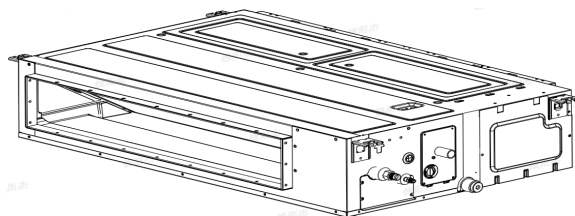
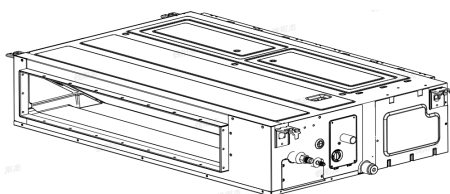
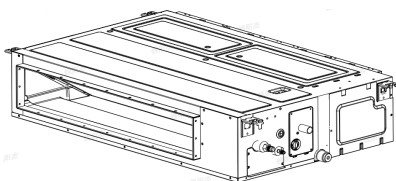


OPERATION MANUAL

DUCT TYPE AIR CONDITIONERS



- To view the full manual, enter the product reference in the search box.
- Please read this operation manual before using the air conditioner.
Keep this operation manual for future reference.
This appliance is filled with R32.



English

Italiano

Danish

Magyar

Español

Français

Deutsch

Português

Polski

Ελληνικά

Hrvatski

Български

Nederlands

Česky

Model List:

HD18MDAHRA





HD24MFAHRA

HD36MFAHRA

Note: All illustrations in this manual are for illustrative purposes only. Your unit may be slightly different. The actual shape will prevail. They are subject to change without notice for future improvement.

Contents

Safety Precautions.....	1
Parts and Functions.....	13
Preparation.....	14
Installation.....	16
Wired Controller Installation Manual	22
Maintenance.....	23
Troubleshooting.....	25
Indoor Unit Trouble Shooting.....	27
Operation.....	28

	Read the precautions in this manual carefully before operating the unit.		This appliance is filled with R32.
	Read the operator's manual		Service indicator;Read technical manual

Keep this manual where the user can easily find it.

WARNING

- Do not use products other than those recommended by the manufacturer to speed up the defrosting process or for cleaning.
- The unit must be stored in a room where there are no permanent sources of ignition (e.g: an open flame, a gas appliance in operation or an electric heater in operation).
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odor.
- If the supply cord is damaged, it must be replaced by a qualified person in order to avoid a hazard.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- The wiring method should be in line with the local wiring standard.
- All cables must have the European Certificate of Authenticity. During installation, when connecting the cables, ensure that the earth wire is connected first. The explosion-proof switch of the air conditioner must be an all-pole switch. The distance between its two contacts should not be less than 3 mm. Such means of disconnection must be incorporated in into the wiring.
- Ensure that installation is carried out by qualified personnel in accordance with local wiring regulations.
- Make sure ground connection is correct and reliable. A leakage explosion-proof breaker must be installed.
- Do not use a refrigerant other than the one indicated on the outdoor unit(R32) when installing, moving or repairing. Using other refrigerants may cause trouble or damage to the unit, and personal injury.
- The installation and service of this product shall be carried out by professional personnel,who have been trained and certified by national training organizations that are accredited to teach the relevant national competency standards that may be set in legislation.
- Mechanical connectors used indoors shall comply with ISO 14903.When mechanical connectors reused indoors,sealing parts shall be renewed. When flared joints are reused indoors,the flare part shall be re-fabricated.
- This appliance is intended to be used by expert or trained users in shops,in light industry and on farms,or for commercial use by lay persons.
- Disconnect the appliance from its power source during service and replacing parts

Minimum Room Area

Type	LFL kg/m ³	hv m	Total Mass Charged/kg Minimum Room Area/m ²						
			1.224	1.836	2.448	3.672	4.896	6.12	7.956
R32	0.306	0.6	/	29	51	116	206	321	543
		1.0	/	10	19	42	74	116	196
		1.8	/	3	6	13	23	36	60
		2.2	/	2	4	9	15	24	40



WARNING

- A brazed, welded, or mechanical connection shall be made before opening the valves to allow refrigerant to flow between the refrigerating system parts. A vacuum valve shall be provided to evacuate the interconnecting pipe and/or any uncharged refrigerating system part.
- The maximum working pressure is 4.3 MPa.
- This maximum working pressure shall be considered when connecting the outdoor unit to indoor unit.
- The refrigerant suitable for the indoor unit is R32. The indoor unit shall only be connected to outdoor unit suitable with same refrigerant.
- The unit is a partial unit air conditioner, complying with partial unit requirements of the International Standard, and must only be connected to other units that have been confirmed as complying to corresponding partial unit requirements of the International Standard.
- The A-weighted sound pressure level is below 70 dB.
- The maximum refrigerant charge amount (kg), and the minimum floor area (m²) of the room in which the indoor unit will be installed, are specified in the table above.
- Pipe-work shall be protected from physical damage and, in the case of flammable refrigerants, shall not be installed in an unventilated space, if the space is smaller than that specified in the table above.
- The installation of pipe-work shall be kept to a minimum.
- Compliance with national gas regulations shall be observed.
- Mechanical connections shall be accessible for maintenance purposes.
- Handling, installation, cleaning, servicing and disposal of refrigerant shall be carried out as per the specifications on the following pages strictly.
- Warning: Keep any required ventilation openings clear of obstruction.
- Notice: Servicing shall be performed only as recommended by this manual instruction.

EUROPEAN REGULATIONS CONFORMITY FOR THE MODELS

CE

All the products are in conformity with the following European provision:

- Low voltage Directive
- Electromagnetic Compatibility

ROHS

The products are fulfilled with the requirements in the directive 2011/65/EU of the European parliament and of council on the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment (EU RoHS Directive)

WEEE

In accordance with the directive 2012/19/EU of the European parliament, herewith we inform the consumer about the disposal requirements of the electrical and electronic products.

DISPOSAL REQUIREMENTS:



Your air conditioning product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste. Do not try to dismantle the system yourself: the dismantling of the air

conditioning system, treatment of the refrigerant, of oil and of other parts must be done by a qualified installer in accordance with relevant local and national legislation. Air conditioners must be treated at a specialized treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information. Battery must be removed from the remote controller and disposed of separately in accordance with relevant local and national legislation.

