MITSUBISHI ELECTRIC

SPLIT-TYPE, AIR CONDITIONERS

April 2025
No. OCD879
REVISED EDITION-A

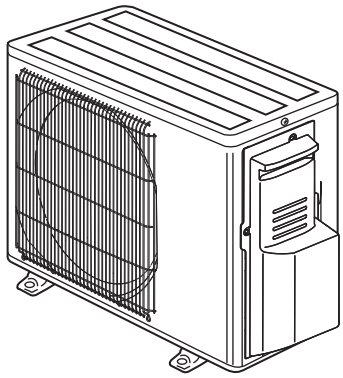
Technical & Service Manual

Outdoor unit

Models

SUZ-AA09NL-U1
SUZ-AA12NL-U1
SUZ-AA15NL-U1

R454B



SUZ-AA09/12/15NL

Revision:
- Some descriptions have been revised in REVISED EDITION-A.

OCD879 is void.

Contents

Service manual

Technical data

1 COMBINATION OF INDOOR AND OUTDOOR UNITS

	Indoor unit		Outdoor unit Heat pump type		
			SUZ-		
	Service Ref.	Service Manual No.	AA09 NL-U1	AA12 NL-U1	AA15 NL-U1
Heat pump without electric heater	SLZ-AF09/12/15NL-U1	OCH857	○	○	○
	SEZ-AD09/12/15NL-U1	HWE24090	○	○	○
	PEAD-AA09/12/15NL-U1	HWE24030	○	○	○
	SVZ-AP12NL-U1		–	○	–
	MLZ-KX09/12NL-U1	OBH957	○	○	–
	MSZ-EX09/12/15NL(B/S/W)-U1	TBH238	○	○	○
	MFZ-KX09/12/15NL-U1	OBH944	○	○	○

2 SAFETY PRECAUTION

MEANINGS OF SYMBOLS DISPLAYED ON THE UNIT

	**WARNING** (Risk of fire)	This unit uses a flammable refrigerant. If the refrigerant leaks and comes in contact with fire or a heating part, it will create a harmful gas and there is a risk of fire.
	Read the OPERATING INSTRUCTIONS carefully before operation.	
	Service personnel are required to carefully read the OPERATING INSTRUCTIONS and INSTALLATION MANUAL before operation.	
	Further information is available in the OPERATING INSTRUCTIONS, INSTALLATION MANUAL, and the like.	

2-1. ALWAYS OBSERVE FOR SAFETY

Before obtaining access to terminal, all supply circuits must be disconnected.

Preparation before the repair service.

- Prepare the proper tools.
- Prepare the proper protectors.
- Provide adequate ventilation.
- After stopping the operation of the air conditioner, turn off the power-supply breaker.
- Discharge the condenser before the work involving the electric parts.

Precautions during the repair service.

- Do not perform the work involving the electric parts with wet hands.
- Do not pour water into the electric parts.
- Do not touch the refrigerant.
- Do not touch the hot or cold areas in the refrigerating cycle.
- When the repair or the inspection of the circuit needs to be done without turning off the power, exercise great caution not to touch the live parts.
- When opening or closing the valve below freezing temperatures, refrigerant may spurt out from the gap between the valve stem and the valve body, resulting in injuries.

2-2. CAUTIONS RELATED TO NEW REFRIGERANT

Cautions for units utilizing refrigerant R454B

Use new refrigerant pipes.

In the case of using the existing pipes for R22, R410A, be careful with the following:
· Be sure to clean the pipes and make sure that the insides of the pipes are clean.
· Change flare nut to the one provided with this product. Use a newly flared pipe.
· Avoid using thin pipes.

Make sure that the inside and outside of refrigerant piping is clean and it has no contaminants such as sulfur, oxides, dirt, shaving particles, etc. which are hazard to refrigerant cycle. In addition, use pipes with specified thickness.

Contamination inside refrigerant piping can cause deterioration of refrigerant oil, etc.

Store the piping to be used indoors during installation and both ends of the piping sealed until just before brazing. (Leave elbow joints, etc. in their packaging.)

If dirt, dust or moisture enters into refrigerant cycle, that can cause deterioration of refrigerant oil or malfunction of compressor.

The refrigerant oil applied to flare and flange connections must be ester oil, ether oil or alkylbenzene oil in a small amount.

If large amount of mineral oil enters, that can cause deterioration of refrigerant oil, etc.

Charge refrigerant from liquid phase of gas cylinder.

If the refrigerant is charged from gas phase, composition change may occur in refrigerant and the efficiency will be lowered.

Do not use refrigerant other than R454B.

If other refrigerant (R22, R410A, etc.) is used, chlorine in refrigerant can cause deterioration of refrigerant oil, etc.

Use a vacuum pump with a reverse flow check valve.

Vacuum pump oil may flow back into refrigerant cycle and that can cause deterioration of refrigerant oil, etc.

Use the following tools specifically designed for use with R454B refrigerant.

The following tools are necessary to use R454B refrigerant.

Tools for R454B	
Gauge manifold	Flare tool
Charge hose	Size adjustment gauge
Gas leak detector	Vacuum pump adaptor
Torque wrench	Electronic refrigerant charging scale

Handle tools with care.

If dirt, dust or moisture enters into refrigerant cycle, that can cause deterioration of refrigerant oil or malfunction of compressor.

Do not use a charging cylinder.

If a charging cylinder is used, the composition of refrigerant will change and the efficiency will be lowered.

Ventilate the room if refrigerant leaks during operation. If refrigerant comes into contact with a flame, poisonous gases will be released.

Use the specified refrigerant only.

Never use any refrigerant other than that specified.
Doing so may cause a burst, an explosion, or fire when the unit is being used, serviced, or disposed of.
Correct refrigerant is specified in the manuals and on the spec labels provided with our products.
We will not be held responsible for mechanical failure, system malfunction, unit breakdown or accidents caused by failure to follow the instructions.

[1] Warning for service

(1) Do not alter the unit.
(2) For installation and relocation work, follow the instructions in the Installation Manual and use tools and pipe components specifically made for use with refrigerant specified in the outdoor unit installation manual.
(3) Ask a dealer or an authorized technician to install, relocate and repair the unit.
(4) Refrigerant pipes connection shall be accessible for maintenance purposes.
(5) If the air conditioner is installed in a small room or closed room, measures must be taken to prevent the refrigerant concentration in the room from exceeding the safety limit in the event of refrigerant leakage. Should the refrigerant leak and cause the concentration limit to be exceeded, hazards due to lack of oxygen in the room may result.
(6) Keep gas-burning appliances, electric heaters, and other fire sources (ignition sources) away from the location where installation, repair, and other air conditioner work will be performed.
If refrigerant comes into contact with a flame, poisonous gases will be released.
(7) When installing or relocating, or servicing the air conditioner, use only the specified refrigerant (R454B) to charge the refrigerant lines.
Do not mix it with any other refrigerant and do not allow air to remain in the lines.
If air is mixed with the refrigerant, then it can be the cause of abnormal high pressure in the refrigerant line, and may result in an explosion and other hazards.
(8) After installation has been completed, check for refrigerant leaks. If refrigerant leaks into the room and comes into contact with the flame of a heater or portable cooking range, poisonous gases will be released.
(9) Do not use low temperature solder alloy in the case of brazing the refrigerant pipes.
(10) When performing brazing work, be sure to ventilate the room sufficiently. Make sure that there are no hazardous or flammable materials nearby.
When performing the work in a closed room, small room, or similar location, make sure that there are no refrigerant leaks before performing the work.
If refrigerant leaks and accumulates, it may ignite or poisonous gases may be released.
(11) Do not install the unit in places where refrigerant may build-up or places with poor ventilation such as a semibasement or a sunken place in outdoor: Refrigerant is heavier than air, and inclined to fall away from the leak source.
(12) Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
(13) The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
(14) Do not pierce or burn.
(15) Be aware that refrigerants may not contain an odor.
(16) Pipe-work shall be protected from physical damage.
(17) The installation of pipe-work shall be kept to a minimum.
(18) Compliance with national gas regulations shall be observed.
(19) All field joints shall be accessible for inspection prior to being covered or enclosed.
(20) Keep any required ventilation openings clear of obstruction.
(21) Servicing shall be performed only as recommended by the manufacturer.
(22) The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
(23) Maintenance, service and repair operations shall be performed by authorized technician with required qualification.
(24) Be sure to have appropriate ventilation in order to prevent ignition. Furthermore, be sure to carry out fire prevention measures that there are no dangerous or flammable objects in the surrounding area.

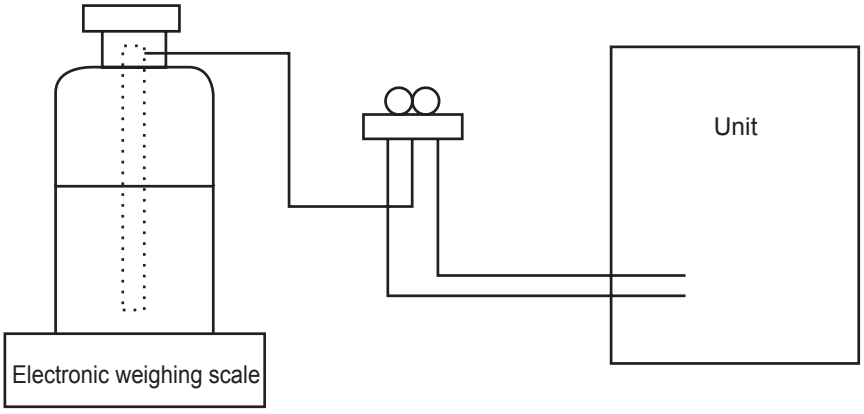
[2] Cautions for service

(1) Perform service after recovering the refrigerant left in unit completely.
(2) Do not release refrigerant in the air.
(3) After completing service, charge the cycle with specified amount of refrigerant.
(4) If moisture or foreign matter might have entered the refrigerant piping during service, ensure to remove them.

[3] Additional refrigerant charge

When charging directly from cylinder

(1) Check that cylinder for R454B on the market is a syphon type.
(2) Charging should be performed with the cylinder of syphon stood vertically. (Refrigerant is charged from liquid phase.)



[4] Cautions for unit using R454B refrigerant

Basic work procedures are the same as those for conventional units using refrigerant R410A. However, pay careful attention to the following points.

(1) Information on servicing

(1-1) Checks on the Area

Prior to beginning work on systems containing FLAMMABLE REFRIGERANTS, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating systems, (1-3) to (1-7) shall be completed prior to conducting work on the systems.

(1-2) Work Procedure

Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapor being present while the work is being performed.

(1-3) General Work Area

All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out.

Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

(1-4) Checking for Presence of Refrigerant

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

(1-5) Presence of Fire Extinguisher

If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand.

Have a dry powder or CO2 fire extinguisher adjacent to the charging area.

(1-6) No Ignition Sources

No person carrying out work in relation to a REFRIGERATING SYSTEM which involves exposing any pipe work shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

(1-7) Ventilated Area

Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

(1-8) Checks on the Refrigeration Equipment

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance.

The following checks shall be applied to installations using FLAMMABLE REFRIGERANTS:

- the actual REFRIGERANT CHARGE is in accordance with the room size within which the refrigerant containing parts are installed;
- the ventilation machinery and outlets are operating adequately and are not obstructed;
- marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;
- refrigerating pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

(1-9) Checks on Electrical Devices

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment so all parties are advised.

Initial safety checks shall include:

- that capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
- that no live electrical components and wiring are exposed while charging, recovering or purging the system;
- that there is continuity of earth bonding.

(2) Repairs to Sealed Components
Sealed electrical components shall be replaced.

(3) Repair to intrinsically Safe Components
Intrinsically safe components must be replaced.

(4) Cabling
Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

(5) Detection of Flammable Refrigerants
Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.
The following leak detection methods are deemed acceptable for all refrigerant systems.
Electronic leak detectors may be used to detect refrigerant leaks but, in the case of FLAMMABLE REFRIGERANTS, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.)
Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.
Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25 % maximum) is confirmed.
Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.
If a leak is suspected, all naked flames shall be removed/extinguished.
If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.

(6) Removal and Evacuation
When breaking into the refrigerant circuit to make repairs - or for any other purpose -conventional procedures shall be used.
However, for flammable refrigerants it is important that best practice be followed, since flammability is a consideration.
The following procedure shall be adhered to:
• safely remove refrigerant following local and national regulations;
• evacuate;
• purge the circuit with inert gas;
• evacuate;
• continuously flush or purge with inert gas when using flame to open circuit; and
• open the circuit.
The refrigerant charge shall be recovered into the correct recovery cylinders if venting is not allowed by local and national codes.
For appliances containing flammable refrigerants, the system shall be purged with oxygen-free nitrogen to render the appliance safe for flammable refrigerants. This process might need to be repeated several times.
Compressed air or oxygen shall not be used for purging refrigerant systems.
For appliances containing flammable refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum.
This process shall be repeated until no refrigerant is within the system. When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
The outlet for the vacuum pump shall not be close to any potential ignition sources, and ventilation shall be available.

(7) Charging Procedures
In addition to conventional charging procedures, the following requirements shall be followed.
• Ensure that contamination of different refrigerants does not occur when using charging equipment.
Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
• Cylinders shall be kept in an appropriate position according to the instructions.
• Ensure that the REFRIGERATING SYSTEM is earthed prior to charging the system with refrigerant.
• Label the system when charging is complete (if not already).
• Extreme care shall be taken not to overfill the REFRIGERATING SYSTEM.
Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas.
The system shall be leak-tested on completion of charging but prior to commissioning.
A follow up leak test shall be carried out prior to leaving the site.

(8) Decommissioning

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely.

Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant.

It is essential that electrical power is available before the task is commenced.

- Become familiar with the equipment and its operation.
- Isolate system electrically.
- Before attempting the procedure, ensure that:
  - mechanical handling equipment is available, if required, for handling refrigerant cylinders;
  - all personal protective equipment is available and being used correctly;
  - the recovery process is supervised at all times by a competent person;
  - recovery equipment and cylinders conform to the appropriate standards.
- Pump down refrigerant system, if possible.
- If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
- Make sure that cylinder is situated on the scales before recovery takes place.
- Start the recovery machine and operate in accordance with instructions.
- Do not overfill cylinders (no more than 80 % volume liquid charge).
- Do not exceed the maximum working pressure of the cylinder, even temporarily.
- When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
- Recovered refrigerant shall not be charged into another REFRIGERATING SYSTEM unless it has been cleaned and checked.

(9) Labelling

Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant.

The label shall be dated and signed.

For appliances containing FLAMMABLE REFRIGERANTS, ensure that there are labels on the equipment stating the equipment contains FLAMMABLE REFRIGERANT.

(10) Recovery

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.

When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed.

Ensure that the correct number of cylinders for holding the total system charge is available.

All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e., special cylinders for the recovery of refrigerant).

Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order.

Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.

The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of the flammable refrigerant.

If in doubt, the manufacturer should be consulted. In addition, a set of calibrated weighing scales shall be available and in good working order.

Hoses shall be complete with leak-free disconnect couplings and in good condition.

The recovered refrigerant shall be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged.

Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that FLAMMABLE REFRIGERANT does not remain within the lubricant.

The compressor body shall not be heated by an open flame or other ignition sources to accelerate this process.

When oil is drained from a system, it shall be carried out safely.

[5] Service tools

Use the below service tools as exclusive tools for R454B refrigerant.

No.	Tool name	Specifications
①	Gauge manifold	· Only for R454B
		· Use the existing fitting specifications.
		· Use high-tension side pressure of 768.7 PSIG [5.3 MPa.G] or over.
②	Charge hose	· Only for R454B
		· Use pressure performance of 738.2 PSIG [5.09 MPa.G] or over.
③	Electronic weighing scale	—
④	Gas leak detector	· Use the detector for R134a, R407C, R410A or R454B
⑤	Adaptor for reverse flow check	· Attach on vacuum pump.
⑥	Refrigerant charge base	—
⑦	Refrigerant cylinder	· Only for R454B ·Top of cylinder (Pink)
		· Cylinder with syphon
⑧	Refrigerant recovery equipment	—

2-3. CAUTIONS FOR REFRIGERANT PIPING WORK

New refrigerant R454B is adopted for replacement inverter series. Although the refrigerant piping work for R454B is same as for R22/R410A, exclusive tools are necessary so as not to mix with different kind of refrigerant. Furthermore as the working pressure of R454B is 1.6 times higher than that of R22, their sizes of flared sections and flare nuts are different.

① Thickness of pipes

Since the working pressure of R454B is higher compared to R22, be sure to use refrigerant piping with thickness shown below. (Never use pipes of 7/256 inch [0.7 mm] or below.)

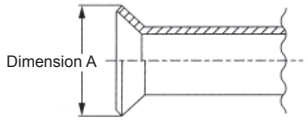
Diagram below: Piping diameter and thickness

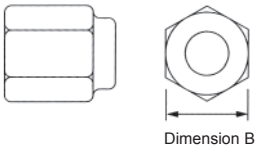
Nominal dimensions (inch)	Outside diameter (mm)	Thickness : inch [mm]	
		R454B/R410A	R22
1/4	6.35	1/32 [0.8]	1/32 [0.8]
3/8	9.52	1/32 [0.8]	1/32 [0.8]
1/2	12.70	1/32 [0.8]	1/32 [0.8]

② Dimensions of flare cutting and flare nut

The component molecules in HFC refrigerant are smaller compared to conventional refrigerants. In addition to that, R454B is a refrigerant, which has higher risk of leakage because its working pressure is higher than that of other refrigerants. Therefore, to enhance air tightness and strength, flare cutting dimension of copper pipe for R454B has been specified separately from the dimensions for other refrigerants as shown below. The dimension B of flare nut for R454B also has partly been changed to increase strength as shown below. Set copper pipe correctly referring to copper pipe flaring dimensions for R454B below. For 1/2 and 5/8 inch pipes, the dimension B changes.

Use torque wrench corresponding to each dimension.





Flare cutting dimensions

Nominal dimensions (inch)	Outside diameter (mm)	Dimension A ($^{+0}_{-0.4}$)	
		R454B/R410A (inch [mm])	R22 (mm)
1/4	6.35	11/32-23/64 [9.1]	9.0
3/8	9.52	1/2-33/64 [13.2]	13.0
1/2	12.70	41/64-21/32 [16.6]	16.2

Flare nut dimensions

Nominal dimensions (inch)	Outside diameter (mm)	Dimension B	
		R454B/R410A (inch [mm])	R22 (mm)
1/4	6.35	43/64 [17.0]	17.0
3/8	9.52	7/8 [22.0]	22.0
1/2	12.70	1-3/64 [26.0]	24.0

③ Tools for R454B (The following table shows whether conventional tools can be used or not.)

Tools and materials	Use	R454B tools	Can R22 tools be used ?	Can R410A tools be used ?
Gauge manifold	Air purge, refrigerant charge and operation check	Tool exclusive for R454B	×	○
Charge hose		Tool exclusive for R454B	×	○
Gas leak detector	Gas leak check	Tool for HFC refrigerant	×	○
Refrigerant recovery equipment	Refrigerant recovery	Tool exclusive for R454B	×	○
Refrigerant cylinder	Refrigerant charge	Tool exclusive for R454B	×	×
Applied oil	Apply to flared section	Ester oil, ether oil and alkylbenzene oil (minimum amount)	×	Ester oil, ether oil: ○ Alkylbenzene oil: minimum amount
Safety charger	Prevent compressor malfunction when charging refrigerant by spraying liquid refrigerant	Tool exclusive for R454B	×	○
Charge valve	Prevent gas from blowing out when detaching charge hose	Tool exclusive for R454B	×	○
Vacuum pump	Vacuum drying and air purge	Tools for other refrigerants can be used if equipped with adapter for reverse flow check	△ (Usable if equipped with adapter for reverse flow)	△ (Usable if equipped with adapter for reverse flow)
Flare tool*	Flaring work of piping	Tools for other refrigerants can be used by adjusting flaring dimension	△ (Usable by adjusting flaring dimension)	△ (Usable by adjusting flaring dimension)
Bender	Bend the pipes	Tools for other refrigerants can be used	○	○
Pipe cutter*	Cut the pipes	Tools for other refrigerants can be used	○	○
Welder and nitrogen gas cylinder	Weld the pipes	Tools for other refrigerants can be used	○	○
Refrigerant charging scale	Refrigerant charge	Tools for other refrigerants can be used	○	○
Vacuum gauge or thermistor vacuum gauge and vacuum valve	Check the degree of vacuum. (Vacuum valve prevents back flow of oil and refrigerant to thermistor vacuum gauge)	Tools for other refrigerants can be used	○	○
Charging cylinder	Refrigerant charge	Tool exclusive for R454B	×	×

×: Prepare a new tool. (Use the new tool as the tool exclusive for R454B.)
△: Tools for other refrigerants can be used under certain conditions.
○: Tools for other refrigerants can be used.
* Follow the instructions below to prevent abrasive components contained in sandpaper and cutting tools from entering the refrigerant circuit because those components can cause failures of the compressor and valves.

- To deburr pipes, use a reamer or other deburring tools, not sandpaper.
- To cut pipes, use a pipe cutter, not a grinder or other tools that use abrasive materials.
- When cutting or deburring pipes, do not allow cutting chips or other foreign matters to enter the pipes.
- If cutting chips or other foreign matters enter pipes, wipe them off the inside of the pipes.

⚠ WARNING

■ Except for MFZ (Floor-standing) series

- The mounting height of indoor unit shall be 5.9 ft (1.8 m) or more from the floor. Up to 7.5 ft (2.3 m) is recommended.
- The unit shall be installed in rooms that meet or exceed the minimum room area (A_{min}) determined by total refrigerant amount (M).

M			A_{min}	
[kg]	[lbs, oz]		[m^2]	[ft^2]
0.5	1	1	1.9	21
0.6	1	5	2.3	25
0.7	1	8	2.6	28
0.8	1	12	3.0	33
0.9	1	15	3.4	37
1.0	2	3	3.8	41
1.1	2	6	4.1	45
1.2	2	10	4.5	49
1.3	2	13	4.9	53
1.4	3	1	5.2	56
1.5	3	4	5.6	61
1.6	3	8	6.0	65
1.7	3	11	6.3	68
1.8	3	15	6.8	74
1.9	4	3	7.2	78
2.0	4	6	7.6	82
2.1	4	10	7.9	86
2.2	4	13	8.3	90
2.3	5	1	8.7	94
2.4	5	4	9.1	98
2.5	5	8	9.4	102
2.6	5	11	9.8	106
2.7	5	15	10.2	110
2.8	6	2	10.6	115

* Refer to the installation manual of the indoor unit for details on how to install the indoor unit.

- For ducted systems to one or more rooms, first determine the system's refrigerant amount, then refer to the indoor unit installation manual for each room's restriction for minimum area.

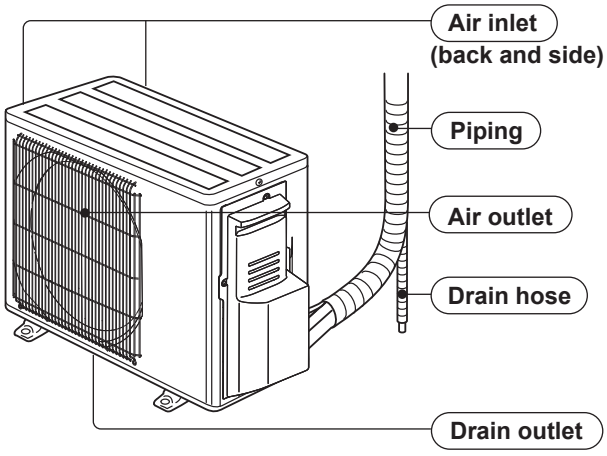
■ For MFZ (Floor-standing) series

- Do not install the indoor unit at a place higher than 5.9 in. (150 mm).
- The unit shall be installed in rooms that meet or exceed the minimum room area (A_{min}) determined by total refrigerant amount (M).

M			A_{min}	
[kg]	[lbs, oz]		[m^2]	[ft^2]
0.5	1	1	1.9	21
0.6	1	5	2.3	25
0.7	1	8	2.6	28
0.8	1	12	3.0	33
0.9	1	15	3.4	37
1.0	2	3	3.8	41
1.1	2	6	4.1	45
1.2	2	10	4.5	49
1.3	2	13	4.9	53
1.4	3	1	5.2	56
1.5	3	4	5.6	61
1.6	3	8	6.0	65
1.7	3	11	6.3	68
1.8	3	15	6.7	73
1.9	4	3	7.1	77
2.0	4	6	7.5	81
2.1	4	10	7.8	84
2.2	4	13	8.2	89
2.3	5	1	8.6	93
2.4	5	4	8.9	96
2.5	5	8	9.3	101
2.6	5	11	9.7	105
2.7	5	15	10.0	108
2.8	6	2	10.4	112

3 PART NAMES AND FUNCTIONS

SUZ-AA09NL-U1 SUZ-AA12NL-U1 SUZ-AA15NL-U1



4 SPECIFICATION

Outdoor unit model			SUZ-AA09NL	SUZ-AA12NL	SUZ-AA15NL
Power supply		V, phase, Hz	208/230, 1, 60		
MOP		A	22	23	29
MCA		A	13	14	17
Fan motor		F.L.A	0.50		
Compressor	Model		SRB092FQFMC		SRB140FQHMC
	Refrigeration oil oz(L)/(Model)		11.8 (0.35)/(RM68EH)		
Refrigerant control			Linear expansion valve		
Sound level*1	Cooling	dB(A)	48	49	
	Heating	dB(A)	50	51	
Defrost method			Reverse cycle		
Dimensions	W	in. (mm)	31-1/2 (800)		
	D	in. (mm)	11-1/4 (285)		
	H	in. (mm)	21-5/8 (550)		
Weight		lbs (kg)	81 (37)		
External finish			Munsell 3Y 7.8/1.1		
Control voltage (by built-in transformer)		VDC	12 - 24		
Refrigerant piping			Not supplied		
Refrigerant pipe size (Min. wall thickness)	Liquid	in. (mm)	1/4 (ø6.35) (0.0315)		
	Gas	in. (mm)	3/8 (ø9.52) (0.0315)		1/2 (ø12.7) (0.0315)
Connection method	Indoor		Flared		
	Outdoor		Flared		
Between the indoor & outdoor units	Height difference	ft (m)	40 (12)		
	Piping length	ft (m)	65 (20)		
Refrigerant charge (R454B)			2 lb (0.90 kg)		2 lb 4 oz (1.02 kg)

Note: Test conditions are based on AHRI 210/240.
Rating conditions (Cooling) — Indoor: 80˚F D.B., 67˚F W.B., Outdoor: 95˚F D.B., (75˚F W.B.)
(Heating) — Indoor: 70˚F D.B., 60˚F W.B., Outdoor: 47˚F D.B., 43˚F W.B.

OPERATING RANGE

(1) POWER SUPPLY

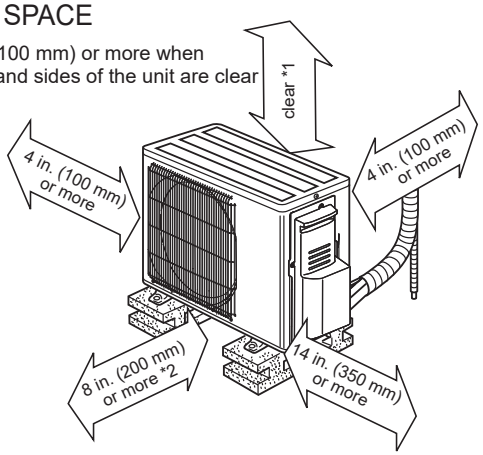
	Rated voltage	Guaranteed voltage (V)
Outdoor unit	208/230 V 1 phase 60 Hz	Min. 187 208 230 Max. 253

5 OUTLINES AND DIMENSIONS

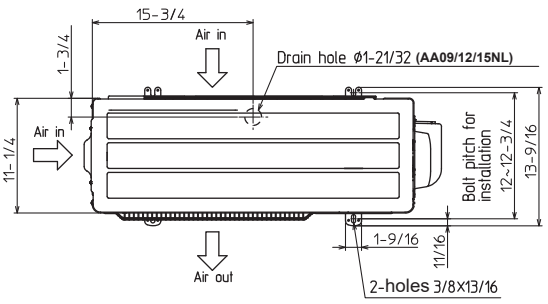
Unit: inch(mm)

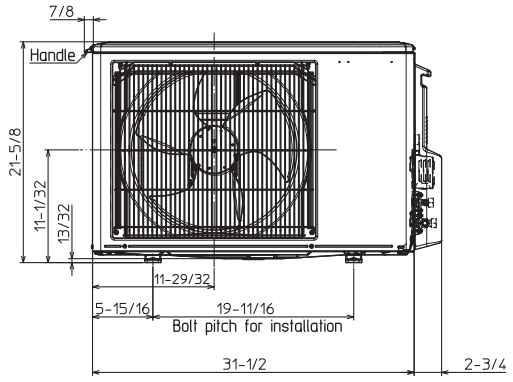
REQUIRED SPACE

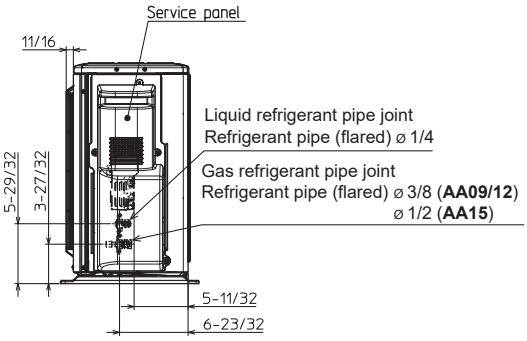
*1 4 in. (100 mm) or more when front and sides of the unit are clear



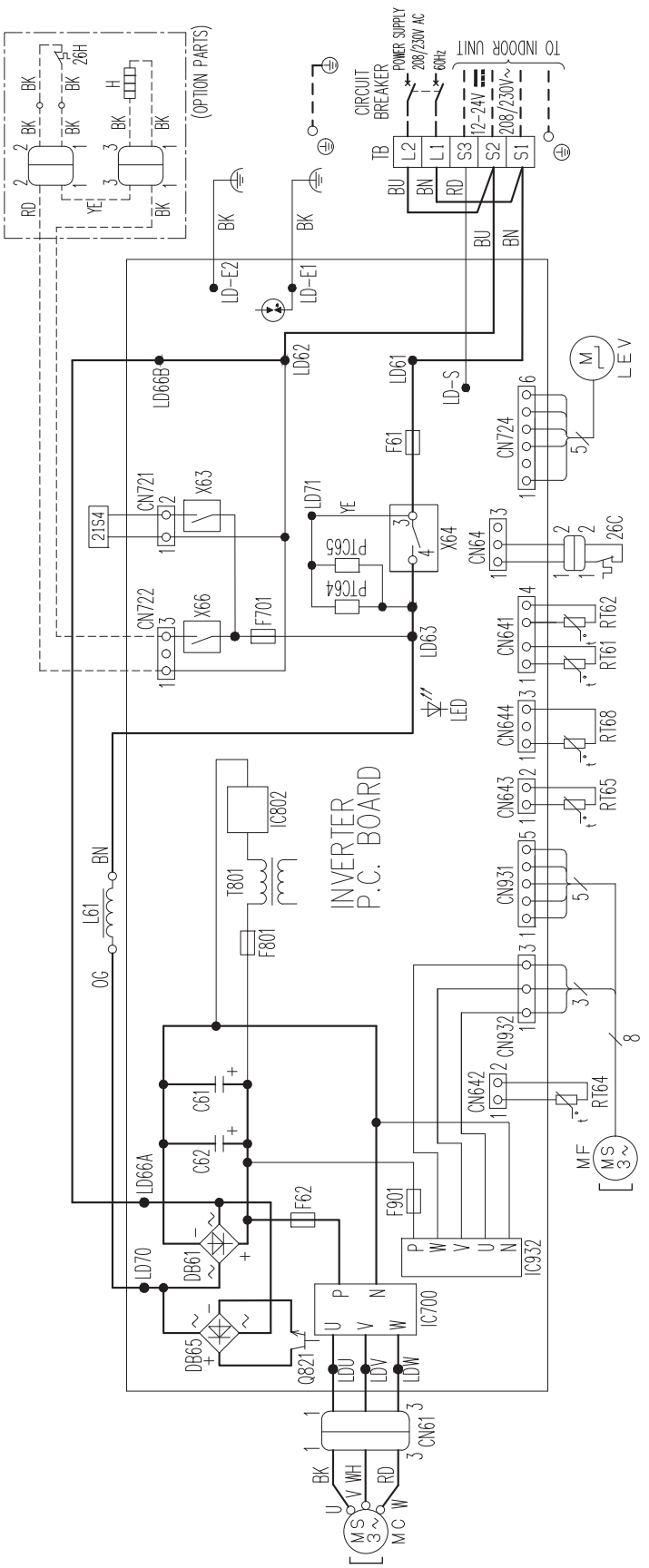
*2 When any 2 sides of left, right and rear of the unit are clear







6 WIRING DIAGRAM

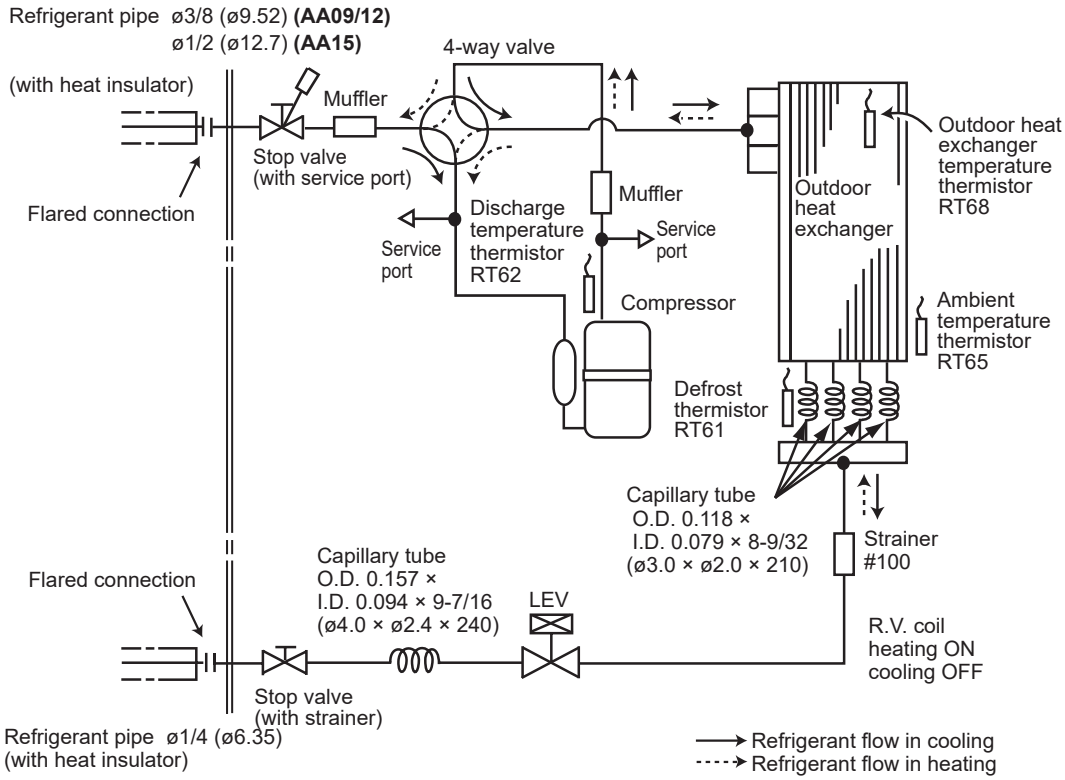


NOTES:
1.About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2.Use copper supply wires.
3.Symbols indicate, □□□ : Terminal block, ○○○ : Connector

REMARQUES:
1.Pour le câblage électronique côté intérieur, se reporter au schéma d'entretien du câblage électronique de l'appareil intérieur.
2.Utiliser des fils d'alimentation en cuivre.
3.Les symboles ont les significations suivantes, □□□ : Borne, ○○○ : Connecteur

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LEV	EXPANSION VALVE COIL	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
C61,C62	SMOOTHING CAPACITOR	L61	REACTOR		
DB61,DB65	DIODE MODULE	MC	COMPRESSOR	TB	TERMINAL BLOCK
F61	FUSE (25A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F62	FUSE (15A 250V)	PTC64,PTC65	CIRCUIT PROTECTION	X63,X64,X66	RELAY
F701,F801,F901	FUSE(T3.15AL250V)	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
H	DEFROST HEATER(OPTION PARTS)	RT61	DEFROST THERMISTOR	26C	COMPRESSOR PROTECTOR
IC700,IC932	POWER MODULE	RT62	DISCHARGE TEMP. THERMISTOR	26H	HEATER PROTECTOR(OPTION PARTS)
IC802	POWER DEVICE	RT64	FIN TEMP. THERMISTOR		
LED	LED	RT65	AMBIENT TEMP. THERMISTOR		

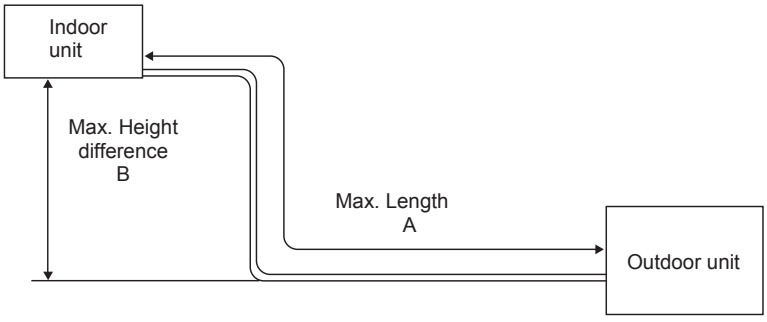
7 REFRIGERANT SYSTEM DIAGRAM



Unit: Inch (mm)

MAX. REFRIGERANT PIPING LENGTH and MAX. HEIGHT DIFFERENCE

Model	Refrigerant piping: ft (m)		Piping size O.D: in (mm)	
	Max. Length A	Max. Height difference B	Gas	Liquid
SUZ-AA 09/12/15NL	65 (20)	40 (12)	3/8 (ø9.52) **(AA09/12)** 1/2 (ø12.7) **(AA15)**	1/4 (ø6.35)



ADDITIONAL REFRIGERANT CHARGE (R454B: oz (g))

Refrigerant piping exceeding 25 ft (7.6 m) requires additional refrigerant charge according to the calculation.

Model	Outdoor unit precharged	Refrigerant piping length (one way): ft (m)					
		25 (7.6)	30 (9.1)	40 (12.2)	50 (15.2)	60 (18.2)	65 (20.0)
SUZ-AA09NL	2 lb (0.90 kg)	0	0	0	0	0	0
SUZ-AA12NL	2 lb (0.90 kg)						
SUZ-AA15NL	2 lb 4 oz (1.02 kg)	0	1.08 oz (30 g)	3.24 oz (90 g)	5.4 oz (150 g)	7.56 oz (210 g)	8.64 oz (240 g)

Calculation: X oz = 1.08/5 oz / ft × (Refrigerant piping length (ft) - 25)

8 DATA

STANDARD OPERATION DATA

Representative matching				SEZ-AD09NL-U1		SEZ-AD12NL-U1		SEZ-AD15NL-U1	
Item			Unit	Cooling	Heating	Cooling	Heating	Cooling	Heating
Total	Capacity		Btu/h	9000	12000	12000	15000	15000	18000
	SHF		-	0.80	—	0.77	—	0.76	—
	Input		kW	0.76	1.10	0.99	1.30	1.13	1.40
Electrical circuit	Indoor unit			SEZ-AD09NL-U1		SEZ-AD12NL-U1		SEZ-AD15NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60					
	Input		kW	0.05		0.06	0.05	0.09	0.08
	Current		A	0.44	0.39	0.50	0.45	0.71	0.66
	Outdoor unit			SUZ-AA09NL-U1		SUZ-AA12NL-U1		SUZ-AA15NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60					
	Input		kW	0.68	0.99	0.91	1.22	1.04	1.30
	Current		A	2.74	4.14	3.72	5.07	4.20	5.34
Refrigerant circuit	Condensing pressure		psig	333	401	351	346	366	344
	Suction pressure		psig	124	100	134	93	129	90
	Discharge temperature		°F	155	180	157	173	160	166
	Condensing temperature		°F	107	119	105	104	109	104
	Suction temperature		°F	48	35	52	35	52	32
	Ref. pipe length		ft (m)	25 (7.6)					
	Refrigerant charge (R454B)		-	2 lb (0.9 kg)				2 lb 4 oz (1.02 kg)	
Indoor unit	Intake air temperature	DB	°F	80	70	80	70	80	70
		WB	°F	67	60	67	60	67	60
	Discharge air temperature	DB	°F	60	103	56	105	57	101
Outdoor unit	Intake air temperature	DB	°F	95	47	95	47	95	47
		WB	°F	75	43	75	43	75	43

Representative matching				SLZ-AF09NL-U1		SLZ-AF12NL-U1		SLZ-AF15NL-U1	
Item			Unit	Cooling	Heating	Cooling	Heating	Cooling	Heating
Total	Capacity		Btu/h	9000	12000	12000	15000	15000	18000
	SHF		-	0.91	—	0.84	—	0.72	—
	Input		kW	0.68	0.91	0.96	1.35	1.24	1.58
Electrical circuit	Indoor unit			SLZ-AF09NL-U1		SLZ-AF12NL-U1		SLZ-AF15NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60					
	Input		kW	0.02	0.02	0.02	0.02	0.03	0.03
	Current		A	0.2	0.15	0.24	0.19	0.32	0.27
	Outdoor unit			SUZ-AA09NL-U1		SUZ-AA12NL-U1		SUZ-AA15NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60					
	Input		kW	0.65	0.89	0.94	1.33	1.21	1.55
	Current		A	2.72	3.79	3.93	5.67	5.22	6.73
Refrigerant circuit	Condensing pressure		psig	331	356	353	372	375	420
	Suction pressure		psig	137	98	130	94	120	91
	Discharge temperature		°F	152	163	159	184	172	195
	Condensing temperature		°F	107		104	110	116	118
	Suction temperature		°F	59	36	51	35	48	32
	Ref. pipe length		ft (m)	25 (7.6)					
	Refrigerant charge (R454B)		-	2 lb (0.9 kg)				2 lb 4 oz (1.02 kg)	
Indoor unit	Intake air temperature	DB	°F	80	70	80	70	80	70
		WB	°F	67	60	67	60	67	60
	Discharge air temperature	DB	°F	58	101	57	105	56	109
Outdoor unit	Intake air temperature	DB	°F	95	47	95	47	95	47
		WB	°F	75	43	75	43	75	43

Representative matching				PEAD-AA09NL-U1		PEAD-AA12NL-U1		PEAD-AA15NL-U1	
Item			Unit	Cooling	Heating	Cooling	Heating	Cooling	Heating
Total	Capacity		Btu/h	9000	12000	12000	15000	15000	18000
	SHF		-	0.95	—	0.91	—	0.87	—
	Input		kW	0.68	0.93	0.96	1.28	1.22	1.28
Electrical circuit	Indoor unit			PEAD-AA09NL-U1		PEAD-AA12NL-U1		PEAD-AA15NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60					
	Input		kW	0.04		0.06		0.09	
	Current		A	0.39		0.50		0.72	
	Outdoor unit			SUZ-AA09NL-U1		SUZ-AA12NL-U1		SUZ-AA15NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60					
	Input		kW	0.67	0.89	0.89	1.21	1.13	1.19
	Current		A	2.70	3.65	3.67	5.05	4.76	5.02
Refrigerant circuit	Condensing pressure		psig	331	344	352	344	374	302
	Suction pressure		psig	139	97	135	93	135	90
	Discharge temperature		°F	148	162	159	173	165	160
	Condensing temperature		°F	107	104	104	105	116	99
	Suction temperature		°F	56	39	55	35	53	35
	Ref. pipe length		ft (m)	25 (7.6)					
	Refrigerant charge (R454B)		-	2 lb (0.9 kg)				2 lb 4 oz (1.02 kg)	
Indoor unit	Intake air temperature	DB	°F	80	70	80	70	80	70
		WB	°F	67	60	67	60	67	60
	Discharge air temperature	DB	°F	58	101	57	100	59	99
Outdoor unit	Intake air temperature	DB	°F	95	47	95	47	95	47
		WB	°F	75	43	75	43	75	43

Representative matching				SVZ-AP12NL-U1		MLZ-KX09NL-U1		MLZ-KX12NL-U1	
Item			Unit	Cooling	Heating	Cooling	Heating	Cooling	Heating
Total	Capacity		Btu/h	11400	15000	9000	12000	11300	14600
	SHF		-	0.85	—	0.80	—	0.74	—
	Input		kW	0.94	1.28	0.76	0.91	0.95	1.33
Electrical circuit	Indoor unit			SVZ-AP12NL-U1		MLZ-KX09NL-U1		MLZ-KX12NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60		230, 1, 60			
	Input		kW	0.13		0.04			
	Current		A	1.17		0.3			
	Outdoor unit			SUZ-AA12NL-U1		SUZ-AA09NL-U1		SUZ-AA12NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60		230, 1, 60			
	Input		kW	0.81	1.15	0.71	0.87	0.91	1.29
	Current		A	2.92	4.40	2.98	3.64	3.82	5.48
Refrigerant circuit	Condensing pressure		psig	344	325	331	357	348	378
	Suction pressure		psig	140	93	124	98	121	94
	Discharge temperature		°F	154	165	158	165	160	186
	Condensing temperature		°F	107	100	107		104	111
	Suction temperature		°F	57	34	55	37	47	35
	Ref. pipe length		ft (m)	25 (7.6)		25 (7.6)			
	Refrigerant charge (R454B)		-	2 lb (0.9 kg)		2 lb (0.9 kg)			
Indoor unit	Intake air temperature	DB	°F	80	70	80	70	80	70
		WB	°F	67	60	67	60	67	60
	Discharge air temperature	DB	°F	58	101	55	110	52	116
Outdoor unit	Intake air temperature	DB	°F	95	47	95	47	95	47
		WB	°F	75	43	75	43	75	43

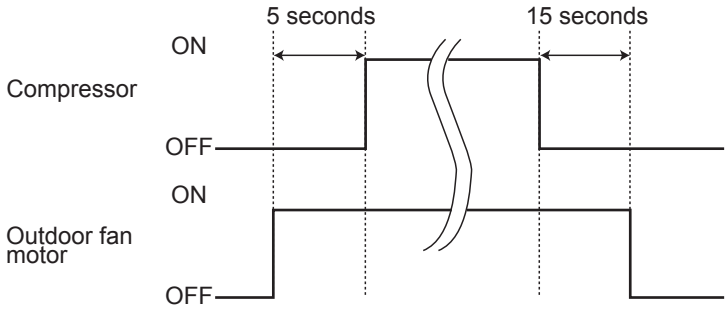
Representative matching				MSZ-EX09NL(B/S/W)-U1		MSZ-EX12NL(B/S/W)-U1		MSZ-EX15NL(B/S/W)-U1	
Item			Unit	Cooling	Heating	Cooling	Heating	Cooling	Heating
Total	Capacity		Btu/h	9000	12000	12000	15000	15000	18000
	SHF		-	0.97	—	0.82	—	0.71	—
	Input		kW	0.70	0.80	0.98	1.20	1.23	1.45
Electrical circuit	Indoor unit			MSZ-EX09NL(B/S/W)-U1		MSZ-EX12NL(B/S/W)-U1		MSZ-EX15NL(B/S/W)-U1	
	Power supply (V, phase, Hz)			230, 1, 60					
	Input		kW	0.02	0.03	0.02	0.03	0.02	0.03
	Current		A	0.21	0.26	0.21	0.26	0.21	0.26
	Outdoor unit			SUZ-AA09NL-U1		SUZ-AA12NL-U1		SUZ-AA15NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60					
	Input		kW	0.67	0.77	0.95	1.17	1.20	1.42
	Current		A	2.80	3.20	4.01	4.95	5.11	6.03
Refrigerant circuit	Condensing pressure		psig	331	315	353	333	369	371
	Suction pressure		psig	135	97	128	93	110	91
	Discharge temperature		°F	153	148	161	169	168	178
	Condensing temperature		°F	107	98	104	102	106	110
	Suction temperature		°F	58	35	51	35	44	32
	Ref. pipe length		ft (m)	25 (7.6)					
	Refrigerant charge (R454B)		-	2 lb (0.9 kg)				2 lb 4 oz (1.02 kg)	
Indoor unit	Intake air temperature	DB	°F	80	70	80	70	80	70
		WB	°F	67	60	67	60	67	60
	Discharge air temperature	DB	°F	58	97	56	101	53	108
Outdoor unit	Intake air temperature	DB	°F	95	47	95	47	95	47
		WB	°F	75	43	75	43	75	43

Representative matching				MFZ-KX09NL-U1		MFZ-KX12NL-U1		MFZ-KX15NL-U1	
Item			Unit	Cooling	Heating	Cooling	Heating	Cooling	Heating
Total	Capacity		Btu/h	9000	12000	12000	15000	15000	18000
	SHF		-	0.93	—	0.82	—	0.76	—
	Input		kW	0.71	0.81	0.95	1.24	1.15	1.36
Electrical circuit	Indoor unit			MFZ-KX09NL-U1		MFZ-KX12NL-U1		MFZ-KX15NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60		230, 1, 60			
	Input		kW	0.03		0.03		0.03	0.04
	Current		A	0.3		0.3		0.3	0.4
	Outdoor unit			SUZ-AA09NL-U1		SUZ-AA12NL-U1		SUZ-AA15NL-U1	
	Power supply (V, phase, Hz)			230, 1, 60		230, 1, 60			
	Input		kW	0.67	0.77	0.92	1.21	1.12	1.31
	Current		A	2.75	3.18	3.98	5.20	4.69	5.48
Refrigerant circuit	Condensing pressure		psig	330	317	349	340	364	351
	Suction pressure		psig	138	97	130	91	121	91
	Discharge temperature		°F	154	148	162	174	162	168
	Condensing temperature		°F	107	98	111	110	112	105
	Suction temperature		°F	61	35	55	34	49	32
	Ref. pipe length		ft (m)	25 (7.6)		25 (7.6)			
	Refrigerant charge (R454B)		-	2 lb 5 oz (1.05 kg)		2 lb 5 oz (1.05 kg)		2 lb 8 oz (1.15 kg)	
Indoor unit	Intake air temperature	DB	°F	80	70	80	70	80	70
		WB	°F	67	60	67	60	67	60
	Discharge air temperature	DB	°F	58	99	58	107	54	105
Outdoor unit	Intake air temperature	DB	°F	95	47	95	47	95	47
		WB	°F	75	43	75	43	75	43

9 ACTUATOR CONTROL

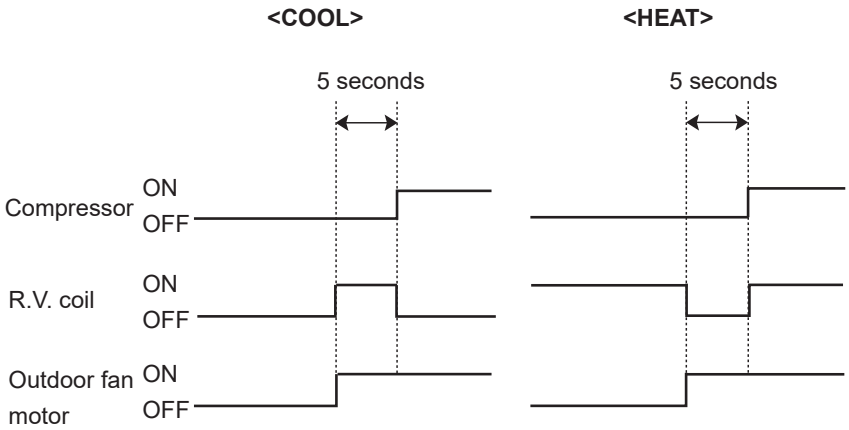
9-1. OUTDOOR FAN MOTOR CONTROL

The fan motor turns ON/OFF, interlocking with the compressor.
[ON] The fan motor turns ON 5 seconds before the compressor starts up.
[OFF] The fan motor turns OFF 15 seconds after the compressor has stopped running.



