 295.3 inch
 - Height differential: 0 inch
- The actual temperature may not match the temperature setting under some circumstances due to the outdoor-air processing load or mechanical protection controls.
- The system will not operate in fan mode when the outdoor air temperature is 23 °F or below.

Capacity (Chassis): 96 k Btu/h (B8)

Cooling

Capacity Index	Outdoor Air Temp. °F DB	Outdoor Air Temp. °F WB											
		59			63			69			73		
		TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F
		MBh	MBh		MBh	MBh		MBh	MBh		MBh	MBh	
96 k	70.0	34.8	23.5	52.7	45.0	23.5	52.7	-	-	-	-	-	-
	73.0	34.1	28.3	52.2	43.7	27.3	53.0	57.0	26.6	53.5	-	-	-
	77.0	33.4	30.7	54.5	41.3	30.7	54.5	54.9	31.4	54.0	76.1	30.7	54.5
	81.0	-	-	-	38.9	35.1	55.2	53.2	35.8	54.7	73.4	32.4	57.2
	84.0	-	-	-	-	-	-	51.9	40.3	54.4	71.3	36.8	56.9
	88.0	-	-	-	-	-	-	51.9	45.4	54.7	69.6	41.3	57.7
	91.0	-	-	-	-	-	-	-	-	-	68.2	46.1	57.2
	95.0	-	-	-	-	-	-	-	-	-	66.5	50.5	58.9
	99.0	-	-	-	-	-	-	-	-	-	64.8	53.6	59.7
	104.0	-	-	-	-	-	-	-	-	-	-	-	-
	109.0	-	-	-	-	-	-	-	-	-	-	-	-
	113.0	-	-	-	-	-	-	-	-	-	-	-	-
	118.0	-	-	-	-	-	-	-	-	-	-	-	-

Capacity Index	Outdoor Air Temp. °F DB	Outdoor Air Temp. °F WB											
		79			82			86			90		
		TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F	TC	SHC	Leaving Air Temp. °F
		MBh	MBh		MBh	MBh		MBh	MBh		MBh	MBh	
96 k	70.0	-	-	-	-	-	-	-	-	-	-	-	-
	73.0	-	-	-	-	-	-	-	-	-	-	-	-
	77.0	-	-	-	-	-	-	-	-	-	-	-	-
	81.0	-	-	-	-	-	-	-	-	-	-	-	-
	84.0	91.8	34.5	58.7	-	-	-	-	-	-	-	-	-
	88.0	90.8	39.2	59.2	101.7	34.1	62.9	-	-	-	-	-	-
	91.0	89.1	43.7	58.9	95.9	36.2	64.4	113.3	36.2	64.4	-	-	-
	95.0	88.0	48.1	60.7	94.2	40.6	66.2	109.5	39.9	66.7	128.3	39.9	66.7
	99.0	86.7	52.5	60.4	90.8	44.7	66.2	108.5	44.4	66.4	126.2	41.6	68.4
	104.0	82.6	57.3	61.9	88.0	51.9	65.9	106.5	51.2	66.4	124.9	48.8	68.2
	109.0	-	-	-	85.3	56.0	67.9	101.3	54.6	68.9	117.4	53.2	69.9
	113.0	-	-	-	-	-	-	98.3	57.0	71.2	114.0	55.3	72.4
	118.0	-	-	-	-	-	-	95.2	60.7	73.4	111.6	58.7	74.9

Heating

Capacity Index	Outdoor Air Temp. °F DB	Outdoor Air Temp. °F WB									
		19	23	27	32	36	39	43	50	57	
		TC	TC	TC	TC	TC	TC	TC	TC	TC	
		MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	
96 k	23	97.6	-	-	-	-	-	-	-	-	-
	27	-	96.9	-	-	-	-	-	-	-	-
	32	-	-	91.1	-	-	-	-	-	-	-
	37	-	-	-	88.7	88.7	-	-	-	-	-
	45	-	-	-	-	86.3	86.3	86.3	-	-	-
	52	-	-	-	-	-	74.7	74.7	74.7	-	-
	59	-	-	-	-	-	-	66.9	66.9	66.9	-

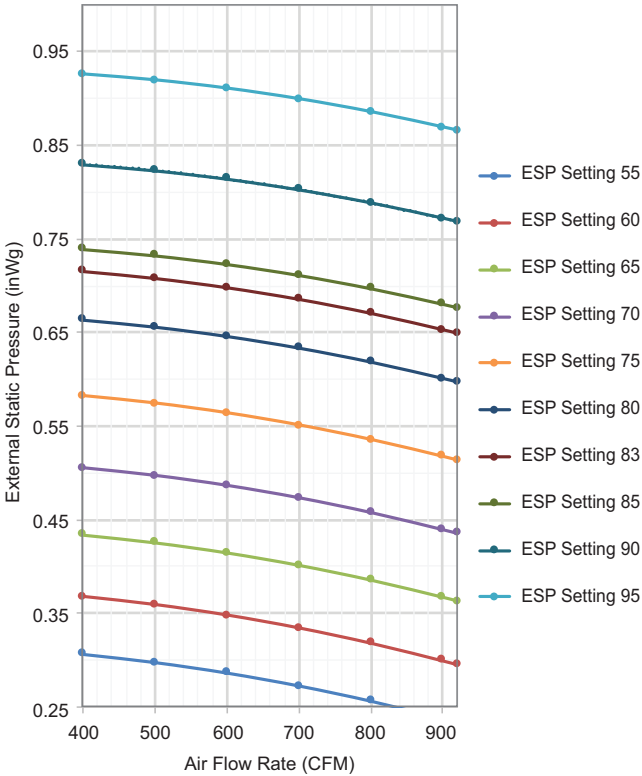
Note) TC: Total Capacity (MBh), SHC: Sensible Heat Capacity (MBh),
WB: Wet Bulb (°C), DB: Dry Bulb (°C)