IMPORTANT INFORMATION REGARDING THE REFRIGERANT USED

Contains fluorinated greenhouse gases

R32	1= <input type="text"/> kg <input type="text"/> t	
	2= <input type="text"/> kg <input type="text"/> t	
	1+2= <input type="text"/> kg <input type="text"/> t	

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol. Do not vent into the atmosphere. Refrigerant type: R32 GWP:675
GWP=global warming potential

Please fill in with indelible ink,

- 1 the factory refrigerant charge of the product
- 2 the additional refrigerant amount charged in the field and

1+2 the total refrigerant charge

on the refrigerant charge label supplied with the product.

The filled out label must be adhered in the proximity of the product charging port (e.g. onto the inside of the stop valve cover).

A contains fluorinated greenhouse gases covered by the Kyoto Protocol

B factory refrigerant charge of the product: see unit name plate

C additional refrigerant amount charged in the field

D total refrigerant charge

E outdoor unit

F refrigerant cylinder and manifold for charging

Cautions

Disposal of the old air conditioner

- Before disposing an old air conditioner that goes out of use, please make sure its inoperative and safe. Unplug the air conditioner in order to avoid the risk of child entrapment.
- It must be noticed that air conditioner system contains refrigerants,which require specialized waste disposal. The valuable materials contained in a air conditioner can be recycled. Contact your local waste disposal center for proper disposal of an old air conditioner and contact your local authority or your dealer if you have any question. Please ensure that the pipework of your air conditioner does not get damaged prior to being picked up by the relevant waste disposal center,and contribute to environmental awareness by insisting on an appropriate,anti-pollution method of disposal.

Disposal of the packaging of your new air conditioner

- All the packaging materials employed in the package of your new air conditioner may be disposed without any danger to the environment.
- The cardboard box may be broken or cut into smaller pieces and given to a waste paper disposal service. The wrapping bag made of polyethylene and the polyethylene foam pads contain no fluoroscopic hydrocarbon.
- All these valuable materials may be taken to a waste collecting center and used again after adequate recycling.
- Consult your local authorities for the name and address of the waste materials collecting centers and waste paper disposal services nearest to your house.
- Safety Instructions and Warnings
Before starting the air conditioner,read the information given in the User's Guide carefully. The User's Guide contains very important observations relating to the assembly,operation and maintenance of the air conditioner.
- The manufacturer does not accept responsibility for any damages that may arise due to non-observation of the following instruction.

Safety Instructions and Warnings

- Before starting the air conditioner,read the information given in the User's Guide carefully. The User's Guide contains very important observations relating to the assembly,operation and maintenance of the air conditioner.
- The manufacturer does not accept responsibility for any damages that may arise due to non-observation of the following instruction.
- Damaged air conditioners are not to be put into operation.In case of doubt,consult your supplier.
- Use of the air conditioner is to be carried out in strict compliance with the relative instructions set forth in the User's Guide.
- Installation shall be done by professional people,don't install unit by yourself.
- For the purpose of safety,the air conditioner must be properly grounded in accordance with specifications.
- Always remember to unplug the air conditioner before opening inlet grill.Never unplug your air conditioner by pulling on the power cord.Always grip plug firmly and pull straight out from the outlet.
- All electrical repairs must be carried out by qualified electricians Inadequate repairs may result in a major source of danger for the user of the air conditioner.
- Do not damage any parts of the air conditioner that carry refrigerant by piercing or perforating the air conditioner's tubes with sharp or pointed items,crushing or twisting any tubes,or scraping the coatings off the surfaces.If the refrigerant spurts out and gets into eyes,it may result in serious eye injuries.
- Do not obstruct or cover the ventilation grille of the air conditioner.Do not put fingers or any other things into the inlet/outlet and swing louver.
- Do not allow children to play with the air conditioner.In no case should children be allowed to sit on the outdoor unit.
- This appliance is not intended for use by persons (including children)with reduced physical,sensory or mental capabilities,or lack of experience and knowledge,unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.

Cautions

- The installation of pipe-work shall be kept to a minimum.
- Pipe-work shall be protected from physical damage and shall not be installed in an unventilated space, if that space is smaller than $A_{min}(2m^2)$.
- Compliance with national gas regulations shall be observed.
- Mechanical connections shall be accessible for maintenance purposes.
- The minimum floor area of the room: $3m^2$.
- The maximum refrigerant charge amount: 1.7 kg.
- Information for handling, installation, cleaning, servicing and disposal of refrigerant.
- Warning: Keep any required ventilation openings clear of obstruction.
- Notice: Servicing shall be performed only as recommended by the manufacturer.

Unventilated areas

- Warning: The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified.
- Warning: The appliance shall be stored in a room without continuously operating open flames (e.g. an operating gas appliance) and ignition sources (e.g. an operating electric heater).

Qualification of workers

- Specific information about the required qualification of the working personnel for maintenance, service and repair operations.
- Warning: Every working procedure that affects safety means shall only be carried out by competent persons.

Examples for such working procedures are:

- breaking into the refrigerating circuit.
- opening of sealed components
- opening of ventilated enclosures.

Information on servicing

- Prior to beginning work on systems, safety checks are necessary to ensure that the risk of ignition is minimized.
- Work shall be undertaken under a controlled procedure so as to minimize the risk of flammable gas or vapor being present while the work is being performed.
- 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.

Checking for presence of refrigerant

- The area shall be checked with an appropriate refrigerant detector prior to and during work. The leak detection equipment should be suitable for use with all applicable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

Presence of fire extinguisher

- If any hot work is to be conducted, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO_2 fire extinguisher adjacent to the charging area.

No ignition sources

- All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal. 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.

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.

Cautions

Checks to the refrigeration equipment

- Where electrical components are being changed, they shall benefit 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
- The charge size 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;
- If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant;
- Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;
- Refrigeration 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.

Checks to 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.

Repairs to sealed components

- During repairs to sealed components, all electrical supplies shall be disconnected prior to any removal of sealed covers, etc. If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.
- Ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected, including damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.
- Ensure that the apparatus is mounted securely.
- Ensure that seals or sealing materials have not degraded to the point that they no longer serve the purpose of preventing the ingress of flammable atmospheres. Replacement parts shall be in accordance with the manufacturer's specifications.

Repair to intrinsically safe components

- Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use.
- Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere.
- Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

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.

Detection of flammable refrigerants

Removal and evacuation

- The refrigerant charge shall be recovered into the correct recovery cylinders and the system shall be "flushed" with OFN to render the unit safe. This process may need to be repeated several times.
- Compressed air or oxygen shall not be used for purging refrigerant systems.
- Flushing shall be achieved by breaking the vacuum in the system with OFN 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 OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
- The vacuum pump is not close to any ignition sources and that ventilation is available.