9-2. R.V. COIL CONTROL

Heating · · · · · · · · · · · · · · · · · ON
Cooling · · · · · · · · · · · · · · · · · OFF
Dry · · · · · · · · · · · · · · · · · · · OFF
NOTE: The 4-way valve reverses for 5 seconds right before startup of the compressor.



9-3. RELATION BETWEEN MAIN SENSOR AND ACTUATOR

Sensor	Purpose	Actuator					
		Compressor	LEV	Outdoor fan motor	R.V. coil	Indoor fan motor	Defrost heater *
Discharge temperature thermistor	Protection	○	○				
Indoor coil temperature thermistor	Cooling: Coil frost prevention	○					
	Heating: High pressure protection	○	○				
Defrost thermistor	Heating: Defrosting	○	○	○	○	○	
Fin temperature thermistor	Protection	○		○			
Ambient temperature thermistor	Cooling: Low ambient temperature operation	○	○	○			
	Heating: Defrosting (Heater)						○
Outdoor heat exchanger temperature thermistor	Cooling: Low ambient temperature operation	○	○	○			
	Cooling: High pressure protection	○	○	○			

*. **SUZ-KA•NAH2** only.

10 SERVICE FUNCTION

10-1. CHANGE IN DEFROST SETTING

Changing defrost finish temperature

<JS> To change the defrost finish temperature, cut/solder the JS wire of the outdoor inverter P.C. board.
(Refer to "11-6. TEST POINT DIAGRAM AND VOLTAGE".)

Jumper		Defrost finish temperature
		SUZ-AA09/12/15
JS	Soldered (Initial setting)	41°F (5°C)
	None (Cut)	50°F (10°C)

10-2. PRE-HEAT CONTROL SETTING

When moisture gets into the refrigerant cycle, it may interfere the startup of the compressor at low outside temperature. The pre-heat control prevents this interference. The pre-heat control turns ON when the discharge temperature is 68°F (20°C) or below. When the pre-heat control turns ON, the compressor is energized. (About 50 W)

Pre-heat control setting

<JK>
ON: To activate the pre-heat control, cut JK wire of the inverter P.C. board.
OFF: To deactivate the pre-heat control, solder JK wire of the inverter P.C. board.
(Refer to "11-6. TEST POINT DIAGRAM AND VOLTAGE".)

Jumper		Pre-heat control setting
JK	Soldered	Deactivated (Factory setting)
	Cut	Activated

NOTE: When the inverter P.C. board is replaced, check the Jumper wires, and cut/solder them if necessary.

11 TROUBLESHOOTING

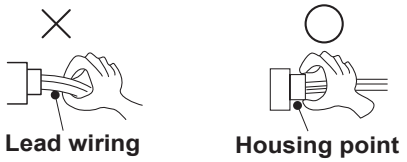
11-1. CAUTIONS ON TROUBLESHOOTING

1. Before troubleshooting, check the following

1) Check the power supply voltage.
2) Check the indoor/outdoor connecting wire for miswiring.

2. Take care of the following during servicing

1) Before servicing the air conditioner, be sure to turn OFF the main unit first with the remote controller, and turn off the breaker.
2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel, and the electronic control P.C. board.
3) When removing the electrical parts, be careful of the residual voltage of smoothing capacitor.
4) When removing the electronic control P.C. board, hold the edge of the board with care NOT to apply stress on the components.
5) When connecting or disconnecting the connectors, hold the housing of the connector. DO NOT pull the lead wires.



3. Troubleshooting procedure

1) First, check if the OPERATION INDICATOR lamp is blinking ON and OFF to indicate an abnormality.
2) Before servicing check that the connector and terminal are connected properly.
3) When the electronic control P.C. board seems to be defective, check the copper foil pattern for disconnection and the components for bursting and discoloration.
4) Refer to "11-2. TROUBLESHOOTING CHECK TABLE" and "11-3. HOW TO PROCEED "SELF-DIAGNOSIS"".

11-2. TROUBLE SHOOTING CHECK TABLE

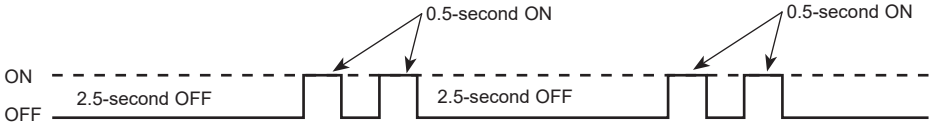
No.	Symptoms	LED indication	error code	Abnormal point/ Condition	Condition	Remedy
1	Outdoor unit does not operate.	1-time blink every 2.5 seconds	UP	Outdoor power system	Overcurrent protection cut-out operates 3 consecutive times within 1 minute after the compressor gets started.	▪Reconnect connector of compressor. ▪Refer to “11-5.Ⓐ How to check inverter/ compressor”. ▪Check stop valve.
2			U3	Outdoor thermistors	Discharge temperature thermistor shorts, or opens during compressor running.	▪Refer to “11-5.Ⓒ Check of outdoor thermistors”.
			U4		Fin temperature thermistor, defrost thermistor, P.C. board temperature thermistor, outdoor heat exchanger temperature thermistor or ambient temperature thermistor shorts, or opens during compressor running.	
3			FC	Outdoor control system	Nonvolatile memory data cannot be read properly.	▪Replace inverter P.C. board.
4		6-time blink 2.5 seconds OFF	E8 E9	Serial signal	The communication fails between the indoor and outdoor unit for 3 minutes.	▪Check indoor/outdoor connecting wire. ▪Replace indoor or outdoor P.C. board if abnormality is displayed again.
5		11-time blink 2.5 seconds OFF	UE	Stop valve/Closed valve	Closed valve is detected by compressor current.	▪Check stop valve.
6		16-time blink 2.5 seconds OFF	PL	Outdoor refrigerant system abnormality	A closed valve and air trapped in the refrigerant circuit are detected based on the temperature sensed by the indoor and outdoor thermistors and the current of the compressor.	▪Check for a gas leak in a connecting piping, etc. ▪Check stop valve. ▪Refer to “11-5.Ⓞ Check of outdoor refrigerant circuit”.
7	'Outdoor unit stops and restarts 3 minutes later' is repeated.	2-time blink 2.5 seconds OFF		Overcurrent protection	Large current flows into intelligent power module.	▪Reconnect connector of compressor. ▪Refer to “11-5.Ⓐ How to check inverter/ compressor”. ▪Check stop valve.
8		3-time blink 2.5 seconds OFF		Discharge temperature overheat protection	Temperature of discharge temperature thermistor exceeds 116°C, compressor stops. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	▪Check refrigerant circuit and refrigerant amount. ▪Refer to “11-5.Ⓚ Check of LEV”.
9		4-time blink 2.5 seconds OFF		Fin temperature/P.C. board temperature thermistor overheat protection	Temperature of fin temperature thermistor on the heat sink exceeds 72 to 86°C or temperature of P.C. board temperature thermistor on the inverter P.C.board exceeds 72 to 85°C.	▪Check around outdoor unit. ▪Check outdoor unit air passage. ▪Refer to “11-5.Ⓘ Check of outdoor fan motor”.
10		5-time blink 2.5 seconds OFF		High pressure protection	Indoor coil thermistor exceeds 70°C in HEAT mode. Defrost thermistor exceeds 70°C in COOL mode.	▪Check refrigerant circuit and refrigerant amount. ▪Check stop valve.
11		8-time blink 2.5 seconds OFF		Compressor synchronous abnormality	The waveform of compressor current is distorted.	▪Reconnect connector of compressor. ▪Refer to “11-5.Ⓐ How to check inverter/ compressor”.
12		10-time blink 2.5 seconds OFF		Outdoor fan motor	Outdoor fan has stopped 3 times in a row within 30 seconds after outdoor fan startup.	▪Refer to “11-5.Ⓘ Check of outdoor fan motor”. ▪Refer to “11-5.Ⓛ Check of inverter P.C. board”.
13		12-time blink 2.5 seconds OFF		Each phase current of compressor	Each phase current of compressor cannot be detected normally.	▪Refer to “11-5.Ⓛ Check of inverter P.C. board”.
14		13-time blink 2.5 seconds OFF		DC voltage	DC voltage of inverter cannot be detected normally.	▪Refer to “11-5.Ⓐ How to check inverter/ compressor”.
15	Outdoor unit operates.	1-time blink 2.5 seconds OFF		Frequency drop by current protection	When the input current exceeds approximately 7A (AA09) / 8A (AA12) / 9A (AA15), compressor	The unit is normal, but check the following. ▪Check if indoor filters are clogged. ▪Check if refrigerant is short. ▪Check if indoor/outdoor unit air circulation is short cycled.
16		3-time blink 2.5 seconds OFF		Frequency drop by high pressure protection	Temperature of indoor coil thermistor exceeds 131 °F [55 °C] in HEAT mode, compressor frequency lowers.	
				Frequency drop by defrosting in COOL mode	Indoor coil thermistor reads 46 °F [8 °C] or less in COOL mode, compressor frequency lowers.	
17		4-time blink 2.5 seconds OFF		Frequency drop by discharge temperature protection	Temperature of discharge temperature thermistor exceeds 232 °F [111 °C], compressor frequency lowers.	▪Check refrigerant circuit and refrigerant amount. ▪Refer to “11-5.Ⓚ Check of LEV”. ▪Refer to “11-5.Ⓒ Check of outdoor thermistors”.
18		7-time blink 2.5 seconds OFF		Low discharge temperature protection	Temperature of discharge temperature thermistor has been 122 °F [50 °C] or less for 20 minutes.	▪Refer to “11-5.Ⓚ Check of LEV”. ▪Check refrigerant circuit and refrigerant amount.
19		8-time blink 2.5 seconds OFF		PAM protection PAM: Pulse Amplitude Modulation	The overcurrent flows into IGBT (Insulated Gate Bipolar transistor:TR821) or the bus-bar voltage reaches 320 V or more, PAM stops and restarts.	This is not malfunction. PAM protection will be activated in the following cases: 1. Instantaneous power voltage drop. (Short time power failure) 2. When the power supply voltage is high.
				Zero cross detecting circuit	Zero cross signal for PAM control cannot be detected.	
20		9-time blink 2.5 seconds OFF		Inverter check mode	The connector of compressor is disconnected, inverter check mode starts.	▪Check if the connector of the compressor is correctly connected. ▪Refer to “11-5.Ⓐ How to check inverter/compressor".
21		18-time blink 2.5 seconds OFF		Refrigerant leakage		▪Check indoor unit.
22		19-time blink 2.5 seconds OFF		Refrigerant sensor error		▪Check indoor unit.
23		20-time blink 2.5 seconds OFF		Abnormality of combination with indoor unit		▪Check indoor unit.

NOTE: 1. The location of LED is illustrated at the right figure. Refer to "11-6. TEST POINT DIAGRAM".
2. LED is lighted during normal operation.

Inverter P.C. board

Blinking → ✱
LED

The blinking frequency shows the number of times the LED blinks after every 2.5-second OFF.
(Example) When the blinking frequency is “2”.

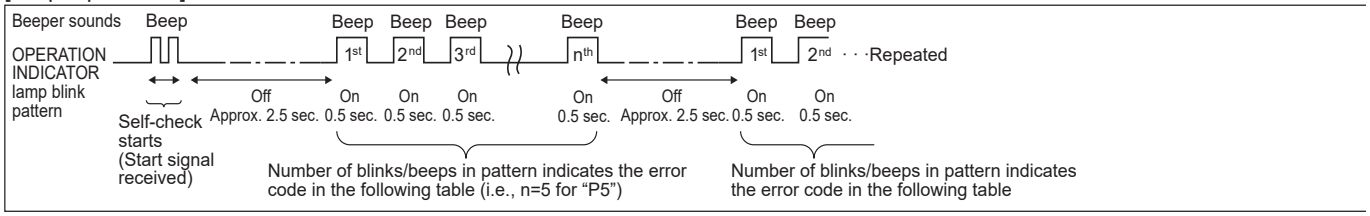


11-3. HOW TO PROCEED "SELF-DIAGNOSIS"

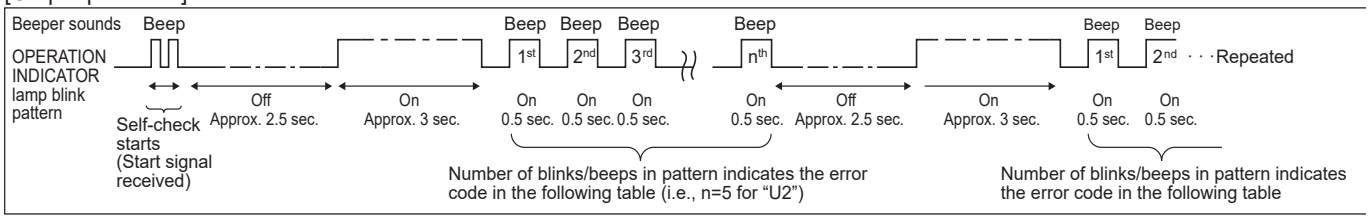
Refer to "14-7. SELF-DIAGNOSIS".

• Refer to the following tables for details on the error codes.

[Output pattern A]



[Output pattern B]



[Output pattern A] Errors detected by indoor unit

Wireless remote controller / Beeper sounds/OPERATION INDICATOR lamp blinks (Number of times)	Wired remote controller / Error code	Symptom	Remark
1	P1	Intake sensor error	As for indoor unit, refer to indoor unit's service manual.
2	P2	Pipe (TH2) sensor error	
	P9	Pipe (TH5) sensor error	
3	E6,E7	Indoor/outdoor unit communication error	
4	P4	Drain sensor error/Float switch connector (CN4F) open	
5	P5	Drain pump error	
	PA	Forced compressor stop (due to water leakage abnormality)	
6	P6	Freezing/Overheating protection operation	
7	EE	Communication error between indoor and outdoor units	
9	E4,E5	Remote controller signal receiving error	
12	Fb (FB)*	Indoor unit control system error (memory error, etc.)	
14	PL	Abnormality of refrigerant circuit	
-	E0,E3	Remote controller transmission error	
-	E1,E2	Remote controller control board error	

*The error code in the parenthesis indicates PAR-4xMAA model ("x" represents 0 or later).

[Output pattern B] Errors detected by unit other than indoor unit (outdoor unit, etc.)

Wireless remote controller / Beeper sounds/OPERATION INDICATOR lamp blinks (Number of times)	Wired remote controller / Error code	Symptom
1	E9	Indoor/outdoor unit communication error (Transmitting error) (Outdoor unit)
2	UP	Compressor overcurrent interruption
3	U3,U4	Open/short of outdoor unit thermistors
14	Others	Other errors (Refer to the technical manual for the outdoor unit.)

Notes:1. If the beeper does not sound again after the initial 2 beeps to confirm the self-check start signal was received and the OPERATION INDICATOR lamp does not come on, there are no error records.

2. If the beeper sounds 3 times continuously "beep, beep, beep (0.4 + 0.4 + 0.4 sec.)" after the initial 2 beeps to confirm the self-check start signal was received, the specified refrigerant address is incorrect.

11-4. TROUBLE CRITERION OF MAIN PARTS

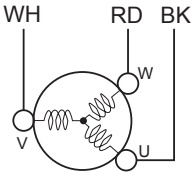
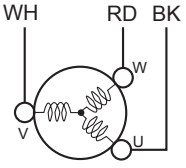
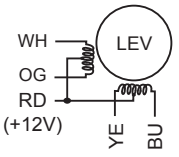
<table>
<tr><th>Part name</th><th>Check method and criterion</th><th>Figure</th></tr>
<tr><td>Defrost thermistor (RT61)

Fin temperature thermistor (RT64)

Ambient temperature thermistor (RT65)

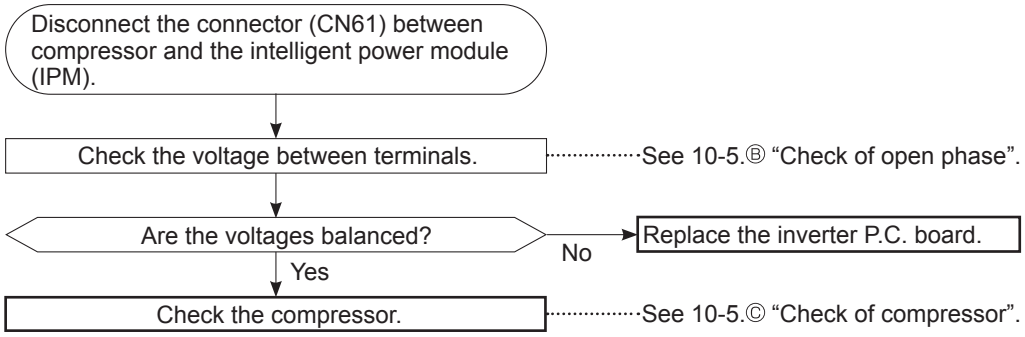
Outdoor heat exchanger temperature thermistor (RT68)</td><td>Measure the resistance with a multimeter.

Refer to “Inverter P.C. board” in "11-6. TEST POINT DIAGRAM AND VOLTAGE”, for the chart of thermistor.</td><td></td></tr>
<tr><td>Discharge temperature thermistor (RT62)</td><td>Measure the resistance with a multimeter. Before measurement, hold the thermistor with your hands to warm it up.

Refer to “Inverter P.C. board” in "11-6. TEST POINT DIAGRAM AND VOLTAGE”, for the chart of thermistor.</td><td></td></tr>
<tr><td>Compressor</td><td>Measure the resistance between terminals with a multimeter.
(Temperature: 14 - 104 °F (-10 - 40 °C))
<table><tr><th></th><th colspan="3">Normal (Ω)</th></tr><tr><th></th><th>AA09</th><th>AA12</th><th>AA15</th></tr><tr><td>U-V
U-W
V-W</td><td>1.26 - 1.72</td><td>1.60 - 2.17</td><td>0.82 - 1.11</td></tr></table></td><td> 
</td></tr>
<tr><td>Outdoor fan motor</td><td>Measure the resistance between lead wires with a multimeter.
(Temperature: 14 ~ 104 °F (-10 ~ 40 °C))
<table><tr><th rowspan="2">Color of lead wire</th><th>Normal (Ω)</th></tr><tr><th>AA09/12/15</th></tr><tr><td>RD – BK
BK – WH
WH – RD</td><td>29 - 40</td></tr></table></td><td> 
</td></tr>
<tr><td>R. V. coil (21S4)</td><td>Measure the resistance using a multimeter.
[Temperature: 14 - 104°F (-10 - 40°C)]
<table><tr><th>Normal (kΩ)</th></tr><tr><td>0.97 - 1.38</td></tr></table></td><td></td></tr>
<tr><td>Expansion valve coil (LEV)</td><td>Measure the resistance using a multimeter.
[Temperature: 14 - 104°F (-10 - 40°C)]
<table><tr><th>Color of lead wire</th><th>Normal (Ω)</th></tr><tr><td>RD – OG</td><td rowspan="4">37 - 54</td></tr><tr><td>RD – WH</td></tr><tr><td>RD – BU</td></tr><tr><td>RD – YE</td></tr></table></td><td> 
</td></tr>
</table>

11-5. TROUBLESHOOTING FLOW

Ⓐ How to check inverter/compressor



Ⓑ Check of open phase

- With the connector between the compressor and the intelligent power module disconnected, activate the inverter and check if the inverter is normal by measuring the voltage balance between the terminals.

Output voltage is 50 - 130 V. (The voltage may differ according to the multimeter.)

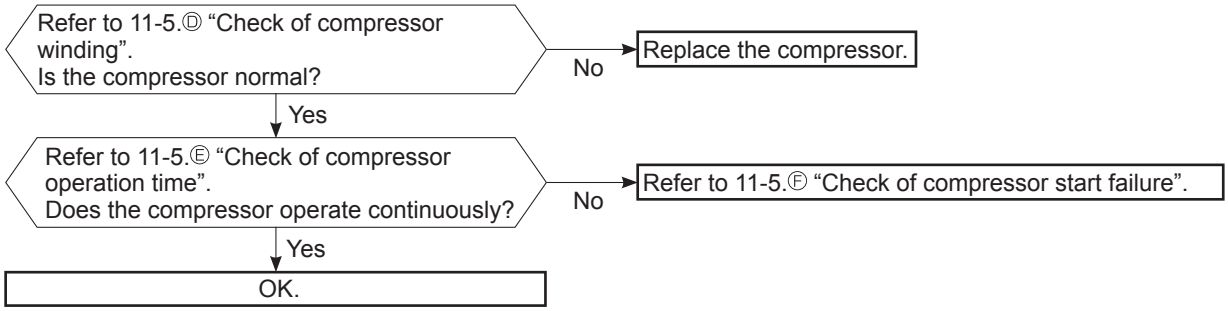
< Operation method (Test run operation)>
1. Press the TEST (RUN) button twice.
2. Press the MODE button and switch to the COOL (or HEAT) mode.
3. Compressor starts at rated frequency in COOL mode or 58 Hz in HEAT mode.
4. Indoor fan operates at High speed.
5. To cancel test run operation, press the ON/OFF button on remote controller.

<Measurement point>
at 3 points
BK (U) - WH (V)
BK (U) - RD (W)
WH(V) - RD (W)

Measure AC voltage between the lead wires at 3 points.

NOTE: 1. Output voltage varies according to power supply voltage.
2. Measure the voltage by analog type multimeter.
3. During this check, LED of the inverter P.C. board blinks 9 times.
(Refer to "11-6. TEST POINT DIAGRAM AND VOLTAGE".)

Ⓒ Check of compressor



Ⓓ Check of compressor winding

● Disconnect the connector between the compressor and intelligent power module, and measure the resistance between the compressor terminals.

<Measurement point>

Measure the resistance between the lead wires at 3 points.

BK - WH

BK - RD

WH - RD

<Judgement>

Refer to "11-4. TROUBLE CRITERION OF MAIN PARTS".

0[Ω] ····· Abnormal [short]

Infinite [Ω]····· Abnormal [open]

NOTE: Be sure to zero the ohmmeter before measurement.

Ⓔ Check of compressor operation time

●Connect the compressor and activate the inverter. Then measure the time until the inverter stops due to overcurrent.

<Operation method>

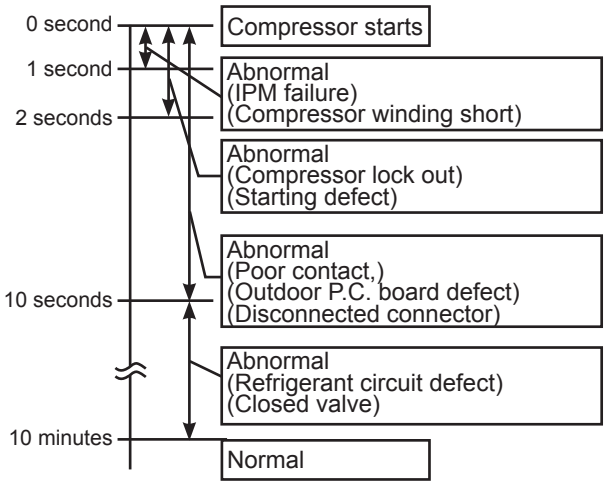
Start heating or cooling operation by pressing the TEST button twice on the remote controller. (Test run mode)

(TEST RUN OPERATION: Refer to 11-5 Ⓑ "Check of open phase".)

<Measurement>

Measure the time from the start of compressor to the stop of compressor due to overcurrent.

<Judgement>



Ⓕ Check of compressor start failure

Confirm that 1~4 is normal.

- Electrical circuit check

1. Contact of the compressor connector
2. Output voltage of inverter P.C. board and balance of them (See 11-5.Ⓑ "Check of open phase")
3. Direct current voltage between DB61(+) and (-) on the inverter P.C. board
4. Voltage between outdoor terminal block S1-S2

↓

Does the compressor run for 10 seconds or more after it starts? → Yes → Check the refrigerant circuit. Check the stop valve.

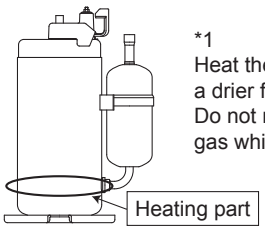
↓ No

After the compressor is heated with a drier, does the compressor start?*1 → No → Replace the compressor.

↓ Yes

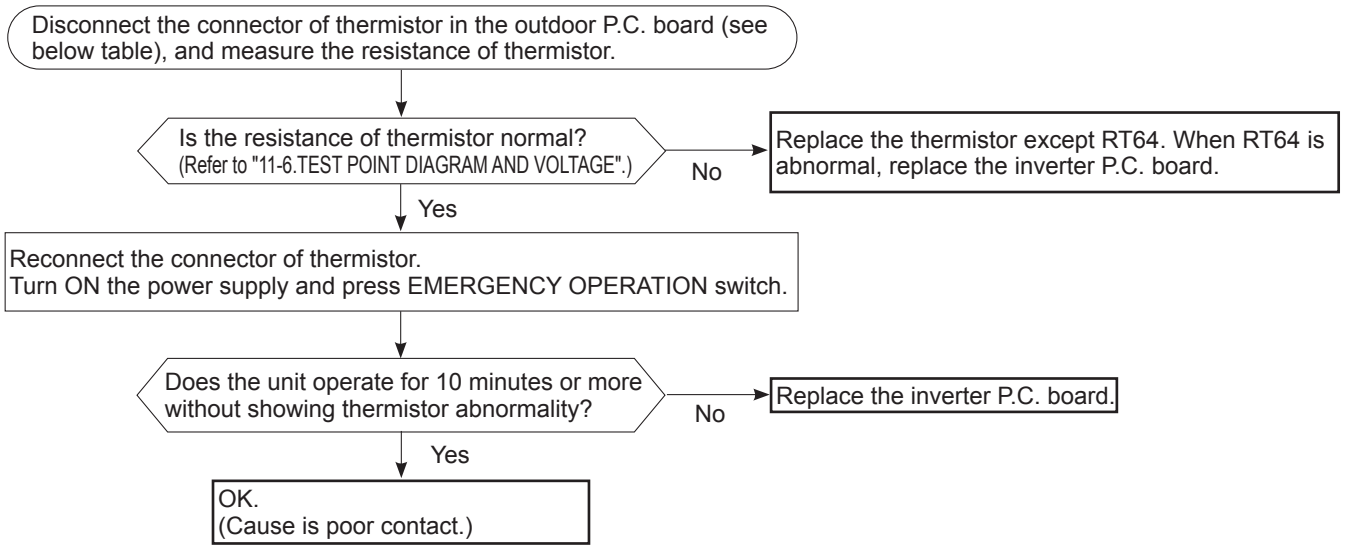
Compressor start failure. Activate pre-heat control. (Refer to "10-2. PRE-HEAT CONTROL SETTING")

WARNING:
When opening or closing the valve below freezing temperatures, refrigerant may spurt out from the gap between the valve stem and the valve body, resulting in injuries.



*1
Heat the compressor with a drier for about 20 minutes. Do not recover refrigerant gas while heating.

Ⓖ Check of outdoor thermistors

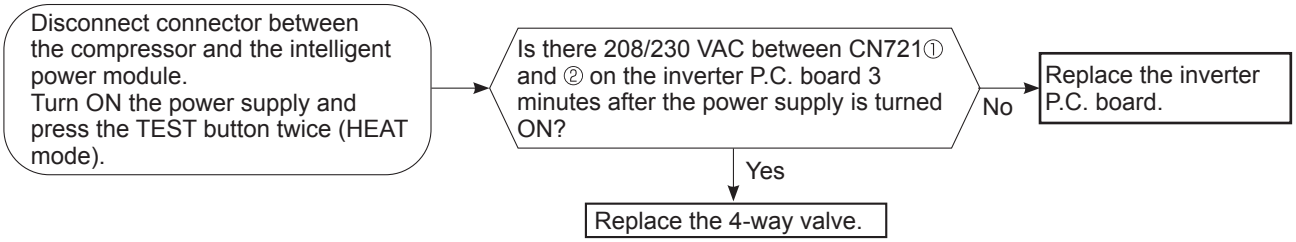


Thermistor	Symbol	Connector, Pin No.	Board
Defrost	RT61	Between CN641 pin1 and pin2	Inverter P.C. board
Discharge temperature	RT62	Between CN641 pin3 and pin4	
Fin temperature	RT64	Between CN642 pin1 and pin2	
Ambient temperature	RT65	Between CN643 pin1 and pin2	
Outdoor heat exchanger temperature	RT68	Between CN644 pin1 and pin3	

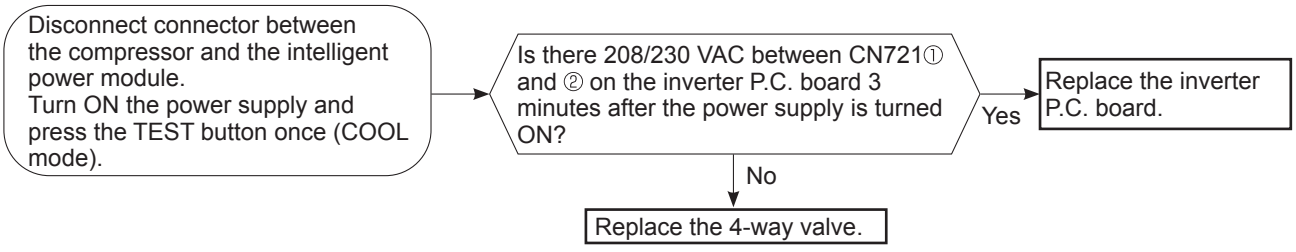
Ⓗ Check of R.V. coil

First of all, measure the resistance of R.V. coil to check if the coil is defective. Refer to "11-4. TROUBLE CRITERION OF MAIN PARTS".
In case CN721 is disconnected or R.V. coil is open, voltage is generated between the terminal pins of the connector although no signal is being transmitted to R.V. coil. Check if CN721 is connected.

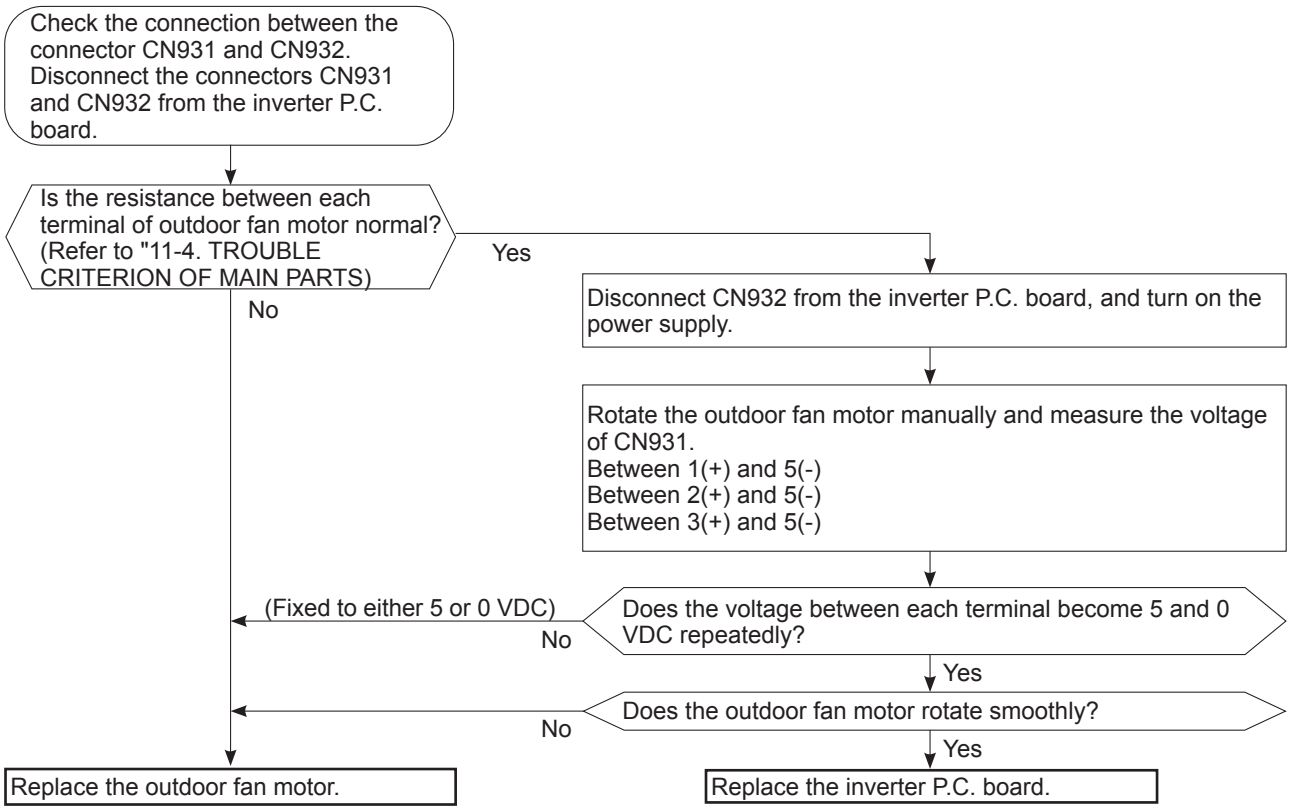
Unit operates in COOL mode even if it is set to HEAT mode.



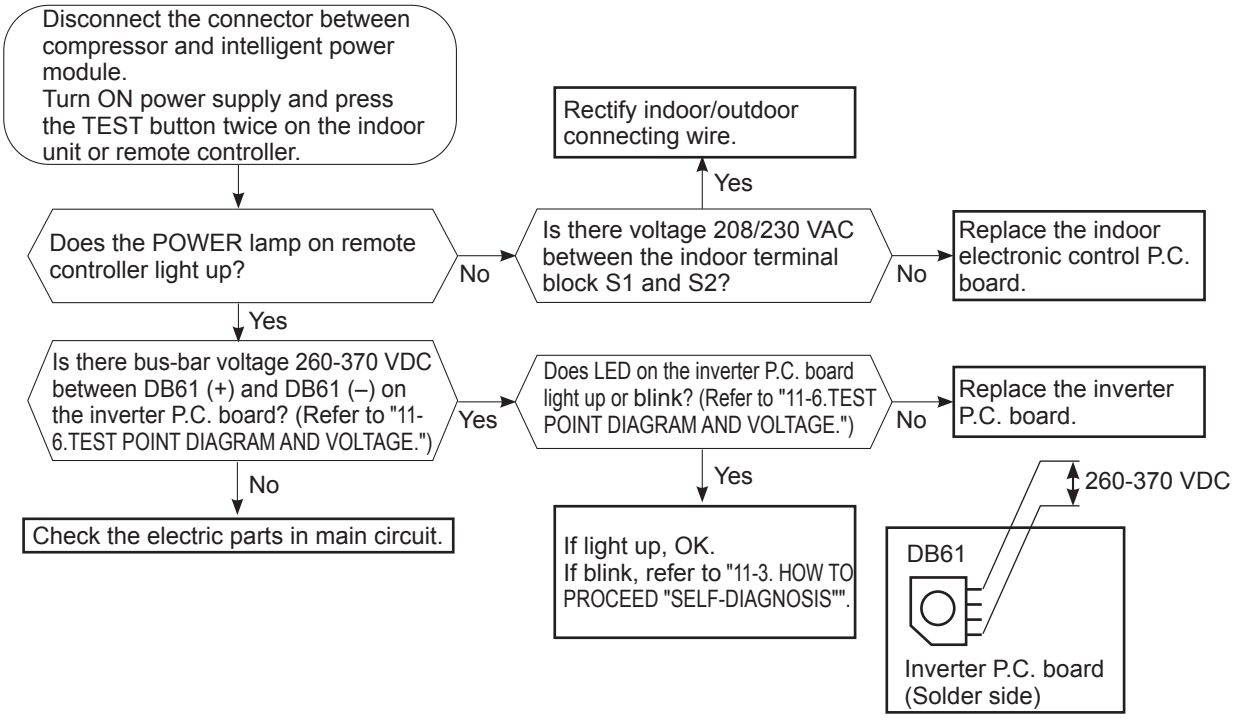
Unit operates in HEAT mode even if it is set to COOL mode.



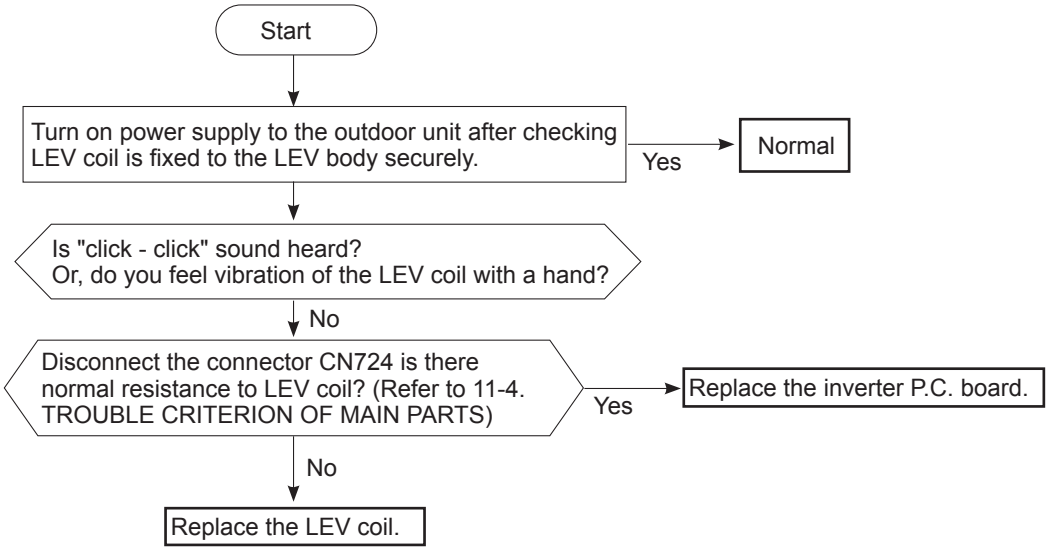
ⓘ Check of outdoor fan motor



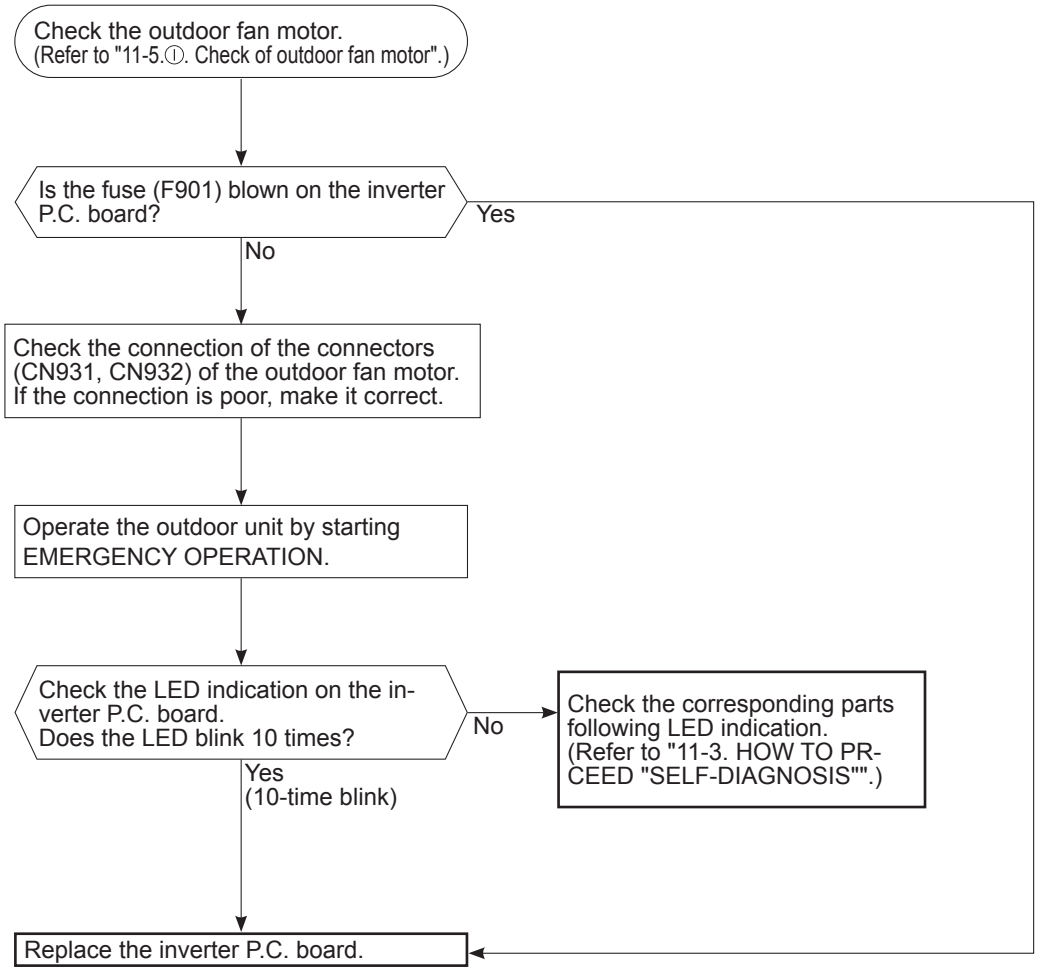
Ⓙ Check of power supply



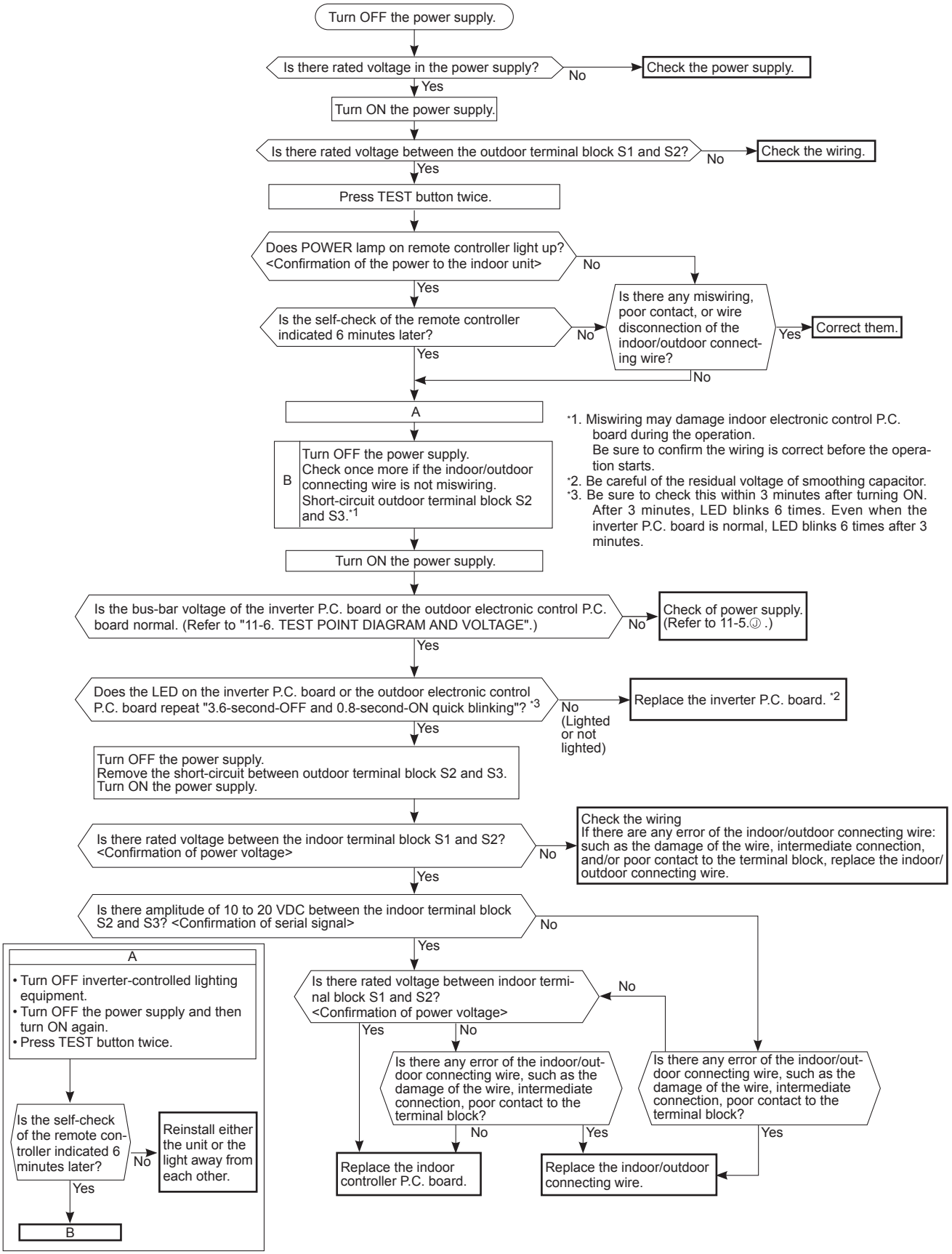
Ⓚ Check of LEV (Expansion valve)



Ⓛ Check of inverter P.C. board



Ⓜ How to check miswiring and serial signal error



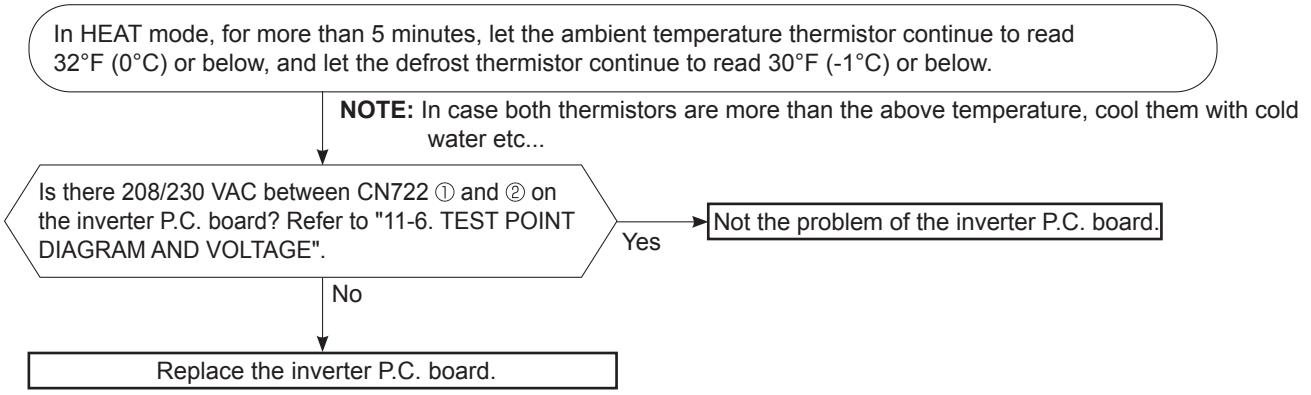
*1. Miswiring may damage indoor electronic control P.C. board during the operation.
Be sure to confirm the wiring is correct before the operation starts.
*2. Be careful of the residual voltage of smoothing capacitor.
*3. Be sure to check this within 3 minutes after turning ON. After 3 minutes, LED blinks 6 times. Even when the inverter P.C. board is normal, LED blinks 6 times after 3 minutes.

Ⓝ Check the defrost heater

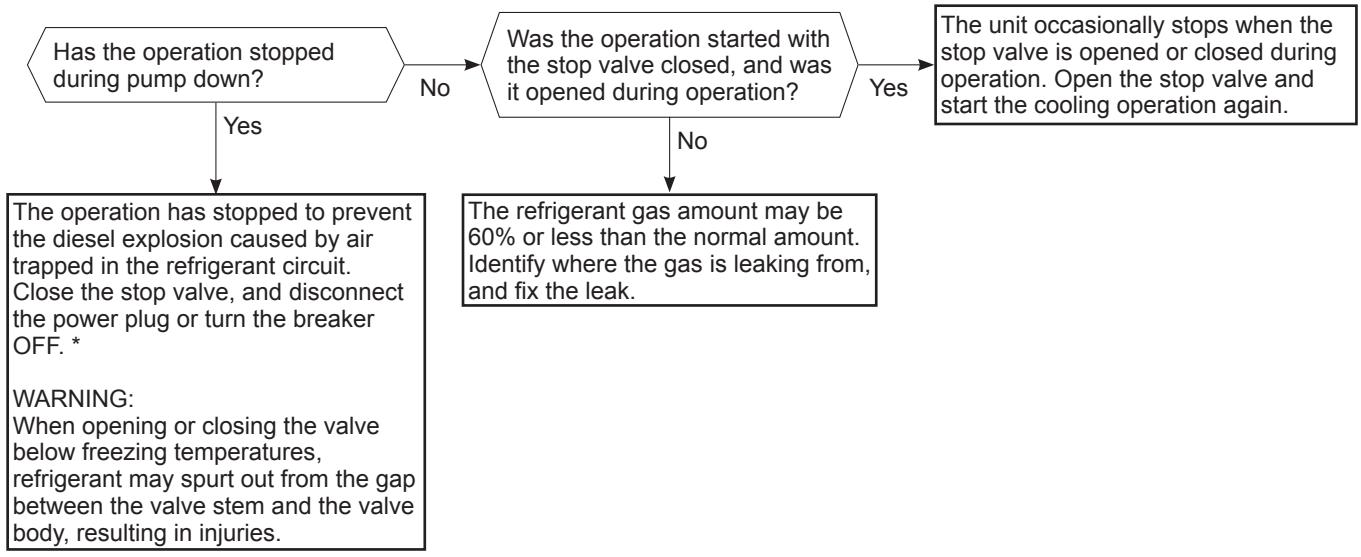
SUZ-AA09/12/15NL

Check the following points before checking electric continuity.