NOTICE

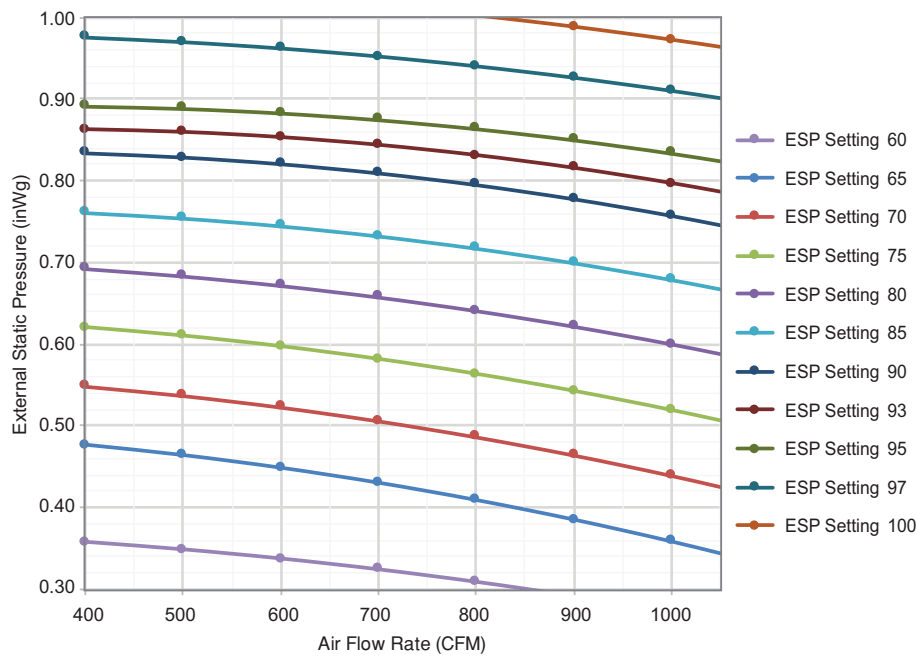
- The data shown in the graph illustrates the supported operating ranges under the following conditions:
 - Indoor and Outdoor Unit
 - Effective piping length: 295.3 inch
 - Height differential: 0 inch
- The actual temperature may not match the temperature setting under some circumstances due to the outdoor-air processing load or mechanical protection controls.
- The system will not operate in fan mode when the outdoor air temperature is 23 °F or below.

External Static Pressure And Air Flow Charts

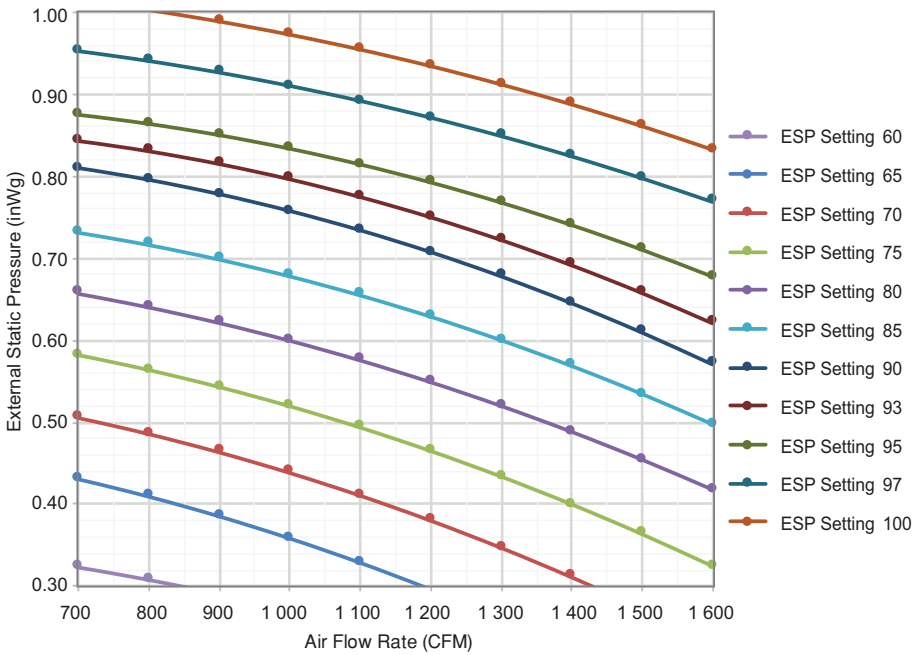
48 k



76 k



96k





US	Please call the installing contractor of your product, as warranty service will be provided by them.
CANADA	Service call Number # : (888) LG Canada, (888) 542-2623 Numéro pour les appels de service : LG Canada, 1-888-542-2623