Cautions

Charging procedures

- 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 upright.
- Ensure that the refrigeration 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 refrigeration 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.

Decommissioning

- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail.
- Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to reuse of reclaimed refrigerant
- Electrical power must be 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 manufacturer's 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 refrigeration system unless it has been cleaned and checked.

Labelling

- Equipment shall be labelled stating that it has been decommissioned and emptied of refrigerant. The label shall be dated and signed.
- Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

Recovery

- 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 are available. A cylinder to be used is 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 all appropriate refrigerants.
- 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. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release.
- The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant waste transfer note arranged.
- Do not mix refrigerants in recovery units and especially not in cylinders.

Cautions

- 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 evacuation process shall be carried out prior to returning the compressor to the suppliers.
- Only electric heating to the compressor body shall be employed to accelerate this process.

Move and scrap the air conditioning




- When moving,to disassemble and reinstall the air conditioning,please contact your dealer for technical support.
- In the composition material of air conditioning,the content of lead,mercury, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers are not more than 0.1%(mass fraction) and cadmium is not more than 0.01%(mass fraction).
- Please recycle the refrigerant before scrapping,moving,setting and repairing the air conditioning;for the air conditioning scrapping, should be dealt with by the qualified enterprises.

Charging procedures

- 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 upright.
- Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete (if not already).
- Extreme care shall betaken not to overfill the refrigeration 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.













Cautions

- Before starting to use the system, read carefully this "SAFETY PRECAUTIONS" to ensure a proper operation of the system.
- Safety precautions described here are classified to "⚠ WARNING" and "⚠ CAUTION". Precautions which are shown in the column of "⚠ WARNING" means that an improper handling could lead to a grave result like a death, serious injury, etc. However, even if precautions are shown in the column of "⚠ CAUTION", a very serious problem could occur depending on situation. Make sure to observe these safety precautions faithfully because they are very important information to ensure the safety.
- Symbols which appear frequently in the text have following meanings.

	Strictly prohibited		Observe instructions faithfully		Provide a positive grounding
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When you have read through the manual, keep it always at hand for read consultation. If the operator is replaced, make sure to hand over this manual to the new operator.

CAUTIONS FOR INSTALLATION

WARNING		
<p>The system should be applied to places as office, restaurant, residence and the like.</p> <p style="text-align: center;"></p> <p>Application to inferior environment such as an engineering shop, could cause equipment malfunction and serious injury or death.</p>	<p>The system should be installed by your dealer or a professional installer.</p> <p style="text-align: center;"></p> <p>Installation by yourself is not encouraged because it could cause such problems as water leakage, electrical shock or fire accident by some improper handling.</p>	<p>When you need some optional devices such as a humidifier, electric heater, etc., be sure to use the products which are recommended by us. These devices should be attached by a professional installer.</p> <p style="text-align: center;"></p> <p>Installation by yourself is not encouraged because it could cause such problems as water leakage, electrical shock or fire accident by some improper handling.</p>
CAUTION		
<p>Do not install nearby the place where may have leakage of flammable gas.</p> <p style="text-align: center;"> </p> <p>If the gas leaks and gathers around, it may cause the fire.</p>	<p>Depending on the place of installation, a circuit breaker may be necessary.</p> <p style="text-align: center;"> </p> <p>Unless the circuit breaker is installed, it could cause electrical shocks.</p>	<p>Drain pipe should be arranged to provide a positive draining.</p> <p style="text-align: center;"> </p> <p>If the pipe is arranged improperly, furniture or the likes may be damaged by leaked water.</p>
<p>Where strong winds may prevail, the system should be fixed securely to prevent a collapse.</p> <p style="text-align: center;"></p> <p>Bodily injury could result by a collapse.</p>	<p>Install on the place where can endure the weight of air conditioner.</p> <p style="text-align: center;"></p> <p>Bodily injury could result by a careless installation.</p>	<p>Make sure the system is grounded.</p> <p style="text-align: center;"></p> <p>Grounding cable should never be connected to a gas pipe, city water pipe lightning conductor rod or grounding cable of telephone. If the grounding cable is not set properly, it could cause electric shocks.</p>

Cautions

Installation Precautions





★The area of the room in which R32 refrigerant air conditioner is installed cannot be less than the minimum area specified, to avoid potential safety problems due to out-of-limit of refrigerant concentration inside the room caused by leakage of refrigerant from refrigeration system of the indoor unit.







★Once the horn mouth of connecting lines is fastened, it may not be used again (the air tightness may be affected).

★A whole connector wire shall be used for indoor/outdoor unit as required in the operation specification of installation process and operation instructions.

CAUTIONS FOR TRANSFER OR REPAIR

WARNING	
<p>Modification of the system is strictly prohibited. When the system needs a repair, consult your dealer.</p>  <p>Improper practice of repair could cause water leakage, electric shock or fire.</p>	<p>When the air conditioner is relocated, contact your dealer or a professional installer.</p>  <p>Improper practice of installation could cause water leakage, electric shock or fire.</p>

CAUTIONS FOR OPERATION

WARNING		
<p>You should refrain from exposing your body directly to cool wind for a long time.</p>   <p>It could affect your physical condition or cause some health problems.</p>	<p>Do not poke the air inlet or outlet with a bar, etc.</p>   <p>Since the internal fan is operating with a high speed, it could cause an injury.</p>	<p>When any abnormal condition (scorching smell or others) is found, stop the operation immediately and turn off the power switch. Then consult your dealer.</p>   <p>If you continue the operation without removing the cause, it could result in a trouble, electric shock or fire.</p>

Cautions

CAUTION

The system should never be used for any other purposes than intended such as for preservation of food, flora and fauna, precision devices or work of art.



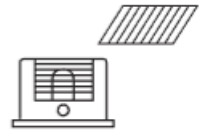
It could cause deterioration of food or other problems.

Do not handle switches with a wet hand.



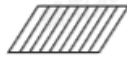
It could cause electric shocks.

Combustion apparatus should not be placed allowing a direct exposure to wind of air conditioner.



Incomplete combustion could occur on the apparatus.

Do not wash the air conditioner with water.



It could cause electric shocks.

Do not install the system where the air outlet reaches directly the flora and fauna.



It will not be good for their health.

Make sure to use a fuse of proper electric rating.



Use of steel or copper wire in place of a fuse is strictly prohibited because it could result in a trouble or fire accident

Neither stand on the air conditioner nor place something on it.



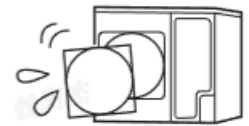
There are risks of falling or injury by collapsed object.