1. Does the resistance of ambient temperature thermistor have the characteristics? Refer to "11-6. TEST POINT DIAGRAM AND VOLTAGE".
2. Is the resistance of defrost heater normal? Refer to "11-4. TROUBLE CRITERION OF MAIN PARTS".
3. Is the heater protector closed?
4. Are both ambient temperature thermistor and circuit of defrost heater securely connected to connectors?

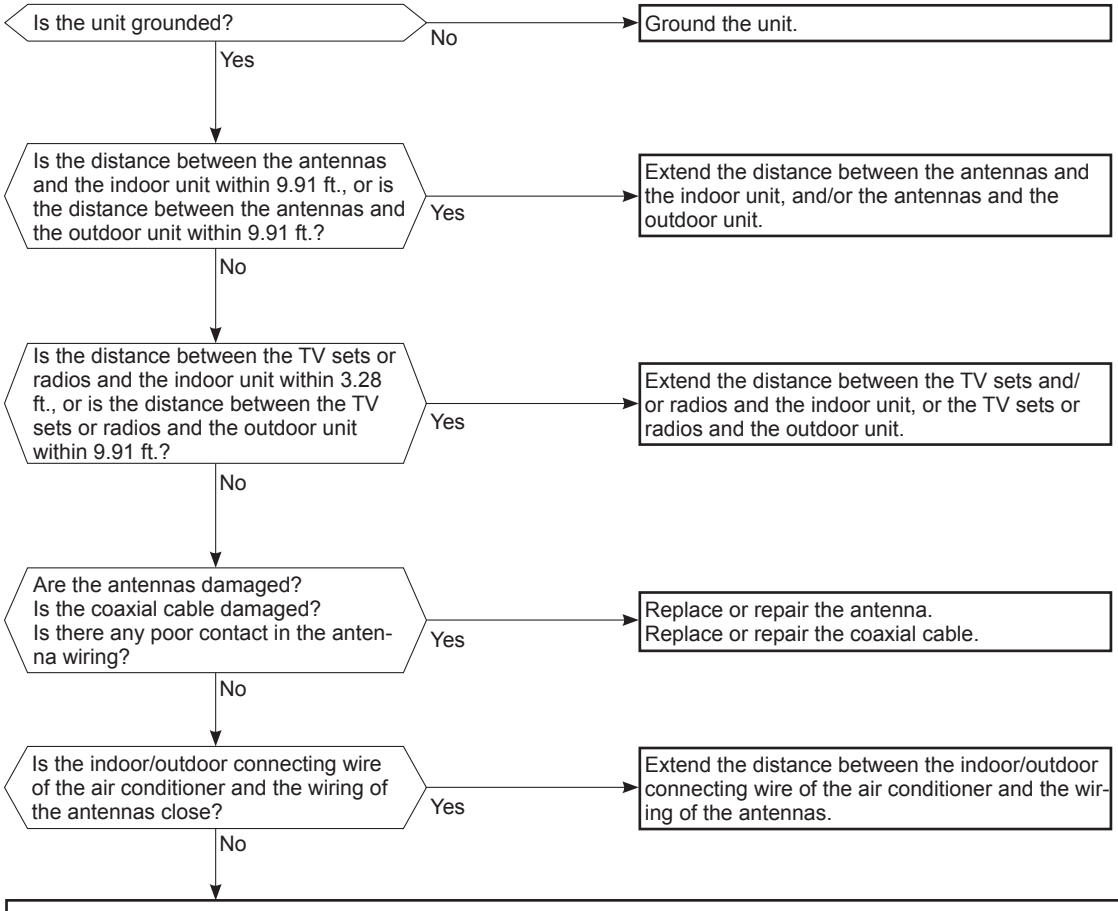


Ⓞ Check of outdoor refrigerant circuit



* **CAUTION : Do not start the operation again to prevent hazards.**

Ⓟ Electromagnetic noise enters into TV sets or radios

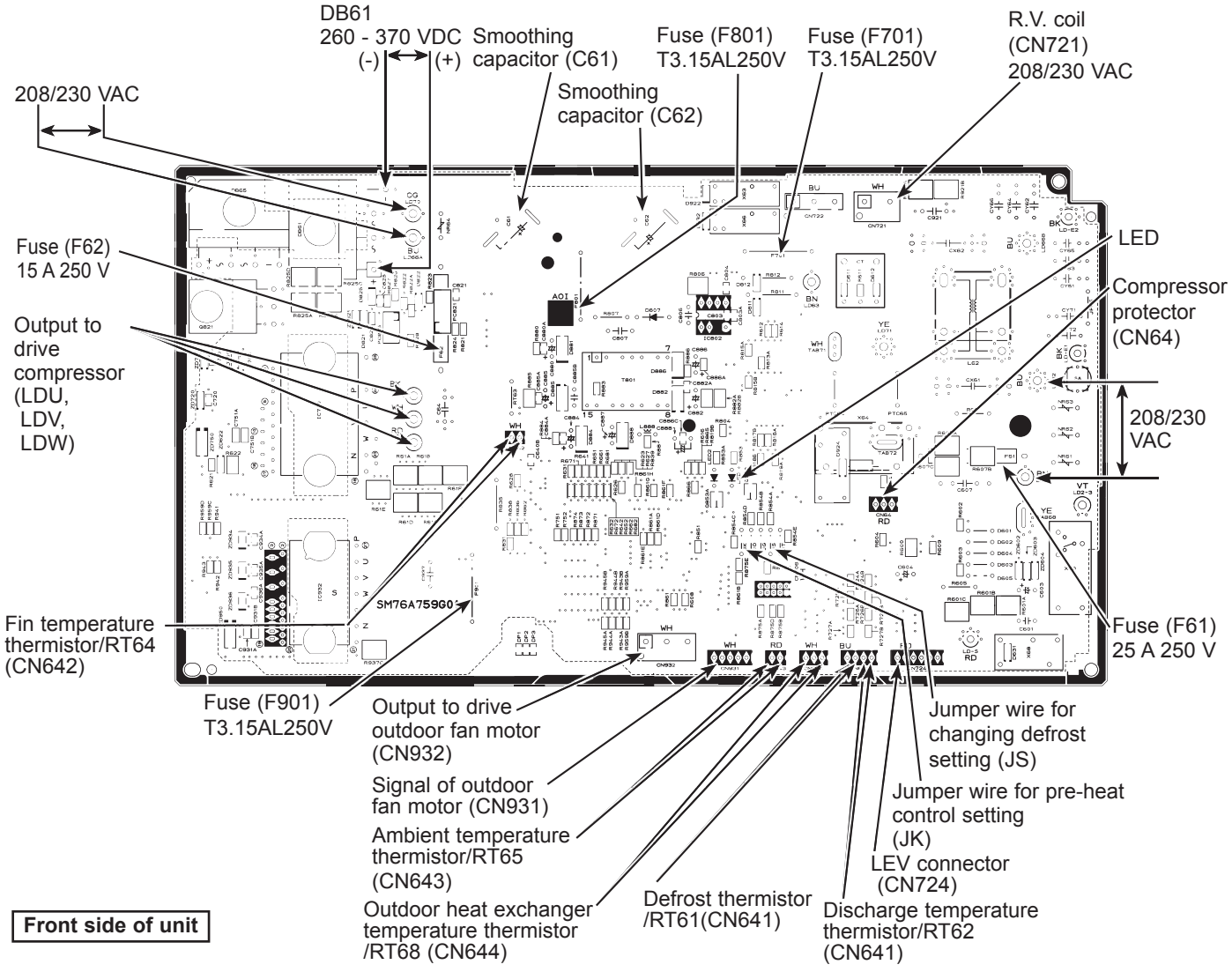


Even if all of the above conditions are fulfilled, the electromagnetic noise may enter, depending on the electric field strength or the installation condition (combination of specific conditions such as antennas or wiring).
Check the following before asking for service.

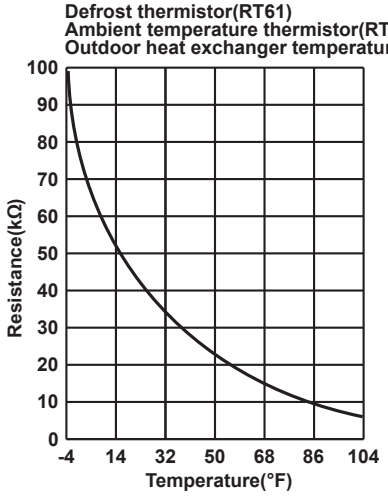
1. Devices affected by the electromagnetic noise
   TV sets, radios (FM/AM broadcast, shortwave)
2. Channel, frequency, broadcast station affected by the electromagnetic noise
3. Channel, frequency, broadcast station unaffected by the electromagnetic noise
4. Layout of:
   indoor/outdoor unit of the air conditioner, indoor/outdoor wiring, grounding wire, antennas, wiring from antennas, receiver
5. Electric field intensity of the broadcast station affected by the electromagnetic noise
6. Presence or absence of amplifier such as booster
7. Operation condition of air conditioner when the electromagnetic noise enters in
   1) Turn OFF the power supply once, and then turn ON the power supply. In this situation, check for the electromagnetic noise.
   2) Within 3 minutes after turning ON the power supply, press OPERATE/STOP (ON/OFF) button on the remote controller for power ON, and check for the electromagnetic noise.
   3) After a short time (3 minutes later after turning ON), the outdoor unit starts running. During operation, check for the electromagnetic noise.
   4) Press OPERATE/STOP (ON/OFF) button on the remote controller for power OFF, when the outdoor unit stops but the indoor/outdoor communication still runs on. In this situation, check for the electromagnetic noise.

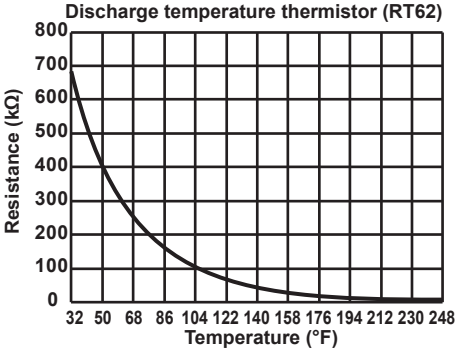
11-6. TEST POINT DIAGRAM AND VOLTAGE
Inverter P.C. board

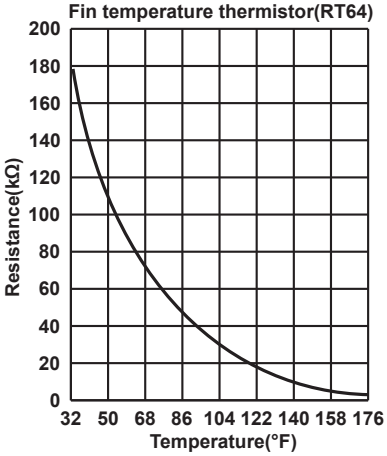
Back side of unit



Front side of unit







12 FUNCTION SETTING

12-1. UNIT FUNCTION SETTING BY THE REMOTE CONTROLLER

Each function can be set as necessary using the remote controller. The setting of function for each unit can only be done by the remote controller. Select function available from the table 1.

<Table 1> Function selections

(1) Functions available when setting the unit number to 00.

Function	Settings	Mode No. (Wired remote controller (RF thermostat))	Setting No.	● : Initial setting (when sent from the factory)	Check	Remarks
Power failure automatic recovery	Not available	01 (101)	1			The setting is applied to all the units in the same refrigerant system.
	Available (Approx. 4-minute wait-period after power is restored.)		2	●		
Indoor temperature detecting	Indoor unit's internal sensor	02 (—)	1	●		
			2			
	Data from main remote controller *1		3			
LOSSNAY connectivity	Not supported	03 (103)	1	●		
	Supported (indoor unit dose not intake outdoor air through LOSSNAY)		2			
	Supported (indoor unit intakes outdoor air through LOSSNAY)		3			
Power supply voltage	230V	04 (104)	1	●		
	208V		2			
Frost prevention temperature	2℃ [36°F] (Normal)	15 (115)	1	●		
	3℃ [37°F]		2			

*1 Can be set only when a wired remote controller is used.
When using 2 remote controllers (2-remote controller operation), the remote controller with built-in sensor must be set as a main remote controller.

(2) Functions are available when setting the unit number to 01.

Function	Settings	Mode No. (Wired remote controller (RF thermostat))	Setting No.	● : Initial setting (Factory setting) Ceiling concealed SEZ-AD·NL	Ceiling cassette SLZ-AF·NL	Ceiling concealed PEAD-AA·NL	Multi position SVZ-AP·NL	Check
Filter sign	100h	07 (107)	1					
	2500h		2		●			
	No filter sign indicator		3	●		●	●	
External static pressure	5/15/35/50Pa (0.02/0.06/0.14/0.20in.WG)	08 (108)	Refer to the table below		—	Refer to the table below	Refer to the table below	
		10 (110)	Refer to the table below		—	Refer to the table below	Refer to the table below	
Heater control *2	No heater present	11 (111)	1	—	—	●	●	
	Heater present		2	—	—			
	SEZ, SLZ :Set temp -4.5°F ON PEAD, SVZ :Heater not operation in Defrost/Error	23 (123)	1	●	●	●	●	
	SEZ, SLZ :Set temp -1.8°F ON PEAD, SVZ :Heater not operation in Defrost/Error*4		2					
Set temperature in heating mode *3	Available	24 (124)	1	●	●	●	●	
	Not available		2					
Fan speed during the heating thermo OFF	Extra low	25 (125)	1	●	●	●	●	
	Stop		2					
	Set fan speed		3					
Fan speed during the cooling thermo OFF	Set fan speed	27 (127)	1	●	●	●	●	
	Stop		2					
Detection of abnormality of the pipe temperature (P8)	Available	28 (128)	1	●	●			
	Not available		2			●	●	

*2 For the detail of Heater control, refer to the service manual.
*3 4 °C (7.2 °F) up
*4 Depend on the error, heater may not operate please refer to SVZ service manual.

External static pressure setting for SEZ

External static pressure	Setting No. Mode No. 08	Mode No. 10	● : Initial setting (Factory setting)	Check
5Pa (0.02in.WG)	1	2		
15Pa (0.06in.WG)	1	1	●	
35Pa (0.14in.WG)	2	1		
50Pa (0.20in.WG)	3	1		

External static pressure setting for PEAD

External static pressure	Setting No. Mode No. 08	Mode No. 10	● : Initial setting (Factory setting)	Check
35Pa (0.14in.WG)	2	1		
50Pa (0.20in.WG)	3	1	●	
70Pa (0.28in.WG)	1	2		
100Pa (0.40in.WG)	2	2		
150Pa (0.60in.WG)	3	2		

External static pressure setting for SVZ (Vertical, Horizontal left, Horizontal right position*)

External static pressure	Setting No. Mode No. 08	Mode No. 10	● : Initial setting (Factory setting)	Check
75Pa (0.3in.WG)	1	1		
125Pa (0.5in.WG)	2	1	●	
200Pa (0.8in.WG)	3	1		

* Regarding to downflow setting, please refer to downflow kit installation manual.

12-1-1. Selecting functions using the wired remote controller

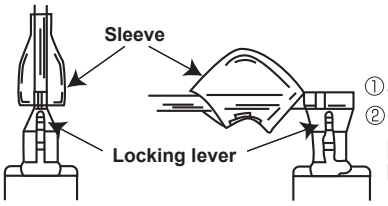
Refer to "14-3. SERVICE MENU" and "14-5. FUNCTION SETTING"

13 DISASSEMBLY INSTRUCTIONS

<"Terminal with locking mechanism" Detaching points>

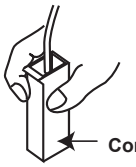
The terminal which has the locking mechanism can be detached as shown below.
There are two types (refer to (1) and (2)) of the terminal with locking mechanism.
The terminal without locking mechanism can be detached by pulling it out.
Check the shape of the terminal before detaching.

(1) Slide the sleeve and check if there is a locking lever or not.



①Slide the sleeve.
②Pull the terminal while pushing the locking lever.

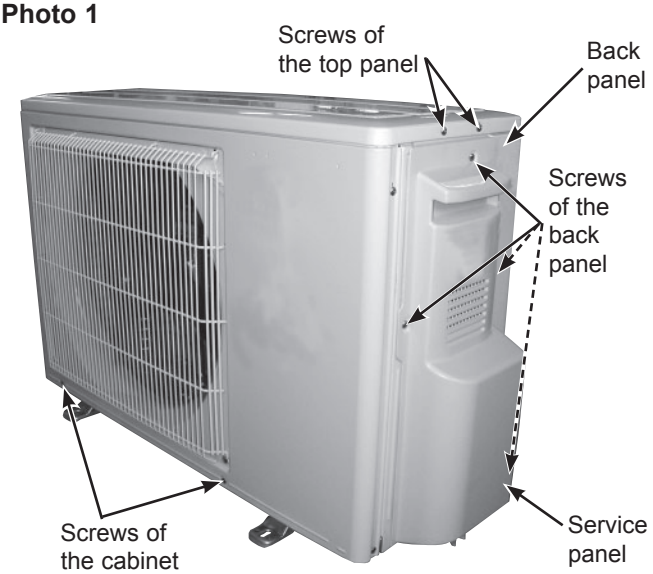
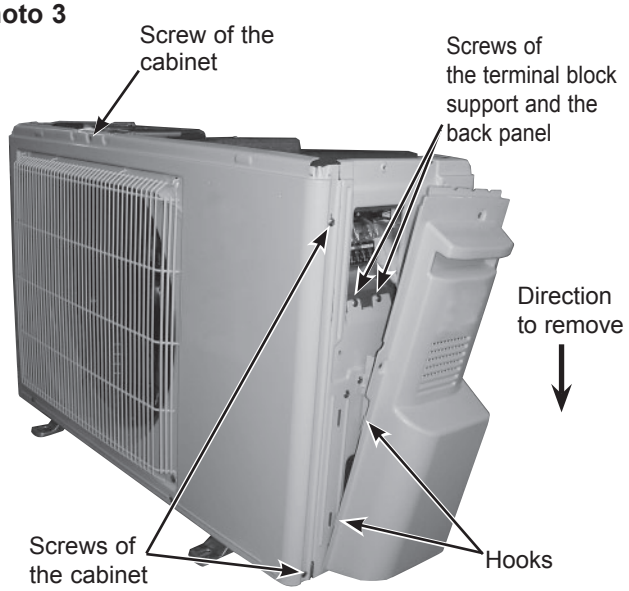
(2) The terminal with this connector has the locking mechanism.

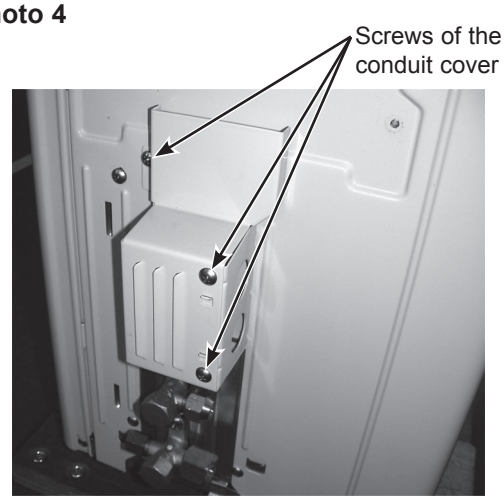
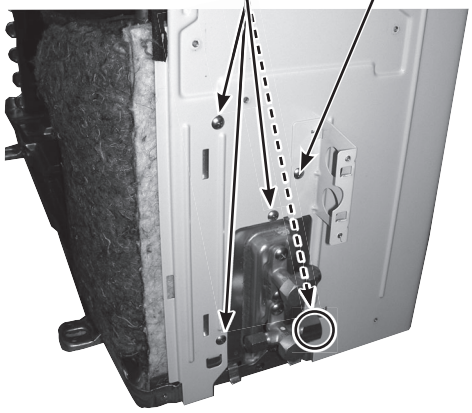
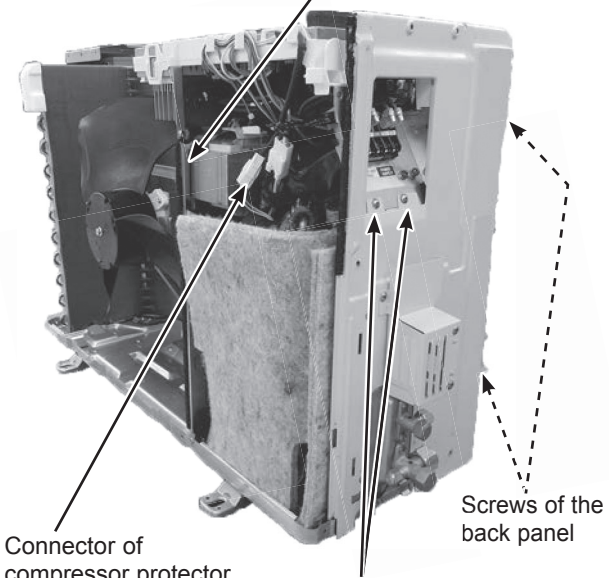
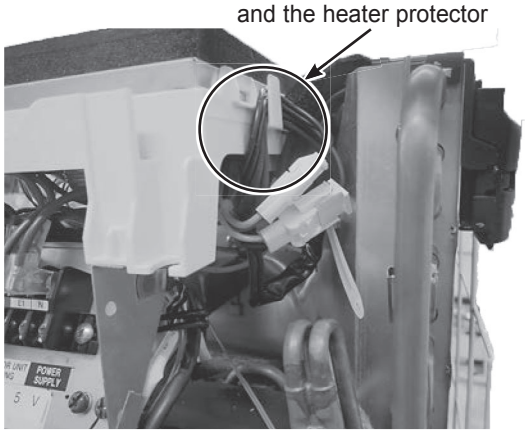


①Hold the sleeve, and pull out the terminal slowly.

——→ : Indicates the visible parts in the photos/figures.
- - - - → : Indicates the invisible parts in the photos/figures.

Note: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the cabinet (1) Remove the screw fixing the service panel. (2) Pull down the service panel and remove it. (3) Remove the screws fixing the conduit cover. (4) Remove the conduit cover. (Photo 4) (5) Remove the screw fixing the conduit plate. (Photo 5) (6) Remove the conduit plate. (7) Disconnect the power supply wire and indoor/outdoor connecting wire. (8) Remove the screws fixing the top panel. (9) Remove the top panel. (10) Remove the screws fixing the cabinet. (11) Remove the cabinet. (12) Remove the screws fixing the back panel. (13) Remove the back panel.	**Photo 1** 
Photo 2  	**Photo 3** 

OPERATING PROCEDURE	PHOTOS/FIGURES
Photo 4  	**Photo 5** 
2. Removing the inverter assembly, inverter P.C. board (1) Remove the cabinet and panels. (Refer to procedure 1) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN721 (R.V. coil) CN931, CN932 (Fan motor) CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) CN724 (LEV) (3) Remove the compressor connector (CN61). (4) Remove the screws fixing the heat sink support and the separator. (5) Remove the fixing screws of the terminal block support and the back panel. (6) Remove the inverter assembly. (7) Remove the screw of the ground wire and screw of the terminal block support. (Photo 8) (8) Remove the heat sink support from the P.C. board support. (9) Remove the screw of the inverter P.C. board and remove the inverter P.C. board from the P.C. board support.	**Photo 6**  **Photo 7** 

OPERATING PROCEDURE

*** Connection procedure when attaching the inverter P.C. board (Photo 9)**

1. Connect the lead wires of the fan motor (Power) to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the left hook on the P.C. board support.
2. Connect the lead wires of the fan motor (Signal) to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the middle of the hook on the P.C. board support.
3. Connect the lead wires of the outdoor heat exchanger temperature thermistor to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the right hook on the P.C. board support.
4. Connect the lead wires of the expansion valve coil to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the right hook on the P.C. board support [so that the compressor protector lead wires are bundled up as shown in Photo 9.

3. Removing R.V. coil

(1) Remove the cabinet and panels. (Refer to 1.)
(2) Disconnect the following connectors:
<Inverter P.C. board>
CN721 (R.V. coil)
(3) Remove the R.V. coil.

PHOTOS/FIGURES

Photo 8

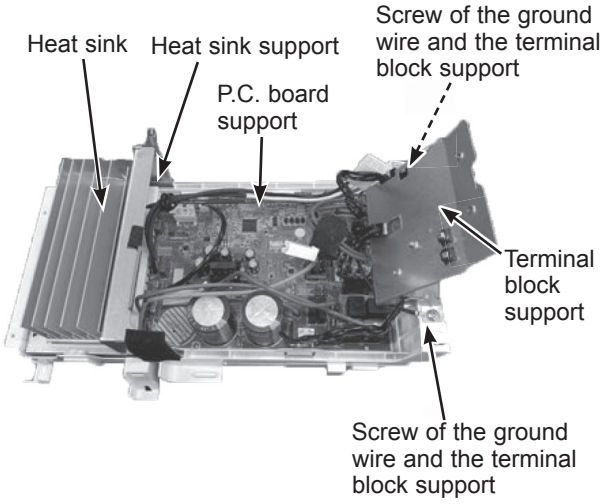
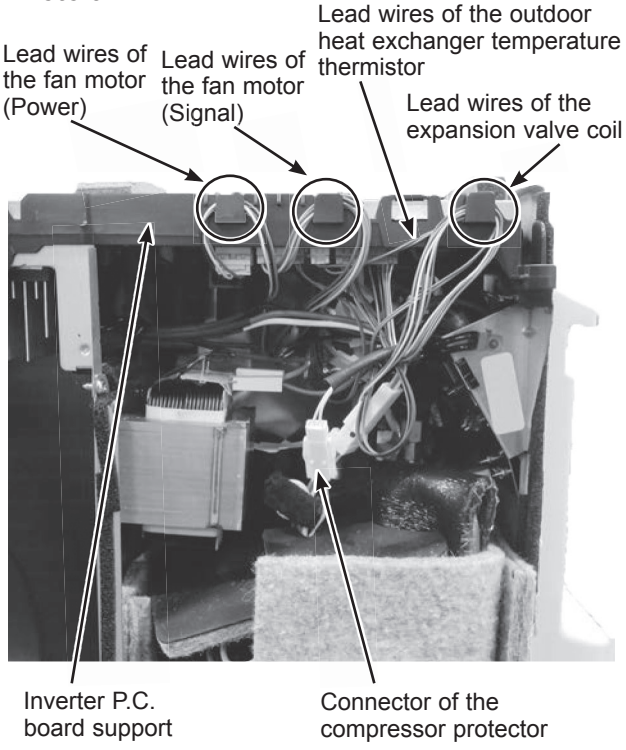
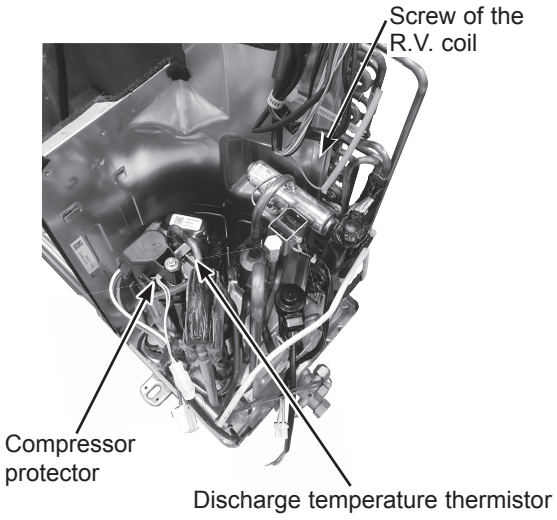
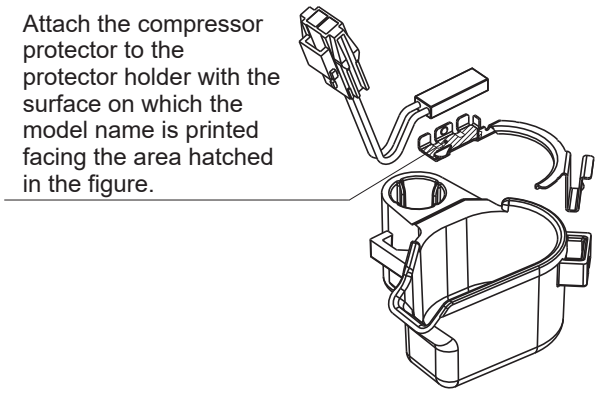
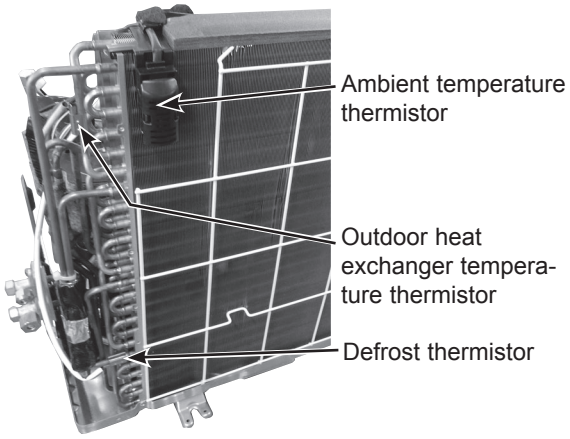


Photo 9



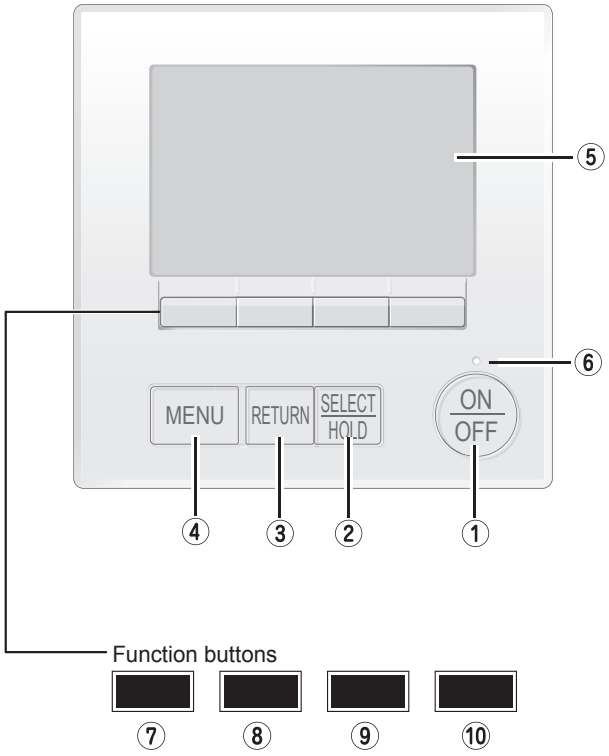
OPERATING PROCEDURE	PHOTOS/FIGURES
4. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor (1) Remove the top panel, cabinet and service panel. (Refer to procedure 1) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN641 (Defrost thermistor (**SUZ**) and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) (3) Pull out the discharge temperature thermistor from its holder. (4) Pull out the defrost thermistor from its holder. (5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (6) Pull out the ambient temperature thermistor from its holder.	**Photo 10** 
Figure 1  	**Photo 11** 

14 REMOTE CONTROLLER

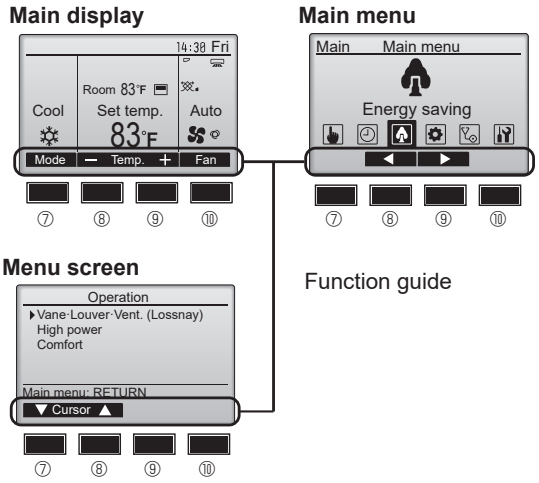
14-1. REMOTE CONTROLLER FUNCTIONS

<PAR-41MAA>

Controller interface



The functions of the function buttons change depending on the screen.
Refer to the button function guide that appears at the bottom of the LCD for the functions they serve on a given screen.
When the system is centrally controlled, the button function guide that corresponds to the locked button will not appear.



① [ON/OFF] button

Press to turn ON/OFF the indoor unit.

② [SELECT/HOLD] button

Press to save the setting.
When the Main menu is displayed, pressing this button will enable/disable the HOLD function.

③ [RETURN] button

Press to return to the previous screen.

④ [MENU] button

Press to bring up the Main menu.

⑤ Backlit LCD

Operation settings will appear.
When the backlight is off, pressing any button turns the backlight on and it will stay lit for a certain period of time depending on the screen.

When the backlight is off, pressing any button turns the backlight on and does not perform its function. (except for the [ON/OFF] button)

⑥ ON/OFF lamp

This lamp lights up in green while the unit is in operation. It blinks while the remote controller is starting up or when there is an error.

⑦ Function button [F1]

Main display: Press to change the operation mode.
Menu screen: The button function varies with the screen.

⑧ Function button [F2]

Main display: Press to decrease temperature.
Main menu: Press to move the cursor left.
Menu screen: The button function varies with the screen.

⑨ Function button [F3]

Main display: Press to increase temperature.
Main menu: Press to move the cursor right.
Menu screen: The button function varies with the screen.

⑩ Function button [F4]

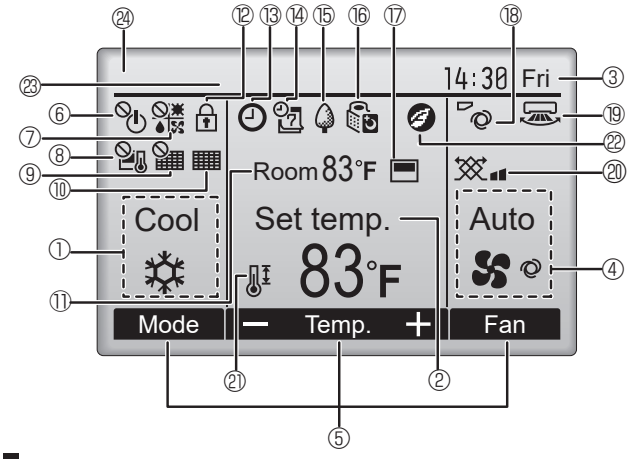
Main display: Press to change the fan speed.
Menu screen: The button function varies with the screen.

Display

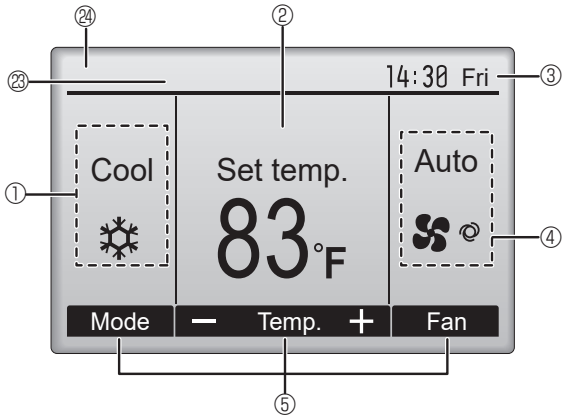
The main display can be displayed in two different modes: “Full” and “Basic”. The initial setting is “Full”. To switch to the “Basic” mode, change the setting on the Main display setting. (Refer to operation manual included with remote controller.)

<Full mode>

All icons are displayed for explanation.



<Basic mode>



① Operation mode

② Preset temperature

③ Clock

④ Fan speed

⑤ Button function guide

Functions of the corresponding buttons appear here.

⑥

Appears when the ON/OFF operation is centrally controlled.

⑦

Appears when the operation mode is centrally controlled.

⑧

Appears when the preset temperature is centrally controlled.

⑨

Appears when the filter reset function is centrally controlled.

⑩

Indicates when filter needs maintenance.

⑪ Room temperature

⑫

Appears when the buttons are locked.

⑬

Appears when the On/Off timer or Auto-off timer function is enabled.

appears when the timer is disabled by the centralized control system.

appears when the HOLD function is enable.

⑭

Appears when the Weekly timer is enabled.

⑮

Appears while the units are operated in the energy saving mode. (Will not appear on some models of indoor units)

⑯

Appears while the outdoor units are operated in the silent mode.

⑰

Appears when the built-in thermistor on the remote controller is activated to monitor the room temperature (⑪).

appears when the thermistor on the indoor unit is activated to monitor the room temperature.

⑱

Indicates the vane setting.

⑲ *1

Indicates the louver setting.

⑳

Indicates the ventilation setting.

㉑

Appears when the preset temperature range is restricted.

㉒ *1

Appears when an energy saving operation is performed using a “3D i-see Sensor” function.

㉓ Centrally controlled

Appears for a certain period of time when a centrally-controlled item is operated.

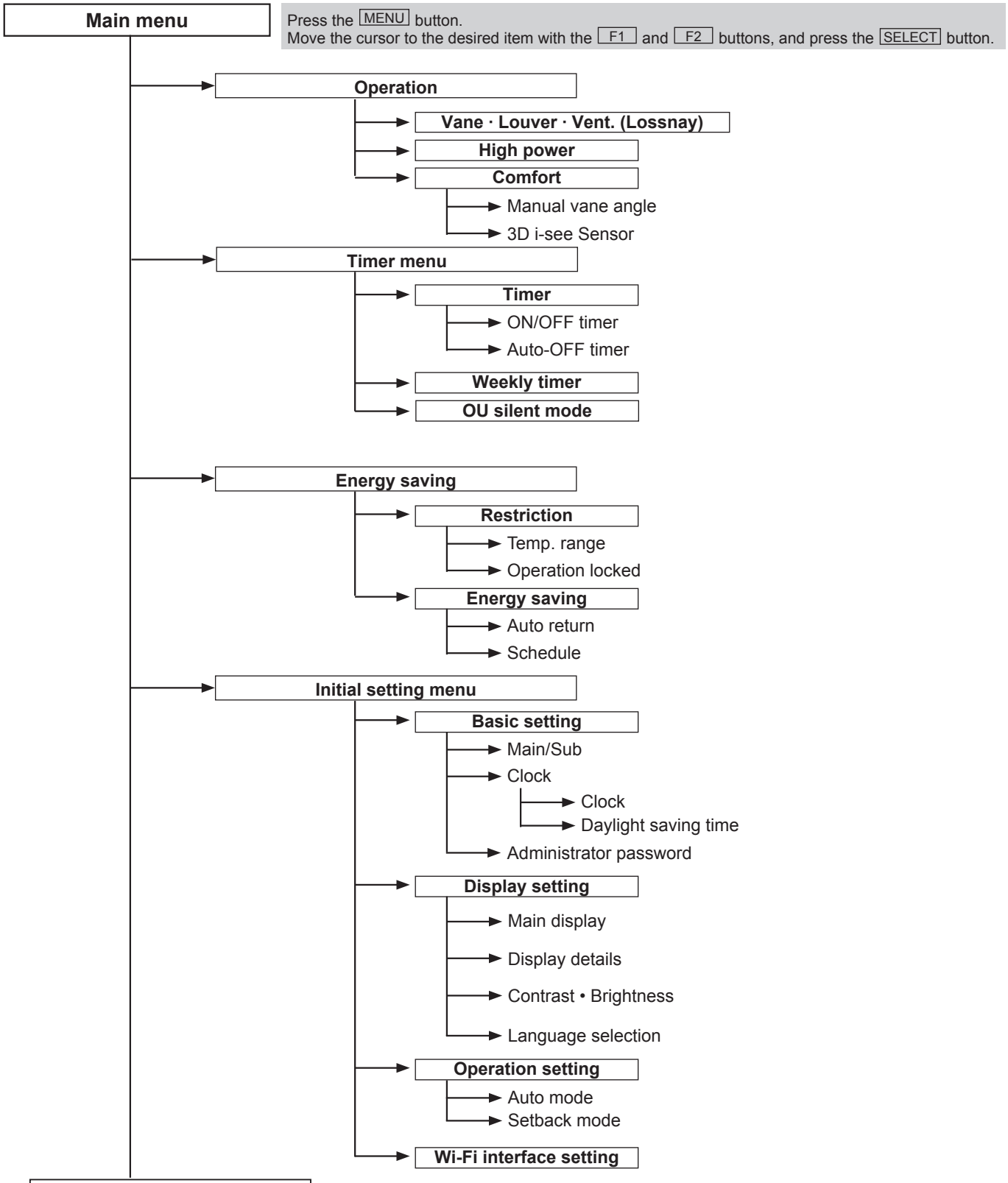
㉔ Preliminary error display

An error code appears during the preliminary error.

Most settings (except ON/OFF, mode, fan speed, temperature) can be made from the Main menu.

*1 These functions are not applied to the floor standing models.

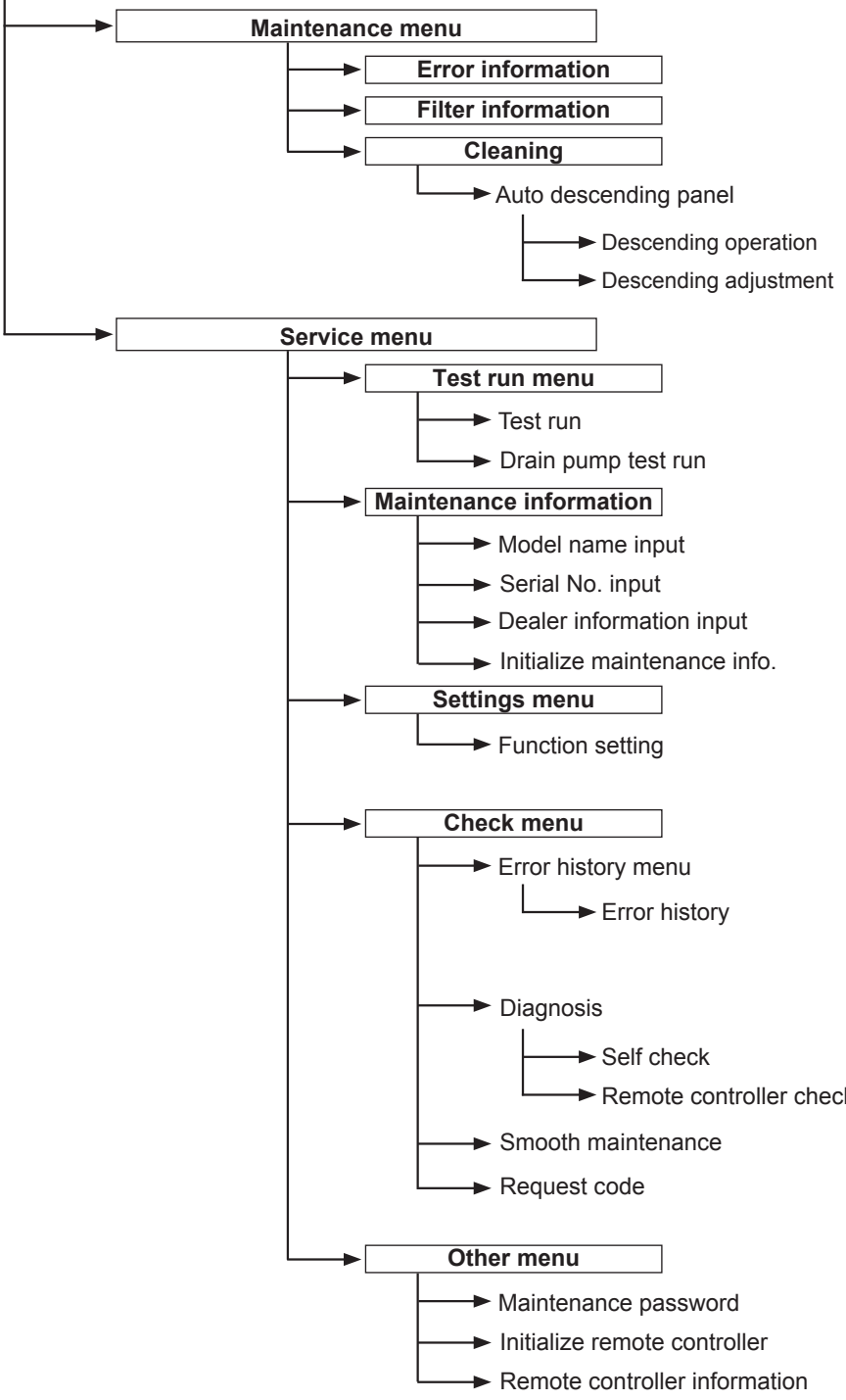
Menu structure



Continue to the next page.

Not all functions are available on all models of indoor units.

Continue from the previous page.



Not all functions are available on all models of indoor units.

Main menu list

Main menu	Setting and display items		Setting details
Operation	**Vane · Louver · Vent. (Lossnay)**		**Use to set the vane angle.** • Select a desired vane setting. **Use to turn ON/OFF the louver.** • Select a desired setting from "ON" and "OFF." **Use to set the amount of ventilation.** • Select a desired setting from "Off," "Low," and "High."
	High power *3		**Use to reach the comfortable room temperature quickly.** • Units can be operated in the High-power mode for up to 30 minutes.
	Comfort	**Manual vane angle**	**Use to fix each vane angle.**
		3D i-see Sensor	**Use to set the following functions for 3D i-see Sensor.** • Air distribution • Energy saving option • Seasonal airflow
Timer	**Timer**	**ON/OFF timer** *1	**Use to set the operation ON/OFF time.** • Time can be set in 5-minute increments.
		Auto-Off timer	**Use to set the Auto-Off time.** • Time can be set to a value from 30 to 240 in 10-minute increments.
	Weekly timer *1, *2		**Use to set the weekly operation ON/OFF time.** • Up to 8 operation patterns can be set for each day. (Not valid when the ON/OFF timer is enabled.)
	OU silent mode *1, *3		**Use to set the time periods in which priority is given to quiet operation of outdoor units over temperature control. Set the Start/Stop time for each day of the week.** •Select the desired silent level from "Normal," "Middle," and "Quiet."
Energy saving	**Restriction**	**Temp. range** *2	**Use to restrict the preset temperature range.** • Different temperature ranges can be set for different operation modes.
		Operation locked	**Use to lock selected functions.** • The locked functions cannot be operated.
	Energy saving	**Auto return** *2	**Use to get the units to operate at the preset temperature after performing energy saving operation for a specified time period.** • Time can be set to a value from 30 and 120 in 10-minute increments. (This function will not be valid when the preset temperature ranges are restricted.)
		Schedule *1, *3	**Set the start/stop time to operate the units in the energy saving mode for each day of the week, and set the energy saving rate.** • Up to 4 energy saving operation patterns can be set for each day. • Time can be set in 5-minute increments. • Energy saving rate can be set to a value from 0% or 50 to 90% in 10% increments.
Initial setting	**Basic setting**	**Main/Sub**	**When connecting 2 remote controllers, one of them needs to be designated as a sub controller.**
		Clock	**Use to set the current time.**
		Daylight saving time	**Set the daylight saving time.**
		Administrator password	**The administrator password is required to make the settings for the following items.** • Timer setting • Energy saving setting • Weekly timer setting • Restriction setting • Outdoor unit silent mode setting

*1 Clock setting is required.

*2 2°F (1°C) increments

*3 This function is available only when certain outdoor units are connected.

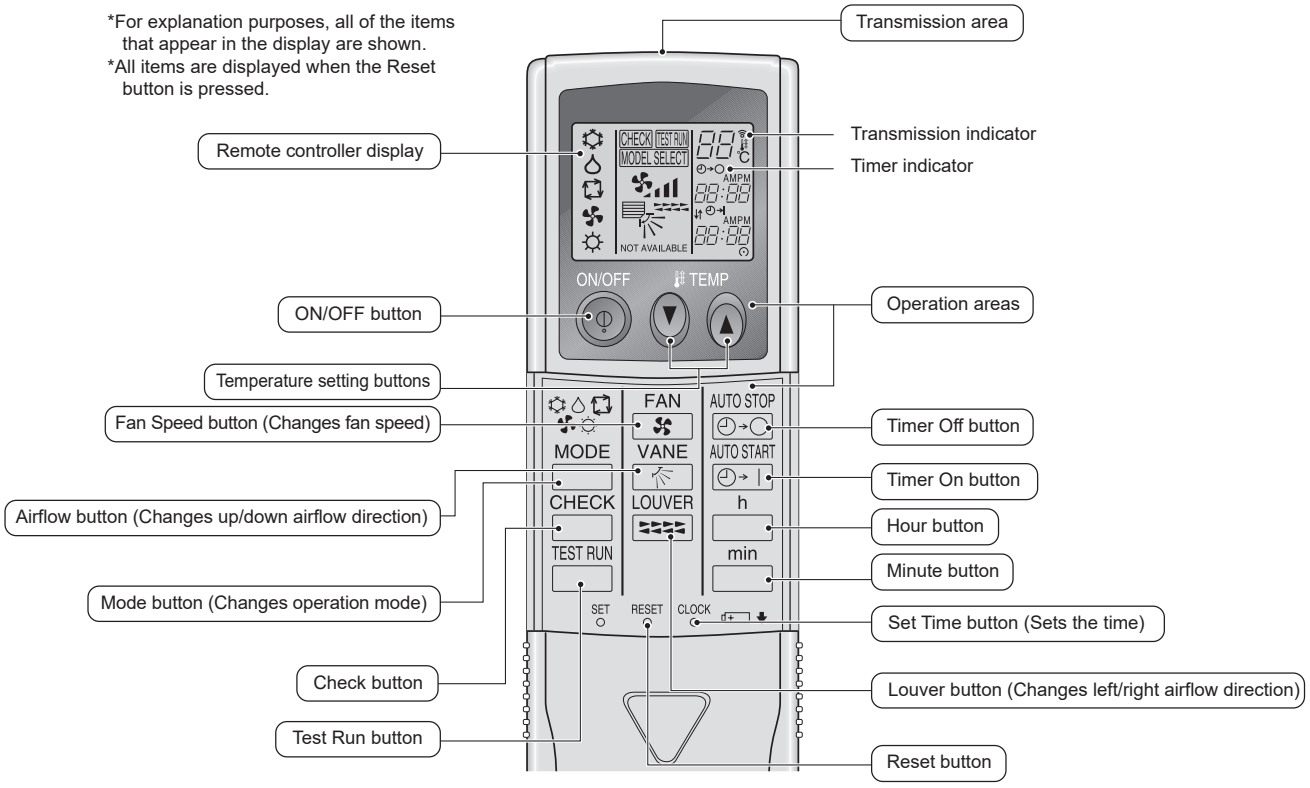
Main menu	Setting and display items		Setting details
Initial setting	**Display setting**	**Main display**	**Use to switch between "Full" and "Basic" modes for the Main display, and use to change the background colors of the display to black.**
		Display details	**Make the settings for the remote controller related items as necessary.** **Clock:** The initial settings are "Yes" and "24h" format. **Temperature:** Set either Celsius (°C) or Fahrenheit (°F). **Room temp.:** Set Show or Hide. **Auto mode:** Set Auto mode display or Only Auto display.
		Contrast • Brightness	**Use to adjust screen contrast and brightness.**
		Language selection	**Use to select the desired language.**
	Operation setting	**Auto mode**	**Whether or not to use Auto mode can be selected by using the button.** **This setting is valid only when indoor units with Auto mode function are connected.**
		Setback mode	**Whether or not to use the Setback mode can be selected by using the button.** **This setting is valid only when indoor units with the Setback mode function are connected.**
Maintenance	**Error information**		**Use to check error information when an error occurs.** • Error code, error source, refrigerant address, model name, manufacturing number, contact information (dealer's phone number) can be displayed. (The model name, manufacturing number, and contact information need to be registered in advance to be displayed.)
	Filter information		**Use to check the filter status.** • The filter sign can be reset.
	Cleaning	**Auto descending panel**	**Use to lift and lower the auto descending panel (Optional parts).**
Service	**Test run**		**Select "Test run" from the Service menu to bring up the Test run menu.** • Test run • Drain pump test run
	Input maintenance		**Select "Input maintenance Info." from the Service menu to bring up the Maintenance information screen.** **The following settings can be made from the Maintenance Information screen.** • Model name input • Serial No. input • Dealer information input • Initialize maintenance info.
	Settings	**Function setting**	**Make the settings for the indoor unit functions via the remote controller as necessary.**
	Check	**Error history**	Display the error history and execute "delete error history".
		Diagnosis	**Self check:** Error history of each unit can be checked via the remote controller. **Remote controller check:** When the remote controller does not work properly, use the remote controller checking function to troubleshoot the problem.
		Smooth maintenance *1	**Use to display the maintenance data of indoor/outdoor units.**
		Request code *1	**Use to check operation data such as thermistor temperature and error information.**
	Others	**Maintenance password**	**Use to change the maintenance password.**
		Initialize remote controller	**Use to initialize the remote controller to the factory shipment status.**
		Remote controller information	**Use to display the remote controller model name, software version, and serial number.**

*1 This function is available only when certain outdoor units are connected.

<PAR-FL32MA>

Controller interface

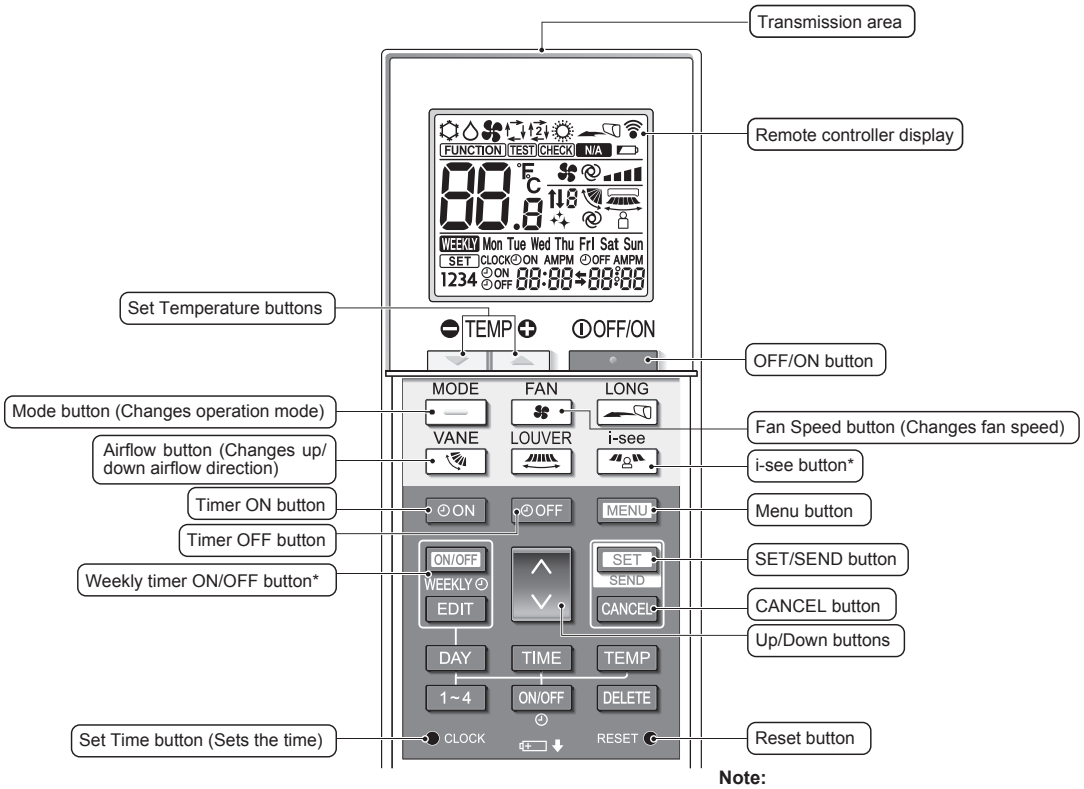
*For explanation purposes, all of the items that appear in the display are shown.
*All items are displayed when the Reset button is pressed.



- When using the wireless remote controller, point it towards the receiver on the indoor unit.
- If the remote controller is operated within approximately three minutes after power is supplied to the indoor unit, the indoor unit may beep three times as the unit is performing the initial automatic check.
- The indoor unit beeps to confirm that the signal transmitted from the remote controller has been received. Signals can be received up to approximately 7 meters in a direct line from the indoor unit in an area 45 degrees to the left and right of the unit. However, illumination such as fluorescent lights and strong light can affect the ability of the indoor unit to receive signals.
- If the operation lamp near the receiver on the indoor unit is blinking, the unit needs to be inspected. Consult your dealer for service.
- Handle the remote controller carefully. Do not drop the remote controller or subject it to strong shocks. In addition, do not get the remote controller wet or leave it in a location with high humidity.
- To avoid misplacing the remote controller, install the holder included with the remote controller on a wall and be sure to always place the remote controller in the holder after use.

<PAR-SL101A-E>

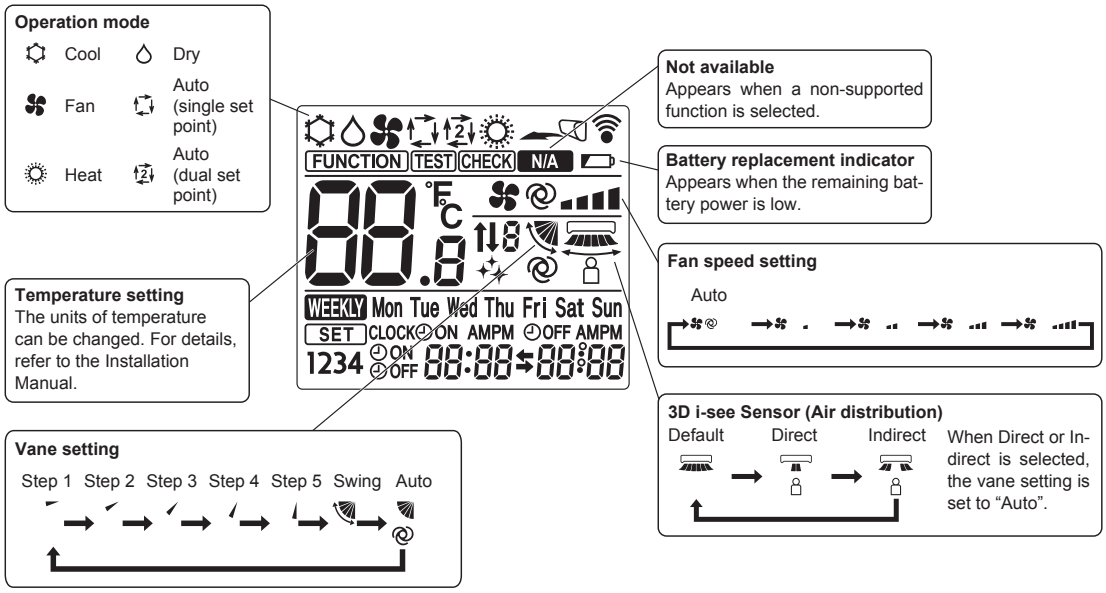
Controller interface



Note:

* **This button is enabled or disabled depending on the model of the indoor unit.**

Display

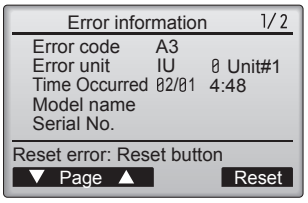


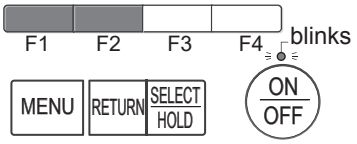
14-2. ERROR INFORMATION

When an error occurs, the following screen will appear.
Check the error status, stop the operation, and consult your dealer.

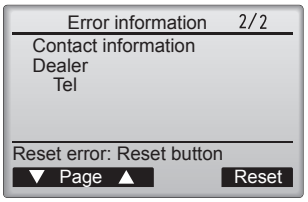
1. Error code, error unit, refrigerant address, model name, and serial number will appear.
   The model name and serial number will appear only if the information has been registered.

   Press the F1 or F2 button to go to the next page.





Contact information (dealer's phone number) will appear if the information has been registered.



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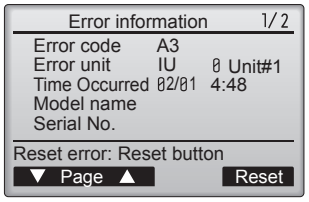
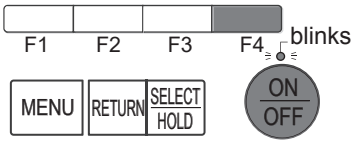
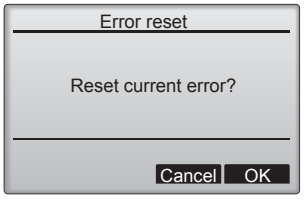
2. Press the F4 button or the [ON/OFF] button to reset the error that is occurring.

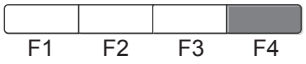
   Errors cannot be reset while the ON/OFF operation is prohibited.

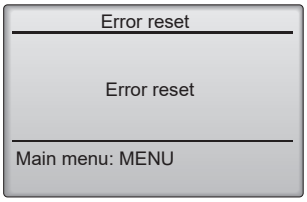




Select "OK" with the F4 button.





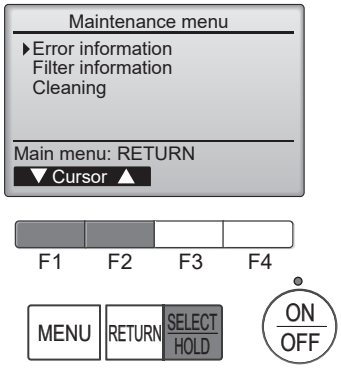


Navigating through the screens

• To go back to the Service menu ..... [MENU] button

· Checking the error information

While no errors are occurring, page 2/2 of the error information can be viewed by selecting "Error information" from the Maintenance menu.
Errors cannot be reset from this screen.

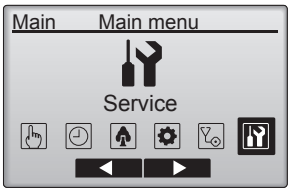


14-3. SERVICE MENU

Maintenance password is required

1. Select "Service" from the Main menu, and press the [SELECT] button.

   *At the main display, the menu button and select "Service" to make the maintenance setting.



2. When the Service menu is selected, a window will appear asking for the password.

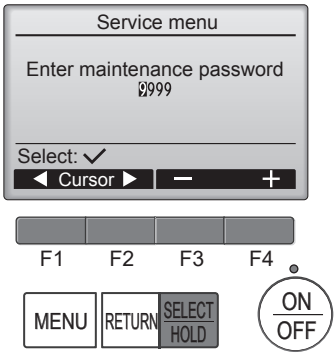
   To enter the current maintenance password (4 numerical digits), move the cursor to the digit you want to change with the F1 or F2 button.

   ▼

   Set each number (0 through 9) with the F3 or F4 button.

   ▼

   Then, press the [SELECT] button.



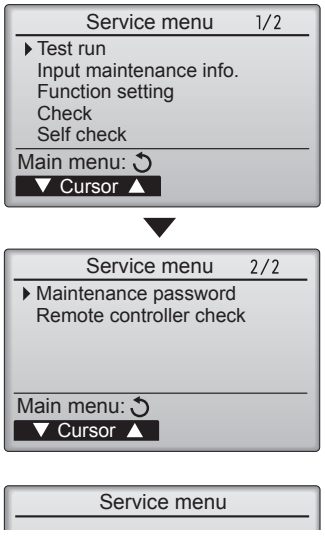
Note: The initial maintenance password is "9999". Change the default password as necessary to prevent unauthorized access. Have the password available for those who need it.
If you forget your maintenance password, you can initialize the password to the default password "9999" by pressing and holding the F1 button for 10 seconds on the maintenance password setting screen.

3. If the password matches, the Service menu will appear.

Note: Air conditioning units may need to be stopped to make only at "Settings". There may be some settings that cannot be made when the system is centrally controlled.

▼

A screen will appear that indicates the setting has been saved.



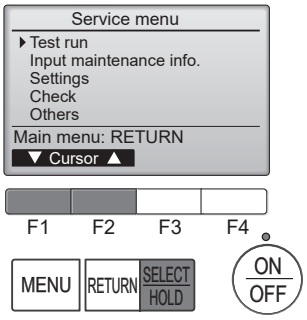
Navigating through the screens

- To go back to the Service menu ..... [MENU] button
- To return to the previous screen..... [RETURN] button

14-4. TEST RUN

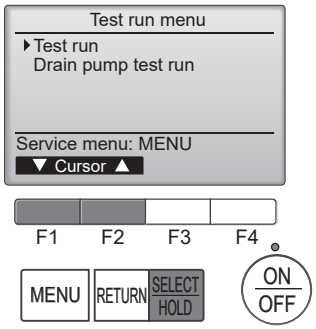
14-4-1. PAR-41MAA

1. Select "Service" from the Main menu, and press the [SELECT] button.



Select "Test run" with the F1 or F2 button, and press the [SELECT] button.

2. Select "Test run" with the F1 or F2 button, and press the [SELECT] button.



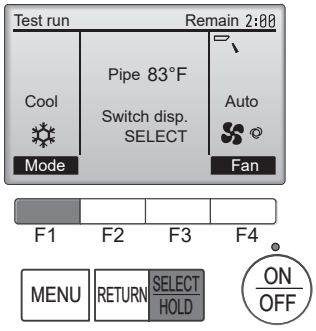
Test run operation

Press the F1 button to go through the operation modes in the order of "Cool and Heat".

Cool mode: Check if the cold air blows out.
Heat mode: Check if the heat blows out.

Check the operation of the outdoor unit's fan.

Press the [SELECT] button and open the Vane setting screen.



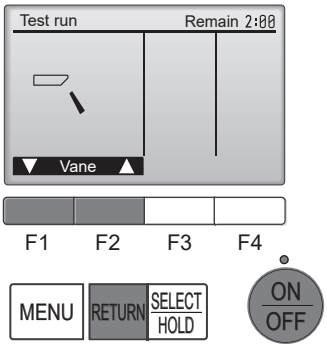
Auto vane check

Check the auto vane with the F1 F2 buttons.

Press the [RETURN] button to return to "Test run operation".

Press the [ON/OFF] button.

When the test run is completed, the "Test run menu" screen will appear.
The test run will automatically stop after 2 hours.
*The function is available only for the model with vanes.



14-4-2. PAR-FL32MA

Measure an impedance between the power supply terminal block on the outdoor unit and ground with a 500 V Megger and check that it is equal to or greater than 1.0 MΩ.

① Turn on the main power to the unit.

② Press the TEST RUN button twice continuously.
(Start this operation from the status of remote controller display turned off.)
A TEST RUN and current operation mode are displayed.

③ Press the MODE (☼◊✤☼⟳) button to activate COOL ☼ mode, then check whether cool air blows out from the unit.

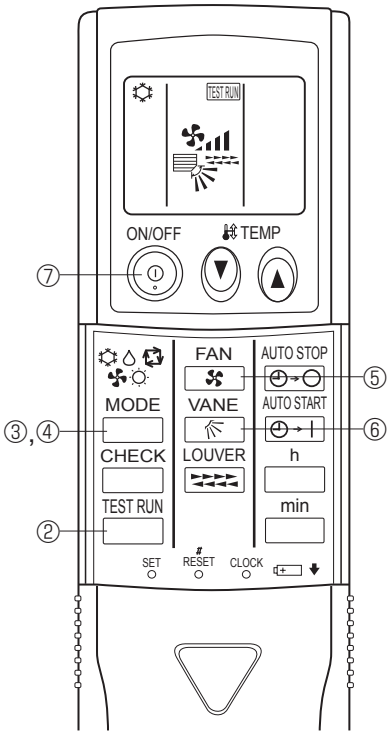
④ Press the MODE (☼◊✤☼⟳) button to activate HEAT ☼ mode, then check whether warm air blows out from the unit.

⑤ Press the FAN button and check whether strong air blows out from the unit.

⑥ Press the VANE button and check whether the auto vane operates properly.

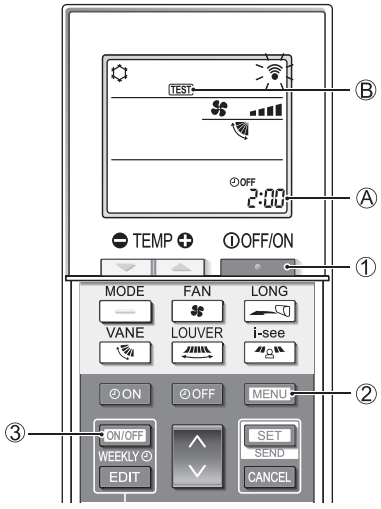
⑦ Press the ON/OFF button to stop the test run.

Note:
- **Point the remote controller towards the indoor unit receiver while following steps ② to ⑦.**
- **It is not possible to run in FAN, DRY or AUTO mode.**



13-4-3. PAR-SL101A-E

1. Press the button ① to stop the air conditioner.
   - If the weekly timer is enabled (WEEKLY is on), press the ON/OFF WEEKLY button ③ to disable it (WEEKLY is off).
2. Press the MENU button ② for 5 seconds.
   - CHECK comes on and the unit enters the service mode.
3. Press the MENU button ②.
   - TEST Ⓑ comes on and the unit enters the test run mode.
4. Press the following buttons to start the test run.
   - : Switch the operation mode between cooling and heating and start the test run.
   - : Switch the fan speed and start the test run.
   - : Switch the airflow direction and start the test run.
   - : Switch the louver and start the test run.
   - SET: Start the test run.
5. Stop the test run.
   - Press the button ① to stop the test run.
   - After 2 hours, the stop signal is transmitted.



14-5. FUNCTION SETTING

14-5-1. PAR-41MAA

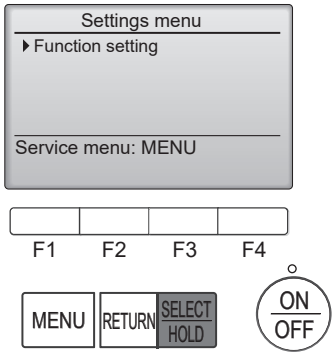
1. Select "Service" from the Main menu, and press the [SELECT] button.

   ▼

   Select "Setting" from the Service menu, and press the [SELECT] button.

   ▼

   Select "Function setting", and press the [SELECT] button.



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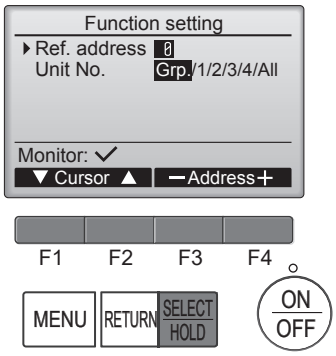
2. Set the indoor unit refrigerant addresses and unit numbers with the F1 through F4 buttons, and then press the [SELECT] button to confirm the current setting.

Note: Checking the indoor unit No.
When the [SELECT] button is pressed, the target indoor unit will start fan operation. If the unit is common or when running all units, all indoor units for the selected refrigerant address will start fan operation.



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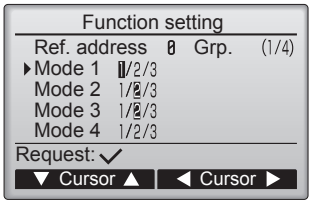
3. When data collection from the indoor units is completed, the current settings appears highlighted.
   Non-highlighted items indicate that no function settings are made.
   Screen appearance varies depending on the "Unit No." setting.



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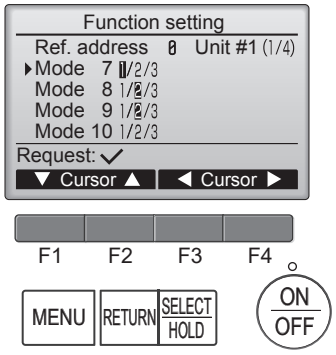
4. Use the F1 or F2 button to move the cursor to select the mode number, and change the setting number with the F3 or F4 button.



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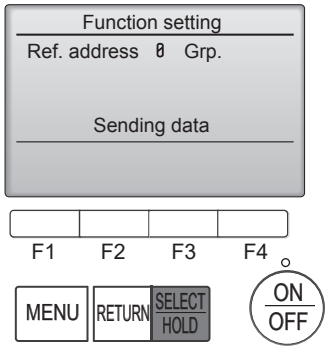
5. When the settings are completed, press the [SELECT] button to send the setting data from the remote controller to the indoor units.
   When the transmission is successfully completed, the screen will return to the Function setting screen.

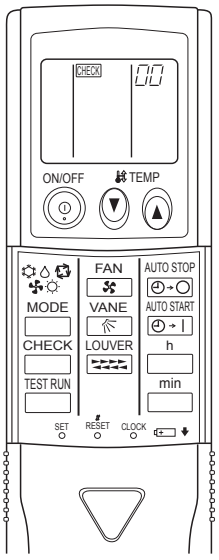
Note:
- **Make the above settings only on Mr. Slim units as necessary.**
- **The above function settings are not available for the CITY MULTI units.**
- **Refer to the indoor unit Installation Manual for the detailed information about initial settings, mode numbers, and setting numbers for the indoor units.**
- **Be sure to write down the settings for all functions if any of the initial settings has been changed after the completion of installation work.**



14-5-2. PAR-FL32MA

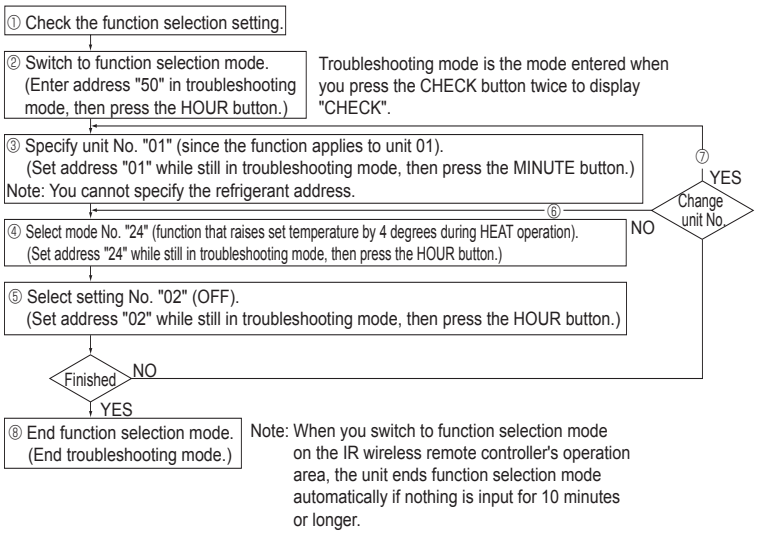
Functions can be selected with the wireless remote controller. Function selection using wireless remote controller is available only for refrigerant system with wireless function. Refrigerant address cannot be specified by the wireless remote controller.

[Flow of function selection procedure]



Flow of function selection procedure

The flow of the function selection procedure is shown below. This example shows how to turn off the function that raises the set temperature by 4 degrees during HEAT operation.
The procedure is given after the flow chart.



[Operating instructions]

① Check the function settings.

② Press the CHECK button twice continuously. → CHECK is lit and “00” blinks.
Press the TEMP button once to set “50”. Direct the IR wireless remote controller toward the receiver of the indoor unit and press the h button.

③ Set the unit number.
Press the TEMP button to set the unit number. (Press “01” to specify the indoor unit whose unit number is 01.)
Direct the IR wireless remote controller toward the receiver of the indoor unit and press the min button.

(By setting unit number with the min button, specified indoor unit starts performing fan operation.
Detect which unit is assigned to which number using this function. If unit number is set to AL, all the indoor units in same refrigerant system start performing fan operation simultaneously.)

Notes:
1. If a unit number that cannot be recognized by the unit is entered, 3 beeps of 0.4 seconds will be heard. Reenter the unit number setting.
2. If the signal was not received by the sensor, you will not hear a beep or a “double ping sound” may be heard. Reenter the unit number setting.

④ Select a mode.
Press the TEMP button to set a mode. Press “24” to turn on the function that raises the set temperature by 4 degrees during heat operation. Direct the IR wireless remote controller toward the sensor of the indoor unit and press the h button.
→ The sensor-operation indicator will blink and beeps will be heard to indicate the current setting number.
Current setting number: 1 = 1 beep (one second)
2 = 2 beeps (one second each)
3 = 3 beeps (one second each)

Notes:
1. If a mode number that cannot be recognized by the unit is entered, 3 beeps of 0.4 seconds will be heard. Reenter the mode number.
2. If the signal was not received by the sensor, you will not hear a beep or a “double ping sound” may be heard. Reenter the mode number.

⑤ Select the setting number.
Press the TEMP button to select the setting number. (02: Not available)
Direct the IR wireless remote controller toward the receiver of the indoor unit and press the h button.
→ The sensor-operation indicator will blink and beeps will be heard to indicate the setting number.
Setting number: 1 = 2 beeps (0.4 seconds each)
2 = 2 beeps (0.4 seconds each, repeated twice)
3 = 2 beeps (0.4 seconds each, repeated 3 times)

Notes:
1. If a setting number that cannot be recognized by the unit is entered, the setting will turn back to the original setting.
2. If the signal was not received by the sensor, you will not hear a beep or a “double ping sound” may be heard. Reenter the setting number.

⑥ Repeat steps ④ and ⑤ to make an additional setting without changing unit number.

⑦ Repeat steps ③ to ⑤ to change unit number and make function settings on it.

⑧ Complete the function settings
Press button.

Do not use the wireless remote controller for 30 seconds after completing the function setting.

14-5-3. PAR-SL101A-E

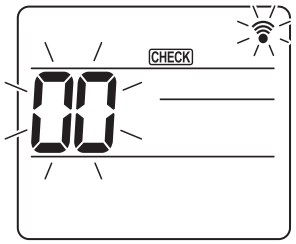


Fig. 1

1. Going to the function select mode
   Press the [MENU] button for 5 seconds.
   (Start this operation from the status of remote controller display turned off.)
   [CHECK] is lit and "00" blinks. (Fig. 1)
   Press the [^ v] button to set the "50".
   Direct the wireless remote controller toward the receiver of the indoor unit and press the [SET] button.

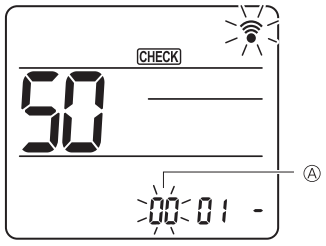


Fig. 2

2. Setting the unit number
   Press the [^ v] button to set unit number Ⓐ. (Fig. 2)
   Direct the wireless remote controller toward the receiver of the indoor unit and press the [SET] button.

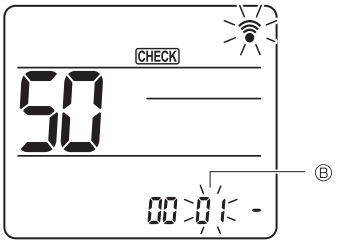


Fig. 3

3. Selecting a mode
   Press the [^ v] button to set Mode number Ⓑ. (Fig. 3)
   Direct the wireless remote controller toward the receiver of the indoor unit and press the [SET] button.
   Current setting number: 1=1 beep (1 second)
   2=2 beeps (1 second each)
   3=3 beeps (1 second each)

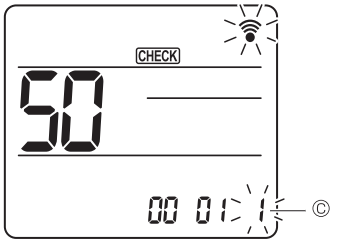


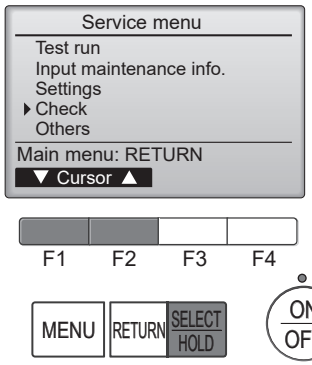
Fig. 4

4. Selecting the setting number
   Use the [^] button to change the Setting number Ⓒ. (Fig. 4)
   Direct the wireless remote controller toward the receiver of the indoor unit and press the [SET] button.
5. To select multiple functions continuously
   Repeat select ③ and ④ to change multiple function settings continuously.
6. Complete function selection
   Direct the wireless remote controller toward the sensor of the indoor unit and press the ①OFF/ON [ ] button.

Note: Be sure to write down the settings for all functions if any of the initial settings has been changed after the completion of installation work.

14-6. ERROR HISTORY

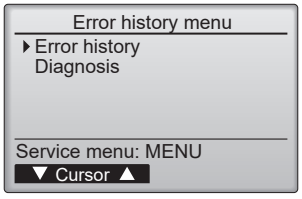
1. Select "Service" from the Main menu, and press the [SELECT] button.



Select "Check" with the F1 or F2 button, and press the [SELECT] button.

---

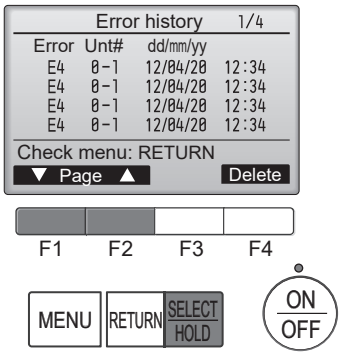
2. Select ˝Error history˝ with the F1 or F2 button, and press the [SELECT] button.



---

3. 16 error history records will appear.

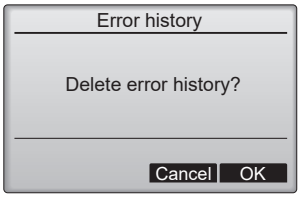
4 records are shown per page, and the top record on the first page indicates the latest error record.



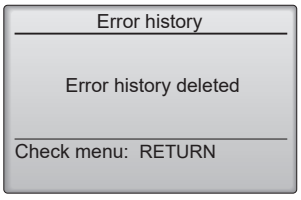
---

4. Deleting the error history

To delete the error history, press the F4 button (Delete) on the screen that shows error history.
A confirmation screen will appear asking if you want to delete the error history.



Press the F4 button (OK) to delete the history.



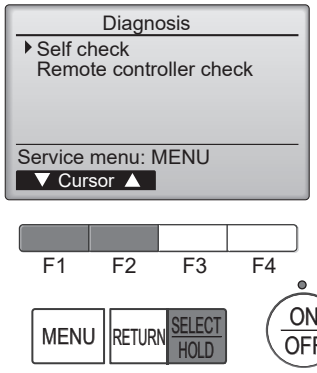
"Error history deleted" will appear on the screen.

Press the [RETURN] button to go back to the Check menu screen.

14-7. SELF-DIAGNOSIS

14-7-1. PAR-41MAA

1. Select "Service" from the Main menu, and press the [SELECT] button.



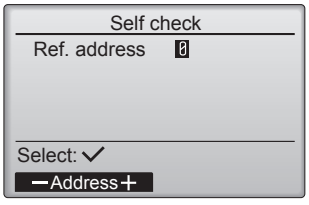
Select "Check" from the Service menu, and press the [SELECT] button.

Select "Diagnosis" from the Check menu, and press the [SELECT] button.

Select "Self check" with the F1 or F2 button, and press the [SELECT] button.

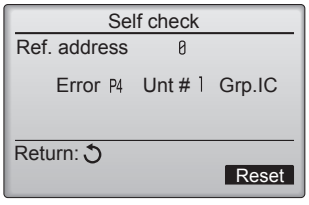
---

2. With the F1 or F2 button, enter the refrigerant address, and press the [SELECT] button.

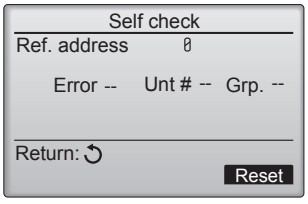


---

3. Error code, unit number, attribute will appear.
"-" will appear if no error history is available.



When there is no error history



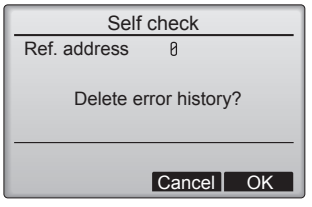
---

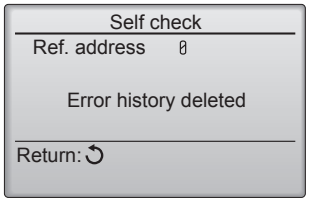
4. Resetting the error history

Press the F4 button (Reset) on the screen that shows the error history.

A confirmation screen will appear asking if you want to delete the error history.

Press the F4 button (OK) to delete the error history.





If deletion fails, "Request rejected" will appear.
"Unit not exist" will appear if no indoor units that are correspond to the entered address are found.

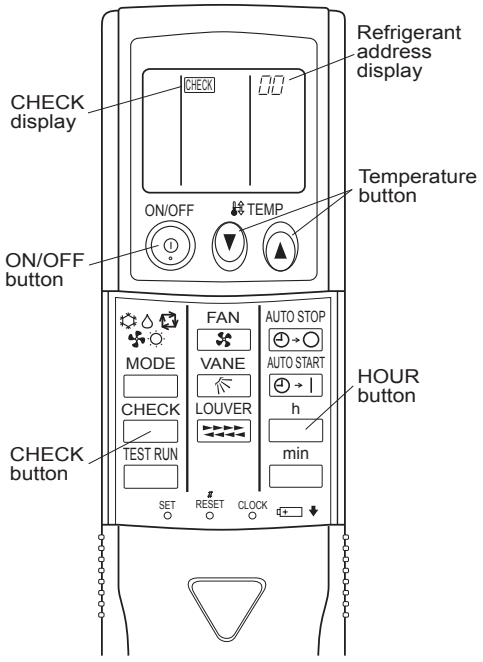
Navigating through the screens

- To go back to the Service menu ..... [MENU] button
- To return to the previous screen..... [RETURN] button

14-7-2. PAR-FL32MA

When a malfunction occurs to air conditioner, both indoor unit and outdoor unit will stop and operation lamp blinks to inform unusual stop.

<Malfunction-diagnosis method at maintenance service>



[Procedure]

1. Press the CHECK button twice.
   - "CHECK" lights, and refrigerant address "00" blinks.
   - Check that the remote controller's display has stopped before continuing.

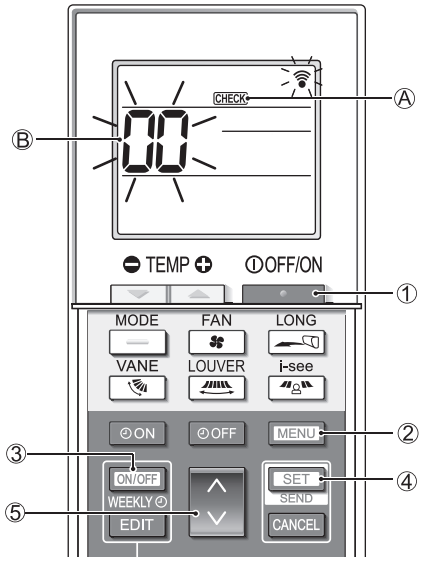
2. Press the TEMP ▽ △ buttons.
   - Select the refrigerant address of the indoor unit for the self-diagnosis.

   Note: Set refrigerant address using the outdoor unit's DIP switch (SW1). (For more information, see the outdoor unit installation manual.)

3. Point the remote controller at the sensor on the indoor unit and press the HOUR button.
   - If an air conditioner error occurs, the indoor unit's sensor emits an intermittent buzzer sound, the operation light blinks, and the error code is output.

4. Point the remote controller at the sensor on the indoor unit and press the ON/OFF button.
   - The check mode is cancelled.

13-7-3. PAR-SL101A-E



[Procedure]

1. Press the [ ] button ① to stop the air conditioner.
   - If the weekly timer is enabled (WEEKLY is on), press the [ON/OFF WEEKLY] button ③ to disable it (WEEKLY is off).

2. Press the [MENU] button ② for 5 seconds.
   - [CHECK] Ⓐ comes on and the unit enters the self-check mode.

3. Press the [△▽] button ⑤ to select the refrigerant address (M-NET address) Ⓑ of the indoor unit for which you want to perform the self-check.

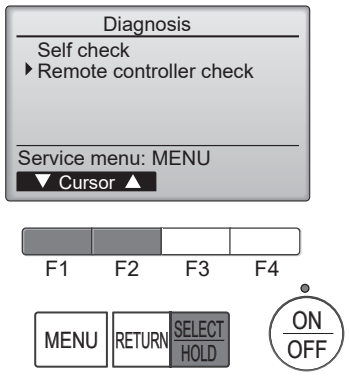
4. Press the [SET] button ④.
   - If an error is detected, the check code is indicated by the number of beeps from the indoor unit and the number of blinks of the OPERATION INDICATOR lamp.

5. Press the [ ] button ①.
   - [CHECK] Ⓐ and the refrigerant address (M-NET address) Ⓑ go off and the self-check is completed.

14-8. REMOTE CONTROLLER CHECK

If operations cannot be completed with the remote controller, diagnose the remote controller with this function.

1. Select "Service" from the Main menu, and press the [SELECT] button.



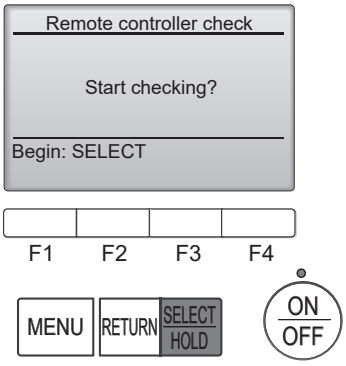
Select "Check" from the Service menu, and press the [SELECT] button.

Select "Diagnosis" from the Check menu, and press the [SELECT] button.

Select "Remote controller check" with the F1 or F2 button, and press the [SELECT] button.

---

2. Select "Remote controller check" from the Diagnosis menu, and press the [SELECT] button to start the remote controller check and see the check results.



To cancel the remote controller check and exit the "Remote controller check" menu screen, press the [MENU] or the [RETURN] button.

The remote controller will not reboot itself.

3.

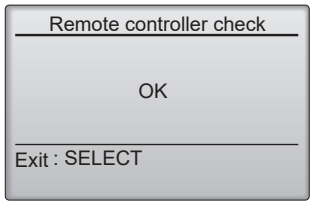
OK: No problems are found with the remote controller. Check other parts for problems.

E3, 6832: There is noise on the transmission line, or the indoor unit or another remote controller is faulty. Check the transmission line and the other remote controllers.

NG (ALL0, ALL1): Send-receive circuit fault. The remote controller needs replacing.

ERC: The number of data errors is the discrepancy between the number of bits in the data transmitted from the remote controller and that of the data that was actually transmitted over the transmission line. If data errors are found, check the transmission line for external noise interference.

Remote controller check results screen



If the [SELECT] button is pressed after the remote controller check results are displayed, remote controller check will end, and the remote controller will automatically reboot itself.

Check the remote controller display and see if anything is displayed (including lines). Nothing will appear on the remote controller display if the correct voltage (8.5–12 VDC) is not supplied to the remote controller. If this is the case, check the remote controller wiring and indoor units.

T1 SPECIFICATIONS CONNECTED TO INDOOR UNITS

Model name		Indoor unit		SLZ-AF09NL	SLZ-AF12NL	SLZ-AF15NL
		Outdoor unit		SUZ-AA09NL	SUZ-AA12NL	SUZ-AA15NL
Cooling	at 95°F	Max. Capacity	Btu/h	9,000	12,000	15,000
		Rated Capacity *1	Btu/h	9,000	12,000	15,000
		Min. Capacity	Btu/h	2,300	3,000	3,600
		Total Input	W	680	960	1,240
		EER2	Btu/h/W	13.2	12.5	12.0
		Moisture Removal	Pints/h	0.7	1.8	3.8
		SHF		0.90	0.82	0.72
		Power factor	%	90	98	97
	SEER2		Btu/h/W	21.0	20.3	20.6
Heating	at 47°F	Max. Capacity	Btu/h	12,800	15,000	19,600
		Rated Capacity	Btu/h	12,000	15,000	18,000
		Min. Capacity	Btu/h	4,900	4,900	4,600
		Total Input	W	910	1,350	1,580
		COP	W/W	3.80	3.20	3.30
		Power factor	%	93	98	98
	at 17°F	Rated Capacity	Btu/h	7,800	9,800	11,300
		Total Input	W	740	1,090	1,190
		COP	W/W	3.0	2.6	2.7
	HSPF2(IV/V)		Btu/h/W	11.8	9.7	10.1
Power supply	Phase,Cycle,Voltage			1-phase, 60 Hz, 208/230 V		
	Breaker size		A	30		
Voltage	Indoor - Outdoor S1-S2			AC208 V / 230 V		
	Indoor - Outdoor S2-S3			DC24 V		
	Indoor - Remote controller			DC12 V		
Indoor unit	MCA		A	1.0		
	MOCP		A	15		
	Fan Motor Output		W	50		
	Air flow(LoLo-Lo-Mid-Hi)		DRY (CFM)	230-265-300	230-280-335	245-315-405
			WET (CFM)	207-239-270	207-252-302	221-284-365
	External Static Pressure		in. WG [Pa]	0		
	Sound Pressure Level (LoLo-Lo-Mid-Hi)		dB(A)	25-28-31	25-30-34	27-34-39
	Dimensions		W:mm [inch]	570 [22-7/16]		
			D:mm [inch]	570 [22-7/16]		
			H:mm [inch]	208 [8-4/16]		
	Weight Unit		kg [lbs]	14 [31]		
	Field Drain pipe size		mm [inch]	ø32 [1-1/4]		
	Refrigerant pipe size Gas		mm [inch]	ø9.52 [3/8]		ø12.7 [1/2]
	Refrigerant pipe size Liquid		mm [inch]	ø6.35 [1/4]		
RemoteController				Attached in Indoor Unit		
Outdoor unit	MCA		A	13	14	17
	MOCP		A	22	23	29
	SCCR		kA	5		
	Inverter input		A	8.7		11.7
	Fan Motor Output		W	55		
	Compressor		Model	SRB092FQFMC		SRB140FQHMC
	Air flow		CFM	1,229/1,172		
	Refrigerant Control			Electronic Expansion Valve		
	Defrost Method			Reverse Cycle		
	Sound Pressure Level at cooling		dB(A)	48	49	
	Sound Pressure Level at heating		dB(A)	50	51	
	External Finish Color			Ivory Munsell 3Y 7.8/1.1		
	Dimensions		W: mm [inch]	800 [31-1/2]		
			D: mm [inch]	285 [11-1/4]		
			H: mm [inch]	550 [21-5/8]		
	Weight Unit		kg [lbs]	37 [81]		
Refrigerant	Type			R454B		
	Charge		kg [lbs,oz]	0.90 [2]		1.02 [2.4]
	Oil		Model	RM68EH		
			L [oz]	0.35 [11.8]		
Refrigerant Pipe Size	Gas side O.D.		mm [inch]	ø9.52 [3/8]		ø12.7 [1/2]
	Liquid side O.D.		mm [inch]	ø6.35 [1/4]		
Refrigerant pipe length	Height difference			12 [40]		
	Length			20 [65]		
Refrigerant Piping				Not supplied		
Connection Method	Indoor/Outdoor			Flared		

NOTES: *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)

Model name		Indoor unit		MLZ-KX09NL	MLZ-KX12NL
		Outdoor unit		SUZ-AA09NL	SUZ-AA12NL
Cooling	at 95°F	Max. Capacity	Btu/h	9,000	11,300
		Rated Capacity *1	Btu/h	9,000	11,300
		Min. Capacity	Btu/h	2,200	2,900
		Total Input	W	760	950
		EER2	Btu/h/W	11.8	11.8
		Moisture Removal	Pints/h	1.6	2.6
		SHF		0.80	0.74
		Power factor	%	91	96
	SEER2		Btu/h/W	20.9	20.7
Heating	at 47°F	Max. Capacity	Btu/h	13,000	14,600
		Rated Capacity	Btu/h	12,000	14,600
		Min. Capacity	Btu/h	5,100	5,100
		Total Input	W	910	1,330
		COP	W/W	3.8	3.2
		Power factor	%	95	96
	at 17°F	Rated Capacity	Btu/h	7,800	9,600
		Total Input	W	740	1,080
		COP	W/W	3.0	2.6
	HSPF2(IV/V)		Btu/h/W	12.2	10
Power supply	Phase,Cycle,Voltage			1-phase, 60 Hz, 208/230 V	
	Breaker size		A	15	
Voltage	Indoor - Outdoor S1-S2			AC208 V / 230 V	
	Indoor - Outdoor S2-S3			DC24 V	
	Indoor - Remote controller			DC12 V	
Indoor unit	MCA		A	1	
	MOCP		A	15	
	Fan Motor Output		W	30	
	Air flow(LoLo-Lo-Mid-Hi)		DRY (CFM)	212-254-282-311	212-258-297-332
	External Static Pressure		in. WG [Pa]	-	
	Sound Pressure Level (LoLo-Lo-Mid-Hi)		dB(A)	27-31-34-38	27-32-36-40
				26-29-34-37	26-32-36-40
	Dimensions		W:mm [inch]	1102 [43-3/8]	
			D:mm [inch]	360 [14-3/16]	
			H:mm [inch]	185 [7-5/16]	
	Weight Unit		kg [lbs]	15.5 [34]	
	Field Drain pipe size		mm [inch]	ø20 [13/16]	
	Refrigerant pipe size Gas		mm [inch]	ø9.52 [3/8]	
	Refrigerant pipe size Liquid		mm [inch]	ø6.35 [1/4]	
RemoteController				Attached in Indoor Unit	
Outdoor unit	MCA		A	13	14
	MOCP		A	22	23
	SCCR		kA	5	
	Inverter input		A	8.7	
	Fan Motor Output		W	55	
	Compressor		Model	SRB092FQFMC	
	Air flow		CFM	1,229/1,172	
	Refrigerant Control			Electronic Expansion Valve	
	Defrost Method			Reverse Cycle	
	Sound Pressure Level at cooling		dB(A)	48	49
	Sound Pressure Level at heating		dB(A)	50	51
	External Finish Color			Ivory Munsell 3Y 7.8/1.1	
	Dimensions		W: mm [inch]	800 [31-1/2]	
			D: mm [inch]	285 [11-1/4]	
			H: mm [inch]	550 [21-5/8]	
	Weight Unit		kg [lbs]	37 [81]	
Refrigerant	Type			R454B	
	Charge		kg [lbs,oz]	0.9[2]	
	Oil		Model	RM68EH	
			L [oz]	0.35 [11.8]	
Refrigerant Pipe Size	Gas side O.D.		mm [inch]	ø9.52 [3/8]	
	Liquid side O.D.		mm [inch]	ø6.35 [1/4]	
Refrigerant pipe length	Height difference			12 [40]	
	Length			20 [65]	
Refrigerant Piping				Not supplied	
Connection Method	Indoor/Outdoor			Flared	

NOTES: *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)

Model name		Indoor unit		MFZ-KX09NL	MFZ-KX12NL	MFZ-KX15NL
		Outdoor unit		SUZ-AA09NL	SUZ-AA12NL	SUZ-AA15NL
Cooling	at 95°F	Max. Capacity	Btu/h	9,000	12,000	15,000
		Rated Capacity *1	Btu/h	9,000	12,000	15,000
		Min. Capacity	Btu/h	2,000	2,500	3,300
		Total Input	W	710	950	1,150
		EER2	Btu/h/W	12.6	12.6	13
		Moisture Removal	Pints/h	0.6	1.9	3.2
		SHF		0.93	0.82	0.76
		Power factor	%	91	96	92
	SEER2		Btu/h/W	21.6	19.6	20.1
Heating	at 47°F	Max. Capacity	Btu/h	13,000	15,000	20,400
		Rated Capacity	Btu/h	12,000	15,000	18,000
		Min. Capacity	Btu/h	5,200	4,800	5,000
		Total Input	W	810	1,240	1,360
		COP	W/W	4.3	3.5	3.8
		Power factor	%	95	97	97
	at 17°F	Rated Capacity	Btu/h	7,700	9,700	10,900
		Total Input	W	670	1,020	1,020
		COP	W/W	3.3	2.7	3.1
	HSPF2(IV/V)		Btu/h/W	12.3	8.7	10.5
Power supply	Phase,Cycle,Voltage			1-phase, 60 Hz, 208/230 V		
	Breaker size		A	15		20
Voltage	Indoor - Outdoor S1-S2			AC208 V / 230 V		
	Indoor - Outdoor S2-S3			DC24 V		
	Indoor - Remote controller			DC12 V		
Indoor unit	MCA		A	1		
	MOCP		A	15		
	Fan Motor Output		W	30		
	Air flow(LoLo-Lo-Mid-Hi)		DRY (CFM)	138-198-272-360-417	138-198-272-360-417	198-254-311-392-431
			WET (CFM)	117-168-231-306-354	117-168-231-306-354	168-216-264-333-366
	External Static Pressure		in. WG [Pa]	-		
	Sound Pressure Level (LoLo-Lo-Mid-Hi)		dB(A)	21-27-34-41-46	21-27-34-41-46	28-33-38-43-47
				21-27-34-40-46	21-27-34-40-46	29-35-40-45-49
	Dimensions		W:mm [inch]	750 [29-1/2]		
			D:mm [inch]	215 [8-7/16]		
			H:mm [inch]	600 [23-5/8]		
	Weight Unit		kg [lbs]	15 [33]		
	Field Drain pipe size		mm [inch]	ø16 [5/8]		
	Refrigerant pipe size Gas		mm [inch]	ø9.52 [3/8]		ø12.7 [1/2]
	Refrigerant pipe size Liquid		mm [inch]	ø6.35 [1/4]		
RemoteController				Attached in Indoor Unit		
Outdoor unit	MCA		A	13	14	17
	MOCP		A	22	23	29
	SCCR		kA	5		
	Inverter input		A	8.7		11.7
	Fan Motor Output		W	55		
	Compressor		Model	SRB092FQFMC		SRB140FQHMC
	Air flow		CFM	1,229/1,172		
	Refrigerant Control			Electronic Expansion Valve		
	Defrost Method			Reverse Cycle		
	Sound Pressure Level at cooling		dB(A)	48	49	
	Sound Pressure Level at heating		dB(A)	50	51	
	External Finish Color			Ivory Munsell 3Y 7.8/1.1		
	Dimensions		W: mm [inch]	800 [31-1/2]		
			D: mm [inch]	285 [11-1/4]		
			H: mm [inch]	550 [21-5/8]		
	Weight Unit		kg [lbs]	37 [81]		
Refrigerant	Type			R454B		
	Charge		kg [lbs,oz]	0.9 [2]		1.02 [2.4]
	Oil		Model	RM68EH		
			L [oz]	0.35 [11.8]		
Refrigerant Pipe Size	Gas side O.D.		mm [inch]	ø9.52 [3/8]		ø12.7 [1/2]
	Liquid side O.D.		mm [inch]	ø6.35 [1/4]		
Refrigerant pipe length	Height difference			12 [40]		
	Length			20 [65]		
Refrigerant Piping				Not supplied		
Connection Method	Indoor/Outdoor			Flared		