It is strictly prohibited to place a container of flammable gas or liquid near the air conditioner or to spray it directly with the gas or liquid.



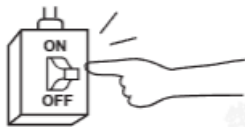
It could cause a fire accident.

Do not operate the system while the air outlet grill is removed.



There is a risk of injury.

Do not use the power switch to turn on or off the system.



It could cause a fire or water leakage.

Do not touch the air outlet section while the swing louver is operating.



There is a risk of injury.

Do not use such equipment as a water heater, etc. around the indoor unit or the wire controller.



If the system is operated at the vicinity of such equipment which generates steam, condensed water may drip during cooling operation or it could cause a fault current or short-circuit.

When operating the system simultaneously with a combustion apparatus, indoor air must ventilated frequently.



Insufficient ventilation could cause an oxygen deficiency accident.

Check occasionally the support structure of the unit for any damage after a use of long period of time.



If the structure is not repaired immediately, the unit could topple down to cause a personal injury.

When cleaning the system, stop the operation and turn off the power switch.



Cleaning should never be done while the internal fans are running with high speed.

Do not put water containers on the unit such as a flower vase, etc.



If the water enters into the unit and damages the electric insulation material, it may cause electric shock.

EN

Cautions

The machine is adaptive in following situation

1.Applicable ambient temperature range:

Cooling	Indoor temperature	max. DB/WBmin. DB/WB	32°C/23°C 18°C/14°C
	Outdoor temperature	max. DB/WBmin. DB/WB	46°C/26°C 10°C/6°C
Heating	Indoor temperature	max. DB/WBmin. DB/WB	27°C 10°C
	Outdoor temperature	max. DB/WBmin. DB/WB	24°C/18°C -15°C

2.If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similar qualified person.

3.If the fuse on the indoor PC board is broken please change it with the type of T5.0/250V.

4.The wiring method should be in line with the local wiring standard.

5.The power cable should be:

H05RN-F 3G 4.0mm²

The connecting cable should be:

H05RN-F 4G 1.0mm²

All the cables shall have got the European authentication certificate. During installation, when the connecting cables break off, it must be assured that the grounding wire is the last one to be broken off.

6.The power cable and connect cable should be self-provided.


7.The breaker of the air conditioner should be all-pole switch, and the distance between its two contacts should be no less than 3mm.




8.The indoor unit installation height is at least 2.5m.

9.A leakage breaker must be installed.

10.We can get the 10 different ESP through adjust wired controllerE60-EU,please refer below:

Stactic pressure grade	1	2	3	4	5	6	7	8	9	10
Stactic pressure	30Pa	40Pa	50Pa	70Pa	90Pa	100Pa	110Pa	120Pa	130Pa	150Pa

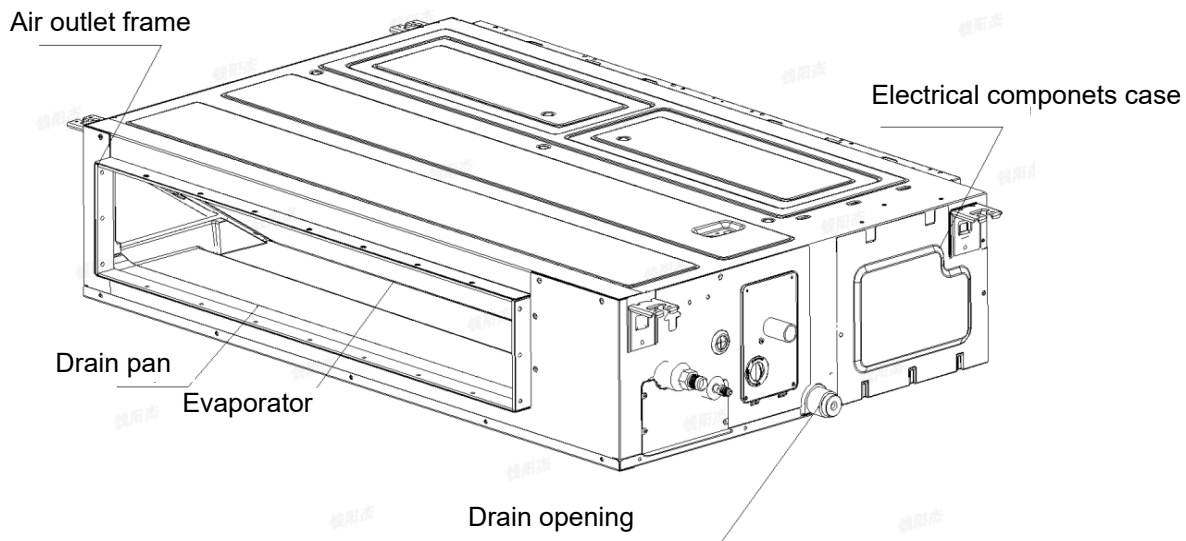
Adjustment method by wired controller E60-EU: In the state of ON and non screen saving state,press "-" and  keys together for 5s to enter Advanced Function mode.

Press  the key to select "09" code, and click  the key. Press key "+" or "-" to change static pressure grade,then press  key to confirm.

For Slim duct machine, 01 is level 1(5Pa), 02 is level 2(15Pa),03 is level 3(25Pa), 04 is level 4(30Pa),05 is level 1(40Pa)

For MSP duct machine, 01 is level 1(30Pa), 02 is level 2(40Pa),.....10 is level 10 (150Pa)


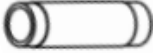



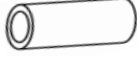
Parts and Functions



Note: The functions are shown in the manual of the wired controller

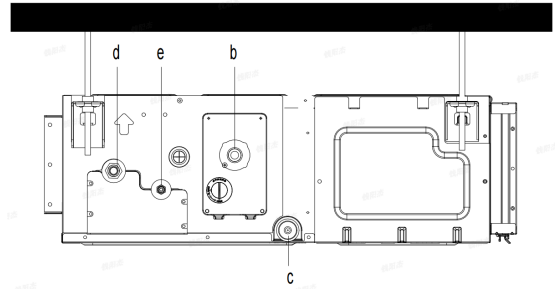
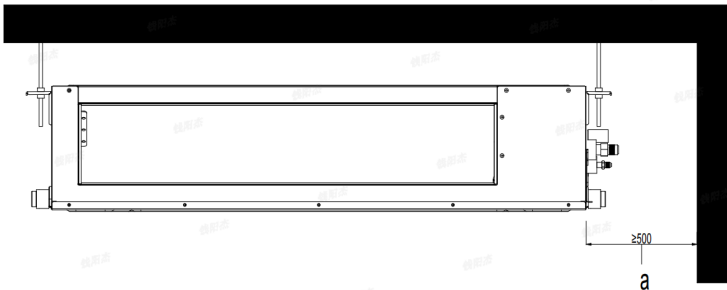
Preparation