NOTES: *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)

Model name		Indoor unit		MSZ-EX09NL	MSZ-EX12NL	MSZ-EX15NL
		Outdoor unit		SUZ-AA09NL	SUZ-AA12NL	SUZ-AA15NL
Cooling	at 95°F	Max. Capacity	Btu/h	9,000	12,000	15,000
		Rated Capacity *1	Btu/h	9,000	12,000	15,000
		Min. Capacity	Btu/h	2,300	2,700	3,300
		Total Input	W	700	980	1,230
		EER2	Btu/h/W	12.8	12.2	12.1
		Moisture Removal	Pints/h	0.2	1.9	3.9
		SHF		0.97	0.82	0.71
		Power factor	%	91	99	97
	SEER2		Btu/h/W	21.7	21.7	20.9
Heating	at 47°F	Max. Capacity	Btu/h	13,000	15,000	20,000
		Rated Capacity	Btu/h	12,000	15,000	18,000
		Min. Capacity	Btu/h	5,300	5,300	4,900
		Total Input	W	800	1,200	1,450
		COP	W/W	4.3	3.6	3.6
		Power factor	%	94	95	95
	at 17°F	Rated Capacity	Btu/h	7,700	9,600	11,100
		Total Input	W	660	1,030	1,070
		COP	W/W	3.4	2.7	3.0
	HSPF2(IV/V)		Btu/h/W	12.9	10.0	10.6
Power supply	Phase,Cycle,Voltage			1-phase, 60 Hz, 208/230 V		
	Breaker size		A	15		20
Voltage	Indoor - Outdoor S1-S2			AC208 V / 230 V		
	Indoor - Outdoor S2-S3			DC24 V		
	Indoor - Remote controller			DC12 V		
Indoor unit	MCA		A	1		
	MOCP		A	15		
	Fan Motor Output		HP	0.04		
	Air flow(LoLo-Lo-Mid-Hi)		COOL DRY (CFM)	143-164-228-305-391	143-164-228-305-391	208-240-280-330-382
			COOL WET (CFM)	128-147-205-274-352	128-147-205-274-352	188-216-252-297-344
			HEAT DRY (CFM)	143-164-205-244-448	143-164-205-244-479	197-228-284-347-479
	External Static Pressure		in. WG [Pa]	0		
	Sound Pressure Level (LoLo-Lo-Mid-Hi)		dB(A)	21-23-29-36-42	21-24-29-36-42	28-31-35-39-42
				21-24-29-37-45	21-24-30-38-46	28-30-35-41-48
	Dimensions		W:mm [inch]	885 [34-13/16]		
			D:mm [inch]	195 [7-11/16]		
			H:mm [inch]	299 [11-3/4]		
	Weight Unit		kg [lbs]	11.5 [26]		
	Field Drain pipe size		mm [inch]	ø16 [5/8]		
	Refrigerant pipe size Gas		mm [inch]	ø9.52 [3/8]		ø12.7 [1/2]
	Refrigerant pipe size Liquid		mm [inch]	ø6.35 [1/4]		
RemoteController				Attached in Indoor Unit		
Outdoor unit	MCA		A	13	14	17
	MOCP		A	22	23	29
	SCCR		kA	5		
	Inverter input		A	8.7		11.7
	Fan Motor Output		W	55		
	Compressor		Model	SRB092FQFMC		SRB140FQHMC
	Air flow		CFM	1,229/1,172		
	Refrigerant Control			Electronic Expansion Valve		
	Defrost Method			Reverse Cycle		
	Sound Pressure Level at cooling		dB(A)	48	49	
	Sound Pressure Level at heating		dB(A)	50	51	
	External Finish Color			Ivory Munsell 3Y 7.8/1.1		
	Dimensions		W: mm [inch]	800 [31-1/2]		
			D: mm [inch]	285 [11-1/4]		
			H: mm [inch]	550 [21-5/8]		
	Weight Unit		kg [lbs]	37 [81]		
Refrigerant	Type			R454B		
	Charge		kg [lbs,oz]	0.9 [2]		1.02 [2.4]
	Oil		Model	RM68EH		
			L [oz]	0.35 [11.8]		
Refrigerant Pipe Size	Gas side O.D.		mm [inch]	ø9.52 [3/8]		ø12.7 [1/2]
	Liquid side O.D.		mm [inch]	ø6.35 [1/4]		
Refrigerant pipe length	Height difference			12 [40]		
	Length			20 [65]		
Refrigerant Piping				Not supplied		
Connection Method	Indoor/Outdoor			Flared		

NOTES: *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)

Model name		Indoor unit		SEZ-AD09NL	SEZ-AD12NL	SEZ-AD15NL
		Outdoor unit		SUZ-AA09NL	SUZ-AA12NL	SUZ-AA15NL
Cooling	at 95°F	Max. Capacity	Btu/h	9,000	12,000	15,000
		Rated Capacity *1	Btu/h	9,000	12,000	15,000
		Min. Capacity	Btu/h	2,400	2,900	3,700
		Total Input	W	760	990	1,130
		EER2	Btu/h/W	11.8	12.1	13.2
		Moisture Removal	Pints/h	1.7	2.5	3.2
		SHF		0.80	0.77	0.76
		Power factor	%	93	95	90
	SEER2		Btu/h/W	17.6	19.0	19.1
Heating	at 47°F	Max. Capacity	Btu/h	12,800	15,000	20,600
		Rated Capacity	Btu/h	12,000	15,000	18,000
		Min. Capacity	Btu/h	4,500	5,000	4,900
		Total Input	W	1,100	1,300	1,400
		COP	W/W	3.1	3.3	3.7
		Power factor	%	96	97	97
	at 17°F	Rated Capacity	Btu/h	7,900	9,700	10,200
		Total Input	W	820	1,060	1,020
		COP	W/W	2.8	2.6	2.9
	HSPF2(IV/V)		Btu/h/W	10.6	9.6	9.8
Power supply	Phase,Cycle,Voltage			1-phase, 60 Hz, 208/230 V		
	Breaker size		A	15		20
Voltage	Indoor - Outdoor S1-S2			AC208 V / 230 V		
	Indoor - Outdoor S2-S3			DC24 V		
	Indoor - Remote controller			DC12 V		
Indoor unit	MCA		A	0.95	1.05	1.35
	MOCP		A	15		
	Fan Motor Output		W	96		
	Air flow(LoLo-Lo-Mid-Hi)		DRY (CFM)	194-247-317	247-317-388	353-441-529
			WET (CFM)	-	-	-
	External Static Pressure		in. WG [Pa]	5-15-35-50 [0.02-0.06-0.14-0.20]		
	Sound Pressure Level (LoLo-Lo-Mid-Hi)		dB(A)	23-26-30	23-28-33	30-34-37
	Dimensions		W:mm [inch]	790 [31-1/8]	990 [39]	990 [39]
			D:mm [inch]	700 [27-9/16]		
			H:mm [inch]	200 [7-7/8]		
	Weight Unit		kg [lbs]	19 [42]	22.5 [50]	23.5 [52]
	Field Drain pipe size		mm [inch]	ø32 [1-1/4]		
	Refrigerant pipe size Gas		mm [inch]	ø9.52 [3/8]		ø12.7 [1/2]
	Refrigerant pipe size Liquid		mm [inch]	ø6.35 [1/4]		
RemoteController				Attached in Indoor Unit		
Outdoor unit	MCA		A	13	14	17
	MOCP		A	22	23	29
	SCCR		kA	5		
	Inverter input		A	8.7		11.7
	Fan Motor Output		W	55		
	Compressor		Model	SRB092FQFMC		SRB140FQHMC
	Air flow		CFM	1,229/1,172		
	Refrigerant Control			Electronic Expansion Valve		
	Defrost Method			Reverse Cycle		
	Sound Pressure Level at cooling		dB(A)	48	49	
	Sound Pressure Level at heating		dB(A)	50	51	
	External Finish Color			Ivory Munsell 3Y 7.8/1.1		
	Dimensions		W: mm [inch]	800 [31-1/2]		
			D: mm [inch]	285 [11-1/4]		
			H: mm [inch]	550 [21-5/8]		
	Weight Unit		kg [lbs]	37 [81]		
Refrigerant	Type			R454B		
	Charge		kg [lbs,oz]	0.9 [2]		1.02 [2.4]
	Oil		Model	RM68EH		
			L [oz]	0.35 [11.8]		
Refrigerant Pipe Size	Gas side O.D.		mm [inch]	ø9.52 [3/8]		ø12.7 [1/2]
	Liquid side O.D.		mm [inch]	ø6.35 [1/4]		
Refrigerant pipe length	Height difference			12 [40]		
	Length			20 [65]		
Refrigerant Piping				Not supplied		
Connection Method	Indoor/Outdoor			Flared		

NOTES: *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)

Model name		Indoor unit		PEAD-AA09NL	PEAD-AA12NL	PEAD-AA15NL
		Outdoor unit		SUZ-AA09NL	SUZ-AA12NL	SUZ-AA15NL
Cooling	at 95°F	Max. Capacity	Btu/h	9,000	12,000	15,000
		Rated Capacity *1	Btu/h	9,000	12,000	15,000
		Min. Capacity	Btu/h	1,900	3,100	3,600
		Total Input	W	680	960	1,220
		EER2	Btu/h/W	13.2	12.5	12.2
		Moisture Removal	Pints/h	0.4	1.0	1.8
		SHF		0.95	0.91	0.87
		Power factor	%	85	94	97
	SEER2		Btu/h/W	18.8	19.7	18.8
Heating	at 47°F	Max. Capacity	Btu/h	13,000	15,000	20,900
		Rated Capacity	Btu/h	12,000	15,000	18,000
		Min. Capacity	Btu/h	4,900	5,100	4,400
		Total Input	W	930	1,280	1,280
		COP	W/W	3.7	3.4	4.1
		Power factor	%	88	98	97
	at 17°F	Rated Capacity	Btu/h	7,800	9,700	10,400
		Total Input	W	770	1,060	1,040
		COP	W/W	2.9	2.6	2.9
	HSPF2(IV/V)		Btu/h/W	11.5	9.7	9.7
Power supply	Phase,Cycle,Voltage			1-phase, 60 Hz, 208/230 V		
	Breaker size		A	15		20
Voltage	Indoor - Outdoor S1-S2			AC208 V / 230 V		
	Indoor - Outdoor S2-S3			DC24 V		
	Indoor - Remote controller			DC12 V		
Indoor unit	MCA		A	2.13	2.50	2.25
	MOCP		A	15		
	Fan Motor Output		W	121		
	Air flow(LoLo-Lo-Mid-Hi)		DRY (CFM)	265-283-318-353	353-388-424-494	403-424-512-600
			WET (CFM)	-	-	-
	External Static Pressure		in. WG [Pa]	0.14-0.20-0.28-0.40-0.60 [35-50-70-100-150]		
	Sound Pressure Level (LoLo-Lo-Mid-Hi)		dB(A)	25-26-28-31	27-29-31-34	28-29-34-37
	Dimensions		W:mm [inch]	900 [35-7/16]	900 [35-7/16]	900 [35-7/16]
			D:mm [inch]	732 [28-7/8]		
			H:mm [inch]	250 [9-7/8]		
	Weight Unit		kg [lbs]	26 [58]		27 [60]
	Field Drain pipe size		mm [inch]	ø32 [1-1/4]		
	Refrigerant pipe size Gas		mm [inch]	ø9.52 [3/8]	ø12.7 [1/2]	
	Refrigerant pipe size Liquid		mm [inch]	ø6.35 [1/4]		
RemoteController				Attached in Indoor Unit		
Outdoor unit	MCA		A	13	14	17
	MOCP		A	22	23	29
	SCCR		kA	5		
	Inverter input		A	8.7		11.7
	Fan Motor Output		W	55		
	Compressor		Model	SRB092FQFMC		SRB140FQHMC
	Air flow		CFM	1,229/1,172		
	Refrigerant Control			Electronic Expansion Valve		
	Defrost Method			Reverse Cycle		
	Sound Pressure Level at cooling		dB(A)	48	49	
	Sound Pressure Level at heating		dB(A)	50	51	
	External Finish Color			Ivory Munsell 3Y 7.8/1.1		
	Dimensions		W: mm [inch]	800 [31-1/2]		
			D: mm [inch]	285 [11-1/4]		
			H: mm [inch]	550 [21-5/8]		
	Weight Unit		kg [lbs]	37 [81]		
Refrigerant	Type			R454B		
	Charge		kg [lbs,oz]	0.9 [2]		1.02 [2.4]
	Oil		Model	RM68EH		
			L [oz]	0.35 [11.8]		
Refrigerant Pipe Size	Gas side O.D.		mm [inch]	ø9.52 [3/8]		ø12.7 [1/2]
	Liquid side O.D.		mm [inch]	ø6.35 [1/4]		
Refrigerant pipe length	Height difference			12 [40]		
	Length			20 [65]		
Refrigerant Piping				Not supplied		
Connection Method	Indoor/Outdoor			Flared		

NOTES: *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)

Model name		Indoor unit		**SVZ-AP12NL**
		Outdoor unit		**SUZ-AA12NL**
Cooling	at 95°F	Max. Capacity	Btu/h	11,400
		Rated Capacity *1	Btu/h	11,400
		Min. Capacity	Btu/h	2,800
		Total Input	W	940
		EER2	Btu/h/W	12.1
		Moisture Removal	Pints/h	1.5
		SHF		0.85
		Power factor	%	98
	SEER2		Btu/h/W	18.4
Heating	at 47°F	Max. Capacity	Btu/h	15,100
		Rated Capacity	Btu/h	15,000
		Min. Capacity	Btu/h	5,100
		Total Input	W	1,280
		COP	W/W	3.4
		Power factor	%	99
	at 17°F	Rated Capacity	Btu/h	9,700
		Total Input	W	1,080
		COP	W/W	2.6
	HSPF2(IV/V)		Btu/h/W	9.7
Power supply	Phase,Cycle,Voltage			1-phase, 60 Hz, 208/230 V
	Breaker size		A	15
Voltage	Indoor - Outdoor S1-S2			AC208 V / 230 V
	Indoor - Outdoor S2-S3			DC24 V
	Indoor - Remote controller			DC12 V
Indoor unit	MCA		A	3
	MOCP		A	15
	Fan Motor Output		W	121
	Air flow(LoLo-Lo-Mid-Hi)		DRY (CFM)	278-381-448
	External Static Pressure		in. WG [Pa]	0.3-0.5-0.8
	Sound Pressure Level (LoLo-Lo-Mid-Hi)		dB(A)	36-41-45
	Dimensions		W:mm [inch]	432 [17]
			D:mm [inch]	548 [21-5/8]
			H:mm [inch]	1011 [39-13/16]
	Weight Unit		kg [lbs]	44 [97]
	Field Drain pipe size		mm [inch]	ø19.05 [3/4]
	Refrigerant pipe size Gas		mm [inch]	ø9.52 [3/8]
	Refrigerant pipe size Liquid		mm [inch]	ø6.35 [1/4]
RemoteController				Attached in Indoor Unit
Outdoor unit	MCA		A	14
	MOCP		A	23
	SCCR		kA	5
	Inverter input		A	8.7
	Fan Motor Output		W	55
	Compressor		Model	SRB092FQFMC
	Air flow		CFM	1,229/1,172
	Refrigerant Control			Electronic Expansion Valve
	Defrost Method			Reverse Cycle
	Sound Pressure Level at cooling		dB(A)	49
	Sound Pressure Level at heating		dB(A)	51
	External Finish Color			Ivory Munsell 3Y 7.8/1.1
	Dimensions		W: mm [inch]	800 [31-1/2]
			D: mm [inch]	285 [11-1/4]
			H: mm [inch]	550 [21-5/8]
	Weight Unit		kg [lbs]	37 [81]
Refrigerant	Type			R454B
	Charge		kg [lbs,oz]	0.9 [2]
	Oil		Model	RM68EH
			L [oz]	0.35 [11.8]
Refrigerant Pipe Size	Gas side O.D.		mm [inch]	ø9.52 [3/8]
	Liquid side O.D.		mm [inch]	ø6.35 [1/4]
Refrigerant pipe length	Height difference			12 [40]
	Length			20 [65]
Refrigerant Piping				Not supplied
Connection Method	Indoor/Outdoor			Flared

NOTES: 1. Rating conditions (cooling)-Indoor: D.B. 26.7°C (80°F), W.B. 19.4°C (67°F) Outdoor: D.B. 35°C (95°F), W.B. 23.9°C (75°F)
(heating)-Indoor: D.B. 21.1°C (70°F), W.B. 15.6°C (60°F) Outdoor: D.B. 8.3°C (47°F), W.B. 6.1°C (43°F)
2. Rating conditions (heating)-Indoor: D.B. 21.1°C (70°F), W.B. 15.6°C (60°F) Outdoor: D.B. -8.3°C (17°F), W.B. -9.4°C (15°F)

Operating range

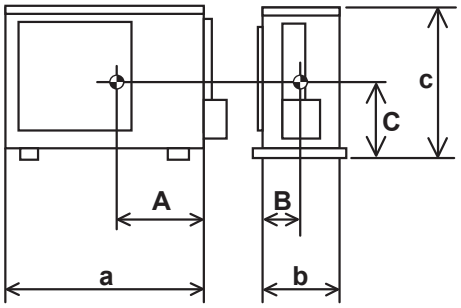
		Indoor intake air temperature	Outdoor intake air temperature
Cooling	Maximum	D.B. 32°C (90°F), W.B. 23°C (73°F)	D.B. 46°C (115°F)
	Minimum	D.B. 19°C (66°F), W.B. 15°C (59°F)	D.B. -5°C (23°F) D.B. -18°C (0°F)*
Heating	Maximum	D.B. 28°C (83°F)	D.B. 21.1°C (70°F), W.B. 15°C (59°F)
	Minimum	D.B. 10°C (50°F)	D.B. -20°C (-4°F), W.B. -20°C (-4°F)

* In case that the wind baffle is installed. (In case that the wind baffle is not installed, the minimum temperature will be -5°C (23°F) DB.)

T2 POSITION OF THE CENTER OF GRAVITY

T2-1. OUTDOOR UNIT

Unit: inch(mm)

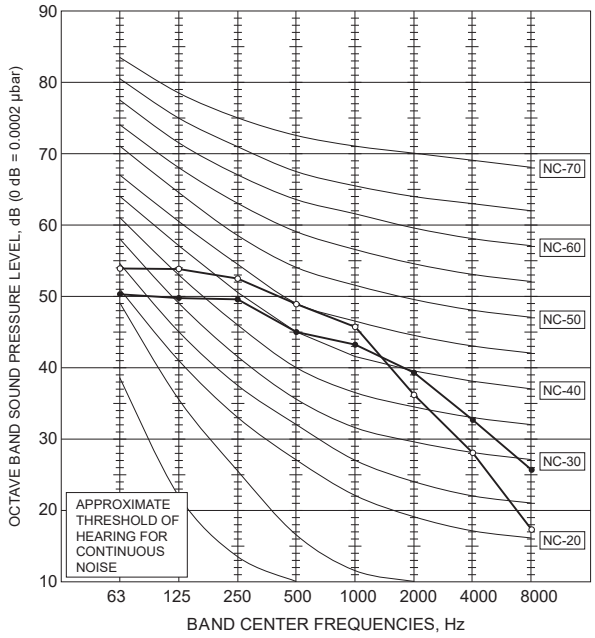


Model	A	B	C	a	b	c
SUZ-AA09NL **SUZ-AA12NL** **SUZ-AA15NL**	11-1/16 (280)	5-9/16 (140)	9-5/16 (240)	31-8/16 (800)	11-4/16 (285)	21-10/16 (550)

T3 NOISE CRITERION CURVES

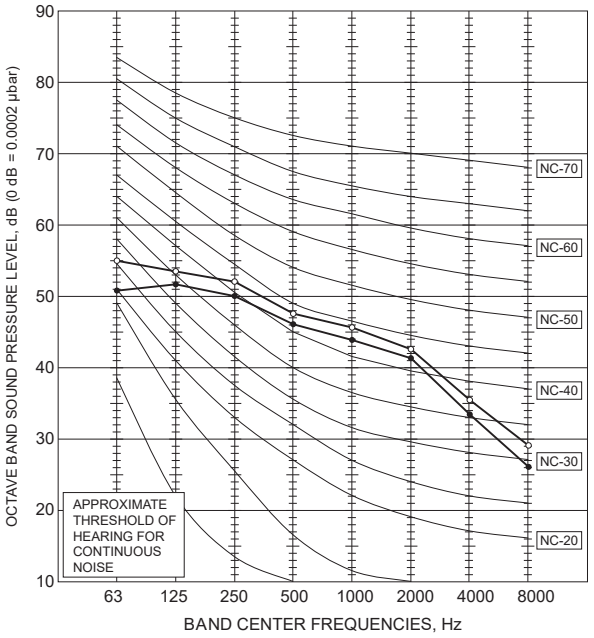
SUZ-AA09NL

NOTCH	SPL(dB(A))	LINE
COOLING	48	●——●
HEATING	50	○——○



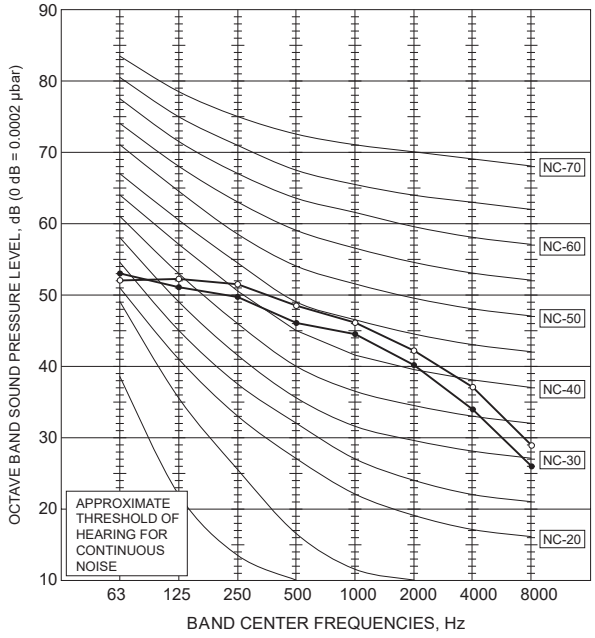
SUZ-AA12NL

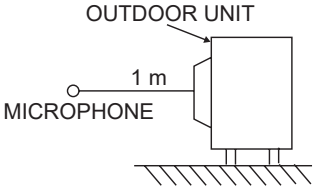
NOTCH	SPL(dB(A))	LINE
COOLING	49	●——●
HEATING	51	○——○



SUZ-AA15NL

NOTCH	SPL(dB(A))	LINE
COOLING	49	●——●
HEATING	51	○——○

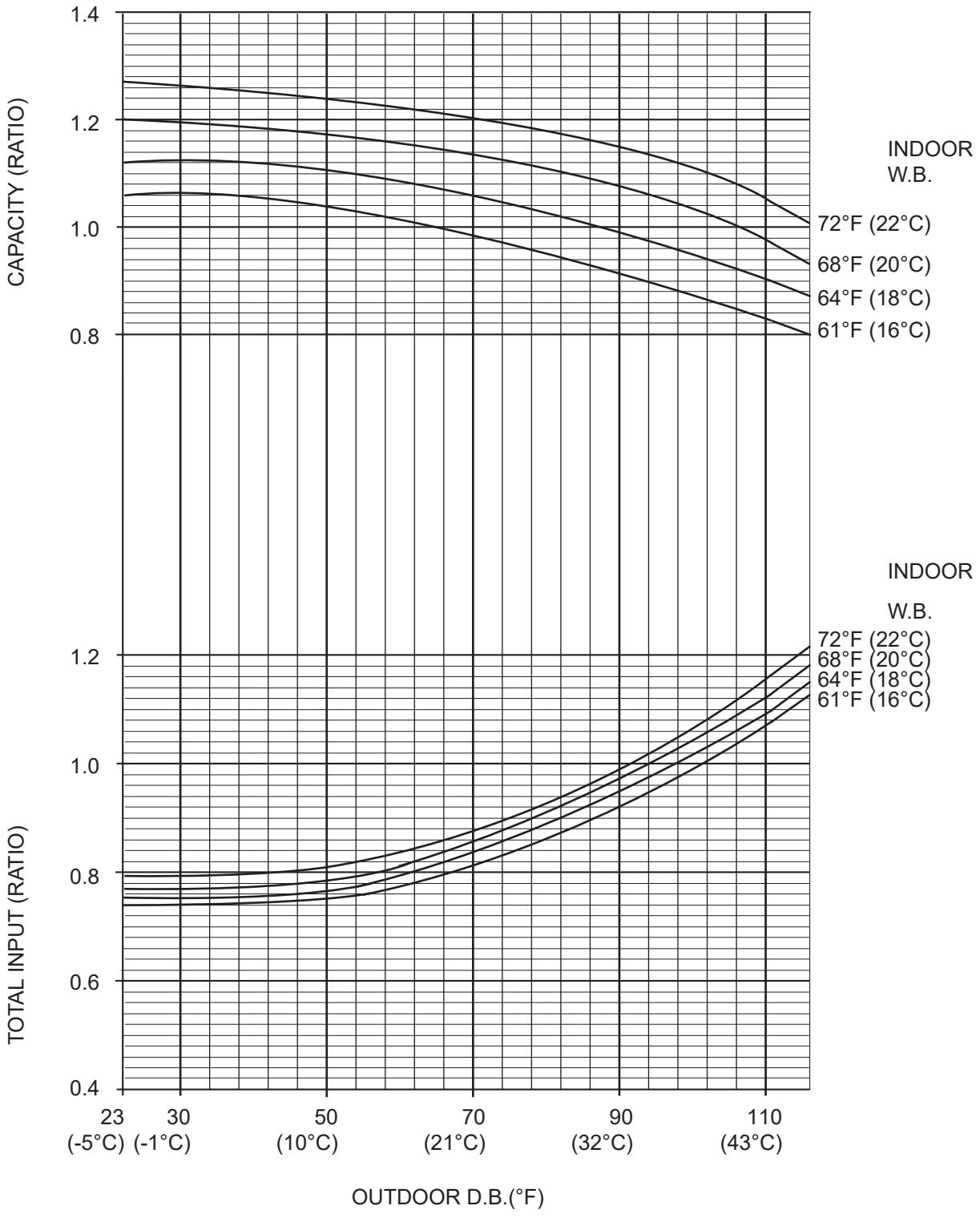




T4 DATA

T4-1. PERFORMANCE CURVE

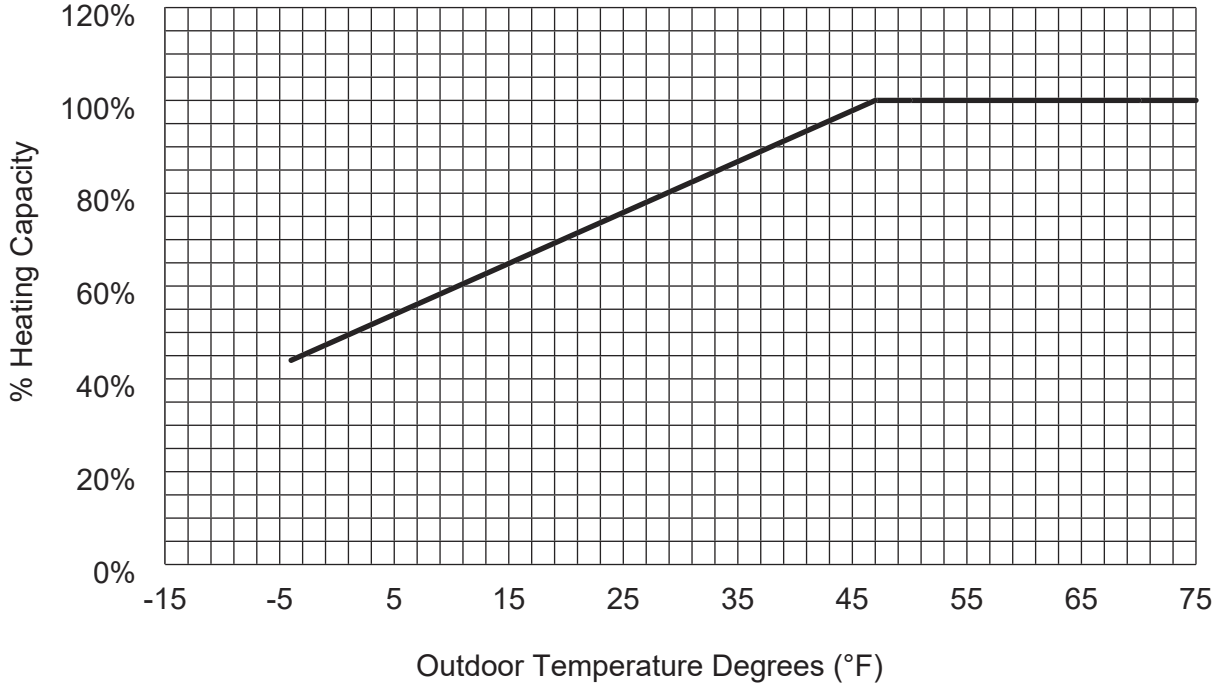
Cooling performance curve



Note : This diagram shows the case where the operation frequency of a compressor is fixed.

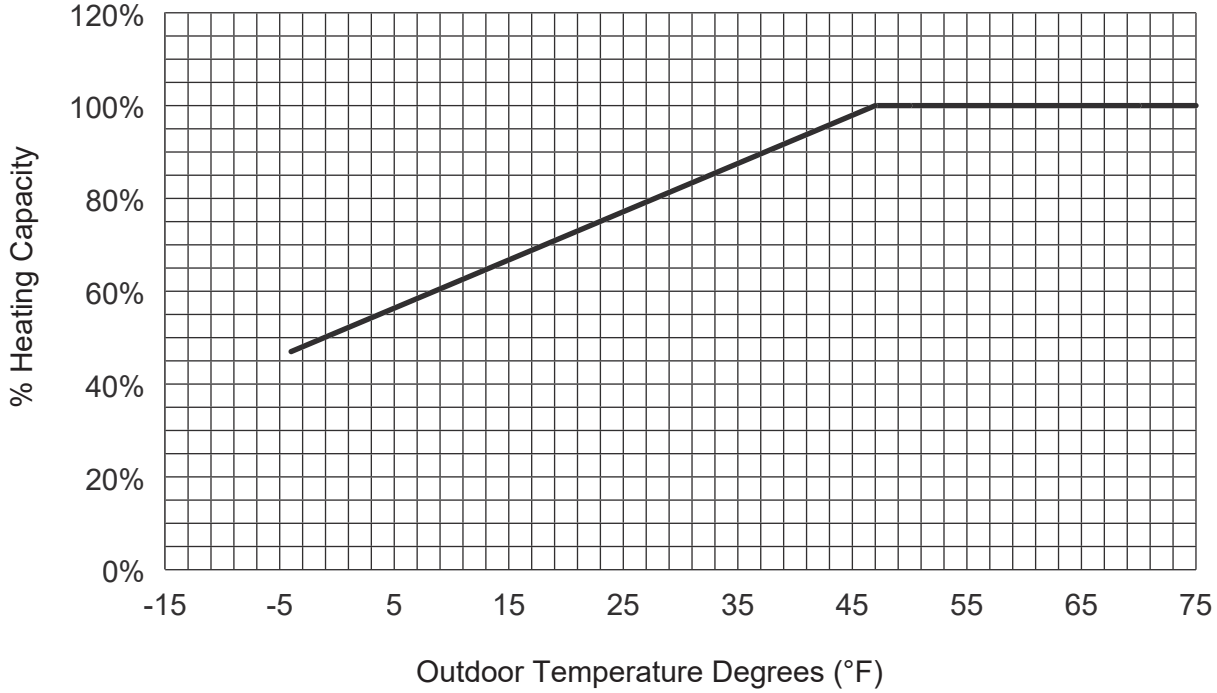
T4-2. MAX. HEATING CAPACITY IN LOW AMBIENT TEMPERATURE

SUZ-AA09/12NL



Outdoor Temperature Degrees (°F)	-13	-4	5	17	23	32	41	47	50	70	75
% Heating Capacity	-	44%	52%	64%	68%	75%	94%	100%	100%	100%	100%

SUZ-AA15NL



Outdoor Temperature Degrees (°F)	-13	-4	5	17	23	32	41	47	50	70	75
% Heating Capacity	-	47%	55%	58%	64%	79%	90%	100%	100%	100%	100%

T5 CORRECTION FACTORS

T5-1. INVERTER TYPE

T5-1.1 Cooling capacity corrections

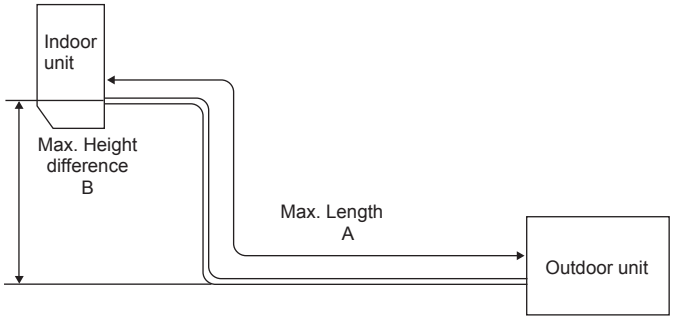
Model	Refrigerant piping length (one way: ft (m))			
	25 (7.6) (std.)	40 (12.2)	65 (19.8)	100 (30.5)
SUZ-AA09/12/15NL	1.0	0.988	0.967	-

T5-1.2 Heating capacity corrections

Model	Refrigerant piping length (one way: ft (m))			
	25 (7.6) (std.)	40 (12.2)	65 (19.8)	100 (30.5)
SUZ-AA09/12/15NL	1.0	0.997	0.993	-

T5-1.3 Max. refrigerant piping length & max. Height difference

Model	Refrigerant piping: ft. (m)		Piping size O.D: in. (mm)	
	Max. Length A	Max. Height difference B	Gas	Liquid
SUZ-AA09/12NL	65 (20)	40 (12)	3/8 (9.52)	1/4 (6.35)
SUZ-AA15NL	65 (20)	40 (12)	1/2 (12.7)	1/4 (6.35)



T5-1.4 Additional refrigerant charge (R454B: oz.)

NOTE: Refrigerant piping exceeding 25 ft. requires additional refrigerant charge according to the calculation.

Model	Outdoor unit precharged	Refrigerant piping length (one way): ft. (m)					
		25 (7.6)	30 (9.1)	40 (12.2)	50 (15.2)	60 (18.2)	65 (19.8)
SUZ-AA09/12NL	2 lb. (0.9 kg)	0	0	0	0	0	0

Calculation: X oz. = 1.08/5 oz./ft. × (Refrigerant piping length (ft.) - 25)

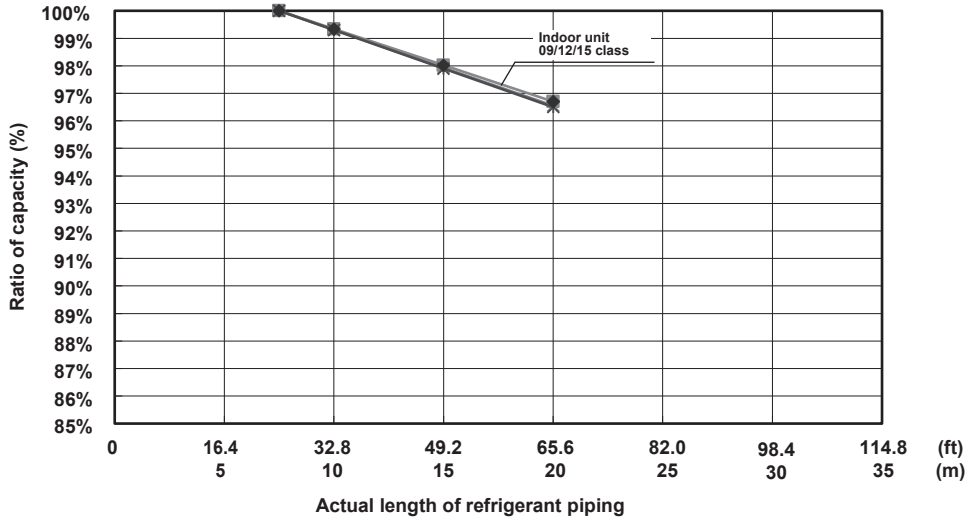
Model	Outdoor unit precharged	Refrigerant piping length (one way): ft. (m)					
		25 (7.6)	30 (9.1)	40 (12.2)	50 (15.2)	60 (18.2)	65 (19.8)
SUZ-AA15NL	2 lb. 4 oz. (1.08 kg)	0	1.08 oz (30 g)	3.24 oz (90 g)	5.40 oz (150 g)	7.56 oz (210 g)	8.64 oz (240 g)

Calculation: X oz. = 1.08/5 oz./ft. × (Refrigerant piping length (ft.) - 25)

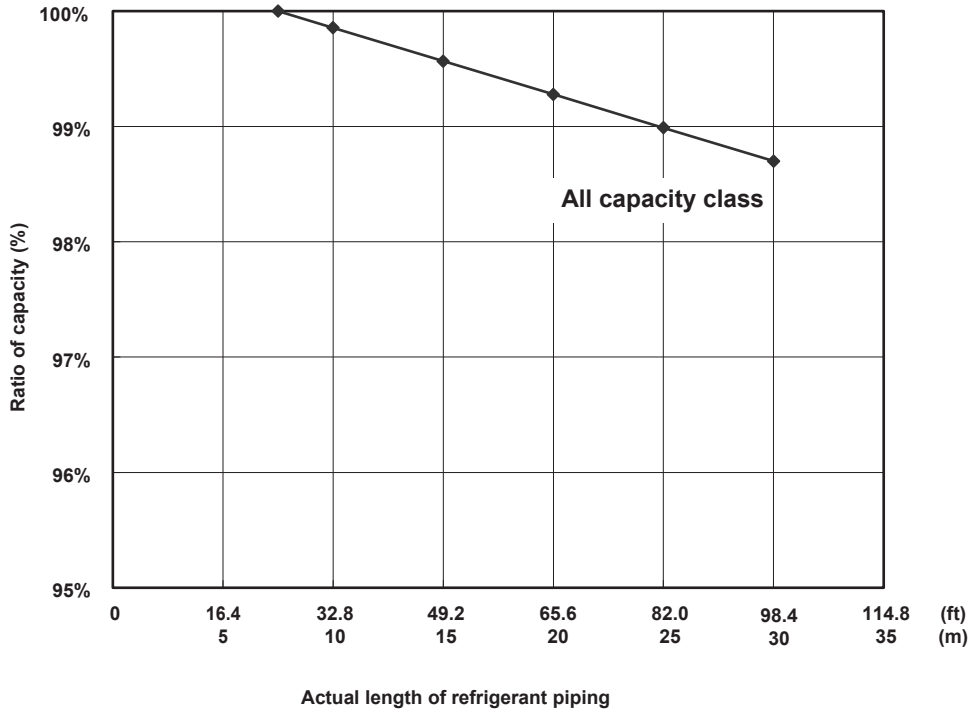
T6 CAPACITY CORRECTION RATIO CURVE FOR PIPING LENGTH

T6-1. CAPACITY CORRECTION RATIO CURVE FOR PIPING LENGTH

Correction ratio of capacity according to the length of piping (cooling)



Correction ratio of capacity according to the length of piping (heating)



The length intended for the capacity calculation, which counts the length of refrigerant piping and the number of bends, is called actual length.

Length of refrigerant piping (ft) + (Number of bends × 0.984 ft) = Actual length of refrigerant piping (ft)
[Length of refrigerant piping (m) + (Number of bends × 0.3 m) = Actual length of refrigerant piping (m)]

T7 PART LOAD CAPACITY CHART

SLZ-AF09NL
SUZ-AA09NL
1) COOLING

Rated
Q(Btu/h): 9,000
W: 680

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	8,216	8,216	6,162	4,108	-	2,100	7,693	7,693	5,770	3,846	-	1,966	7,021	7,021	5,266	3,510	-	1,794
		W	764	764	573	382	-	191	745	745	559	373	-	186	714	714	536	357	-	179
110	43.3	Q(Btu/h)	8,589	8,589	6,442	4,295	-	2,195	7,992	7,992	5,994	3,996	-	2,042	7,320	7,320	5,490	3,660	-	1,871
		W	751	751	564	376	-	188	733	733	550	366	-	183	699	699	524	349	-	175
105	40.6	Q(Btu/h)	8,963	8,963	6,722	4,481	-	2,290	8,290	8,290	6,218	4,145	-	2,119	7,693	7,693	5,770	3,846	-	1,966
		W	742	742	557	371	-	186	714	714	536	357	-	179	683	683	512	342	-	171
100	37.8	Q(Btu/h)	9,261	9,261	6,946	4,631	-	2,367	8,664	8,664	6,498	4,332	-	2,214	7,992	7,992	5,994	3,996	-	2,042
		W	720	720	540	360	-	180	699	699	524	349	-	175	668	668	501	334	-	167
95	35.0	Q(Btu/h)	9,635	9,635	7,226	4,817	-	2,462	9,000	9,000	6,750	4,500	-	2,300	8,365	8,365	6,274	4,183	-	2,138
		W	708	708	531	354	-	177	680	680	510	340	-	170	652	652	489	326	-	163
90	32.2	Q(Btu/h)	9,934	9,934	7,450	4,967	-	2,539	9,336	9,336	7,002	4,668	-	2,386	8,664	8,664	6,498	4,332	-	2,214
		W	683	683	512	342	-	171	652	652	489	326	-	163	627	627	470	314	-	157
85	29.4	Q(Btu/h)	10,307	10,307	7,730	5,154	-	2,634	9,710	9,710	7,282	4,855	-	2,481	9,037	9,037	6,778	4,519	-	2,310
		W	658	658	494	329	-	165	627	627	470	314	-	157	605	605	454	303	-	151
80	26.7	Q(Btu/h)	10,606	10,606	7,954	5,303	-	2,710	10,008	10,008	7,506	5,004	-	2,558	9,411	9,411	7,058	4,705	-	2,405
		W	633	633	475	317	-	158	599	599	449	300	-	150	581	581	435	290	-	145
75	23.9	Q(Btu/h)	10,979	10,979	8,234	5,490	-	2,806	10,307	10,307	7,730	5,154	-	2,634	9,747	9,747	7,310	4,873	-	2,491
		W	605	605	454	303	-	151	571	571	428	286	-	143	558	558	419	279	-	140
70	21.1	Q(Btu/h)	11,241	11,241	8,430	5,620	-	2,873	10,531	10,531	7,898	5,266	-	2,691	10,083	10,083	7,562	5,041	-	2,577
		W	574	574	431	287	-	144	546	546	410	273	-	137	525	525	394	262	-	131
67	19.4	Q(Btu/h)	11,353	11,353	8,515	5,676	-	2,901	10,755	10,755	8,066	5,378	-	2,749	10,307	10,307	7,730	5,154	-	2,634
		W	546	546	410	273	-	137	525	525	394	262	-	131	497	497	373	248	-	124

* It may not reach the above capacities in low ambient temperatures.

SLZ-AF09NL
SUZ-AA09NL
2) HEATING

Rated
Q(Btu/h): 12,000
W: 910

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	12,280	11,513	8,635	5,756	-	4,701	12,800	12,000	9,000	6,000	-	4,900	13,236	12,408	9,306	6,204	-	5,067
		W	1,073	957	718	479	-	242	1,040	928	696	464	-	235	1,011	902	676	451	-	228
60	15.6	Q(Btu/h)	12,277	11,510	8,632	5,755	-	4,700	12,800	12,000	9,000	6,000	-	4,900	13,211	12,385	9,289	6,193	-	5,057
		W	1,071	955	716	478	-	244	1,035	923	692	462	-	236	1,008	899	674	450	-	230
55	12.8	Q(Btu/h)	12,265	11,498	8,624	5,749	-	4,695	12,800	12,000	9,000	6,000	-	4,900	13,198	12,373	9,280	6,186	-	5,052
		W	1,066	951	713	475	-	245	1,027	916	687	458	-	236	1,000	892	669	446	-	230
50	10.0	Q(Btu/h)	12,242	11,477	8,608	5,739	-	4,687	12,800	12,000	9,000	6,000	-	4,900	13,196	12,371	9,278	6,186	-	5,052
		W	1,058	944	708	472	-	246	1,017	907	680	454	-	236	987	881	661	440	-	229
45	7.2	Q(Btu/h)	11,968	11,220	8,415	5,610	-	4,661	12,548	11,764	8,823	5,882	-	4,887	12,946	12,137	9,103	6,069	-	5,042
		W	1,047	934	701	467	-	246	1,003	895	671	448	-	235	970	865	649	433	-	228
40	4.4	Q(Btu/h)	11,305	10,598	7,949	5,299	-	4,287	11,901	11,157	8,368	5,578	-	4,513	12,299	11,531	8,648	5,765	-	4,665
		W	1,033	922	691	461	-	245	987	881	661	440	-	234	948	846	635	423	-	225
35	1.7	Q(Btu/h)	10,565	9,905	7,429	4,953	-	3,911	11,183	10,484	7,863	5,242	-	4,140	11,589	10,864	8,148	5,432	-	4,290
		W	1,017	907	680	454	-	245	968	864	648	432	-	233	923	824	618	412	-	222
30	-1.1	Q(Btu/h)	9,816	9,203	6,902	4,601	-	3,533	10,466	9,812	7,359	4,906	-	3,767	10,884	10,204	7,653	5,102	-	3,917
		W	997	890	667	445	-	243	947	845	633	422	-	231	895	799	599	399	-	218
25	-3.9	Q(Btu/h)	9,057	8,491	6,368	4,245	-	3,152	9,749	9,140	6,855	4,570	-	3,393	10,184	9,548	7,161	4,774	-	3,545
		W	975	870	652	435	-	241	922	823	617	411	-	228	865	771	579	386	-	214
20	-6.7	Q(Btu/h)	8,286	7,768	5,826	3,884	-	2,771	9,032	8,467	6,350	4,234	-	3,020	9,488	8,895	6,671	4,447	-	3,172
		W	950	848	636	424	-	239	895	798	599	399	-	225	832	742	557	371	-	209
15	-9.4	Q(Btu/h)	7,503	7,034	5,276	3,517	-	2,388	8,314	7,795	5,846	3,897	-	2,646	8,792	8,242	6,182	4,121	-	2,798
		W	923	823	617	412	-	237	865	771	579	386	-	222	798	712	534	356	-	205
10	-12.2	Q(Btu/h)	6,705	6,286	4,715	3,143	-	2,006	7,597	7,122	5,342	3,561	-	2,273	8,096	7,590	5,692	3,795	-	2,422
		W	893	797	597	398	-	234	832	742	556	371	-	218	764	681	511	341	-	200
5	-15.0	Q(Btu/h)	5,890	5,522	4,141	2,761	-	1,626	6,880	6,450	4,837	3,225	-	1,899	7,397	6,934	5,201	3,467	-	2,042
		W	861	768	576	384	-	231	796	710	533	355	-	213	730	651	489	326	-	195
0	-17.8	Q(Btu/h)	5,052	4,736	3,552	2,368	-	1,251	6,162	5,777	4,333	2,889	-	1,526	6,693	6,275	4,706	3,137	-	1,657
		W	828	738	554	369	-	227	757	676	507	338	-	208	699	624	468	312	-	192
-4	-20.0	Q(Btu/h)	4,360	4,088	3,066	2,044	1,022	957	5,589	5,239	3,929	2,620	1,310	1,227	6,126	5,743	4,307	2,871	1,436	1,345
		W	800	714	536	357	179	225	724	646	485	323	162	204	678	605	454	302	151	191

* Above data is for heating operation without any frost.

SLZ-AF12NL
SUZ-AA12NL
1) COOLING

Rated
Q(Btu/h): 12,000
W: 960

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	10,954	10,954	8,216	5,477	2,739	2,739	10,257	10,257	7,693	5,129	2,564	2,564	9,361	9,361	7,021	4,680	2,340	2,340
		W	1,078	1,078	809	539	270	213	1,052	1,052	789	526	263	208	1,008	1,008	756	504	252	200
110	43.3	Q(Btu/h)	11,452	11,452	8,589	5,726	2,863	2,863	10,656	10,656	7,992	5,328	2,664	2,664	9,759	9,759	7,320	4,880	2,440	2,440
		W	1,061	1,061	796	530	265	210	1,035	1,035	776	517	259	205	986	986	740	493	247	195
105	40.6	Q(Btu/h)	11,950	11,950	8,963	5,975	2,988	2,988	11,054	11,054	8,290	5,527	2,763	2,763	10,257	10,257	7,693	5,129	2,564	2,564
		W	1,048	1,048	786	524	262	207	1,008	1,008	756	504	252	200	964	964	723	482	241	191
100	37.8	Q(Btu/h)	12,349	12,349	9,261	6,174	3,087	3,087	11,552	11,552	8,664	5,776	2,888	2,888	10,656	10,656	7,992	5,328	2,664	2,664
		W	1,017	1,017	763	508	254	201	986	986	740	493	247	195	942	942	707	471	236	187
95	35.0	Q(Btu/h)	12,846	12,846	9,635	6,423	3,212	3,212	12,000	12,000	9,000	6,000	3,000	3,000	11,154	11,154	8,365	5,577	2,788	2,788
		W	999	999	750	500	250	198	960	960	720	480	240	190	921	921	690	460	230	182
90	32.2	Q(Btu/h)	13,245	13,245	9,934	6,622	3,311	3,311	12,448	12,448	9,336	6,224	3,112	3,112	11,552	11,552	8,664	5,776	2,888	2,888
		W	964	964	723	482	241	191	921	921	690	460	230	182	885	885	664	443	221	175
85	29.4	Q(Btu/h)	13,743	13,743	10,307	6,871	3,436	3,436	12,946	12,946	9,710	6,473	3,237	3,237	12,050	12,050	9,037	6,025	3,012	3,012
		W	929	929	697	465	232	184	885	885	664	443	221	175	855	855	641	427	214	169
80	26.7	Q(Btu/h)	14,141	14,141	10,606	7,071	3,535	3,535	13,344	13,344	10,008	6,672	3,336	3,336	12,548	12,548	9,411	6,274	3,137	3,137
		W	894	894	671	447	224	177	846	846	635	423	212	167	820	820	615	410	205	162
75	23.9	Q(Btu/h)	14,639	14,639	10,979	7,320	3,660	3,660	13,743	13,743	10,307	6,871	3,436	3,436	12,996	12,996	9,747	6,498	3,249	3,249
		W	855	855	641	427	214	169	807	807	605	403	202	160	788	788	591	394	197	156
70	21.1	Q(Btu/h)	14,988	14,988	11,241	7,494	3,747	3,747	14,041	14,041	10,531	7,021	3,510	3,510	13,444	13,444	10,083	6,722	3,361	3,361
		W	811	811	608	405	203	161	772	772	579	386	193	153	741	741	556	370	185	147
67	19.4	Q(Btu/h)	15,137	15,137	11,353	7,568	3,784	3,784	14,340	14,340	10,755	7,170	3,585	3,585	13,743	13,743	10,307	6,871	3,436	3,436
		W	772	772	579	386	193	153	741	741	556	370	185	147	701	701	526	351	175	139

* It may not reach the above capacities in low ambient temperatures.

SLZ-AF12NL
SUZ-AA12NL
2) HEATING

Rated
Q(Btu/h): 15,000
W: 1,350

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	14,391	14,391	10,793	7,196	-	4,701	15,000	15,000	11,250	7,500	-	4,900	15,511	15,511	11,633	7,755	-	5,067
		W	1,420	1,420	1,065	710	-	242	1,376	1,376	1,032	688	-	235	1,338	1,338	1,003	669	-	228
60	15.6	Q(Btu/h)	14,387	14,387	10,791	7,194	-	4,700	15,000	15,000	11,250	7,500	-	4,900	15,481	15,481	11,611	7,741	-	5,057
		W	1,417	1,417	1,063	709	-	244	1,370	1,370	1,027	685	-	236	1,334	1,334	1,001	667	-	230
55	12.8	Q(Btu/h)	14,373	14,373	10,780	7,187	-	4,695	15,000	15,000	11,250	7,500	-	4,900	15,466	15,466	11,599	7,733	-	5,052
		W	1,411	1,411	1,058	705	-	245	1,359	1,359	1,020	680	-	236	1,324	1,324	993	662	-	230
50	10.0	Q(Btu/h)	14,347	14,347	10,760	7,173	-	4,687	15,000	15,000	11,250	7,500	-	4,900	15,464	15,464	11,598	7,732	-	5,052
		W	1,400	1,400	1,050	700	-	246	1,346	1,346	1,009	673	-	236	1,306	1,306	980	653	-	229
45	7.2	Q(Btu/h)	14,024	14,024	10,518	7,012	-	4,661	14,705	14,705	11,029	7,352	-	4,887	15,172	15,172	11,379	7,586	-	5,042
		W	1,386	1,386	1,039	693	-	246	1,328	1,328	996	664	-	235	1,283	1,283	963	642	-	228
40	4.4	Q(Btu/h)	13,248	13,248	9,936	6,624	-	4,287	13,946	13,946	10,460	6,973	-	4,513	14,413	14,413	10,810	7,207	-	4,665
		W	1,368	1,368	1,026	684	-	245	1,307	1,307	980	653	-	234	1,255	1,255	941	628	-	225
35	1.7	Q(Btu/h)	12,381	12,381	9,286	6,191	-	3,911	13,106	13,106	9,829	6,553	-	4,140	13,580	13,580	10,185	6,790	-	4,290
		W	1,346	1,346	1,009	673	-	245	1,282	1,282	961	641	-	233	1,222	1,222	916	611	-	222
30	-1.1	Q(Btu/h)	11,504	11,504	8,628	5,752	-	3,533	12,265	12,265	9,199	6,132	-	3,767	12,755	12,755	9,566	6,377	-	3,917
		W	1,320	1,320	990	660	-	243	1,253	1,253	940	626	-	231	1,185	1,185	889	592	-	218
25	-3.9	Q(Btu/h)	10,614	10,614	7,960	5,307	-	3,152	11,424	11,424	8,568	5,712	-	3,393	11,935	11,935	8,951	5,967	-	3,545
		W	1,291	1,291	968	645	-	241	1,221	1,221	915	610	-	228	1,144	1,144	858	572	-	214
20	-6.7	Q(Btu/h)	9,710	9,710	7,283	4,855	-	2,771	10,584	10,584	7,938	5,292	-	3,020	11,118	11,118	8,339	5,559	-	3,172
		W	1,258	1,258	943	629	-	239	1,184	1,184	888	592	-	225	1,101	1,101	826	551	-	209
15	-9.4	Q(Btu/h)	8,793	8,793	6,594	4,396	-	2,388	9,743	9,743	7,307	4,872	-	2,646	10,303	10,303	7,727	5,152	-	2,798
		W	1,221	1,221	916	611	-	237	1,144	1,144	858	572	-	222	1,056	1,056	792	528	-	205
10	-12.2	Q(Btu/h)	7,858	7,858	5,893	3,929	-	2,006	8,903	8,903	6,677	4,451	-	2,273	9,487	9,487	7,115	4,743	-	2,422
		W	1,182	1,182	886	591	-	234	1,101	1,101	826	550	-	218	1,011	1,011	758	505	-	200
5	-15.0	Q(Btu/h)	6,902	6,902	5,177	3,451	1,726	1,626	8,062	8,062	6,047	4,031	2,016	1,899	8,668	8,668	6,501	4,334	2,167	2,042
		W	1,140	1,140	855	570	285	231	1,053	1,053	790	527	263	213	966	966	725	483	242	195
0	-17.8	Q(Btu/h)	5,920	5,920	4,440	2,960	1,480	1,251	7,222	7,222	5,416	3,611	1,805	1,526	7,844	7,844	5,883	3,922	1,961	1,657
		W	1,095	1,095	821	548	274	227	1,002	1,002	752	501	251	208	925	925	694	463	231	192
-4	-20.0	Q(Btu/h)	5,109	5,109	3,832	2,555	1,277	957	6,549	6,549	4,912	3,275	1,637	1,227	7,179	7,179	5,384	3,589	1,795	1,345
		W	1,059	1,059	794	530	265	225	959	959	719	479	240	204	897	897	673	449	224	191

* Above data is for heating operation without any frost.

SLZ-AF15NL
SUZ-AA15NL
1) COOLING

Rated
Q(Btu/h): 15,000
W: 1,240

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	13,693	13,693	10,270	6,846	3,423	3,286	12,822	12,822	9,616	6,411	3,205	3,077	11,701	11,701	8,776	5,851	2,925	2,808
		W	1,393	1,393	1,045	696	348	225	1,359	1,359	1,019	679	340	219	1,302	1,302	977	651	326	210
110	43.3	Q(Btu/h)	14,315	14,315	10,737	7,158	3,579	3,436	13,320	13,320	9,990	6,660	3,330	3,197	12,199	12,199	9,149	6,100	3,050	2,928
		W	1,370	1,370	1,028	685	343	221	1,336	1,336	1,002	668	334	216	1,274	1,274	955	637	318	205
105	40.6	Q(Btu/h)	14,938	14,938	11,203	7,469	3,734	3,585	13,817	13,817	10,363	6,909	3,454	3,316	12,822	12,822	9,616	6,411	3,205	3,077
		W	1,353	1,353	1,015	677	338	218	1,302	1,302	977	651	326	210	1,246	1,246	934	623	311	201
100	37.8	Q(Btu/h)	15,436	15,436	11,577	7,718	3,859	3,705	14,440	14,440	10,830	7,220	3,610	3,466	13,320	13,320	9,990	6,660	3,330	3,197
		W	1,314	1,314	985	657	328	212	1,274	1,274	955	637	318	205	1,217	1,217	913	609	304	196
95	35.0	Q(Btu/h)	16,058	16,058	12,044	8,029	4,015	3,854	15,000	15,000	11,250	7,500	3,750	3,600	13,942	13,942	10,456	6,971	3,485	3,346
		W	1,291	1,291	968	645	323	208	1,240	1,240	930	620	310	200	1,189	1,189	892	595	297	192
90	32.2	Q(Btu/h)	16,556	16,556	12,417	8,278	4,139	3,973	15,560	15,560	11,670	7,780	3,890	3,734	14,440	14,440	10,830	7,220	3,610	3,466
		W	1,246	1,246	934	623	311	201	1,189	1,189	892	595	297	192	1,144	1,144	858	572	286	184
85	29.4	Q(Btu/h)	17,178	17,178	12,884	8,589	4,295	4,123	16,183	16,183	12,137	8,091	4,046	3,884	15,062	15,062	11,297	7,531	3,766	3,615
		W	1,200	1,200	900	600	300	194	1,144	1,144	858	572	286	184	1,104	1,104	828	552	276	178
80	26.7	Q(Btu/h)	17,676	17,676	13,257	8,838	4,419	4,242	16,680	16,680	12,510	8,340	4,170	4,003	15,685	15,685	11,763	7,842	3,921	3,764
		W	1,155	1,155	866	578	289	186	1,093	1,093	820	546	273	176	1,059	1,059	794	529	265	171
75	23.9	Q(Btu/h)	18,299	18,299	13,724	9,149	4,575	4,392	17,178	17,178	12,884	8,589	4,295	4,123	16,245	16,245	12,184	8,122	4,061	3,899
		W	1,104	1,104	828	552	276	178	1,042	1,042	781	521	260	168	1,018	1,018	764	509	255	164
70	21.1	Q(Btu/h)	18,734	18,734	14,051	9,367	4,684	4,496	17,552	17,552	13,164	8,776	4,388	4,212	16,805	16,805	12,604	8,402	4,201	4,033
		W	1,047	1,047	786	524	262	169	997	997	747	498	249	161	957	957	718	478	239	154
67	19.4	Q(Btu/h)	18,921	18,921	14,191	9,461	4,730	4,541	17,925	17,925	13,444	8,963	4,481	4,302	17,178	17,178	12,884	8,589	4,295	4,123
		W	997	997	747	498	249	161	957	957	718	478	239	154	906	906	679	453	226	146

* It may not reach the above capacities in low ambient temperatures.

SLZ-AF15NL
SUZ-AA15NL
2) HEATING

Rated
Q(Btu/h): 18,000
W: 1,580

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	18,804	17,269	12,952	8,635	-	5,616	19,600	18,000	13,500	9,000	-	5,853	19,723	18,113	13,585	9,057	-	5,890
		W	2,047	1,817	1,363	909	-	242	1,984	1,761	1,321	881	-	235	1,858	1,649	1,237	824	-	220
60	15.6	Q(Btu/h)	18,800	17,265	12,949	8,632	-	5,308	19,600	18,000	13,500	9,000	-	5,534	20,081	18,441	13,831	9,221	-	5,669
		W	1,997	1,773	1,330	886	-	242	1,930	1,713	1,285	857	-	234	1,816	1,612	1,209	806	-	220
55	12.8	Q(Btu/h)	18,781	17,248	12,936	8,624	-	4,996	19,600	18,000	13,500	9,000	-	5,214	20,500	18,826	14,120	9,413	-	5,454
		W	1,945	1,727	1,295	863	-	241	1,875	1,664	1,248	832	-	232	1,781	1,581	1,186	791	-	221
50	10.0	Q(Btu/h)	18,746	17,216	12,912	8,608	-	4,682	19,600	18,000	13,500	9,000	-	4,895	20,900	19,194	14,396	9,597	-	5,220
		W	1,891	1,679	1,259	839	-	239	1,818	1,614	1,210	807	-	230	1,754	1,557	1,167	778	-	222
45	7.2	Q(Btu/h)	18,308	16,813	12,610	8,407	-	4,364	19,196	17,629	13,222	8,814	-	4,575	20,930	19,222	14,416	9,611	-	4,989
		W	1,836	1,629	1,222	815	-	236	1,759	1,561	1,171	781	-	227	1,724	1,531	1,148	765	-	222
40	4.4	Q(Btu/h)	17,274	15,864	11,898	7,932	-	4,043	18,185	16,701	12,525	8,350	-	4,256	20,717	19,026	14,270	9,513	-	4,849
		W	1,778	1,578	1,184	789	-	233	1,699	1,508	1,131	754	-	222	1,711	1,519	1,139	759	-	224
35	1.7	Q(Btu/h)	16,226	14,901	11,176	7,451	3,725	3,719	17,175	15,773	11,829	7,886	3,943	3,937	19,971	18,341	13,756	9,170	4,585	4,578
		W	1,718	1,525	1,144	763	381	228	1,637	1,453	1,090	726	363	217	1,688	1,499	1,124	749	375	224
30	-1.1	Q(Btu/h)	15,161	13,923	10,442	6,961	3,481	3,393	16,164	14,844	11,133	7,422	3,711	3,617	18,757	17,226	12,919	8,613	4,306	4,197
		W	1,657	1,471	1,103	735	368	223	1,573	1,396	1,047	698	349	211	1,630	1,447	1,085	724	362	219
25	-3.9	Q(Btu/h)	14,078	12,929	9,697	6,464	3,232	3,064	15,153	13,916	10,437	6,958	3,479	3,298	18,447	16,941	12,706	8,471	4,235	4,015
		W	1,594	1,415	1,061	708	354	216	1,508	1,338	1,004	669	335	204	1,617	1,435	1,076	717	359	219
20	-6.7	Q(Btu/h)	12,976	11,916	8,937	5,958	2,979	2,733	14,143	12,988	9,741	6,494	3,247	2,978	17,666	16,224	12,168	8,112	4,056	3,720
		W	1,530	1,358	1,018	679	339	209	1,441	1,279	959	639	320	197	1,559	1,384	1,038	692	346	213
15	-9.4	Q(Btu/h)	11,851	10,883	8,162	5,442	2,721	2,400	13,132	12,060	9,045	6,030	3,015	2,659	16,800	15,428	11,571	7,714	3,857	3,402
		W	1,464	1,300	975	650	325	201	1,372	1,218	913	609	304	188	1,511	1,342	1,006	671	335	208
10	-12.2	Q(Btu/h)	10,699	9,825	7,369	4,913	2,456	2,065	12,122	11,132	8,349	5,566	2,783	2,340	15,950	14,648	10,986	7,324	3,662	3,079
		W	1,398	1,241	930	620	310	192	1,302	1,155	867	578	289	179	1,446	1,284	963	642	321	199
5	-15.0	Q(Btu/h)	9,512	8,736	6,552	4,368	2,184	1,730	11,111	10,204	7,653	5,102	2,551	2,020	14,767	13,562	10,171	6,781	3,390	2,685
		W	1,330	1,181	886	590	295	183	1,230	1,092	819	546	273	169	1,372	1,218	913	609	304	188
0	-17.8	Q(Btu/h)	8,280	7,605	5,703	3,802	1,901	1,394	10,100	9,276	6,957	4,638	2,319	1,701	12,565	11,539	8,654	5,770	2,885	2,116
		W	1,263	1,121	841	561	280	172	1,156	1,026	770	513	257	158	1,240	1,101	826	551	275	169
-4	-20.0	Q(Btu/h)	7,249	6,657	4,993	3,329	1,664	1,128	9,292	8,533	6,400	4,267	2,133	1,445	13,346	12,256	9,192	6,128	3,064	2,076
		W	1,211	1,075	806	538	269	164	1,096	973	730	486	243	148	1,362	1,209	907	605	302	184

* Above data is for heating operation without any frost.

MLZ-KX09NL
SUZ-AA09NL
1) COOLING

Rated
Q(Btu/h): 9,000
W: 760

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	8,216	8,216	6,162	4,108	2,054	2,008	7,693	7,693	5,770	3,846	1,923	1,880	7,021	7,021	5,266	3,510	1,755	1,716
		W	854	854	640	427	213	191	833	833	625	416	208	186	798	798	599	399	200	179
110	43.3	Q(Btu/h)	8,589	8,589	6,442	4,295	2,147	2,100	7,992	7,992	5,994	3,996	1,998	1,954	7,320	7,320	5,490	3,660	1,830	1,789
		W	840	840	630	420	210	188	819	819	614	409	205	183	781	781	586	390	195	175
105	40.6	Q(Btu/h)	8,963	8,963	6,722	4,481	2,241	2,191	8,290	8,290	6,218	4,145	2,073	2,027	7,693	7,693	5,770	3,846	1,923	1,880
		W	829	829	622	415	207	186	798	798	599	399	200	179	763	763	573	382	191	171
100	37.8	Q(Btu/h)	9,261	9,261	6,946	4,631	2,315	2,264	8,664	8,664	6,498	4,332	2,166	2,118	7,992	7,992	5,994	3,996	1,998	1,954
		W	805	805	604	403	201	180	781	781	586	390	195	175	746	746	560	373	187	167
95	35.0	Q(Btu/h)	9,635	9,635	7,226	4,817	2,409	2,355	9,000	9,000	6,750	4,500	2,250	2,200	8,365	8,365	6,274	4,183	2,091	2,045
		W	791	791	593	396	198	177	760	760	570	380	190	170	729	729	547	364	182	163
90	32.2	Q(Btu/h)	9,934	9,934	7,450	4,967	2,483	2,428	9,336	9,336	7,002	4,668	2,334	2,282	8,664	8,664	6,498	4,332	2,166	2,118
		W	763	763	573	382	191	171	729	729	547	364	182	163	701	701	526	351	175	157
85	29.4	Q(Btu/h)	10,307	10,307	7,730	5,154	2,577	2,520	9,710	9,710	7,282	4,855	2,427	2,373	9,037	9,037	6,778	4,519	2,259	2,209
		W	736	736	552	368	184	165	701	701	526	351	175	157	677	677	508	338	169	151
80	26.7	Q(Btu/h)	10,606	10,606	7,954	5,303	2,651	2,593	10,008	10,008	7,506	5,004	2,502	2,446	9,411	9,411	7,058	4,705	2,353	2,300
		W	708	708	531	354	177	158	670	670	502	335	167	150	649	649	487	324	162	145
75	23.9	Q(Btu/h)	10,979	10,979	8,234	5,490	2,745	2,684	10,307	10,307	7,730	5,154	2,577	2,520	9,747	9,747	7,310	4,873	2,437	2,383
		W	677	677	508	338	169	151	639	639	479	319	160	143	624	624	468	312	156	140
70	21.1	Q(Btu/h)	11,241	11,241	8,430	5,620	2,810	2,748	10,531	10,531	7,898	5,266	2,633	2,574	10,083	10,083	7,562	5,041	2,521	2,465
		W	642	642	482	321	161	144	611	611	458	305	153	137	586	586	440	293	147	131
67	19.4	Q(Btu/h)	11,353	11,353	8,515	5,676	2,838	2,775	10,755	10,755	8,066	5,378	2,689	2,629	10,307	10,307	7,730	5,154	2,577	2,520
		W	611	611	458	305	153	137	586	586	440	293	147	131	555	555	416	278	139	124

* It may not reach the above capacities in low ambient temperatures.

MLZ-KX09NL
SUZ-AA09NL
2) HEATING

Rated
Q(Btu/h): 12,000
W: 910

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	12,472	11,513	8,635	5,756	-	4,893	13,000	12,000	9,000	6,000	-	5,100	13,443	12,408	9,306	6,204	-	5,274
		W	1,104	957	718	479	-	232	1,070	928	696	464	-	225	1,040	902	676	451	-	218
60	15.6	Q(Btu/h)	12,469	11,510	8,632	5,755	-	4,892	13,000	12,000	9,000	6,000	-	5,100	13,417	12,385	9,289	6,193	-	5,264
		W	1,102	955	716	478	-	233	1,065	923	692	462	-	225	1,038	899	674	450	-	220
55	12.8	Q(Btu/h)	12,457	11,498	8,624	5,749	-	4,887	13,000	12,000	9,000	6,000	-	5,100	13,404	12,373	9,280	6,186	-	5,258
		W	1,097	951	713	475	-	234	1,057	916	687	458	-	226	1,029	892	669	446	-	220
50	10.0	Q(Btu/h)	12,434	11,477	8,608	5,739	-	4,878	13,000	12,000	9,000	6,000	-	5,100	13,402	12,371	9,278	6,186	-	5,258
		W	1,089	944	708	472	-	235	1,047	907	680	454	-	226	1,016	881	661	440	-	219
45	7.2	Q(Btu/h)	12,155	11,220	8,415	5,610	-	4,851	12,744	11,764	8,823	5,882	-	5,086	13,149	12,137	9,103	6,069	-	5,248
		W	1,078	934	701	467	-	235	1,033	895	671	448	-	225	998	865	649	433	-	218
40	4.4	Q(Btu/h)	11,481	10,598	7,949	5,299	-	4,462	12,087	11,157	8,368	5,578	-	4,698	12,492	11,531	8,648	5,765	-	4,855
		W	1,064	922	691	461	-	235	1,016	881	661	440	-	224	976	846	635	423	-	215
35	1.7	Q(Btu/h)	10,731	9,905	7,429	4,953	-	4,071	11,358	10,484	7,863	5,242	-	4,309	11,770	10,864	8,148	5,432	-	4,465
		W	1,047	907	680	454	-	234	997	864	648	432	-	223	950	824	618	412	-	212
30	-1.1	Q(Btu/h)	9,970	9,203	6,902	4,601	-	3,677	10,630	9,812	7,359	4,906	-	3,920	11,054	10,204	7,653	5,102	-	4,077
		W	1,027	890	667	445	-	233	975	845	633	422	-	221	922	799	599	399	-	209
25	-3.9	Q(Btu/h)	9,198	8,491	6,368	4,245	-	3,281	9,901	9,140	6,855	4,570	-	3,532	10,343	9,548	7,161	4,774	-	3,689
		W	1,004	870	652	435	-	231	949	823	617	411	-	218	890	771	579	386	-	205
20	-6.7	Q(Btu/h)	8,416	7,768	5,826	3,884	-	2,884	9,173	8,467	6,350	4,234	-	3,143	9,636	8,895	6,671	4,447	-	3,302
		W	978	848	636	424	-	229	921	798	599	399	-	215	857	742	557	371	-	200
15	-9.4	Q(Btu/h)	7,620	7,034	5,276	3,517	-	2,486	8,444	7,795	5,846	3,897	-	2,754	8,929	8,242	6,182	4,121	-	2,913
		W	950	823	617	412	-	226	890	771	579	386	-	212	822	712	534	356	-	196
10	-12.2	Q(Btu/h)	6,810	6,286	4,715	3,143	-	2,088	7,716	7,122	5,342	3,561	-	2,366	8,222	7,590	5,692	3,795	-	2,521
		W	919	797	597	398	-	224	856	742	556	371	-	208	786	681	511	341	-	191
5	-15.0	Q(Btu/h)	5,982	5,522	4,141	2,761	-	1,692	6,987	6,450	4,837	3,225	-	1,977	7,512	6,934	5,201	3,467	-	2,125
		W	886	768	576	384	-	220	819	710	533	355	-	204	752	651	489	326	-	187
0	-17.8	Q(Btu/h)	5,131	4,736	3,552	2,368	-	1,302	6,259	5,777	4,333	2,889	-	1,588	6,798	6,275	4,706	3,137	-	1,725
		W	852	738	554	369	-	217	780	676	507	338	-	199	720	624	468	312	-	184
-4	-20.0	Q(Btu/h)	4,428	4,088	3,066	2,044	1,022	996	5,676	5,239	3,929	2,620	1,310	1,277	6,222	5,743	4,307	2,871	1,436	1,400
		W	824	714	536	357	179	215	746	646	485	323	162	195	698	605	454	302	151	182

* Above data is for heating operation without any frost.

MLZ-KX12NL
SUZ-AA12NL
1) COOLING

Rated
Q(Btu/h): 11,300
W: 950

Indoor W.B. / Outdoor D.B. (°F)	(°C)		71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
115	46.1	Q(Btu/h)	10,315	10,315	7,737	5,158	-	2,647	9,659	9,659	7,244	4,829	-	2,479	8,815	8,815	6,611	4,407	-	2,262
		W	1,067	1,067	800	534	-	213	1,041	1,041	781	521	-	208	998	998	748	499	-	200
110	43.3	Q(Btu/h)	10,784	10,784	8,088	5,392	-	2,768	10,034	10,034	7,526	5,017	-	2,575	9,190	9,190	6,893	4,595	-	2,359
		W	1,050	1,050	787	525	-	210	1,024	1,024	768	512	-	205	976	976	732	488	-	195
105	40.6	Q(Btu/h)	11,253	11,253	8,440	5,627	-	2,888	10,409	10,409	7,807	5,205	-	2,671	9,659	9,659	7,244	4,829	-	2,479
		W	1,037	1,037	778	518	-	207	998	998	748	499	-	200	954	954	716	477	-	191
100	37.8	Q(Btu/h)	11,628	11,628	8,721	5,814	-	2,984	10,878	10,878	8,159	5,439	-	2,792	10,034	10,034	7,526	5,017	-	2,575
		W	1,006	1,006	755	503	-	201	976	976	732	488	-	195	933	933	699	466	-	187
95	35.0	Q(Btu/h)	12,097	12,097	9,073	6,049	-	3,105	11,300	11,300	8,475	5,650	-	2,900	10,503	10,503	7,877	5,251	-	2,695
		W	989	989	742	495	-	198	950	950	713	475	-	190	911	911	683	455	-	182
90	32.2	Q(Btu/h)	12,472	12,472	9,354	6,236	-	3,201	11,722	11,722	8,791	5,861	-	3,008	10,878	10,878	8,159	5,439	-	2,792
		W	954	954	716	477	-	191	911	911	683	455	-	182	876	876	657	438	-	175
85	29.4	Q(Btu/h)	12,941	12,941	9,706	6,471	-	3,321	12,191	12,191	9,143	6,095	-	3,129	11,347	11,347	8,510	5,673	-	2,912
		W	920	920	690	460	-	184	876	876	657	438	-	175	846	846	634	423	-	169
80	26.7	Q(Btu/h)	13,316	13,316	9,987	6,658	-	3,417	12,566	12,566	9,424	6,283	-	3,225	11,816	11,816	8,862	5,908	-	3,032
		W	885	885	664	442	-	177	837	837	628	419	-	167	811	811	608	406	-	162
75	23.9	Q(Btu/h)	13,785	13,785	10,339	6,893	-	3,538	12,941	12,941	9,706	6,471	-	3,321	12,238	12,238	9,178	6,119	-	3,141
		W	846	846	634	423	-	169	798	798	599	399	-	160	780	780	585	390	-	156
70	21.1	Q(Btu/h)	14,113	14,113	10,585	7,057	-	3,622	13,222	13,222	9,917	6,611	-	3,393	12,660	12,660	9,495	6,330	-	3,249
		W	803	803	602	401	-	161	763	763	573	382	-	153	733	733	550	367	-	147
67	19.4	Q(Btu/h)	14,254	14,254	10,690	7,127	-	3,658	13,504	13,504	10,128	6,752	-	3,466	12,941	12,941	9,706	6,471	-	3,321
		W	763	763	573	382	-	153	733	733	550	367	-	147	694	694	521	347	-	139

* It may not reach the above capacities in low ambient temperatures.

MLZ-KX12NL
SUZ-AA12NL
2) HEATING

Rated
Q(Btu/h): 14,600
W: 1,330

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	14,007	14,007	10,506	7,004	-	4,893	14,600	14,600	10,950	7,300	-	5,100	15,097	15,097	11,323	7,549	-	5,274
		W	1,399	1,399	1,049	699	-	232	1,356	1,356	1,017	678	-	225	1,318	1,318	988	659	-	218
60	15.6	Q(Btu/h)	14,004	14,004	10,503	7,002	-	4,892	14,600	14,600	10,950	7,300	-	5,100	15,069	15,069	11,301	7,534	-	5,264
		W	1,396	1,396	1,047	698	-	233	1,349	1,349	1,012	675	-	225	1,314	1,314	986	657	-	220
55	12.8	Q(Btu/h)	13,990	13,990	10,492	6,995	-	4,887	14,600	14,600	10,950	7,300	-	5,100	15,053	15,053	11,290	7,527	-	5,258
		W	1,390	1,390	1,042	695	-	234	1,339	1,339	1,004	670	-	226	1,304	1,304	978	652	-	220
50	10.0	Q(Btu/h)	13,964	13,964	10,473	6,982	-	4,878	14,600	14,600	10,950	7,300	-	5,100	15,052	15,052	11,289	7,526	-	5,258
		W	1,379	1,379	1,035	690	-	235	1,326	1,326	994	663	-	226	1,287	1,287	965	644	-	219
45	7.2	Q(Btu/h)	13,650	13,650	10,238	6,825	-	4,851	14,313	14,313	10,734	7,156	-	5,086	14,767	14,767	11,075	7,384	-	5,248
		W	1,365	1,365	1,024	683	-	235	1,308	1,308	981	654	-	225	1,264	1,264	948	632	-	218
40	4.4	Q(Btu/h)	12,894	12,894	9,671	6,447	-	4,462	13,574	13,574	10,181	6,787	-	4,698	14,029	14,029	10,522	7,015	-	4,855
		W	1,347	1,347	1,011	674	-	235	1,287	1,287	966	644	-	224	1,236	1,236	927	618	-	215
35	1.7	Q(Btu/h)	12,051	12,051	9,038	6,026	-	4,071	12,756	12,756	9,567	6,378	-	4,309	13,218	13,218	9,914	6,609	-	4,465
		W	1,326	1,326	994	663	-	234	1,263	1,263	947	631	-	223	1,204	1,204	903	602	-	212
30	-1.1	Q(Btu/h)	11,197	11,197	8,398	5,598	-	3,677	11,938	11,938	8,953	5,969	-	3,920	12,415	12,415	9,311	6,207	-	4,077
		W	1,300	1,300	975	650	-	233	1,234	1,234	926	617	-	221	1,167	1,167	875	584	-	209
25	-3.9	Q(Btu/h)	10,331	10,331	7,748	5,165	-	3,281	11,120	11,120	8,340	5,560	-	3,532	11,616	11,616	8,712	5,808	-	3,689
		W	1,271	1,271	954	636	-	231	1,202	1,202	902	601	-	218	1,127	1,127	846	564	-	205
20	-6.7	Q(Btu/h)	9,451	9,451	7,089	4,726	-	2,884	10,302	10,302	7,726	5,151	-	3,143	10,822	10,822	8,116	5,411	-	3,302
		W	1,239	1,239	929	620	-	229	1,167	1,167	875	583	-	215	1,085	1,085	814	542	-	200
15	-9.4	Q(Btu/h)	8,558	8,558	6,419	4,279	-	2,486	9,483	9,483	7,113	4,742	-	2,754	10,028	10,028	7,521	5,014	-	2,913
		W	1,203	1,203	902	602	-	226	1,127	1,127	846	564	-	212	1,041	1,041	781	520	-	196
10	-12.2	Q(Btu/h)	7,648	7,648	5,736	3,824	-	2,088	8,665	8,665	6,499	4,333	-	2,366	9,234	9,234	6,926	4,617	-	2,521
		W	1,164	1,164	873	582	-	224	1,084	1,084	813	542	-	208	996	996	747	498	-	191
5	-15.0	Q(Btu/h)	6,718	6,718	5,039	3,359	-	1,692	7,847	7,847	5,885	3,924	-	1,977	8,437	8,437	6,328	4,218	-	2,125
		W	1,123	1,123	842	561	-	220	1,038	1,038	778	519	-	204	952	952	714	476	-	187
0	-17.8	Q(Btu/h)	5,763	5,763	4,322	2,881	1,441	1,302	7,029	7,029	5,272	3,514	1,757	1,588	7,634	7,634	5,726	3,817	1,909	1,725
		W	1,079	1,079	809	540	270	217	987	987	741	494	247	199	911	911	684	456	228	184
-4	-20.0	Q(Btu/h)	4,973	4,973	3,730	2,487	1,243	996	6,374	6,374	4,781	3,187	1,594	1,277	6,987	6,987	5,240	3,494	1,747	1,400
		W	1,044	1,044	783	522	261	215	945	945	708	472	236	195	884	884	663	442	221	182

* Above data is for heating operation without any frost.

MFZ-KX09NL
SUZ-AA09NL
1) COOLING

Rated
Q(Btu/h): 9,000
W: 710

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	8,216	8,216	6,162	4,108	2,054	1,826	7,693	7,693	5,770	3,846	1,923	1,710	7,021	7,021	5,266	3,510	1,755	1,560
		W	798	798	598	399	199	180	778	778	584	389	195	175	746	746	559	373	186	168
110	43.3	Q(Btu/h)	8,589	8,589	6,442	4,295	2,147	1,909	7,992	7,992	5,994	3,996	1,998	1,776	7,320	7,320	5,490	3,660	1,830	1,627
		W	785	785	588	392	196	177	765	765	574	383	191	172	729	729	547	365	182	164
105	40.6	Q(Btu/h)	8,963	8,963	6,722	4,481	2,241	1,992	8,290	8,290	6,218	4,145	2,073	1,842	7,693	7,693	5,770	3,846	1,923	1,710
		W	775	775	581	387	194	175	746	746	559	373	186	168	713	713	535	357	178	161
100	37.8	Q(Btu/h)	9,261	9,261	6,946	4,631	2,315	2,058	8,664	8,664	6,498	4,332	2,166	1,925	7,992	7,992	5,994	3,996	1,998	1,776
		W	752	752	564	376	188	169	729	729	547	365	182	164	697	697	523	349	174	157
95	35.0	Q(Btu/h)	9,635	9,635	7,226	4,817	2,409	2,141	9,000	9,000	6,750	4,500	2,250	2,000	8,365	8,365	6,274	4,183	2,091	1,859
		W	739	739	554	370	185	167	710	710	533	355	178	160	681	681	511	340	170	153
90	32.2	Q(Btu/h)	9,934	9,934	7,450	4,967	2,483	2,207	9,336	9,336	7,002	4,668	2,334	2,075	8,664	8,664	6,498	4,332	2,166	1,925
		W	713	713	535	357	178	161	681	681	511	340	170	153	655	655	491	327	164	148
85	29.4	Q(Btu/h)	10,307	10,307	7,730	5,154	2,577	2,290	9,710	9,710	7,282	4,855	2,427	2,158	9,037	9,037	6,778	4,519	2,259	2,008
		W	687	687	515	344	172	155	655	655	491	327	164	148	632	632	474	316	158	142
80	26.7	Q(Btu/h)	10,606	10,606	7,954	5,303	2,651	2,357	10,008	10,008	7,506	5,004	2,502	2,224	9,411	9,411	7,058	4,705	2,353	2,091
		W	661	661	496	331	165	149	626	626	469	313	156	141	606	606	455	303	152	137
75	23.9	Q(Btu/h)	10,979	10,979	8,234	5,490	2,745	2,440	10,307	10,307	7,730	5,154	2,577	2,290	9,747	9,747	7,310	4,873	2,437	2,166
		W	632	632	474	316	158	142	597	597	447	298	149	134	583	583	437	291	146	131
70	21.1	Q(Btu/h)	11,241	11,241	8,430	5,620	2,810	2,498	10,531	10,531	7,898	5,266	2,633	2,340	10,083	10,083	7,562	5,041	2,521	2,241
		W	600	600	450	300	150	135	571	571	428	285	143	129	548	548	411	274	137	123
67	19.4	Q(Btu/h)	11,353	11,353	8,515	5,676	2,838	2,523	10,755	10,755	8,066	5,378	2,689	2,390	10,307	10,307	7,730	5,154	2,577	2,290
		W	571	571	428	285	143	129	548	548	411	274	137	123	519	519	389	259	130	117

* It may not reach the above capacities in low ambient temperatures.

MFZ-KX09NL
SUZ-AA09NL
2) HEATING

Rated
Q(Btu/h): 12,000
W: 810

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	12,472	11,513	8,635	5,756	-	4,989	13,000	12,000	9,000	6,000	-	5,200	13,443	12,408	9,306	6,204	-	5,377
		W	968	852	639	426	-	242	938	826	619	413	-	235	912	803	602	401	-	228
60	15.6	Q(Btu/h)	12,469	11,510	8,632	5,755	-	4,988	13,000	12,000	9,000	6,000	-	5,200	13,417	12,385	9,289	6,193	-	5,367
		W	966	850	638	425	-	244	933	822	616	411	-	236	909	800	600	400	-	230
55	12.8	Q(Btu/h)	12,457	11,498	8,624	5,749	-	4,983	13,000	12,000	9,000	6,000	-	5,200	13,404	12,373	9,280	6,186	-	5,361
		W	961	846	635	423	-	245	926	816	612	408	-	236	902	794	596	397	-	230
50	10.0	Q(Btu/h)	12,434	11,477	8,608	5,739	-	4,974	13,000	12,000	9,000	6,000	-	5,200	13,402	12,371	9,278	6,186	-	5,361
		W	954	840	630	420	-	246	917	807	606	404	-	236	890	784	588	392	-	229
45	7.2	Q(Btu/h)	12,155	11,220	8,415	5,610	-	4,946	12,744	11,764	8,823	5,882	-	5,186	13,149	12,137	9,103	6,069	-	5,351
		W	944	831	624	416	-	246	905	797	598	398	-	235	875	770	578	385	-	228
40	4.4	Q(Btu/h)	11,481	10,598	7,949	5,299	-	4,550	12,087	11,157	8,368	5,578	-	4,790	12,492	11,531	8,648	5,765	-	4,950
		W	932	821	615	410	-	245	891	784	588	392	-	234	855	753	565	377	-	225
35	1.7	Q(Btu/h)	10,731	9,905	7,429	4,953	-	4,151	11,358	10,484	7,863	5,242	-	4,394	11,770	10,864	8,148	5,432	-	4,553
		W	917	807	606	404	-	245	873	769	577	385	-	233	833	733	550	367	-	222
30	-1.1	Q(Btu/h)	9,970	9,203	6,902	4,601	-	3,749	10,630	9,812	7,359	4,906	-	3,997	11,054	10,204	7,653	5,102	-	4,157
		W	900	792	594	396	-	243	854	752	564	376	-	231	807	711	533	355	-	218
25	-3.9	Q(Btu/h)	9,198	8,491	6,368	4,245	-	3,345	9,901	9,140	6,855	4,570	-	3,601	10,343	9,548	7,161	4,774	-	3,762
		W	880	774	581	387	-	241	832	732	549	366	-	228	780	687	515	343	-	214
20	-6.7	Q(Btu/h)	8,416	7,768	5,826	3,884	-	2,940	9,173	8,467	6,350	4,234	-	3,205	9,636	8,895	6,671	4,447	-	3,366
		W	857	755	566	377	-	239	807	711	533	355	-	225	750	661	496	330	-	209
15	-9.4	Q(Btu/h)	7,620	7,034	5,276	3,517	-	2,534	8,444	7,795	5,846	3,897	-	2,808	8,929	8,242	6,182	4,121	-	2,970
		W	832	733	550	366	-	237	780	687	515	343	-	222	720	634	475	317	-	205
10	-12.2	Q(Btu/h)	6,810	6,286	4,715	3,143	-	2,129	7,716	7,122	5,342	3,561	-	2,412	8,222	7,590	5,692	3,795	-	2,570
		W	805	709	532	355	-	234	750	660	495	330	-	218	689	607	455	303	-	200
5	-15.0	Q(Btu/h)	5,982	5,522	4,141	2,761	-	1,726	6,987	6,450	4,837	3,225	-	2,016	7,512	6,934	5,201	3,467	-	2,167
		W	777	684	513	342	-	231	718	632	474	316	-	213	659	580	435	290	-	195
0	-17.8	Q(Btu/h)	5,131	4,736	3,552	2,368	-	1,328	6,259	5,777	4,333	2,889	-	1,619	6,798	6,275	4,706	3,137	-	1,759
		W	746	657	493	329	-	227	683	601	451	301	-	208	630	555	416	278	-	192
-4	-20.0	Q(Btu/h)	4,428	4,088	3,066	2,044	1,022	1,016	5,676	5,239	3,929	2,620	1,310	1,302	6,222	5,743	4,307	2,871	1,436	1,428
		W	722	636	477	318	159	225	653	575	431	288	144	204	611	538	404	269	135	191

* Above data is for heating operation without any frost.

MFZ-KX12NL
SUZ-AA12NL
1) COOLING

Rated
Q(Btu/h): 12,000
W: 950

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	10,954	10,954	8,216	5,477	2,739	2,282	10,257	10,257	7,693	5,129	2,564	2,137	9,361	9,361	7,021	4,680	2,340	1,950
		W	1,067	1,067	800	534	267	213	1,041	1,041	781	521	260	208	998	998	748	499	249	200
110	43.3	Q(Btu/h)	11,452	11,452	8,589	5,726	2,863	2,386	10,656	10,656	7,992	5,328	2,664	2,220	9,759	9,759	7,320	4,880	2,440	2,033
		W	1,050	1,050	787	525	262	210	1,024	1,024	768	512	256	205	976	976	732	488	244	195
105	40.6	Q(Btu/h)	11,950	11,950	8,963	5,975	2,988	2,490	11,054	11,054	8,290	5,527	2,763	2,303	10,257	10,257	7,693	5,129	2,564	2,137
		W	1,037	1,037	778	518	259	207	998	998	748	499	249	200	954	954	716	477	239	191
100	37.8	Q(Btu/h)	12,349	12,349	9,261	6,174	3,087	2,573	11,552	11,552	8,664	5,776	2,888	2,407	10,656	10,656	7,992	5,328	2,664	2,220
		W	1,006	1,006	755	503	252	201	976	976	732	488	244	195	933	933	699	466	233	187
95	35.0	Q(Btu/h)	12,846	12,846	9,635	6,423	3,212	2,676	12,000	12,000	9,000	6,000	3,000	2,500	11,154	11,154	8,365	5,577	2,788	2,324
		W	989	989	742	495	247	198	950	950	713	475	238	190	911	911	683	455	228	182
90	32.2	Q(Btu/h)	13,245	13,245	9,934	6,622	3,311	2,759	12,448	12,448	9,336	6,224	3,112	2,593	11,552	11,552	8,664	5,776	2,888	2,407
		W	954	954	716	477	239	191	911	911	683	455	228	182	876	876	657	438	219	175
85	29.4	Q(Btu/h)	13,743	13,743	10,307	6,871	3,436	2,863	12,946	12,946	9,710	6,473	3,237	2,697	12,050	12,050	9,037	6,025	3,012	2,510
		W	920	920	690	460	230	184	876	876	657	438	219	175	846	846	634	423	211	169
80	26.7	Q(Btu/h)	14,141	14,141	10,606	7,071	3,535	2,946	13,344	13,344	10,008	6,672	3,336	2,780	12,548	12,548	9,411	6,274	3,137	2,614
		W	885	885	664	442	221	177	837	837	628	419	209	167	811	811	608	406	203	162
75	23.9	Q(Btu/h)	14,639	14,639	10,979	7,320	3,660	3,050	13,743	13,743	10,307	6,871	3,436	2,863	12,996	12,996	9,747	6,498	3,249	2,707
		W	846	846	634	423	211	169	798	798	599	399	200	160	780	780	585	390	195	156
70	21.1	Q(Btu/h)	14,988	14,988	11,241	7,494	3,747	3,122	14,041	14,041	10,531	7,021	3,510	2,925	13,444	13,444	10,083	6,722	3,361	2,801
		W	803	803	602	401	201	161	763	763	573	382	191	153	733	733	550	367	183	147
67	19.4	Q(Btu/h)	15,137	15,137	11,353	7,568	3,784	3,154	14,340	14,340	10,755	7,170	3,585	2,988	13,743	13,743	10,307	6,871	3,436	2,863
		W	763	763	573	382	191	153	733	733	550	367	183	147	694	694	521	347	174	139

* It may not reach the above capacities in low ambient temperatures.

MFZ-KX12NL
SUZ-AA12NL
2) HEATING

Rated
Q(Btu/h): 15,000
W: 1,240

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	14,391	14,391	10,793	7,196	-	5,085	15,000	15,000	11,250	7,500	-	5,300	15,511	15,511	11,633	7,755	-	5,480
		W	1,304	1,304	978	652	-	232	1,264	1,264	948	632	-	225	1,229	1,229	921	614	-	218
60	15.6	Q(Btu/h)	14,387	14,387	10,791	7,194	-	5,084	15,000	15,000	11,250	7,500	-	5,300	15,481	15,481	11,611	7,741	-	5,470
		W	1,302	1,302	976	651	-	233	1,258	1,258	943	629	-	225	1,225	1,225	919	613	-	220
55	12.8	Q(Btu/h)	14,373	14,373	10,780	7,187	-	5,079	15,000	15,000	11,250	7,500	-	5,300	15,466	15,466	11,599	7,733	-	5,465
		W	1,296	1,296	972	648	-	234	1,249	1,249	937	624	-	226	1,216	1,216	912	608	-	220
50	10.0	Q(Btu/h)	14,347	14,347	10,760	7,173	-	5,069	15,000	15,000	11,250	7,500	-	5,300	15,464	15,464	11,598	7,732	-	5,464
		W	1,286	1,286	965	643	-	235	1,236	1,236	927	618	-	226	1,200	1,200	900	600	-	219
45	7.2	Q(Btu/h)	14,024	14,024	10,518	7,012	-	5,041	14,705	14,705	11,029	7,352	-	5,286	15,172	15,172	11,379	7,586	-	5,454
		W	1,273	1,273	955	636	-	235	1,220	1,220	915	610	-	225	1,179	1,179	884	589	-	218
40	4.4	Q(Btu/h)	13,248	13,248	9,936	6,624	-	4,637	13,946	13,946	10,460	6,973	-	4,882	14,413	14,413	10,810	7,207	-	5,046
		W	1,256	1,256	942	628	-	235	1,200	1,200	900	600	-	224	1,153	1,153	865	576	-	215
35	1.7	Q(Btu/h)	12,381	12,381	9,286	6,191	-	4,231	13,106	13,106	9,829	6,553	-	4,478	13,580	13,580	10,185	6,790	-	4,640
		W	1,236	1,236	927	618	-	234	1,177	1,177	883	589	-	223	1,122	1,122	842	561	-	212
30	-1.1	Q(Btu/h)	11,504	11,504	8,628	5,752	-	3,821	12,265	12,265	9,199	6,132	-	4,074	12,755	12,755	9,566	6,377	-	4,237
		W	1,212	1,212	909	606	-	233	1,151	1,151	863	575	-	221	1,088	1,088	816	544	-	209
25	-3.9	Q(Btu/h)	10,614	10,614	7,960	5,307	-	3,410	11,424	11,424	8,568	5,712	-	3,670	11,935	11,935	8,951	5,967	-	3,834
		W	1,185	1,185	889	593	-	231	1,121	1,121	841	561	-	218	1,051	1,051	788	526	-	205
20	-6.7	Q(Btu/h)	9,710	9,710	7,283	4,855	-	2,997	10,584	10,584	7,938	5,292	-	3,266	11,118	11,118	8,339	5,559	-	3,431
		W	1,155	1,155	866	578	-	229	1,088	1,088	816	544	-	215	1,012	1,012	759	506	-	200
15	-9.4	Q(Btu/h)	8,793	8,793	6,594	4,396	-	2,583	9,743	9,743	7,307	4,872	-	2,862	10,303	10,303	7,727	5,152	-	3,027
		W	1,122	1,122	841	561	-	226	1,051	1,051	788	526	-	212	970	970	728	485	-	196
10	-12.2	Q(Btu/h)	7,858	7,858	5,893	3,929	-	2,170	8,903	8,903	6,677	4,451	-	2,458	9,487	9,487	7,115	4,743	-	2,620
		W	1,086	1,086	814	543	-	224	1,011	1,011	758	506	-	208	929	929	696	464	-	191
5	-15.0	Q(Btu/h)	6,902	6,902	5,177	3,451	-	1,759	8,062	8,062	6,047	4,031	-	2,054	8,668	8,668	6,501	4,334	-	2,209
		W	1,047	1,047	785	523	-	220	968	968	726	484	-	204	888	888	666	444	-	187
0	-17.8	Q(Btu/h)	5,920	5,920	4,440	2,960	1,480	1,353	7,222	7,222	5,416	3,611	1,805	1,651	7,844	7,844	5,883	3,922	1,961	1,793
		W	1,006	1,006	755	503	252	217	921	921	690	460	230	199	850	850	637	425	212	184
-4	-20.0	Q(Btu/h)	5,109	5,109	3,832	2,555	1,277	1,036	6,549	6,549	4,912	3,275	1,637	1,327	7,179	7,179	5,384	3,589	1,795	1,455
		W	973	973	730	487	243	215	881	881	660	440	220	195	824	824	618	412	206	182

* Above data is for heating operation without any frost.