Parts list

No.	Drawing	Name of parts	Quantity	Position
1		Operation and installation instructions	1	Above the indoor unit
2		Drain hose	1	Indoor unit air return port
3		Metal clamp	1	
4		Copper nuts	2	
5		Tie wraps	6	
6		Insulation pieces	2	

Preparation of installation site

- Provide adequate space around the equipment for maintenance and air circulation.
- Select the installation location with sufficient space to carry the unit in and out of the site.
- Do not install air conditioners anywhere that can leak flammable gases.
If the gas leaks and stays around the air conditioner, a fire may occur.
Installation site requirements of the indoor unit
- The sound pressure level is less than 70 dBA.
- Use suspension bolts for installation.
- Spacing. Mind the following requirements:



a. Service space

b. Drain pipe

c. Maintenance drain outlet

d. Gas pipe

e. Liquid pipe

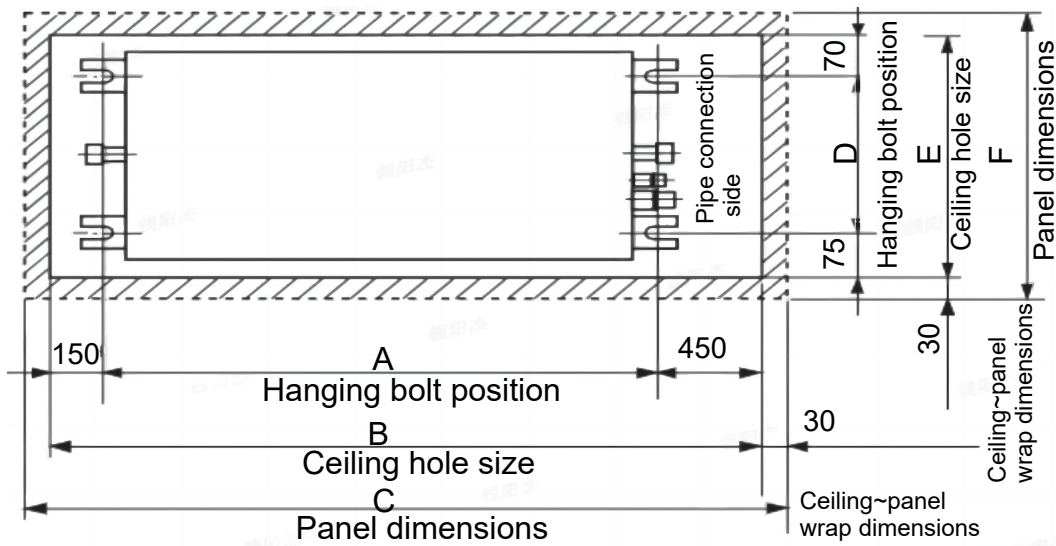
Preparation

3.Preparation for suspending the unit

★Check that the ceiling is strong enough to support the weight of the unit. If there is a risk, reinforce the ceiling before installing the unit.

a.Size of hole at ceiling and position on hanging bolts.

HD18MDAHRA HD24MFAHRA HD36MFAHRA



	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)
HD18MDAHRA	827	1427	1537	611	756	816
HD24MFAHRA HD36MFAHRA	1127	1727	1837	611	756	816

b.Hanger bolts installation

Use care of the pipe direction when the unit is installed.

Installation

Installation of indoor unit

Fix the indoor unit to the hanger bolts.

If required, it is possible to suspend the unit to the beam, etc. Directly by use of the bolts without using the hanger bolts.

Note

When the dimension of indoor unit and ceiling holes does not match, Please adjust with the slot position of hanging bracket to realize the levelness.

(a) Adjust the out-of levelness using a level or by the following method. Make adjustment so that the relation between the lower surface of the unit proper and water level in the hose becomes as given below.

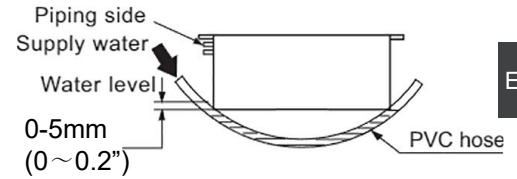
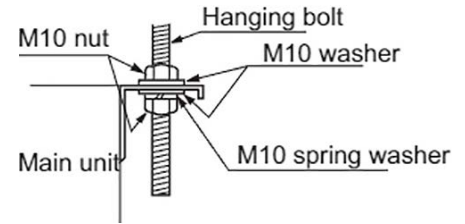
(b) Unless the adjustment to the levelness is made properly, malfunctioning or failure of the float switch may occur.

Indoor unit installation mode

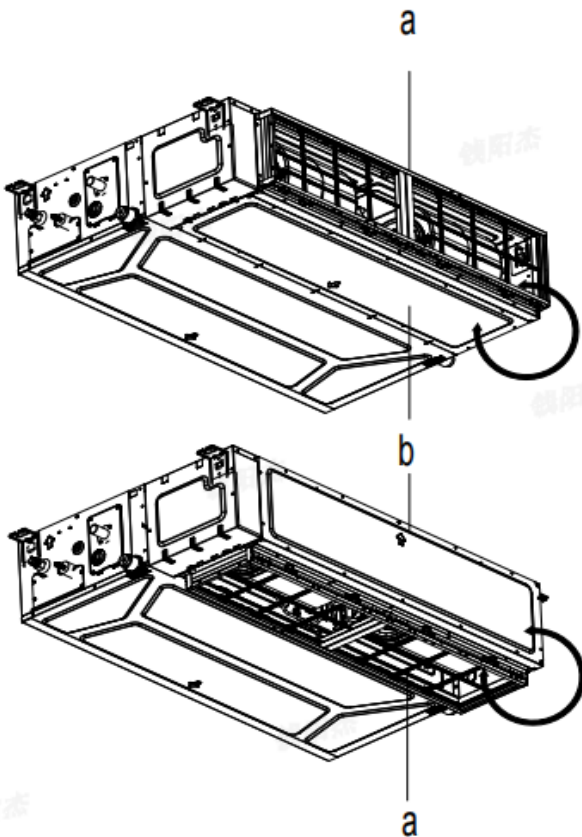
This series of air conditioners can achieve two return air modes:

1. Rear return air, factory default.
2. Bottom return air, can be adjusted onsite.

Note: Inlet air from the bottom can be achieved by exchanging the position of the filter and rear cover plate like below.



Bring the piping side slightly lower.



- a. Filter screen
- b. Rear cover plate

Installation

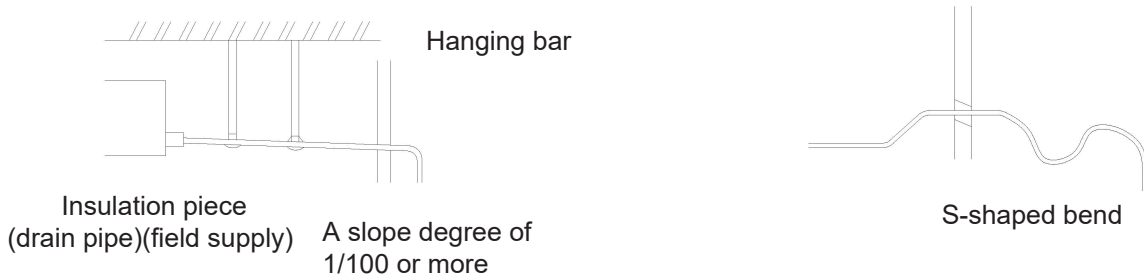
Drain Pipe

Make sure condensation water can be evacuated properly. This involves:

- General guidelines
- Connecting the drain pipe to the indoor unit
- Checking for water leaks

(a) General guidelines

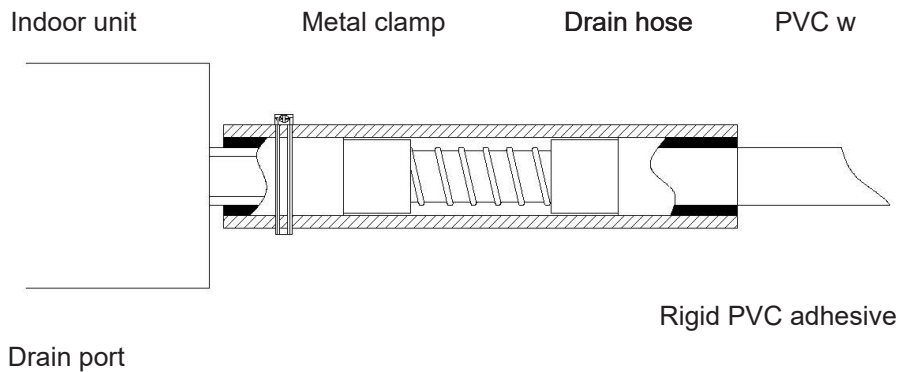
- Drain pump. They are high-lift type, when the drainage pump is installed at a higher position, the drainage sound will be reduced. The recommended height is 300mm.
- Pipe length. Keep drain pipe as short as possible.
- Pipe size. The pipe size should be greater than or equal to the connecting pipe (nominal diameter 25mm, external diameter 32mm ethylene pipe).



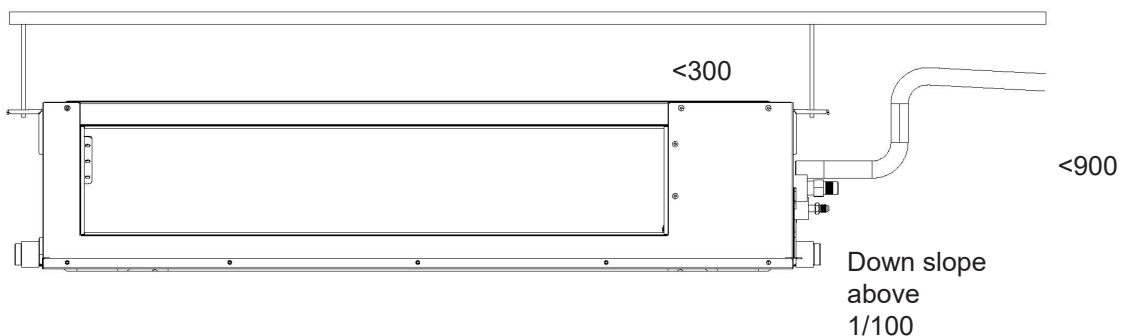
- Slope. Make sure the drain pipe slopes down (at least 1/100) to prevent air from being trapped in the pipe. Use hanging bars as shown.
- Condensation. Take measures against condensing water, please insulate the drain pipe properly.

Connecting the drain pipe to the indoor unit.

1. Please use the attached metal clamp to connect the indoor unit pump outlet and the PVC water pipe, and tighten it with the attachment clamp, as shown in the picture below:



How to connect the drain hose to the device



Installation

2. Use rigid PVC adhesive to connect other water pipes, and ensure that there is no leakage.
3. Drainage pipes must be evenly wrapped with thermal insulation tubes, and bound with cable ties to prevent air from entering the condensate.
4. In order to avoid the water flowing into the air conditioner when the operation stops, the drainage pipe should be tilted down to the drainage side, the inclination is more than 1/100, and the drainage pipe should not expand and retain water, otherwise it will cause abnormal noise.
5. When connecting the drainpipe, do not pull the drainpipe. Otherwise, the drainpipe connector may be loose. The drainpipe should be pulled out within 20m horizontally, and a support point should be set every 1m to 1.5m to prevent the drainpipe from bending.
6. The height of the end of the drain pipe should be greater than 50mm from the ground or the bottom of the drain tank, and do not put it into the water. When the condensate is discharged directly into the gutter, the drain pipe must be made upward to complete a U-shaped water seal to prevent odor from entering the room through the drain pipe.

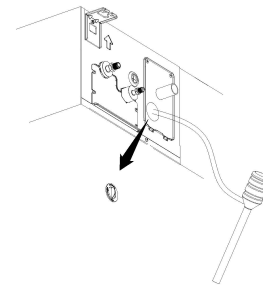
(c) Drainage Test

- (1) During the trial, make sure that condensating water flows properly through the pipe and that no water leaks from connections.
- (2) Conduct the test in a new building before the ceiling furnishment is done.
- (3) Make sure to conduct the drainage test even the unit is installed in the warm zone area.

Procedures

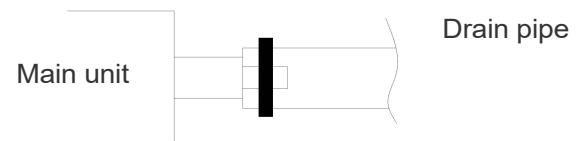
- (a) Supply about 1000 cc of water to the unit through the a outlet using a feed water pump.
- (b) Check the drain while cooling operation.