MFZ-KX15NL
SUZ-AA15NL
1) COOLING

Rated
Q(Btu/h): 15,000
W: 1,150

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	13,693	13,693	10,270	6,846	3,423	3,012	12,822	12,822	9,616	6,411	3,205	2,821	11,701	11,701	8,776	5,851	2,925	2,574
		W	1,292	1,292	969	646	323	225	1,260	1,260	945	630	315	219	1,208	1,208	906	604	302	210
110	43.3	Q(Btu/h)	14,315	14,315	10,737	7,158	3,579	3,149	13,320	13,320	9,990	6,660	3,330	2,930	12,199	12,199	9,149	6,100	3,050	2,684
		W	1,271	1,271	953	635	318	221	1,239	1,239	929	620	310	216	1,182	1,182	886	591	295	205
105	40.6	Q(Btu/h)	14,938	14,938	11,203	7,469	3,734	3,286	13,817	13,817	10,363	6,909	3,454	3,040	12,822	12,822	9,616	6,411	3,205	2,821
		W	1,255	1,255	941	628	314	218	1,208	1,208	906	604	302	210	1,155	1,155	866	578	289	201
100	37.8	Q(Btu/h)	15,436	15,436	11,577	7,718	3,859	3,396	14,440	14,440	10,830	7,220	3,610	3,177	13,320	13,320	9,990	6,660	3,330	2,930
		W	1,218	1,218	914	609	305	212	1,182	1,182	886	591	295	205	1,129	1,129	847	564	282	196
95	35.0	Q(Btu/h)	16,058	16,058	12,044	8,029	4,015	3,533	15,000	15,000	11,250	7,500	3,750	3,300	13,942	13,942	10,456	6,971	3,485	3,067
		W	1,197	1,197	898	599	299	208	1,150	1,150	863	575	288	200	1,103	1,103	827	551	276	192
90	32.2	Q(Btu/h)	16,556	16,556	12,417	8,278	4,139	3,642	15,560	15,560	11,670	7,780	3,890	3,423	14,440	14,440	10,830	7,220	3,610	3,177
		W	1,155	1,155	866	578	289	201	1,103	1,103	827	551	276	192	1,061	1,061	796	530	265	184
85	29.4	Q(Btu/h)	17,178	17,178	12,884	8,589	4,295	3,779	16,183	16,183	12,137	8,091	4,046	3,560	15,062	15,062	11,297	7,531	3,766	3,314
		W	1,113	1,113	835	557	278	194	1,061	1,061	796	530	265	184	1,024	1,024	768	512	256	178
80	26.7	Q(Btu/h)	17,676	17,676	13,257	8,838	4,419	3,889	16,680	16,680	12,510	8,340	4,170	3,670	15,685	15,685	11,763	7,842	3,921	3,451
		W	1,071	1,071	803	536	268	186	1,013	1,013	760	507	253	176	982	982	736	491	245	171
75	23.9	Q(Btu/h)	18,299	18,299	13,724	9,149	4,575	4,026	17,178	17,178	12,884	8,589	4,295	3,779	16,245	16,245	12,184	8,122	4,061	3,574
		W	1,024	1,024	768	512	256	178	966	966	725	483	242	168	944	944	708	472	236	164
70	21.1	Q(Btu/h)	18,734	18,734	14,051	9,367	4,684	4,122	17,552	17,552	13,164	8,776	4,388	3,861	16,805	16,805	12,604	8,402	4,201	3,697
		W	971	971	729	486	243	169	924	924	693	462	231	161	887	887	666	444	222	154
67	19.4	Q(Btu/h)	18,921	18,921	14,191	9,461	4,730	4,163	17,925	17,925	13,444	8,963	4,481	3,944	17,178	17,178	12,884	8,589	4,295	3,779
		W	924	924	693	462	231	161	887	887	666	444	222	154	840	840	630	420	210	146

* It may not reach the above capacities in low ambient temperatures.

MFZ-KX15NL
SUZ-AA15NL
2) HEATING

Rated
Q(Btu/h): 18,000
W: 1,360

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	19,572	17,269	12,952	8,635	-	6,104	20,400	18,000	13,500	9,000	-	6,362	20,528	18,113	13,585	9,057	-	6,402
		W	1,932	1,564	1,173	782	-	273	1,873	1,516	1,137	758	-	264	1,753	1,419	1,064	710	-	247
60	15.6	Q(Btu/h)	19,567	17,265	12,949	8,632	-	5,769	20,400	18,000	13,500	9,000	-	6,015	20,900	18,441	13,831	9,221	-	6,162
		W	1,885	1,526	1,145	763	-	272	1,822	1,475	1,106	737	-	263	1,714	1,388	1,041	694	-	248
55	12.8	Q(Btu/h)	19,547	17,248	12,936	8,624	-	5,431	20,400	18,000	13,500	9,000	-	5,668	21,336	18,826	14,120	9,413	-	5,928
		W	1,836	1,486	1,115	743	-	271	1,770	1,433	1,074	716	-	261	1,681	1,361	1,021	681	-	248
50	10.0	Q(Btu/h)	19,511	17,216	12,912	8,608	-	5,089	20,400	18,000	13,500	9,000	-	5,321	21,753	19,194	14,396	9,597	-	5,673
		W	1,785	1,445	1,084	723	-	269	1,716	1,389	1,042	694	-	259	1,655	1,340	1,005	670	-	250
45	7.2	Q(Btu/h)	19,055	16,813	12,610	8,407	-	4,743	19,979	17,629	13,222	8,814	-	4,973	21,784	19,222	14,416	9,611	-	5,423
		W	1,732	1,402	1,052	701	-	266	1,660	1,344	1,008	672	-	255	1,627	1,317	988	659	-	250
40	4.4	Q(Btu/h)	17,979	15,864	11,898	7,932	-	4,394	18,927	16,701	12,525	8,350	-	4,626	21,563	19,026	14,270	9,513	-	5,270
		W	1,678	1,358	1,019	679	-	262	1,603	1,298	973	649	-	250	1,615	1,307	980	654	-	252
35	1.7	Q(Btu/h)	16,888	14,901	11,176	7,451	-	4,043	17,876	15,773	11,829	7,886	-	4,279	20,786	18,341	13,756	9,170	-	4,976
		W	1,622	1,313	985	656	-	257	1,545	1,250	938	625	-	244	1,593	1,290	967	645	-	252
30	-1.1	Q(Btu/h)	15,779	13,923	10,442	6,961	-	3,688	16,824	14,844	11,133	7,422	-	3,932	19,522	17,226	12,919	8,613	-	4,562
		W	1,564	1,266	950	633	-	250	1,485	1,202	901	601	-	238	1,539	1,246	934	623	-	246
25	-3.9	Q(Btu/h)	14,652	12,929	9,697	6,464	-	3,330	15,772	13,916	10,437	6,958	-	3,585	19,200	16,941	12,706	8,471	-	4,364
		W	1,505	1,218	913	609	-	243	1,423	1,152	864	576	-	230	1,526	1,235	926	618	-	247
20	-6.7	Q(Btu/h)	13,505	11,916	8,937	5,958	2,979	2,970	14,720	12,988	9,741	6,494	3,247	3,237	18,387	16,224	12,168	8,112	4,056	4,044
		W	1,444	1,169	877	584	292	235	1,360	1,101	825	550	275	221	1,471	1,191	893	596	298	240
15	-9.4	Q(Btu/h)	12,334	10,883	8,162	5,442	2,721	2,608	13,668	12,060	9,045	6,030	3,015	2,890	17,485	15,428	11,571	7,714	3,857	3,697
		W	1,382	1,119	839	559	280	226	1,295	1,048	786	524	262	212	1,427	1,155	866	577	289	233
10	-12.2	Q(Btu/h)	11,135	9,825	7,369	4,913	2,456	2,245	12,616	11,132	8,349	5,566	2,783	2,543	16,601	14,648	10,986	7,324	3,662	3,346
		W	1,319	1,068	801	534	267	216	1,229	995	746	497	249	201	1,365	1,105	829	553	276	224
5	-15.0	Q(Btu/h)	9,901	8,736	6,552	4,368	2,184	1,880	11,564	10,204	7,653	5,102	2,551	2,196	15,370	13,562	10,171	6,781	3,390	2,918
		W	1,256	1,016	762	508	254	205	1,161	940	705	470	235	190	1,295	1,048	786	524	262	212
0	-17.8	Q(Btu/h)	8,618	7,605	5,703	3,802	1,901	1,516	10,513	9,276	6,957	4,638	2,319	1,849	13,078	11,539	8,654	5,770	2,885	2,300
		W	1,192	965	724	483	241	194	1,091	883	662	442	221	177	1,171	948	711	474	237	190
-4	-20.0	Q(Btu/h)	7,545	6,657	4,993	3,329	1,664	1,226	9,671	8,533	6,400	4,267	2,133	1,571	13,891	12,256	9,192	6,128	3,064	2,256
		W	1,143	925	694	463	231	184	1,034	837	628	419	209	167	1,286	1,041	781	520	260	207

* Above data is for heating operation without any frost.

MSZ-EX09NL
SUZ-AA09NL
1) COOLING

Rated
Q(Btu/h): 9,000
W: 700

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	8,216	8,216	6,162	4,108	-	2,100	7,693	7,693	5,770	3,846	-	1,966	7,021	7,021	5,266	3,510	-	1,794
		W	786	786	590	393	-	157	767	767	575	384	-	153	735	735	551	368	-	147
110	43.3	Q(Btu/h)	8,589	8,589	6,442	4,295	-	2,195	7,992	7,992	5,994	3,996	-	2,042	7,320	7,320	5,490	3,660	-	1,871
		W	774	774	580	387	-	155	754	754	566	377	-	151	719	719	539	360	-	144
105	40.6	Q(Btu/h)	8,963	8,963	6,722	4,481	-	2,290	8,290	8,290	6,218	4,145	-	2,119	7,693	7,693	5,770	3,846	-	1,966
		W	764	764	573	382	-	153	735	735	551	368	-	147	703	703	527	352	-	141
100	37.8	Q(Btu/h)	9,261	9,261	6,946	4,631	-	2,367	8,664	8,664	6,498	4,332	-	2,214	7,992	7,992	5,994	3,996	-	2,042
		W	742	742	556	371	-	148	719	719	539	360	-	144	687	687	515	344	-	137
95	35.0	Q(Btu/h)	9,635	9,635	7,226	4,817	-	2,462	9,000	9,000	6,750	4,500	-	2,300	8,365	8,365	6,274	4,183	-	2,138
		W	729	729	547	364	-	146	700	700	525	350	-	140	671	671	503	336	-	134
90	32.2	Q(Btu/h)	9,934	9,934	7,450	4,967	-	2,539	9,336	9,336	7,002	4,668	-	2,386	8,664	8,664	6,498	4,332	-	2,214
		W	703	703	527	352	-	141	671	671	503	336	-	134	646	646	484	323	-	129
85	29.4	Q(Btu/h)	10,307	10,307	7,730	5,154	-	2,634	9,710	9,710	7,282	4,855	-	2,481	9,037	9,037	6,778	4,519	-	2,310
		W	678	678	508	339	-	136	646	646	484	323	-	129	623	623	467	312	-	125
80	26.7	Q(Btu/h)	10,606	10,606	7,954	5,303	-	2,710	10,008	10,008	7,506	5,004	-	2,558	9,411	9,411	7,058	4,705	-	2,405
		W	652	652	489	326	-	130	617	617	463	308	-	123	598	598	448	299	-	120
75	23.9	Q(Btu/h)	10,979	10,979	8,234	5,490	-	2,806	10,307	10,307	7,730	5,154	-	2,634	9,747	9,747	7,310	4,873	-	2,491
		W	623	623	467	312	-	125	588	588	441	294	-	118	575	575	431	287	-	115
70	21.1	Q(Btu/h)	11,241	11,241	8,430	5,620	-	2,873	10,531	10,531	7,898	5,266	-	2,691	10,083	10,083	7,562	5,041	-	2,577
		W	591	591	443	296	-	118	563	563	422	281	-	113	540	540	405	270	-	108
67	19.4	Q(Btu/h)	11,353	11,353	8,515	5,676	-	2,901	10,755	10,755	8,066	5,378	-	2,749	10,307	10,307	7,730	5,154	-	2,634
		W	563	563	422	281	-	113	540	540	405	270	-	108	511	511	384	256	-	102

* It may not reach the above capacities in low ambient temperatures.

MSZ-EX09NL
SUZ-AA09NL
2) HEATING

Rated
Q(Btu/h): 12,000
W: 800

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	12,472	11,513	8,635	5,756	-	5,085	13,000	12,000	9,000	6,000	-	5,300	13,443	12,408	9,306	6,204	-	5,480
		W	957	841	631	421	-	232	928	815	612	408	-	225	902	793	594	396	-	218
60	15.6	Q(Btu/h)	12,469	11,510	8,632	5,755	-	5,084	13,000	12,000	9,000	6,000	-	5,300	13,417	12,385	9,289	6,193	-	5,470
		W	955	840	630	420	-	233	923	812	609	406	-	225	899	791	593	395	-	220
55	12.8	Q(Btu/h)	12,457	11,498	8,624	5,749	-	5,079	13,000	12,000	9,000	6,000	-	5,300	13,404	12,373	9,280	6,186	-	5,465
		W	951	836	627	418	-	234	916	806	604	403	-	226	892	784	588	392	-	220
50	10.0	Q(Btu/h)	12,434	11,477	8,608	5,739	-	5,069	13,000	12,000	9,000	6,000	-	5,300	13,402	12,371	9,278	6,186	-	5,464
		W	944	830	622	415	-	235	907	797	598	399	-	226	881	774	581	387	-	219
45	7.2	Q(Btu/h)	12,155	11,220	8,415	5,610	-	5,041	12,744	11,764	8,823	5,882	-	5,286	13,149	12,137	9,103	6,069	-	5,454
		W	934	821	616	411	-	235	895	787	590	393	-	225	865	761	570	380	-	218
40	4.4	Q(Btu/h)	11,481	10,598	7,949	5,299	-	4,637	12,087	11,157	8,368	5,578	-	4,882	12,492	11,531	8,648	5,765	-	5,046
		W	922	810	608	405	-	235	881	774	581	387	-	224	846	744	558	372	-	215
35	1.7	Q(Btu/h)	10,731	9,905	7,429	4,953	-	4,231	11,358	10,484	7,863	5,242	-	4,478	11,770	10,864	8,148	5,432	-	4,640
		W	907	797	598	399	-	234	864	760	570	380	-	223	824	724	543	362	-	212
30	-1.1	Q(Btu/h)	9,970	9,203	6,902	4,601	-	3,821	10,630	9,812	7,359	4,906	-	4,074	11,054	10,204	7,653	5,102	-	4,237
		W	890	782	587	391	-	233	845	743	557	371	-	221	799	702	527	351	-	209
25	-3.9	Q(Btu/h)	9,198	8,491	6,368	4,245	-	3,410	9,901	9,140	6,855	4,570	-	3,670	10,343	9,548	7,161	4,774	-	3,834
		W	870	765	574	382	-	231	823	723	542	362	-	218	771	678	509	339	-	205
20	-6.7	Q(Btu/h)	8,416	7,768	5,826	3,884	-	2,997	9,173	8,467	6,350	4,234	-	3,266	9,636	8,895	6,671	4,447	-	3,431
		W	848	745	559	373	-	229	798	702	526	351	-	215	742	653	489	326	-	200
15	-9.4	Q(Btu/h)	7,620	7,034	5,276	3,517	-	2,583	8,444	7,795	5,846	3,897	-	2,862	8,929	8,242	6,182	4,121	-	3,027
		W	823	724	543	362	-	226	771	678	509	339	-	212	712	626	470	313	-	196
10	-12.2	Q(Btu/h)	6,810	6,286	4,715	3,143	-	2,170	7,716	7,122	5,342	3,561	-	2,458	8,222	7,590	5,692	3,795	-	2,620
		W	797	700	525	350	-	224	742	652	489	326	-	208	681	599	449	300	-	191
5	-15.0	Q(Btu/h)	5,982	5,522	4,141	2,761	-	1,759	6,987	6,450	4,837	3,225	-	2,054	7,512	6,934	5,201	3,467	-	2,209
		W	768	675	506	338	-	220	710	624	468	312	-	204	651	573	430	286	-	187
0	-17.8	Q(Btu/h)	5,131	4,736	3,552	2,368	-	1,353	6,259	5,777	4,333	2,889	-	1,651	6,798	6,275	4,706	3,137	-	1,793
		W	738	649	487	325	-	217	676	594	445	297	-	199	624	548	411	274	-	184
-4	-20.0	Q(Btu/h)	4,428	4,088	3,066	2,044	-	1,036	5,676	5,239	3,929	2,620	-	1,327	6,222	5,743	4,307	2,871	-	1,455
		W	714	628	471	314	-	215	646	568	426	284	-	195	605	532	399	266	-	182

* Above data is for heating operation without any frost.

MSZ-EX12NL
SUZ-AA12NL
1) COOLING

Rated
Q(Btu/h): 12,000
W: 980

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	10,954	10,954	8,216	5,477	2,739	2,465	10,257	10,257	7,693	5,129	2,564	2,308	9,361	9,361	7,021	4,680	2,340	2,106
		W	1,101	1,101	826	550	275	225	1,074	1,074	805	537	268	219	1,029	1,029	772	515	257	210
110	43.3	Q(Btu/h)	11,452	11,452	8,589	5,726	2,863	2,577	10,656	10,656	7,992	5,328	2,664	2,398	9,759	9,759	7,320	4,880	2,440	2,196
		W	1,083	1,083	812	541	271	221	1,056	1,056	792	528	264	216	1,007	1,007	755	503	252	205
105	40.6	Q(Btu/h)	11,950	11,950	8,963	5,975	2,988	2,689	11,054	11,054	8,290	5,527	2,763	2,487	10,257	10,257	7,693	5,129	2,564	2,308
		W	1,069	1,069	802	535	267	218	1,029	1,029	772	515	257	210	984	984	738	492	246	201
100	37.8	Q(Btu/h)	12,349	12,349	9,261	6,174	3,087	2,778	11,552	11,552	8,664	5,776	2,888	2,599	10,656	10,656	7,992	5,328	2,664	2,398
		W	1,038	1,038	779	519	260	212	1,007	1,007	755	503	252	205	962	962	722	481	241	196
95	35.0	Q(Btu/h)	12,846	12,846	9,635	6,423	3,212	2,890	12,000	12,000	9,000	6,000	3,000	2,700	11,154	11,154	8,365	5,577	2,788	2,510
		W	1,020	1,020	765	510	255	208	980	980	735	490	245	200	940	940	705	470	235	192
90	32.2	Q(Btu/h)	13,245	13,245	9,934	6,622	3,311	2,980	12,448	12,448	9,336	6,224	3,112	2,801	11,552	11,552	8,664	5,776	2,888	2,599
		W	984	984	738	492	246	201	940	940	705	470	235	192	904	904	678	452	226	184
85	29.4	Q(Btu/h)	13,743	13,743	10,307	6,871	3,436	3,092	12,946	12,946	9,710	6,473	3,237	2,913	12,050	12,050	9,037	6,025	3,012	2,711
		W	949	949	712	474	237	194	904	904	678	452	226	184	873	873	654	436	218	178
80	26.7	Q(Btu/h)	14,141	14,141	10,606	7,071	3,535	3,182	13,344	13,344	10,008	6,672	3,336	3,002	12,548	12,548	9,411	6,274	3,137	2,823
		W	913	913	685	456	228	186	864	864	648	432	216	176	837	837	628	418	209	171
75	23.9	Q(Btu/h)	14,639	14,639	10,979	7,320	3,660	3,294	13,743	13,743	10,307	6,871	3,436	3,092	12,996	12,996	9,747	6,498	3,249	2,924
		W	873	873	654	436	218	178	823	823	618	412	206	168	805	805	603	402	201	164
70	21.1	Q(Btu/h)	14,988	14,988	11,241	7,494	3,747	3,372	14,041	14,041	10,531	7,021	3,510	3,159	13,444	13,444	10,083	6,722	3,361	3,025
		W	828	828	621	414	207	169	788	788	591	394	197	161	756	756	567	378	189	154
67	19.4	Q(Btu/h)	15,137	15,137	11,353	7,568	3,784	3,406	14,340	14,340	10,755	7,170	3,585	3,227	13,743	13,743	10,307	6,871	3,436	3,092
		W	788	788	591	394	197	161	756	756	567	378	189	154	716	716	537	358	179	146

* It may not reach the above capacities in low ambient temperatures.

MSZ-EX12NL
SUZ-AA12NL
2) HEATING

Rated
Q(Btu/h): 15,000
W: 1,200

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	14,391	14,391	10,793	7,196	-	5,085	15,000	15,000	11,250	7,500	-	5,300	15,511	15,511	11,633	7,755	-	5,480
		W	1,262	1,262	946	631	-	232	1,223	1,223	917	612	-	225	1,189	1,189	892	594	-	218
60	15.6	Q(Btu/h)	14,387	14,387	10,791	7,194	-	5,084	15,000	15,000	11,250	7,500	-	5,300	15,481	15,481	11,611	7,741	-	5,470
		W	1,260	1,260	945	630	-	233	1,217	1,217	913	609	-	225	1,186	1,186	889	593	-	220
55	12.8	Q(Btu/h)	14,373	14,373	10,780	7,187	-	5,079	15,000	15,000	11,250	7,500	-	5,300	15,466	15,466	11,599	7,733	-	5,465
		W	1,254	1,254	940	627	-	234	1,208	1,208	906	604	-	226	1,177	1,177	882	588	-	220
50	10.0	Q(Btu/h)	14,347	14,347	10,760	7,173	-	5,069	15,000	15,000	11,250	7,500	-	5,300	15,464	15,464	11,598	7,732	-	5,464
		W	1,245	1,245	933	622	-	235	1,196	1,196	897	598	-	226	1,161	1,161	871	581	-	219
45	7.2	Q(Btu/h)	14,024	14,024	10,518	7,012	-	5,041	14,705	14,705	11,029	7,352	-	5,286	15,172	15,172	11,379	7,586	-	5,454
		W	1,232	1,232	924	616	-	235	1,180	1,180	885	590	-	225	1,141	1,141	856	570	-	218
40	4.4	Q(Btu/h)	13,248	13,248	9,936	6,624	-	4,637	13,946	13,946	10,460	6,973	-	4,882	14,413	14,413	10,810	7,207	-	5,046
		W	1,216	1,216	912	608	-	235	1,162	1,162	871	581	-	224	1,116	1,116	837	558	-	215
35	1.7	Q(Btu/h)	12,381	12,381	9,286	6,191	-	4,231	13,106	13,106	9,829	6,553	-	4,478	13,580	13,580	10,185	6,790	-	4,640
		W	1,196	1,196	897	598	-	234	1,139	1,139	854	570	-	223	1,086	1,086	815	543	-	212
30	-1.1	Q(Btu/h)	11,504	11,504	8,628	5,752	-	3,821	12,265	12,265	9,199	6,132	-	4,074	12,755	12,755	9,566	6,377	-	4,237
		W	1,173	1,173	880	587	-	233	1,114	1,114	835	557	-	221	1,053	1,053	790	527	-	209
25	-3.9	Q(Btu/h)	10,614	10,614	7,960	5,307	-	3,410	11,424	11,424	8,568	5,712	-	3,670	11,935	11,935	8,951	5,967	-	3,834
		W	1,147	1,147	860	574	-	231	1,085	1,085	814	542	-	218	1,017	1,017	763	509	-	205
20	-6.7	Q(Btu/h)	9,710	9,710	7,283	4,855	-	2,997	10,584	10,584	7,938	5,292	-	3,266	11,118	11,118	8,339	5,559	-	3,431
		W	1,118	1,118	838	559	-	229	1,053	1,053	790	526	-	215	979	979	734	489	-	200
15	-9.4	Q(Btu/h)	8,793	8,793	6,594	4,396	-	2,583	9,743	9,743	7,307	4,872	-	2,862	10,303	10,303	7,727	5,152	-	3,027
		W	1,086	1,086	814	543	-	226	1,017	1,017	763	509	-	212	939	939	704	470	-	196
10	-12.2	Q(Btu/h)	7,858	7,858	5,893	3,929	-	2,170	8,903	8,903	6,677	4,451	-	2,458	9,487	9,487	7,115	4,743	-	2,620
		W	1,051	1,051	788	525	-	224	978	978	734	489	-	208	899	899	674	449	-	191
5	-15.0	Q(Btu/h)	6,902	6,902	5,177	3,451	-	1,759	8,062	8,062	6,047	4,031	-	2,054	8,668	8,668	6,501	4,334	-	2,209
		W	1,013	1,013	760	506	-	220	936	936	702	468	-	204	859	859	644	430	-	187
0	-17.8	Q(Btu/h)	5,920	5,920	4,440	2,960	1,480	1,353	7,222	7,222	5,416	3,611	1,805	1,651	7,844	7,844	5,883	3,922	1,961	1,793
		W	974	974	730	487	243	217	891	891	668	445	223	199	822	822	617	411	206	184
-4	-20.0	Q(Btu/h)	5,109	5,109	3,832	2,555	1,277	1,036	6,549	6,549	4,912	3,275	1,637	1,327	7,179	7,179	5,384	3,589	1,795	1,455
		W	942	942	706	471	235	215	852	852	639	426	213	195	798	798	598	399	199	182

* Above data is for heating operation without any frost.

MSZ-EX15NL
SUZ-AA15NL
1) COOLING

Rated
Q(Btu/h): 15,000
W: 1,230

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	13,693	13,693	10,270	6,846	3,423	3,012	12,822	12,822	9,616	6,411	3,205	2,821	11,701	11,701	8,776	5,851	2,925	2,574
		W	1,382	1,382	1,036	691	345	213	1,348	1,348	1,011	674	337	208	1,292	1,292	969	646	323	200
110	43.3	Q(Btu/h)	14,315	14,315	10,737	7,158	3,579	3,149	13,320	13,320	9,990	6,660	3,330	2,930	12,199	12,199	9,149	6,100	3,050	2,684
		W	1,359	1,359	1,019	680	340	210	1,325	1,325	994	663	331	205	1,264	1,264	948	632	316	195
105	40.6	Q(Btu/h)	14,938	14,938	11,203	7,469	3,734	3,286	13,817	13,817	10,363	6,909	3,454	3,040	12,822	12,822	9,616	6,411	3,205	2,821
		W	1,342	1,342	1,007	671	336	207	1,292	1,292	969	646	323	200	1,236	1,236	927	618	309	191
100	37.8	Q(Btu/h)	15,436	15,436	11,577	7,718	3,859	3,396	14,440	14,440	10,830	7,220	3,610	3,177	13,320	13,320	9,990	6,660	3,330	2,930
		W	1,303	1,303	977	652	326	201	1,264	1,264	948	632	316	195	1,208	1,208	906	604	302	187
95	35.0	Q(Btu/h)	16,058	16,058	12,044	8,029	4,015	3,533	15,000	15,000	11,250	7,500	3,750	3,300	13,942	13,942	10,456	6,971	3,485	3,067
		W	1,281	1,281	960	640	320	198	1,230	1,230	923	615	308	190	1,179	1,179	885	590	295	182
90	32.2	Q(Btu/h)	16,556	16,556	12,417	8,278	4,139	3,642	15,560	15,560	11,670	7,780	3,890	3,423	14,440	14,440	10,830	7,220	3,610	3,177
		W	1,236	1,236	927	618	309	191	1,179	1,179	885	590	295	182	1,135	1,135	851	567	284	175
85	29.4	Q(Btu/h)	17,178	17,178	12,884	8,589	4,295	3,779	16,183	16,183	12,137	8,091	4,046	3,560	15,062	15,062	11,297	7,531	3,766	3,314
		W	1,191	1,191	893	595	298	184	1,135	1,135	851	567	284	175	1,095	1,095	821	548	274	169
80	26.7	Q(Btu/h)	17,676	17,676	13,257	8,838	4,419	3,889	16,680	16,680	12,510	8,340	4,170	3,670	15,685	15,685	11,763	7,842	3,921	3,451
		W	1,146	1,146	859	573	286	177	1,084	1,084	813	542	271	167	1,050	1,050	788	525	263	162
75	23.9	Q(Btu/h)	18,299	18,299	13,724	9,149	4,575	4,026	17,178	17,178	12,884	8,589	4,295	3,779	16,245	16,245	12,184	8,122	4,061	3,574
		W	1,095	1,095	821	548	274	169	1,033	1,033	775	517	258	160	1,010	1,010	757	505	252	156
70	21.1	Q(Btu/h)	18,734	18,734	14,051	9,367	4,684	4,122	17,552	17,552	13,164	8,776	4,388	3,861	16,805	16,805	12,604	8,402	4,201	3,697
		W	1,039	1,039	779	520	260	161	988	988	741	494	247	153	949	949	712	475	237	147
67	19.4	Q(Btu/h)	18,921	18,921	14,191	9,461	4,730	4,163	17,925	17,925	13,444	8,963	4,481	3,944	17,178	17,178	12,884	8,589	4,295	3,779
		W	988	988	741	494	247	153	949	949	712	475	237	147	899	899	674	449	225	139

* It may not reach the above capacities in low ambient temperatures.

MSZ-EX15NL
SUZ-AA15NL
2) HEATING

Rated
Q(Btu/h): 18,000
W: 1,450

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	19,188	17,269	12,952	8,635	-	5,982	20,000	18,000	13,500	9,000	-	6,235	20,126	18,113	13,585	9,057	-	6,274
		W	2,013	1,668	1,251	834	-	252	1,951	1,616	1,212	808	-	245	1,826	1,513	1,135	757	-	229
60	15.6	Q(Btu/h)	19,183	17,265	12,949	8,632	-	5,654	20,000	18,000	13,500	9,000	-	5,895	20,491	18,441	13,831	9,221	-	6,039
		W	1,964	1,627	1,220	814	-	252	1,898	1,572	1,179	786	-	244	1,785	1,479	1,109	740	-	229
55	12.8	Q(Btu/h)	19,164	17,248	12,936	8,624	-	5,322	20,000	18,000	13,500	9,000	-	5,554	20,918	18,826	14,120	9,413	-	5,809
		W	1,913	1,585	1,189	792	-	251	1,843	1,527	1,145	764	-	242	1,751	1,451	1,088	726	-	230
50	10.0	Q(Btu/h)	19,129	17,216	12,912	8,608	-	4,987	20,000	18,000	13,500	9,000	-	5,214	21,327	19,194	14,396	9,597	-	5,560
		W	1,860	1,541	1,156	770	-	249	1,787	1,481	1,111	740	-	239	1,724	1,429	1,071	714	-	231
45	7.2	Q(Btu/h)	18,681	16,813	12,610	8,407	-	4,648	19,588	17,629	13,222	8,814	-	4,874	21,357	19,222	14,416	9,611	-	5,314
		W	1,805	1,495	1,121	748	-	246	1,729	1,433	1,075	716	-	236	1,695	1,405	1,053	702	-	231
40	4.4	Q(Btu/h)	17,627	15,864	11,898	7,932	-	4,307	18,556	16,701	12,525	8,350	-	4,534	21,140	19,026	14,270	9,513	-	5,165
		W	1,748	1,448	1,086	724	-	242	1,670	1,384	1,038	692	-	232	1,682	1,394	1,045	697	-	233
35	1.7	Q(Btu/h)	16,557	14,901	11,176	7,451	-	3,962	17,525	15,773	11,829	7,886	-	4,193	20,379	18,341	13,756	9,170	-	4,876
		W	1,689	1,400	1,050	700	-	238	1,609	1,333	1,000	667	-	226	1,660	1,375	1,031	688	-	233
30	-1.1	Q(Btu/h)	15,470	13,923	10,442	6,961	-	3,614	16,494	14,844	11,133	7,422	-	3,853	19,140	17,226	12,919	8,613	-	4,471
		W	1,629	1,350	1,012	675	-	232	1,546	1,281	961	641	-	220	1,603	1,328	996	664	-	228
25	-3.9	Q(Btu/h)	14,365	12,929	9,697	6,464	-	3,264	15,463	13,916	10,437	6,958	-	3,513	18,824	16,941	12,706	8,471	-	4,276
		W	1,567	1,299	974	649	-	225	1,482	1,228	921	614	-	213	1,589	1,317	988	658	-	228
20	-6.7	Q(Btu/h)	13,240	11,916	8,937	5,958	2,979	2,911	14,431	12,988	9,741	6,494	3,247	3,173	18,027	16,224	12,168	8,112	4,056	3,963
		W	1,504	1,246	935	623	312	218	1,416	1,173	880	587	293	205	1,533	1,270	952	635	317	222
15	-9.4	Q(Btu/h)	12,093	10,883	8,162	5,442	2,721	2,556	13,400	12,060	9,045	6,030	3,015	2,832	17,143	15,428	11,571	7,714	3,857	3,623
		W	1,439	1,193	895	596	298	209	1,349	1,118	838	559	279	196	1,486	1,231	923	616	308	216
10	-12.2	Q(Btu/h)	10,917	9,825	7,369	4,913	2,456	2,200	12,369	11,132	8,349	5,566	2,783	2,492	16,275	14,648	10,986	7,324	3,662	3,279
		W	1,374	1,138	854	569	285	200	1,280	1,060	795	530	265	186	1,422	1,178	884	589	295	207
5	-15.0	Q(Btu/h)	9,707	8,736	6,552	4,368	2,184	1,842	11,338	10,204	7,653	5,102	2,551	2,152	15,069	13,562	10,171	6,781	3,390	2,860
		W	1,308	1,084	813	542	271	190	1,209	1,002	751	501	250	176	1,349	1,118	838	559	279	196
0	-17.8	Q(Btu/h)	8,449	7,605	5,703	3,802	1,901	1,485	10,306	9,276	6,957	4,638	2,319	1,812	12,821	11,539	8,654	5,770	2,885	2,254
		W	1,242	1,029	772	515	257	180	1,137	942	706	471	235	164	1,220	1,011	758	505	253	176
-4	-20.0	Q(Btu/h)	7,397	6,657	4,993	3,329	1,664	1,201	9,481	8,533	6,400	4,267	2,133	1,539	13,618	12,256	9,192	6,128	3,064	2,211
		W	1,191	987	740	493	247	171	1,078	893	670	446	223	154	1,339	1,110	832	555	277	192

* Above data is for heating operation without any frost.

SEZ-AD09NL
SUZ-AA09NL
1) COOLING

Rated
Q(Btu/h): 9,000
W: 790

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	8,216	8,216	6,162	4,108	-	2,191	7,693	7,693	5,770	3,846	-	2,051	7,021	7,021	5,266	3,510	-	1,872
		W	854	854	640	427	-	236	833	833	625	416	-	230	798	798	599	399	-	221
110	43.3	Q(Btu/h)	8,589	8,589	6,442	4,295	-	2,290	7,992	7,992	5,994	3,996	-	2,131	7,320	7,320	5,490	3,660	-	1,952
		W	840	840	630	420	-	232	819	819	614	409	-	226	781	781	586	390	-	216
105	40.6	Q(Btu/h)	8,963	8,963	6,722	4,481	-	2,390	8,290	8,290	6,218	4,145	-	2,211	7,693	7,693	5,770	3,846	-	2,051
		W	829	829	622	415	-	229	798	798	599	399	-	221	763	763	573	382	-	211
100	37.8	Q(Btu/h)	9,261	9,261	6,946	4,631	-	2,470	8,664	8,664	6,498	4,332	-	2,310	7,992	7,992	5,994	3,996	-	2,131
		W	805	805	604	403	-	222	781	781	586	390	-	216	746	746	560	373	-	206
95	35.0	Q(Btu/h)	9,635	9,635	7,226	4,817	-	2,569	9,000	9,000	6,750	4,500	-	2,400	8,365	8,365	6,274	4,183	-	2,231
		W	791	791	593	396	-	219	760	760	570	380	-	210	729	729	547	364	-	201
90	32.2	Q(Btu/h)	9,934	9,934	7,450	4,967	-	2,649	9,336	9,336	7,002	4,668	-	2,490	8,664	8,664	6,498	4,332	-	2,310
		W	763	763	573	382	-	211	729	729	547	364	-	201	701	701	526	351	-	194
85	29.4	Q(Btu/h)	10,307	10,307	7,730	5,154	-	2,749	9,710	9,710	7,282	4,855	-	2,589	9,037	9,037	6,778	4,519	-	2,410
		W	736	736	552	368	-	203	701	701	526	351	-	194	677	677	508	338	-	187
80	26.7	Q(Btu/h)	10,606	10,606	7,954	5,303	-	2,828	10,008	10,008	7,506	5,004	-	2,669	9,411	9,411	7,058	4,705	-	2,510
		W	708	708	531	354	-	196	670	670	502	335	-	185	649	649	487	324	-	179
75	23.9	Q(Btu/h)	10,979	10,979	8,234	5,490	-	2,928	10,307	10,307	7,730	5,154	-	2,749	9,747	9,747	7,310	4,873	-	2,599
		W	677	677	508	338	-	187	639	639	479	319	-	176	624	624	468	312	-	172
70	21.1	Q(Btu/h)	11,241	11,241	8,430	5,620	-	2,998	10,531	10,531	7,898	5,266	-	2,808	10,083	10,083	7,562	5,041	-	2,689
		W	642	642	482	321	-	177	611	611	458	305	-	169	586	586	440	293	-	162
67	19.4	Q(Btu/h)	11,353	11,353	8,515	5,676	-	3,027	10,755	10,755	8,066	5,378	-	2,868	10,307	10,307	7,730	5,154	-	2,749
		W	611	611	458	305	-	169	586	586	440	293	-	162	555	555	416	278	-	153

* It may not reach the above capacities in low ambient temperatures.

SEZ-AD09NL
SUZ-AA09NL
2) HEATING

Rated
Q(Btu/h): 12,000
W: 1,100

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	12280	11513	8635	5756	-	4413	12800	12000	9000	6000	-	4600	13236	12408	9306	6204	-	4757
		W	1336	1157	868	578	-	274	1294	1121	841	561	-	265	1258	1090	817	545	-	258
60	15.6	Q(Btu/h)	12277	11510	8632	5755	-	4412	12800	12000	9000	6000	-	4600	13211	12385	9289	6193	-	4748
		W	1333	1155	866	577	-	276	1288	1116	837	558	-	266	1255	1087	815	544	-	260
55	12.8	Q(Btu/h)	12265	11498	8624	5749	-	4408	12800	12000	9000	6000	-	4600	13198	12373	9280	6186	-	4743
		W	1327	1149	862	575	-	277	1279	1108	831	554	-	267	1245	1078	809	539	-	260
50	10.0	Q(Btu/h)	12242	11477	8608	5739	-	4400	12800	12000	9000	6000	-	4600	13196	12371	9278	6186	-	4742
		W	1317	1141	856	570	-	278	1266	1096	822	548	-	267	1229	1065	798	532	-	259
45	7.2	Q(Btu/h)	11968	11220	8415	5610	-	4375	12548	11764	8823	5882	-	4588	12946	12137	9103	6069	-	4733
		W	1304	1129	847	565	-	278	1249	1082	812	541	-	266	1207	1046	784	523	-	257
40	4.4	Q(Btu/h)	11305	10598	7949	5299	-	4025	11901	11157	8368	5578	-	4237	12299	11531	8648	5765	-	4379
		W	1287	1114	836	557	-	277	1229	1065	799	532	-	265	1181	1023	767	511	-	255
35	1.7	Q(Btu/h)	10565	9905	7429	4953	-	3672	11183	10484	7863	5242	-	3887	11589	10864	8148	5432	-	4027
		W	1266	1096	822	548	-	276	1206	1044	783	522	-	263	1150	996	747	498	-	251
30	-1.1	Q(Btu/h)	9816	9203	6902	4601	-	3316	10466	9812	7359	4906	-	3536	10884	10204	7653	5102	-	3677
		W	1242	1076	807	538	-	275	1179	1021	766	510	-	261	1115	965	724	483	-	247
25	-3.9	Q(Btu/h)	9057	8491	6368	4245	-	2959	9749	9140	6855	4570	-	3185	10184	9548	7161	4774	-	3328
		W	1214	1052	789	526	-	273	1148	994	746	497	-	258	1077	932	699	466	-	242
20	-6.7	Q(Btu/h)	8286	7768	5826	3884	-	2601	9032	8467	6350	4234	-	2835	9488	8895	6671	4447	-	2978
		W	1183	1025	769	512	-	270	1114	965	724	482	-	255	1036	897	673	449	-	237
15	-9.4	Q(Btu/h)	7503	7034	5276	3517	-	2242	8314	7795	5846	3897	-	2484	8792	8242	6182	4121	-	2627
		W	1149	995	746	498	-	267	1077	932	699	466	-	251	994	861	646	430	-	231
10	-12.2	Q(Btu/h)	6705	6286	4715	3143	-	1883	7597	7122	5342	3561	-	2134	8096	7590	5692	3795	-	2274
		W	1112	963	722	481	-	264	1036	897	673	448	-	246	951	824	618	412	-	226
5	-15.0	Q(Btu/h)	5890	5522	4141	2761	-	1527	6880	6450	4837	3225	-	1783	7397	6934	5201	3467	-	1917
		W	1072	929	696	464	-	261	991	858	644	429	-	241	909	787	591	394	-	221
0	-17.8	Q(Btu/h)	5052	4736	3552	2368	1184	1174	6162	5777	4333	2889	1444	1433	6693	6275	4706	3137	1569	1556
		W	1030	892	669	446	223	257	943	817	613	408	204	235	870	754	565	377	188	217
-4	-20.0	Q(Btu/h)	4360	4088	3066	2044	1022	899	5589	5239	3929	2620	1310	1152	6126	5743	4307	2871	1436	1263
		W	997	863	647	432	216	254	902	781	586	391	195	230	844	731	548	366	183	215

* Above data is for heating operation without any frost.

SEZ-AD12NL
SUZ-AA12NL
1) COOLING

Rated
Q(Btu/h): 12,000
W: 990

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	10,954	10,954	8,216	5,477	2,739	2,647	10,257	10,257	7,693	5,129	2,564	2,479	9,361	9,361	7,021	4,680	2,340	2,262
		W	1,112	1,112	834	556	278	236	1,085	1,085	814	542	271	230	1,040	1,040	780	520	260	221
110	43.3	Q(Btu/h)	11,452	11,452	8,589	5,726	2,863	2,768	10,656	10,656	7,992	5,328	2,664	2,575	9,759	9,759	7,320	4,880	2,440	2,359
		W	1,094	1,094	820	547	273	232	1,067	1,067	800	533	267	226	1,017	1,017	763	509	254	216
105	40.6	Q(Btu/h)	11,950	11,950	8,963	5,975	2,988	2,888	11,054	11,054	8,290	5,527	2,763	2,671	10,257	10,257	7,693	5,129	2,564	2,479
		W	1,080	1,080	810	540	270	229	1,040	1,040	780	520	260	221	995	995	746	497	249	211
100	37.8	Q(Btu/h)	12,349	12,349	9,261	6,174	3,087	2,984	11,552	11,552	8,664	5,776	2,888	2,792	10,656	10,656	7,992	5,328	2,664	2,575
		W	1,049	1,049	787	524	262	222	1,017	1,017	763	509	254	216	972	972	729	486	243	206
95	35.0	Q(Btu/h)	12,846	12,846	9,635	6,423	3,212	3,105	12,000	12,000	9,000	6,000	3,000	2,900	11,154	11,154	8,365	5,577	2,788	2,695
		W	1,031	1,031	773	515	258	219	990	990	743	495	248	210	949	949	712	475	237	201
90	32.2	Q(Btu/h)	13,245	13,245	9,934	6,622	3,311	3,201	12,448	12,448	9,336	6,224	3,112	3,008	11,552	11,552	8,664	5,776	2,888	2,792
		W	995	995	746	497	249	211	949	949	712	475	237	201	913	913	685	457	228	194
85	29.4	Q(Btu/h)	13,743	13,743	10,307	6,871	3,436	3,321	12,946	12,946	9,710	6,473	3,237	3,129	12,050	12,050	9,037	6,025	3,012	2,912
		W	958	958	719	479	240	203	913	913	685	457	228	194	882	882	661	441	220	187
80	26.7	Q(Btu/h)	14,141	14,141	10,606	7,071	3,535	3,417	13,344	13,344	10,008	6,672	3,336	3,225	12,548	12,548	9,411	6,274	3,137	3,032
		W	922	922	692	461	231	196	872	872	654	436	218	185	845	845	634	423	211	179
75	23.9	Q(Btu/h)	14,639	14,639	10,979	7,320	3,660	3,538	13,743	13,743	10,307	6,871	3,436	3,321	12,996	12,996	9,747	6,498	3,249	3,141
		W	882	882	661	441	220	187	832	832	624	416	208	176	813	813	610	406	203	172
70	21.1	Q(Btu/h)	14,988	14,988	11,241	7,494	3,747	3,622	14,041	14,041	10,531	7,021	3,510	3,393	13,444	13,444	10,083	6,722	3,361	3,249
		W	836	836	627	418	209	177	796	796	597	398	199	169	764	764	573	382	191	162
67	19.4	Q(Btu/h)	15,137	15,137	11,353	7,568	3,784	3,658	14,340	14,340	10,755	7,170	3,585	3,466	13,743	13,743	10,307	6,871	3,436	3,321
		W	796	796	597	398	199	169	764	764	573	382	191	162	723	723	542	362	181	153

* It may not reach the above capacities in low ambient temperatures.

SEZ-AD12NL
SUZ-AA12NL
2) HEATING

Rated
Q(Btu/h): 15,000
W: 1,300

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	14,391	14,391	10,793	7,196	-	4,797	15,000	15,000	11,250	7,500	-	5,000	15,511	15,511	11,633	7,755	-	5,170
		W	1,367	1,367	1,025	684	-	253	1,325	1,325	994	663	-	245	1,288	1,288	966	644	-	238
60	15.6	Q(Btu/h)	14,387	14,387	10,791	7,194	-	4,796	15,000	15,000	11,250	7,500	-	5,000	15,481	15,481	11,611	7,741	-	5,160
		W	1,365	1,365	1,023	682	-	254	1,319	1,319	989	659	-	246	1,285	1,285	964	642	-	240
55	12.8	Q(Btu/h)	14,373	14,373	10,780	7,187	-	4,791	15,000	15,000	11,250	7,500	-	5,000	15,466	15,466	11,599	7,733	-	5,155
		W	1,358	1,358	1,019	679	-	256	1,309	1,309	982	655	-	246	1,275	1,275	956	637	-	240
50	10.0	Q(Btu/h)	14,347	14,347	10,760	7,173	-	4,782	15,000	15,000	11,250	7,500	-	5,000	15,464	15,464	11,598	7,732	-	5,155
		W	1,348	1,348	1,011	674	-	256	1,296	1,296	972	648	-	246	1,258	1,258	944	629	-	239
45	7.2	Q(Btu/h)	14,024	14,024	10,518	7,012	-	4,756	14,705	14,705	11,029	7,352	-	4,987	15,172	15,172	11,379	7,586	-	5,145
		W	1,334	1,334	1,001	667	-	256	1,279	1,279	959	639	-	246	1,236	1,236	927	618	-	237
40	4.4	Q(Btu/h)	13,248	13,248	9,936	6,624	-	4,375	13,946	13,946	10,460	6,973	-	4,606	14,413	14,413	10,810	7,207	-	4,760
		W	1,317	1,317	988	658	-	256	1,258	1,258	944	629	-	245	1,209	1,209	906	604	-	235
35	1.7	Q(Btu/h)	12,381	12,381	9,286	6,191	-	3,991	13,106	13,106	9,829	6,553	-	4,225	13,580	13,580	10,185	6,790	-	4,378
		W	1,296	1,296	972	648	-	255	1,234	1,234	926	617	-	243	1,177	1,177	883	588	-	232
30	-1.1	Q(Btu/h)	11,504	11,504	8,628	5,752	-	3,605	12,265	12,265	9,199	6,132	-	3,843	12,755	12,755	9,566	6,377	-	3,997
		W	1,271	1,271	953	636	-	254	1,207	1,207	905	603	-	241	1,141	1,141	856	570	-	228
25	-3.9	Q(Btu/h)	10,614	10,614	7,960	5,307	-	3,217	11,424	11,424	8,568	5,712	-	3,462	11,935	11,935	8,951	5,967	-	3,617
		W	1,243	1,243	932	621	-	252	1,175	1,175	881	588	-	238	1,102	1,102	826	551	-	223
20	-6.7	Q(Btu/h)	9,710	9,710	7,283	4,855	-	2,827	10,584	10,584	7,938	5,292	-	3,081	11,118	11,118	8,339	5,559	-	3,237
		W	1,211	1,211	908	606	-	250	1,140	1,140	855	570	-	235	1,060	1,060	795	530	-	219
15	-9.4	Q(Btu/h)	8,793	8,793	6,594	4,396	-	2,437	9,743	9,743	7,307	4,872	-	2,700	10,303	10,303	7,727	5,152	-	2,855
		W	1,176	1,176	882	588	-	247	1,102	1,102	827	551	-	231	1,017	1,017	763	509	-	214
10	-12.2	Q(Btu/h)	7,858	7,858	5,893	3,929	-	2,047	8,903	8,903	6,677	4,451	-	2,319	9,487	9,487	7,115	4,743	-	2,471
		W	1,138	1,138	854	569	-	244	1,060	1,060	795	530	-	227	974	974	730	487	-	209
5	-15.0	Q(Btu/h)	6,902	6,902	5,177	3,451	1,726	1,659	8,062	8,062	6,047	4,031	2,016	1,938	8,668	8,668	6,501	4,334	2,167	2,084
		W	1,097	1,097	823	549	274	241	1,014	1,014	761	507	254	222	931	931	698	465	233	204
0	-17.8	Q(Btu/h)	5,920	5,920	4,440	2,960	1,480	1,277	7,222	7,222	5,416	3,611	1,805	1,557	7,844	7,844	5,883	3,922	1,961	1,691
		W	1,055	1,055	791	527	264	237	965	965	724	483	241	217	891	891	668	445	223	200
-4	-20.0	Q(Btu/h)	5,109	5,109	3,832	2,555	1,277	977	6,549	6,549	4,912	3,275	1,637	1,252	7,179	7,179	5,384	3,589	1,795	1,373
		W	1,020	1,020	765	510	255	235	923	923	692	462	231	212	864	864	648	432	216	199

* Above data is for heating operation without any frost.

SEZ-AD15NL
SUZ-AA15NL
1) COOLING

Rated
Q(Btu/h): 15,000
W: 1,130

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	13,693	13,693	10,270	6,846	3,423	3,378	12,822	12,822	9,616	6,411	3,205	3,163	11,701	11,701	8,776	5,851	2,925	2,886
		W	1,269	1,269	952	635	317	258	1,238	1,238	929	619	310	252	1,187	1,187	890	593	297	242
110	43.3	Q(Btu/h)	14,315	14,315	10,737	7,158	3,579	3,531	13,320	13,320	9,990	6,660	3,330	3,285	12,199	12,199	9,149	6,100	3,050	3,009
		W	1,249	1,249	937	624	312	254	1,218	1,218	913	609	304	248	1,161	1,161	871	580	290	236
105	40.6	Q(Btu/h)	14,938	14,938	11,203	7,469	3,734	3,685	13,817	13,817	10,363	6,909	3,454	3,408	12,822	12,822	9,616	6,411	3,205	3,163
		W	1,233	1,233	925	617	308	251	1,187	1,187	890	593	297	242	1,135	1,135	851	568	284	231
100	37.8	Q(Btu/h)	15,436	15,436	11,577	7,718	3,859	3,807	14,440	14,440	10,830	7,220	3,610	3,562	13,320	13,320	9,990	6,660	3,330	3,285
		W	1,197	1,197	898	599	299	244	1,161	1,161	871	580	290	236	1,109	1,109	832	555	277	226
95	35.0	Q(Btu/h)	16,058	16,058	12,044	8,029	4,015	3,961	15,000	15,000	11,250	7,500	3,750	3,700	13,942	13,942	10,456	6,971	3,485	3,439
		W	1,176	1,176	882	588	294	239	1,130	1,130	848	565	283	230	1,084	1,084	813	542	271	221
90	32.2	Q(Btu/h)	16,556	16,556	12,417	8,278	4,139	4,084	15,560	15,560	11,670	7,780	3,890	3,838	14,440	14,440	10,830	7,220	3,610	3,562
		W	1,135	1,135	851	568	284	231	1,084	1,084	813	542	271	221	1,042	1,042	782	521	261	212
85	29.4	Q(Btu/h)	17,178	17,178	12,884	8,589	4,295	4,237	16,183	16,183	12,137	8,091	4,046	3,992	15,062	15,062	11,297	7,531	3,766	3,715
		W	1,094	1,094	820	547	273	223	1,042	1,042	782	521	261	212	1,006	1,006	755	503	252	205
80	26.7	Q(Btu/h)	17,676	17,676	13,257	8,838	4,419	4,360	16,680	16,680	12,510	8,340	4,170	4,115	15,685	15,685	11,763	7,842	3,921	3,869
		W	1,053	1,053	789	526	263	214	996	996	747	498	249	203	965	965	724	482	241	196
75	23.9	Q(Btu/h)	18,299	18,299	13,724	9,149	4,575	4,514	17,178	17,178	12,884	8,589	4,295	4,237	16,245	16,245	12,184	8,122	4,061	4,007
		W	1,006	1,006	755	503	252	205	949	949	712	475	237	193	928	928	696	464	232	189
70	21.1	Q(Btu/h)	18,734	18,734	14,051	9,367	4,684	4,621	17,552	17,552	13,164	8,776	4,388	4,329	16,805	16,805	12,604	8,402	4,201	4,145
		W	955	955	716	477	239	194	908	908	681	454	227	185	872	872	654	436	218	177
67	19.4	Q(Btu/h)	18,921	18,921	14,191	9,461	4,730	4,667	17,925	17,925	13,444	8,963	4,481	4,422	17,178	17,178	12,884	8,589	4,295	4,237
		W	908	908	681	454	227	185	872	872	654	436	218	177	826	826	619	413	206	168

* It may not reach the above capacities in low ambient temperatures.