Before the electrical work has not been completed, connect a convex joint in the drainpipe connection and pour few water through it. Then, check if water leaks from the pipe system and that drain flows through the drainpipe normally.



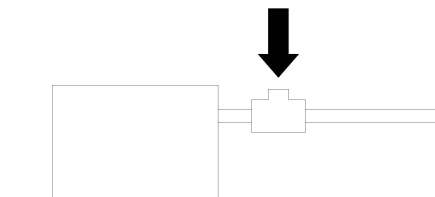
Remove grommet.
make sure to install it
back after test

Attached drain hose clamp



Drain situation can be checked with transparent socket.

Pour water into a convex joint.



Installation

Installation work for air outlet ducts

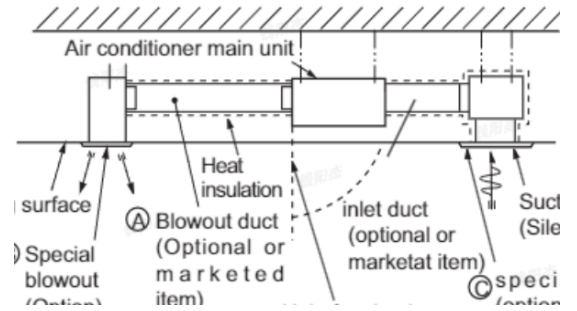
Calculate the draft and external static pressure and select the length, shape and blowout.

A Blowout duct

2-spot, 3-spot and 4-spot with AE 200 type duct are the standard specifications.

Note (1) Shield the central blowout hole for 2-spot.

(2) Shield the blowout hole around the centre for 3-spot.



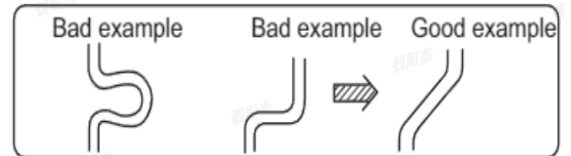
Limit the difference in length between spots at less than 2:1.

Reduce the length of duct as much as possible.

Reduce the number of bends as much as possible. (Corner R should be as larger as possible.)

Use a band, etc. to connect the main unit and the blowout duct flange.

• Conduct the duct installation work before finishing the ceiling.



3.2 Connection of Inlet and Outlet Ducts

a. Fresh air inlet

- The air intake of the rear return air duct Machine is on the rear side, see Fig.1
- The air intake of the lower air duct machine is on the lower side of the machine, see Fig.2

b. Exhaust (Make sure to use also the suction.)

Unit Overview

air outlet



Fig.1

Fig.2

Installation

Connecting the refrigerant pipe

WARNING

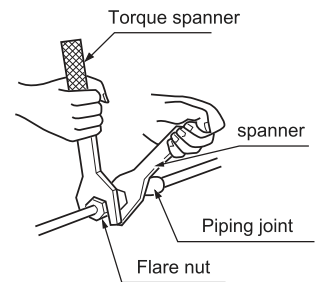
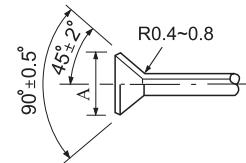
1. Install refrigerant lines or components in a place where is unlikely to be exposed to any substances that could corrode the copper pipe, unless these parts are made of inherently corrosion-resistant materials or have appropriate corrosion protection.
2. The R32 refrigerant of this unit is a mildly flammable refrigerant.

Connecting pipe

Class	50	71+105
Liquid pipe (mm)	Ø6.35	Ø9.52
Gas pipe (mm)	Ø12.7	Ø15.88

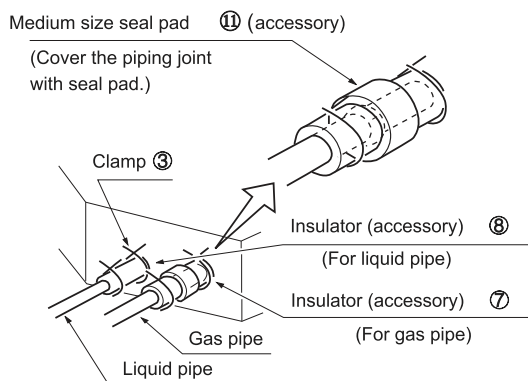
Connection method

1. Apply chilled oil to pipe joints and flares. The bending radius of the pipe should be as large as possible.
2. When taking over, hand twist the nut on the center, and then tighten it with a wrench, as shown in the figure.
3. Be careful not to let impurity such as sand get into the pipe.
4. Connect all refrigerant pipe with the flare tube.
5. Pipe connection must be made with a double wrench.



Insulation

Notice: The joint of the connecting pipe must be insulated and sealed to avoid condensation and dripping.



Refrigerant pipe (As for outdoor pipe, please refer to installation manual of outdoor unit.):

1. Outdoor is precharged with refrigerant.
2. For the size of the flare nut, please refer to the table above.
3. Apply refrigerant oil at both inside and outside of flare nut. then tighten the joint by 3-4 turns.
4. Check pipe joints for gas leakage. Insulate pipe as shown in Fig. above.
5. Cover joint of gas pipe and insulators 7 with seal.

Installation

Vacuuming

After connecting the machine, use a vacuum pump to vacuum the system. Otherwise, the system may run abnormally.

Additional Refrigerant

The standard pipe length is 5 meters, and when the connecting pipe is less than or equal to 5 meters, it is not necessary to add additional refrigerant (R32); If the pipe is more than 5 meters, additional refrigerant (R32) is required. For each 1 meter increase in the length of the connecting pipe, the 6.35mm liquid pipe shall be added according to 15g/m, and the 9.52mm liquid pipe shall be added according to 20g/m.

It is necessary to use a metering instrument for quantitative addition, too much refrigerant injection and too little injection will cause compressor failure, and the additional amount must comply with the prescribed amount.