SEZ-AD15NL
SUZ-AA15NL
2) HEATING

Rated
Q(Btu/h): 18,000
W: 1,400

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	19,764	17,269	12,952	8,635	-	5,982	20,600	18,000	13,500	9,000	-	6,235	20,729	18,113	13,585	9,057	-	6,274
		W	1,990	1,610	1,208	805	-	374	1,928	1,561	1,170	780	-	362	1,805	1,461	1,096	730	-	339
60	15.6	Q(Btu/h)	19,759	17,265	12,949	8,632	-	5,654	20,600	18,000	13,500	9,000	-	5,895	21,105	18,441	13,831	9,221	-	6,039
		W	1,941	1,571	1,178	785	-	373	1,876	1,518	1,139	759	-	361	1,765	1,428	1,071	714	-	339
55	12.8	Q(Btu/h)	19,739	17,248	12,936	8,624	-	5,322	20,600	18,000	13,500	9,000	-	5,554	21,546	18,826	14,120	9,413	-	5,809
		W	1,891	1,530	1,148	765	-	372	1,822	1,475	1,106	737	-	358	1,731	1,401	1,051	701	-	340
50	10.0	Q(Btu/h)	19,703	17,216	12,912	8,608	-	4,987	20,600	18,000	13,500	9,000	-	5,214	21,967	19,194	14,396	9,597	-	5,560
		W	1,838	1,488	1,116	744	-	369	1,767	1,430	1,072	715	-	354	1,704	1,379	1,034	690	-	342
45	7.2	Q(Btu/h)	19,242	16,813	12,610	8,407	-	4,648	20,175	17,629	13,222	8,814	-	4,874	21,998	19,222	14,416	9,611	-	5,314
		W	1,784	1,444	1,083	722	-	364	1,710	1,384	1,038	692	-	349	1,676	1,356	1,017	678	-	342
40	4.4	Q(Btu/h)	18,156	15,864	11,898	7,932	-	4,307	19,113	16,701	12,525	8,350	-	4,534	21,774	19,026	14,270	9,513	-	5,165
		W	1,728	1,398	1,049	699	-	359	1,651	1,336	1,002	668	-	343	1,663	1,346	1,009	673	-	345
35	1.7	Q(Btu/h)	17,053	14,901	11,176	7,451	-	3,962	18,051	15,773	11,829	7,886	-	4,193	20,990	18,341	13,756	9,170	-	4,876
		W	1,670	1,351	1,014	676	-	352	1,591	1,287	965	644	-	335	1,641	1,328	996	664	-	345
30	-1.1	Q(Btu/h)	15,934	13,923	10,442	6,961	-	3,614	16,989	14,844	11,133	7,422	-	3,853	19,714	17,226	12,919	8,613	-	4,471
		W	1,610	1,303	977	652	-	343	1,529	1,237	928	619	-	326	1,584	1,282	962	641	-	338
25	-3.9	Q(Btu/h)	14,796	12,929	9,697	6,464	-	3,264	15,926	13,916	10,437	6,958	-	3,513	19,388	16,941	12,706	8,471	-	4,276
		W	1,549	1,254	940	627	-	333	1,465	1,186	889	593	-	315	1,571	1,271	954	636	-	338
20	-6.7	Q(Btu/h)	13,638	11,916	8,937	5,958	2,979	2,911	14,864	12,988	9,741	6,494	3,247	3,173	18,568	16,224	12,168	8,112	4,056	3,963
		W	1,487	1,203	902	602	301	322	1,400	1,133	850	567	283	303	1,515	1,226	920	613	307	328
15	-9.4	Q(Btu/h)	12,455	10,883	8,162	5,442	2,721	2,556	13,802	12,060	9,045	6,030	3,015	2,832	17,657	15,428	11,571	7,714	3,857	3,623
		W	1,423	1,152	864	576	288	310	1,333	1,079	809	540	270	290	1,469	1,189	892	594	297	320
10	-12.2	Q(Btu/h)	11,244	9,825	7,369	4,913	2,456	2,200	12,740	11,132	8,349	5,566	2,783	2,492	16,764	14,648	10,986	7,324	3,662	3,279
		W	1,358	1,099	824	550	275	296	1,265	1,024	768	512	256	276	1,406	1,138	853	569	284	307
5	-15.0	Q(Btu/h)	9,998	8,736	6,552	4,368	2,184	1,842	11,678	10,204	7,653	5,102	2,551	2,152	15,521	13,562	10,171	6,781	3,390	2,860
		W	1,293	1,046	785	523	262	282	1,195	967	725	484	242	260	1,333	1,079	809	540	270	290
0	-17.8	Q(Btu/h)	8,703	7,605	5,703	3,802	1,901	1,485	10,616	9,276	6,957	4,638	2,319	1,812	13,206	11,539	8,654	5,770	2,885	2,254
		W	1,228	994	745	497	248	266	1,124	909	682	455	227	243	1,206	976	732	488	244	261
-4	-20.0	Q(Btu/h)	7,619	6,657	4,993	3,329	1,664	1,201	9,766	8,533	6,400	4,267	2,133	1,539	14,027	12,256	9,192	6,128	3,064	2,211
		W	1,177	953	714	476	238	253	1,065	862	647	431	216	229	1,324	1,072	804	536	268	284

* Above data is for heating operation without any frost.

PEAD-AA09NL
SUZ-AA09NL
1) COOLING

Rated
Q(Btu/h): 9,000
W: 680

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	8,216	8,216	6,162	4,108	2,054	1,734	7,693	7,693	5,770	3,846	1,923	1,624	7,021	7,021	5,266	3,510	1,755	1,482
		W	764	764	573	382	191	168	745	745	559	373	186	164	714	714	536	357	179	158
110	43.3	Q(Btu/h)	8,589	8,589	6,442	4,295	2,147	1,813	7,992	7,992	5,994	3,996	1,998	1,687	7,320	7,320	5,490	3,660	1,830	1,545
		W	751	751	564	376	188	166	733	733	550	366	183	162	699	699	524	349	175	154
105	40.6	Q(Btu/h)	8,963	8,963	6,722	4,481	2,241	1,892	8,290	8,290	6,218	4,145	2,073	1,750	7,693	7,693	5,770	3,846	1,923	1,624
		W	742	742	557	371	186	164	714	714	536	357	179	158	683	683	512	342	171	151
100	37.8	Q(Btu/h)	9,261	9,261	6,946	4,631	2,315	1,955	8,664	8,664	6,498	4,332	2,166	1,829	7,992	7,992	5,994	3,996	1,998	1,687
		W	720	720	540	360	180	159	699	699	524	349	175	154	668	668	501	334	167	147
95	35.0	Q(Btu/h)	9,635	9,635	7,226	4,817	2,409	2,034	9,000	9,000	6,750	4,500	2,250	1,900	8,365	8,365	6,274	4,183	2,091	1,766
		W	708	708	531	354	177	156	680	680	510	340	170	150	652	652	489	326	163	144
90	32.2	Q(Btu/h)	9,934	9,934	7,450	4,967	2,483	2,097	9,336	9,336	7,002	4,668	2,334	1,971	8,664	8,664	6,498	4,332	2,166	1,829
		W	683	683	512	342	171	151	652	652	489	326	163	144	627	627	470	314	157	138
85	29.4	Q(Btu/h)	10,307	10,307	7,730	5,154	2,577	2,176	9,710	9,710	7,282	4,855	2,427	2,050	9,037	9,037	6,778	4,519	2,259	1,908
		W	658	658	494	329	165	145	627	627	470	314	157	138	605	605	454	303	151	134
80	26.7	Q(Btu/h)	10,606	10,606	7,954	5,303	2,651	2,239	10,008	10,008	7,506	5,004	2,502	2,113	9,411	9,411	7,058	4,705	2,353	1,987
		W	633	633	475	317	158	140	599	599	449	300	150	132	581	581	435	290	145	128
75	23.9	Q(Btu/h)	10,979	10,979	8,234	5,490	2,745	2,318	10,307	10,307	7,730	5,154	2,577	2,176	9,747	9,747	7,310	4,873	2,437	2,058
		W	605	605	454	303	151	134	571	571	428	286	143	126	558	558	419	279	140	123
70	21.1	Q(Btu/h)	11,241	11,241	8,430	5,620	2,810	2,373	10,531	10,531	7,898	5,266	2,633	2,223	10,083	10,083	7,562	5,041	2,521	2,129
		W	574	574	431	287	144	127	546	546	410	273	137	121	525	525	394	262	131	116
67	19.4	Q(Btu/h)	11,353	11,353	8,515	5,676	2,838	2,397	10,755	10,755	8,066	5,378	2,689	2,271	10,307	10,307	7,730	5,154	2,577	2,176
		W	546	546	410	273	137	121	525	525	394	262	131	116	497	497	373	248	124	110

* It may not reach the above capacities in low ambient temperatures.

PEAD-AA09NL
SUZ-AA09NL
2) HEATING

Rated
Q(Btu/h): 12,000
W: 930

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	12,472	11,513	8,635	5,756	-	4,701	13,000	12,000	9,000	6,000	-	4,900	13,443	12,408	9,306	6,204	-	5,067
		W	1,115	978	734	489	-	253	1,080	948	711	474	-	245	1,050	921	691	461	-	238
60	15.6	Q(Btu/h)	12,469	11,510	8,632	5,755	-	4,700	13,000	12,000	9,000	6,000	-	4,900	13,417	12,385	9,289	6,193	-	5,057
		W	1,113	976	732	488	-	254	1,075	943	708	472	-	246	1,048	919	689	460	-	240
55	12.8	Q(Btu/h)	12,457	11,498	8,624	5,749	-	4,695	13,000	12,000	9,000	6,000	-	4,900	13,404	12,373	9,280	6,186	-	5,052
		W	1,108	972	729	486	-	256	1,067	937	702	468	-	246	1,039	912	684	456	-	240
50	10.0	Q(Btu/h)	12,434	11,477	8,608	5,739	-	4,687	13,000	12,000	9,000	6,000	-	4,900	13,402	12,371	9,278	6,186	-	5,052
		W	1,099	965	723	482	-	256	1,057	927	695	463	-	246	1,026	900	675	450	-	239
45	7.2	Q(Btu/h)	12,155	11,220	8,415	5,610	-	4,661	12,744	11,764	8,823	5,882	-	4,887	13,149	12,137	9,103	6,069	-	5,042
		W	1,088	955	716	477	-	256	1,043	915	686	457	-	246	1,008	884	663	442	-	237
40	4.4	Q(Btu/h)	11,481	10,598	7,949	5,299	-	4,287	12,087	11,157	8,368	5,578	-	4,513	12,492	11,531	8,648	5,765	-	4,665
		W	1,074	942	707	471	-	256	1,026	900	675	450	-	245	985	865	648	432	-	235
35	1.7	Q(Btu/h)	10,731	9,905	7,429	4,953	-	3,911	11,358	10,484	7,863	5,242	-	4,140	11,770	10,864	8,148	5,432	-	4,290
		W	1,057	927	695	464	-	255	1,006	883	662	441	-	243	959	842	631	421	-	232
30	-1.1	Q(Btu/h)	9,970	9,203	6,902	4,601	-	3,533	10,630	9,812	7,359	4,906	-	3,767	11,054	10,204	7,653	5,102	-	3,917
		W	1,036	909	682	455	-	254	984	863	647	432	-	241	930	816	612	408	-	228
25	-3.9	Q(Btu/h)	9,198	8,491	6,368	4,245	-	3,152	9,901	9,140	6,855	4,570	-	3,393	10,343	9,548	7,161	4,774	-	3,545
		W	1,013	889	667	445	-	252	958	841	631	420	-	238	899	788	591	394	-	223
20	-6.7	Q(Btu/h)	8,416	7,768	5,826	3,884	-	2,771	9,173	8,467	6,350	4,234	-	3,020	9,636	8,895	6,671	4,447	-	3,172
		W	987	866	650	433	-	250	930	816	612	408	-	235	865	759	569	379	-	219
15	-9.4	Q(Btu/h)	7,620	7,034	5,276	3,517	-	2,388	8,444	7,795	5,846	3,897	-	2,646	8,929	8,242	6,182	4,121	-	2,798
		W	959	841	631	421	-	247	899	788	591	394	-	231	829	728	546	364	-	214
10	-12.2	Q(Btu/h)	6,810	6,286	4,715	3,143	-	2,006	7,716	7,122	5,342	3,561	-	2,273	8,222	7,590	5,692	3,795	-	2,422
		W	928	814	611	407	-	244	864	758	569	379	-	227	794	696	522	348	-	209
5	-15.0	Q(Btu/h)	5,982	5,522	4,141	2,761	-	1,626	6,987	6,450	4,837	3,225	-	1,899	7,512	6,934	5,201	3,467	-	2,042
		W	895	785	589	393	-	241	827	726	544	363	-	222	759	666	499	333	-	204
0	-17.8	Q(Btu/h)	5,131	4,736	3,552	2,368	-	1,251	6,259	5,777	4,333	2,889	-	1,526	6,798	6,275	4,706	3,137	-	1,657
		W	860	755	566	377	-	237	787	690	518	345	-	217	726	637	478	319	-	200
-4	-20.0	Q(Btu/h)	4,428	4,088	3,066	2,044	1,022	957	5,676	5,239	3,929	2,620	1,310	1,227	6,222	5,743	4,307	2,871	1,436	1,345
		W	832	730	547	365	182	235	753	660	495	330	165	212	704	618	464	309	155	199

* Above data is for heating operation without any frost.

PEAD-AA12NL
SUZ-AA12NL
1) COOLING

Rated
Q(Btu/h): 12,000
W: 960

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	10,954	10,954	8,216	5,477	-	2,830	10,257	10,257	7,693	5,129	-	2,650	9,361	9,361	7,021	4,680	-	2,418
		W	1,078	1,078	809	539	-	236	1,052	1,052	789	526	-	230	1,008	1,008	756	504	-	221
110	43.3	Q(Btu/h)	11,452	11,452	8,589	5,726	-	2,959	10,656	10,656	7,992	5,328	-	2,753	9,759	9,759	7,320	4,880	-	2,521
		W	1,061	1,061	796	530	-	232	1,035	1,035	776	517	-	226	986	986	740	493	-	216
105	40.6	Q(Btu/h)	11,950	11,950	8,963	5,975	-	3,087	11,054	11,054	8,290	5,527	-	2,856	10,257	10,257	7,693	5,129	-	2,650
		W	1,048	1,048	786	524	-	229	1,008	1,008	756	504	-	221	964	964	723	482	-	211
100	37.8	Q(Btu/h)	12,349	12,349	9,261	6,174	-	3,190	11,552	11,552	8,664	5,776	-	2,984	10,656	10,656	7,992	5,328	-	2,753
		W	1,017	1,017	763	508	-	222	986	986	740	493	-	216	942	942	707	471	-	206
95	35.0	Q(Btu/h)	12,846	12,846	9,635	6,423	-	3,319	12,000	12,000	9,000	6,000	-	3,100	11,154	11,154	8,365	5,577	-	2,881
		W	999	999	750	500	-	219	960	960	720	480	-	210	921	921	690	460	-	201
90	32.2	Q(Btu/h)	13,245	13,245	9,934	6,622	-	3,422	12,448	12,448	9,336	6,224	-	3,216	11,552	11,552	8,664	5,776	-	2,984
		W	964	964	723	482	-	211	921	921	690	460	-	201	885	885	664	443	-	194
85	29.4	Q(Btu/h)	13,743	13,743	10,307	6,871	-	3,550	12,946	12,946	9,710	6,473	-	3,344	12,050	12,050	9,037	6,025	-	3,113
		W	929	929	697	465	-	203	885	885	664	443	-	194	855	855	641	427	-	187
80	26.7	Q(Btu/h)	14,141	14,141	10,606	7,071	-	3,653	13,344	13,344	10,008	6,672	-	3,447	12,548	12,548	9,411	6,274	-	3,241
		W	894	894	671	447	-	196	846	846	635	423	-	185	820	820	615	410	-	179
75	23.9	Q(Btu/h)	14,639	14,639	10,979	7,320	-	3,782	13,743	13,743	10,307	6,871	-	3,550	12,996	12,996	9,747	6,498	-	3,357
		W	855	855	641	427	-	187	807	807	605	403	-	176	788	788	591	394	-	172
70	21.1	Q(Btu/h)	14,988	14,988	11,241	7,494	-	3,872	14,041	14,041	10,531	7,021	-	3,627	13,444	13,444	10,083	6,722	-	3,473
		W	811	811	608	405	-	177	772	772	579	386	-	169	741	741	556	370	-	162
67	19.4	Q(Btu/h)	15,137	15,137	11,353	7,568	-	3,910	14,340	14,340	10,755	7,170	-	3,705	13,743	13,743	10,307	6,871	-	3,550
		W	772	772	579	386	-	169	741	741	556	370	-	162	701	701	526	351	-	153

* It may not reach the above capacities in low ambient temperatures.

PEAD-AA12NL
SUZ-AA12NL
2) HEATING

Rated
Q(Btu/h): 15,000
W: 1,280

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	14,391	14,391	10,793	7,196	-	4,893	15,000	15,000	11,250	7,500	-	5,100	15,511	15,511	11,633	7,755	-	5,274
		W	1,346	1,346	1,010	673	-	253	1,305	1,305	978	652	-	245	1,268	1,268	951	634	-	238
60	15.6	Q(Btu/h)	14,387	14,387	10,791	7,194	-	4,892	15,000	15,000	11,250	7,500	-	5,100	15,481	15,481	11,611	7,741	-	5,264
		W	1,344	1,344	1,008	672	-	254	1,299	1,299	974	649	-	246	1,265	1,265	949	632	-	240
55	12.8	Q(Btu/h)	14,373	14,373	10,780	7,187	-	4,887	15,000	15,000	11,250	7,500	-	5,100	15,466	15,466	11,599	7,733	-	5,258
		W	1,337	1,337	1,003	669	-	256	1,289	1,289	967	644	-	246	1,255	1,255	941	627	-	240
50	10.0	Q(Btu/h)	14,347	14,347	10,760	7,173	-	4,878	15,000	15,000	11,250	7,500	-	5,100	15,464	15,464	11,598	7,732	-	5,258
		W	1,328	1,328	996	664	-	256	1,276	1,276	957	638	-	246	1,239	1,239	929	619	-	239
45	7.2	Q(Btu/h)	14,024	14,024	10,518	7,012	-	4,851	14,705	14,705	11,029	7,352	-	5,086	15,172	15,172	11,379	7,586	-	5,248
		W	1,314	1,314	985	657	-	256	1,259	1,259	944	630	-	246	1,217	1,217	913	608	-	237
40	4.4	Q(Btu/h)	13,248	13,248	9,936	6,624	-	4,462	13,946	13,946	10,460	6,973	-	4,698	14,413	14,413	10,810	7,207	-	4,855
		W	1,297	1,297	973	648	-	256	1,239	1,239	929	619	-	245	1,190	1,190	892	595	-	235
35	1.7	Q(Btu/h)	12,381	12,381	9,286	6,191	-	4,071	13,106	13,106	9,829	6,553	-	4,309	13,580	13,580	10,185	6,790	-	4,465
		W	1,276	1,276	957	638	-	255	1,215	1,215	911	608	-	243	1,159	1,159	869	579	-	232
30	-1.1	Q(Btu/h)	11,504	11,504	8,628	5,752	-	3,677	12,265	12,265	9,199	6,132	-	3,920	12,755	12,755	9,566	6,377	-	4,077
		W	1,252	1,252	939	626	-	254	1,188	1,188	891	594	-	241	1,123	1,123	843	562	-	228
25	-3.9	Q(Btu/h)	10,614	10,614	7,960	5,307	-	3,281	11,424	11,424	8,568	5,712	-	3,532	11,935	11,935	8,951	5,967	-	3,689
		W	1,224	1,224	918	612	-	252	1,157	1,157	868	579	-	238	1,085	1,085	814	543	-	223
20	-6.7	Q(Btu/h)	9,710	9,710	7,283	4,855	-	2,884	10,584	10,584	7,938	5,292	-	3,143	11,118	11,118	8,339	5,559	-	3,302
		W	1,192	1,192	894	596	-	250	1,123	1,123	842	561	-	235	1,044	1,044	783	522	-	219
15	-9.4	Q(Btu/h)	8,793	8,793	6,594	4,396	-	2,486	9,743	9,743	7,307	4,872	-	2,754	10,303	10,303	7,727	5,152	-	2,913
		W	1,158	1,158	868	579	-	247	1,085	1,085	814	543	-	231	1,002	1,002	751	501	-	214
10	-12.2	Q(Btu/h)	7,858	7,858	5,893	3,929	-	2,088	8,903	8,903	6,677	4,451	-	2,366	9,487	9,487	7,115	4,743	-	2,521
		W	1,121	1,121	840	560	-	244	1,044	1,044	783	522	-	227	959	959	719	479	-	209
5	-15.0	Q(Btu/h)	6,902	6,902	5,177	3,451	1,726	1,692	8,062	8,062	6,047	4,031	2,016	1,977	8,668	8,668	6,501	4,334	2,167	2,125
		W	1,081	1,081	810	540	270	241	999	999	749	499	250	222	916	916	687	458	229	204
0	-17.8	Q(Btu/h)	5,920	5,920	4,440	2,960	1,480	1,302	7,222	7,222	5,416	3,611	1,805	1,588	7,844	7,844	5,883	3,922	1,961	1,725
		W	1,039	1,039	779	519	260	237	950	950	713	475	238	217	877	877	658	439	219	200
-4	-20.0	Q(Btu/h)	5,109	5,109	3,832	2,555	1,277	996	6,549	6,549	4,912	3,275	1,637	1,277	7,179	7,179	5,384	3,589	1,795	1,400
		W	1,004	1,004	753	502	251	235	909	909	682	455	227	212	851	851	638	425	213	199

* Above data is for heating operation without any frost.

PEAD-AA15NL
SUZ-AA15NL
1) COOLING

Rated
Q(Btu/h): 15,000
W: 1,220

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	13,693	13,693	10,270	6,846	3,423	3,286	12,822	12,822	9,616	6,411	3,205	3,077	11,701	11,701	8,776	5,851	2,925	2,808
		W	1,370	1,370	1,028	685	343	247	1,337	1,337	1,003	668	334	241	1,281	1,281	961	641	320	231
110	43.3	Q(Btu/h)	14,315	14,315	10,737	7,158	3,579	3,436	13,320	13,320	9,990	6,660	3,330	3,197	12,199	12,199	9,149	6,100	3,050	2,928
		W	1,348	1,348	1,011	674	337	243	1,315	1,315	986	657	329	237	1,253	1,253	940	627	313	226
105	40.6	Q(Btu/h)	14,938	14,938	11,203	7,469	3,734	3,585	13,817	13,817	10,363	6,909	3,454	3,316	12,822	12,822	9,616	6,411	3,205	3,077
		W	1,331	1,331	999	666	333	240	1,281	1,281	961	641	320	231	1,226	1,226	919	613	306	221
100	37.8	Q(Btu/h)	15,436	15,436	11,577	7,718	3,859	3,705	14,440	14,440	10,830	7,220	3,610	3,466	13,320	13,320	9,990	6,660	3,330	3,197
		W	1,292	1,292	969	646	323	233	1,253	1,253	940	627	313	226	1,198	1,198	898	599	299	216
95	35.0	Q(Btu/h)	16,058	16,058	12,044	8,029	4,015	3,854	15,000	15,000	11,250	7,500	3,750	3,600	13,942	13,942	10,456	6,971	3,485	3,346
		W	1,270	1,270	953	635	318	229	1,220	1,220	915	610	305	220	1,170	1,170	877	585	292	211
90	32.2	Q(Btu/h)	16,556	16,556	12,417	8,278	4,139	3,973	15,560	15,560	11,670	7,780	3,890	3,734	14,440	14,440	10,830	7,220	3,610	3,466
		W	1,226	1,226	919	613	306	221	1,170	1,170	877	585	292	211	1,125	1,125	844	563	281	203
85	29.4	Q(Btu/h)	17,178	17,178	12,884	8,589	4,295	4,123	16,183	16,183	12,137	8,091	4,046	3,884	15,062	15,062	11,297	7,531	3,766	3,615
		W	1,181	1,181	886	591	295	213	1,125	1,125	844	563	281	203	1,086	1,086	815	543	272	196
80	26.7	Q(Btu/h)	17,676	17,676	13,257	8,838	4,419	4,242	16,680	16,680	12,510	8,340	4,170	4,003	15,685	15,685	11,763	7,842	3,921	3,764
		W	1,136	1,136	852	568	284	205	1,075	1,075	806	538	269	194	1,042	1,042	781	521	260	188
75	23.9	Q(Btu/h)	18,299	18,299	13,724	9,149	4,575	4,392	17,178	17,178	12,884	8,589	4,295	4,123	16,245	16,245	12,184	8,122	4,061	3,899
		W	1,086	1,086	815	543	272	196	1,025	1,025	769	513	256	185	1,002	1,002	751	501	250	181
70	21.1	Q(Btu/h)	18,734	18,734	14,051	9,367	4,684	4,496	17,552	17,552	13,164	8,776	4,388	4,212	16,805	16,805	12,604	8,402	4,201	4,033
		W	1,031	1,031	773	515	258	186	980	980	735	490	245	177	941	941	706	471	235	170
67	19.4	Q(Btu/h)	18,921	18,921	14,191	9,461	4,730	4,541	17,925	17,925	13,444	8,963	4,481	4,302	17,178	17,178	12,884	8,589	4,295	4,123
		W	980	980	735	490	245	177	941	941	706	471	235	170	891	891	668	446	223	161

* It may not reach the above capacities in low ambient temperatures.

PEAD-AA15NL
SUZ-AA15NL
2) HEATING

Rated
Q(Btu/h): 18,000
W: 1,280

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	20,052	17,269	12,952	8,635	-	5,371	20,900	18,000	13,500	9,000	-	5,599	21,031	18,113	13,585	9,057	-	5,634
		W	2,070	1,472	1,104	736	-	232	2,006	1,427	1,070	713	-	225	1,878	1,336	1,002	668	-	211
60	15.6	Q(Btu/h)	20,046	17,265	12,949	8,632	-	5,077	20,900	18,000	13,500	9,000	-	5,293	21,413	18,441	13,831	9,221	-	5,423
		W	2,020	1,436	1,077	718	-	232	1,952	1,388	1,041	694	-	224	1,836	1,306	979	653	-	211
55	12.8	Q(Btu/h)	20,027	17,248	12,936	8,624	-	4,779	20,900	18,000	13,500	9,000	-	4,988	21,859	18,826	14,120	9,413	-	5,216
		W	1,967	1,399	1,049	699	-	231	1,896	1,348	1,011	674	-	223	1,801	1,281	961	641	-	212
50	10.0	Q(Btu/h)	19,990	17,216	12,912	8,608	-	4,478	20,900	18,000	13,500	9,000	-	4,682	22,287	19,194	14,396	9,597	-	4,993
		W	1,913	1,360	1,020	680	-	229	1,838	1,307	980	654	-	220	1,773	1,261	946	631	-	213
45	7.2	Q(Btu/h)	19,522	16,813	12,610	8,407	4,203	4,174	20,469	17,629	13,222	8,814	4,407	4,377	22,318	19,222	14,416	9,611	4,805	4,772
		W	1,856	1,320	990	660	330	227	1,779	1,265	949	632	316	217	1,744	1,240	930	620	310	213
40	4.4	Q(Btu/h)	18,420	15,864	11,898	7,932	3,966	3,867	19,391	16,701	12,525	8,350	4,175	4,071	22,091	19,026	14,270	9,513	4,757	4,638
		W	1,798	1,278	959	639	320	223	1,718	1,221	916	611	305	213	1,730	1,230	923	615	308	215
35	1.7	Q(Btu/h)	17,302	14,901	11,176	7,451	3,725	3,557	18,314	15,773	11,829	7,886	3,943	3,765	21,296	18,341	13,756	9,170	4,585	4,379
		W	1,738	1,236	927	618	309	219	1,655	1,177	883	588	294	208	1,707	1,214	911	607	304	215
30	-1.1	Q(Btu/h)	16,166	13,923	10,442	6,961	3,481	3,245	17,236	14,844	11,133	7,422	3,711	3,460	20,001	17,226	12,919	8,613	4,306	4,015
		W	1,676	1,192	894	596	298	213	1,591	1,131	848	566	283	202	1,649	1,172	879	586	293	210
25	-3.9	Q(Btu/h)	15,012	12,929	9,697	6,464	3,232	2,931	16,158	13,916	10,437	6,958	3,479	3,154	19,671	16,941	12,706	8,471	4,235	3,840
		W	1,612	1,146	860	573	287	207	1,524	1,084	813	542	271	196	1,635	1,163	872	581	291	210
20	-6.7	Q(Btu/h)	13,836	11,916	8,937	5,958	2,979	2,614	15,081	12,988	9,741	6,494	3,247	2,849	18,838	16,224	12,168	8,112	4,056	3,559
		W	1,547	1,100	825	550	275	200	1,457	1,036	777	518	259	189	1,576	1,121	841	561	280	204
15	-9.4	Q(Btu/h)	12,637	10,883	8,162	5,442	2,721	2,295	14,003	12,060	9,045	6,030	3,015	2,543	17,914	15,428	11,571	7,714	3,857	3,254
		W	1,481	1,053	790	526	263	193	1,387	987	740	493	247	181	1,528	1,087	815	543	272	199
10	-12.2	Q(Btu/h)	11,408	9,825	7,369	4,913	2,456	1,975	12,925	11,132	8,349	5,566	2,783	2,238	17,008	14,648	10,986	7,324	3,662	2,945
		W	1,413	1,005	754	502	251	184	1,316	936	702	468	234	172	1,463	1,040	780	520	260	191
5	-15.0	Q(Btu/h)	10,143	8,736	6,552	4,368	2,184	1,654	11,848	10,204	7,653	5,102	2,551	1,932	15,747	13,562	10,171	6,781	3,390	2,568
		W	1,345	957	717	478	239	175	1,244	884	663	442	221	162	1,387	987	740	493	247	181
0	-17.8	Q(Btu/h)	8,830	7,605	5,703	3,802	1,901	1,334	10,770	9,276	6,957	4,638	2,319	1,627	13,398	11,539	8,654	5,770	2,885	2,024
		W	1,278	909	681	454	227	165	1,169	831	624	416	208	151	1,254	892	669	446	223	162
-4	-20.0	Q(Btu/h)	7,730	6,657	4,993	3,329	1,664	1,079	9,908	8,533	6,400	4,267	2,133	1,382	14,231	12,256	9,192	6,128	3,064	1,986
		W	1,225	871	653	435	218	157	1,108	788	591	394	197	142	1,378	980	735	490	245	177

* Above data is for heating operation without any frost.

SVZ-AP12NA
SUZ-AA12NL
1) COOLING

Rated
Q(Btu/h): 11,400
W: 940

Indoor W.B.			71°F / 21.7°C						67°F / 19.4°C						63°F / 17.2°C					
Outdoor D.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
115	46.1	Q(Btu/h)	10,407	10,407	7,805	5,203	2,602	2,556	9,744	9,744	7,308	4,872	2,436	2,393	8,893	8,893	6,670	4,446	2,223	2,184
		W	1,056	1,056	792	528	264	236	1,030	1,030	773	515	258	230	987	987	740	494	247	221
110	43.3	Q(Btu/h)	10,880	10,880	8,160	5,440	2,720	2,672	10,123	10,123	7,592	5,061	2,531	2,486	9,271	9,271	6,954	4,636	2,318	2,277
		W	1,039	1,039	779	519	260	232	1,013	1,013	760	506	253	226	966	966	724	483	241	216
105	40.6	Q(Btu/h)	11,353	11,353	8,515	5,676	2,838	2,788	10,501	10,501	7,876	5,251	2,625	2,579	9,744	9,744	7,308	4,872	2,436	2,393
		W	1,026	1,026	769	513	256	229	987	987	740	494	247	221	944	944	708	472	236	211
100	37.8	Q(Btu/h)	11,731	11,731	8,798	5,866	2,933	2,881	10,974	10,974	8,231	5,487	2,744	2,695	10,123	10,123	7,592	5,061	2,531	2,486
		W	996	996	747	498	249	222	966	966	724	483	241	216	923	923	692	461	231	206
95	35.0	Q(Btu/h)	12,204	12,204	9,153	6,102	3,051	2,998	11,400	11,400	8,550	5,700	2,850	2,800	10,596	10,596	7,947	5,298	2,649	2,602
		W	979	979	734	489	245	219	940	940	705	470	235	210	901	901	676	451	225	201
90	32.2	Q(Btu/h)	12,583	12,583	9,437	6,291	3,146	3,090	11,826	11,826	8,869	5,913	2,956	2,905	10,974	10,974	8,231	5,487	2,744	2,695
		W	944	944	708	472	236	211	901	901	676	451	225	201	867	867	650	434	217	194
85	29.4	Q(Btu/h)	13,056	13,056	9,792	6,528	3,264	3,207	12,299	12,299	9,224	6,149	3,075	3,021	11,447	11,447	8,585	5,724	2,862	2,812
		W	910	910	682	455	227	203	867	867	650	434	217	194	837	837	628	418	209	187
80	26.7	Q(Btu/h)	13,434	13,434	10,076	6,717	3,359	3,300	12,677	12,677	9,508	6,339	3,169	3,114	11,920	11,920	8,940	5,960	2,980	2,928
		W	876	876	657	438	219	196	828	828	621	414	207	185	803	803	602	401	201	179
75	23.9	Q(Btu/h)	13,907	13,907	10,430	6,954	3,477	3,416	13,056	13,056	9,792	6,528	3,264	3,207	12,346	12,346	9,260	6,173	3,087	3,032
		W	837	837	628	418	209	187	790	790	592	395	197	176	772	772	579	386	193	172
70	21.1	Q(Btu/h)	14,238	14,238	10,679	7,119	3,560	3,497	13,339	13,339	10,005	6,670	3,335	3,276	12,772	12,772	9,579	6,386	3,193	3,137
		W	794	794	596	397	199	177	755	755	567	378	189	169	725	725	544	363	181	162
67	19.4	Q(Btu/h)	14,380	14,380	10,785	7,190	3,595	3,532	13,623	13,623	10,217	6,812	3,406	3,346	13,056	13,056	9,792	6,528	3,264	3,207
		W	755	755	567	378	189	169	725	725	544	363	181	162	687	687	515	343	172	153

* It may not reach the above capacities in low ambient temperatures.

SVZ-AP12NL
SUZ-AA12NL
2) HEATING

Rated
Q(Btu/h): 15,000
W: 1,280

Indoor D.B.			77°F / 25.0°C						68°F / 20.0°C						59°F / 15.0°C					
Outdoor W.B.			Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min	Max	Rated	75%	50%	25%	Min
(°F)	(°C)																			
65	18.3	Q(Btu/h)	14,391	14,391	10,793	7,196	-	4,893	15,000	15,000	11,250	7,500	-	5,100	15,511	15,511	11,633	7,755	-	5,274
		W	1,346	1,346	1,010	673	-	253	1,305	1,305	978	652	-	245	1,268	1,268	951	634	-	238
60	15.6	Q(Btu/h)	14,387	14,387	10,791	7,194	-	4,892	15,000	15,000	11,250	7,500	-	5,100	15,481	15,481	11,611	7,741	-	5,264
		W	1,344	1,344	1,008	672	-	254	1,299	1,299	974	649	-	246	1,265	1,265	949	632	-	240
55	12.8	Q(Btu/h)	14,373	14,373	10,780	7,187	-	4,887	15,000	15,000	11,250	7,500	-	5,100	15,466	15,466	11,599	7,733	-	5,258
		W	1,337	1,337	1,003	669	-	256	1,289	1,289	967	644	-	246	1,255	1,255	941	627	-	240
50	10.0	Q(Btu/h)	14,347	14,347	10,760	7,173	-	4,878	15,000	15,000	11,250	7,500	-	5,100	15,464	15,464	11,598	7,732	-	5,258
		W	1,328	1,328	996	664	-	256	1,276	1,276	957	638	-	246	1,239	1,239	929	619	-	239
45	7.2	Q(Btu/h)	14,024	14,024	10,518	7,012	-	4,851	14,705	14,705	11,029	7,352	-	5,086	15,172	15,172	11,379	7,586	-	5,248
		W	1,314	1,314	985	657	-	256	1,259	1,259	944	630	-	246	1,217	1,217	913	608	-	237
40	4.4	Q(Btu/h)	13,248	13,248	9,936	6,624	-	4,462	13,946	13,946	10,460	6,973	-	4,698	14,413	14,413	10,810	7,207	-	4,855
		W	1,297	1,297	973	648	-	256	1,239	1,239	929	619	-	245	1,190	1,190	892	595	-	235
35	1.7	Q(Btu/h)	12,381	12,381	9,286	6,191	-	4,071	13,106	13,106	9,829	6,553	-	4,309	13,580	13,580	10,185	6,790	-	4,465
		W	1,276	1,276	957	638	-	255	1,215	1,215	911	608	-	243	1,159	1,159	869	579	-	232
30	-1.1	Q(Btu/h)	11,504	11,504	8,628	5,752	-	3,677	12,265	12,265	9,199	6,132	-	3,920	12,755	12,755	9,566	6,377	-	4,077
		W	1,252	1,252	939	626	-	254	1,188	1,188	891	594	-	241	1,123	1,123	843	562	-	228
25	-3.9	Q(Btu/h)	10,614	10,614	7,960	5,307	-	3,281	11,424	11,424	8,568	5,712	-	3,532	11,935	11,935	8,951	5,967	-	3,689
		W	1,224	1,224	918	612	-	252	1,157	1,157	868	579	-	238	1,085	1,085	814	543	-	223
20	-6.7	Q(Btu/h)	9,710	9,710	7,283	4,855	-	2,884	10,584	10,584	7,938	5,292	-	3,143	11,118	11,118	8,339	5,559	-	3,302
		W	1,192	1,192	894	596	-	250	1,123	1,123	842	561	-	235	1,044	1,044	783	522	-	219
15	-9.4	Q(Btu/h)	8,793	8,793	6,594	4,396	-	2,486	9,743	9,743	7,307	4,872	-	2,754	10,303	10,303	7,727	5,152	-	2,913
		W	1,158	1,158	868	579	-	247	1,085	1,085	814	543	-	231	1,002	1,002	751	501	-	214
10	-12.2	Q(Btu/h)	7,858	7,858	5,893	3,929	-	2,088	8,903	8,903	6,677	4,451	-	2,366	9,487	9,487	7,115	4,743	-	2,521
		W	1,121	1,121	840	560	-	244	1,044	1,044	783	522	-	227	959	959	719	479	-	209
5	-15.0	Q(Btu/h)	6,902	6,902	5,177	3,451	1,726	1,692	8,062	8,062	6,047	4,031	2,016	1,977	8,668	8,668	6,501	4,334	2,167	2,125
		W	1,081	1,081	810	540	270	241	999	999	749	499	250	222	916	916	687	458	229	204
0	-17.8	Q(Btu/h)	5,920	5,920	4,440	2,960	1,480	1,302	7,222	7,222	5,416	3,611	1,805	1,588	7,844	7,844	5,883	3,922	1,961	1,725
		W	1,039	1,039	779	519	260	237	950	950	713	475	238	217	877	877	658	439	219	200
-4	-20.0	Q(Btu/h)	5,109	5,109	3,832	2,555	1,277	996	6,549	6,549	4,912	3,275	1,637	1,277	7,179	7,179	5,384	3,589	1,795	1,400
		W	1,004	1,004	753	502	251	235	909	909	682	455	227	212	851	851	638	425	213	199

* Above data is for heating operation without any frost.

T8 EARTHQUAKE-PROOF STRENGTH ANALYSIS

Earthquake-proof strength analysis <Anchor bolt>

1.Type: SUZ Inverter Outdoor unit

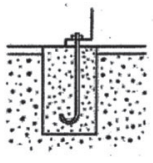
2.Model name: SUZ-AA09NL

3.Specification

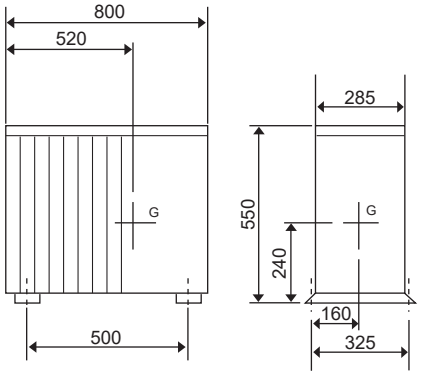
(1) Unit mass	W=	37	kg			
(2) Anchor bolt						
1.The total number of bolts.	N=	4				
2.The size and shape.	"=M	10	type			
3.The axis section area per one bolt.	A=	78	mm^2=	78 $\times 10^{-6}$	m^2	
4.The total number of bolts in one side which be pulled stronger when the unit inverted.	Nt=	2				
(3) The height between the installing surface and the center of gravity of the unit	Hg=	240	mm=	0.240	m	
(4) The bolt-span from the examination angle	L=	325	mm=	0.325	m	
(5) The distance between the center of bolt and the center of gravity of the unit	Lg=	160	mm(Lg≦L/2)=	0.160	m	

4.The examination calculation (by rounding off to the first decimal place of each item)

(1) The horizontal seismic coefficient for designing	Kh=	1.0			
(2) The vertical seismic coefficient for designing	Kv=Kh/2=	0.5			
(3) The horizontal earthquake forces for designing	Fh=Kh·W·9.8=	362.6	N		
(4) The vertical earthquake forces for designing	Fv=Kv·W·9.8=	181.3	N		
(5) The withdrawal strength of the anchor bolt $Rb=\frac{Fh\cdot Hg-(W\cdot 9.8-Fv)\cdot Lg}{L\cdot Nt}$	=	89.3	N		
(6) The shear forces of the anchor bolt	Q=Fh/N=	90.7	N		
(7) The stress arising to the anchor bolt					
1.The tensile stress.	σ=Rb/A=	1.1	MPa＜ft=176MPa		
2.The shearing stress.	τ=Q/A=	1.2	MPa＜fs=101MPa		
3.The stress when affected by both the shearing and the tensile at the same time. However fts equals fts' when fts' less than or equal to ft, and fts equal ft when fts' is greater ft.	fts'=1.4ft-1.6τ=	244.5	MPa		
σ= 1.1 MPa	＜ fts=	101.0	MPa		
(8) The construction way of the anchor bolt					
1.The construction way of the anchor bolt.	=	Boxed J type anchor			
2.The thickness of the concrete.	=	120	mm=	0.120	m
3.The length of buried part of bolt.	=	70	mm=	0.070	m
4.The permissible withdrawal weight.	Ta=	3136	N ＞	Rb= 89	N



Since the results from the examination above, the anchor bolt has enough strength.



Earthquake-proof strength analysis <Anchor bolt>

1.Type: SUZ Inverter Outdoor unit

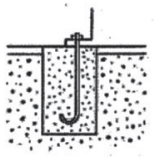
2.Model name: SUZ-AA12NL

3.Specification

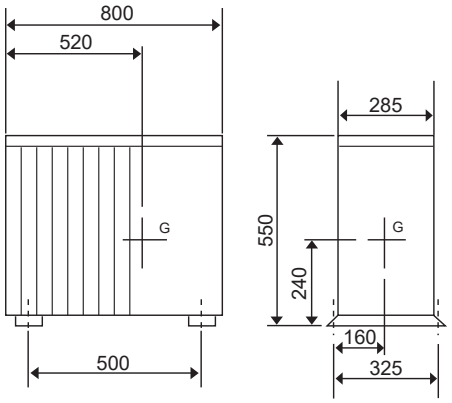
(1) Unit mass	W=	37	kg			
(2) Anchor bolt						
1.The total number of bolts.	N=	4				
2.The size and shape.	"=M	10	type			
3.The axis section area per one bolt.	A=	78	mm^2=	78 $\times 10^{-6}$	m^2	
4.The total number of bolts in one side which be pulled stronger when the unit inverted.	Nt=	2				
(3) The height between the installing surface and the center of gravity of the unit	Hg=	240	mm=	0.240	m	
(4) The bolt-span from the examination angle	L=	325	mm=	0.325	m	
(5) The distance between the center of bolt and the center of gravity of the unit	Lg=	160	mm(Lg≦L/2)=	0.160	m	

4.The examination calculation (by rounding off to the first decimal place of each item)

(1) The horizontal seismic coefficient for designing	Kh=	1.0			
(2) The vertical seismic coefficient for designing	Kv=Kh/2=	0.5			
(3) The horizontal earthquake forces for designing	Fh=Kh·W·9.8=	362.6	N		
(4) The vertical earthquake forces for designing	Fv=Kv·W·9.8=	181.3	N		
(5) The withdrawal strength of the anchor bolt $Rb=\frac{Fh\cdot Hg-(W\cdot 9.8-Fv)\cdot Lg}{L\cdot Nt}$	=	89.3	N		
(6) The shear forces of the anchor bolt	Q=Fh/N=	90.7	N		
(7) The stress arising to the anchor bolt					
1.The tensile stress.	σ=Rb/A=	1.1	MPa＜ft=176MPa		
2.The shearing stress.	τ=Q/A=	1.2	MPa＜fs=101MPa		
3.The stress when affected by both the shearing and the tensile at the same time. However fts equals fts' when fts' less than or equal to ft, and fts equal ft when fts' is greater ft.	fts'=1.4ft-1.6τ=	244.5	MPa		
σ= 1.1 MPa	＜ fts=	101.0	MPa		
(8) The construction way of the anchor bolt					
1.The construction way of the anchor bolt.	=	Boxed J type anchor			
2.The thickness of the concrete.	=	120	mm=	0.120	m
3.The length of buried part of bolt.	=	70	mm=	0.070	m
4.The permissible withdrawal weight.	Ta=	3136	N ＞	Rb= 89	N



Since the results from the examination above, the anchor bolt has enough strength.



Earthquake-proof strength analysis <Anchor bolt>

1.Type: SUZ Inverter Outdoor unit

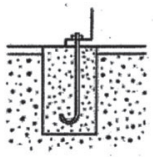
2.Model name: SUZ-AA15NL

3.Specification

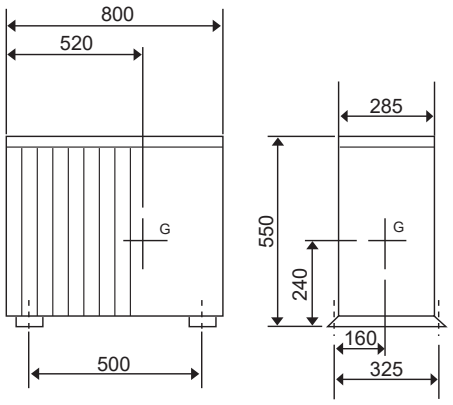
(1) Unit mass	W=	37	kg			
(2) Anchor bolt						
1.The total number of bolts.	N=	4				
2.The size and shape.	"=M	10	type			
3.The axis section area per one bolt.	A=	78	mm^2=	78 $\times 10^{-6}$	m^2	
4.The total number of bolts in one side which be pulled stronger when the unit inverted.	Nt=	2				
(3) The height between the installing surface and the center of gravity of the unit	Hg=	410	mm=	0.410	m	
(4) The bolt-span from the examination angle	L=	325	mm=	0.325	m	
(5) The distance between the center of bolt and the center of gravity of the unit	Lg=	160	mm(Lg≦L/2)=	0.160	m	

4.The examination calculation (by rounding off to the first decimal place of each item)

(1) The horizontal seismic coefficient for designing	Kh=	1.0			
(2) The vertical seismic coefficient for designing	Kv=Kh/2=	0.5			
(3) The horizontal earthquake forces for designing	Fh=Kh·W·9.8=	362.6	N		
(4) The vertical earthquake forces for designing	Fv=Kv·W·9.8=	181.3	N		
(5) The withdrawal strength of the anchor bolt $Rb=\frac{Fh\cdot Hg-(W\cdot 9.8-Fv)\cdot Lg}{L\cdot Nt}$	=	184.1	N		
(6) The shear forces of the anchor bolt	Q=Fh/N=	90.7	N		
(7) The stress arising to the anchor bolt					
1.The tensile stress.	σ=Rb/A=	2.4	MPa＜ft=176MPa		
2.The shearing stress.	τ=Q/A=	1.2	MPa＜fs=101MPa		
3.The stress when affected by both the shearing and the tensile at the same time. However fts equals fts' when fts' less than or equal to ft, and fts equal ft when fts' is greater ft.	fts'=1.4ft-1.6τ=	244.5	MPa		
σ= 2.4 MPa	＜ fts=	101.0	MPa		
(8) The construction way of the anchor bolt					
1.The construction way of the anchor bolt.	=	Boxed J type anchor			
2.The thickness of the concrete.	=	120	mm=	0.120	m
3.The length of buried part of bolt.	=	70	mm=	0.070	m
4.The permissible withdrawal weight.	Ta=	3136	N ＞	Rb= 184	N



Since the results from the examination above, the anchor bolt has enough strength.



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