EN

Electrical Wiring Connection

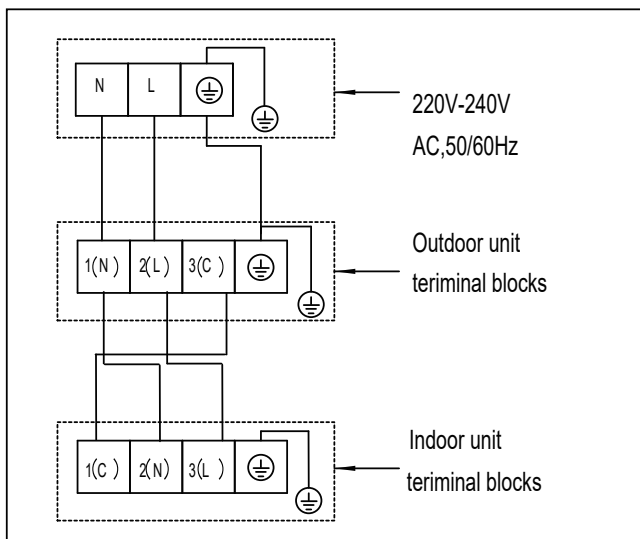
WARNING
DANGER OF BODILY INJURY OR DEATH
<ul style="list-style-type: none">• TURN OFF ELECTRIC POWER AT CIRCUIT BREAKER OR POWER SOURCE BEFORE MAKING ANY ELECTRIC CONNECTIONS.• GROUND CONNECTIONS MUST BE COMPLETED BEFORE MAKING LINE VOLTAGE CONNECTIONS.

Precautions for electrical wiring

- Electrical wiring work should be conducted only by authorized personnel.
- Do not connect more than three wires to the terminal block. Always use round type terminal lugs with insulated grip at the end.
- User copper conductor only

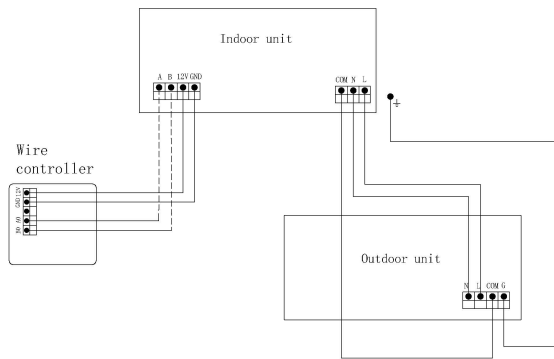
POWER SUPPLY & INDOOR-OUTDOOR CONNECTION

Connect cable to power supply outdoor unit, and indoor units could be power-supplied by the outdoor PCB.



Installation

WIRED CONTROLLER & INDOOR PCB CONNECTION(one for one wiring type):



Note1: When do the wired controller & indoor PCB wiring work, do not connect the shielded wired to the unit's shell, do not parallel wiring with strong electric lines within 0.3 meters, please keep strong lines and the signal lines separately.

Note2: The inner diameter of the connecting wire of the internal machine is 1 mm².

Wired Controller Installation Manual

Wired Controller Wiring:

There are three method to connect wired controller with indoor units.

A. One wired controller is able to control maximum 16 sets of indoor units., and the master indoor unit must be connected with 3 pieces of polar wires directly, but for another indoor units, 2 pieces of polar wire is good enough.

B. One wire controller controls one indoor unit, and the indoor unit connects with the wire controller through 4 pieces of polar wire.

C. Two wired controllers control one indoor unit. The wire controller connected with indoor unit is called master one, the other is called slave one. Master wire controller and indoor unit; master and slave wire controllers are all connected through 4 pieces of polar wire.

Singal Wiring:

You can find a special signal wire from the accessories. This 3-core wire should be connected with the terminal in the order of A.B.C respectively. Please prepare extra wire if the unit require more than 5 meter. The standard is as followed.

Communication wiring length(m)	Dimensions of wiring
<100	0.3mm ² ×4-core shielded wire
≥100 and <200	0.5mm ² ×4-core shielded wire
≥200 and <300	0.75mm ² ×4-core shielded wire
≥300 and <400	1.25mm ² ×4-core shielded wire
≥400 and <600	2mm ² ×4-core shielded wire

*One side of wire must be earthed.

Maintenance

Overview: Maintenance

Installers must perform maintenance once a year.

About refrigerants

This product contains fluorinated greenhouse gases. Don't emit gas into the atmosphere.

Refrigerant type :R32

Global warming potential (GWP) value: 675

Note:

In Europe, the greenhouse gas emissions of the total refrigerant charge in the system (expressed in tons of CO₂ equivalent) are used to determine the maintenance interval. Comply with applicable laws.

Formula for calculating greenhouse gas emissions:

Refrigerant GWP x Total Refrigerant charged [kg]/1000

Warning:

- R32 is a mildly flammable refrigerant and usually does not leak. Fire or harmful gases could appear when the refrigerant leaks out of the unit and further get in touch with fire from the burner, heater or cooker.
- Use the unit only after the maintenance personnel confirm that the refrigerant leakage site has been repaired.
- Do not puncture or burn refrigerant pipe line.
- Do not use cleaning materials or methods other than those recommended by the manufacturer to speed up the defrosting process.
- Please note that the refrigerant in the system is odorless.
- Before accessing terminal devices, make sure to interrupt all power supply.
- Please turn off A/C before cleaning any parts of it in case of electric shock and injury
- Protection against electric shock or fire:
 - Do not flush the unit.
 - Do not operate the machine with wet hands.
 - Do not place any water objects in the unit.
- Check the outside bracket are damaged or not after a long time use. People could get injury when the damaged bracket lose strength and make the unit fall down.
- Do not touch the heat exchanger fins. These fins are sharp and can cause cuts.
- Please make sure to remove the PCB and fan motor before cleaning the heat exchanger.

Clean the Defrosting Tray

Clean the defrosting tray to avoid clogging and ash accumulation.

Handle the drain pipe plug

Notice:

Do not remove the drain plug. Water may leak out.

Remove the plug to exhaust water only when the drain pump is not in use or before maintenance.

Gently insert and remove the drain plug. Excessive force may deform the drain sleeve of the drain tray.

Care and Maintenance

Clean the air filter, suction grille, air outlet and outside panels

Clean the air outlet and outside panels.

Warning:

Do not let the indoor unit get damp. Possible consequences: Electric shock or fire.

Notice:

- Do not use gasoline, benzene, diluted polishing powder, or liquid pesticides.
Possible consequences: discoloration, deformation.
- Do not use water or air above 50 ° C.
Possible consequences: discoloration, deformation.
- Do not scrub the blade too hard with water.
- Possible consequence: The surface seal falls off.

Clean the air filter

When to clean the air filter

- Rule of thumb: Clean every 6 months. If the environment is serious polluted, increasing frequency should follow.
- If the dirt becomes uncleanable, please replace the air filter.

How to clean the air filter

1. Slowly pull out the filter.
2. Clean the filter. Use a vacuum cleaner or wash it with water. If the air filter is dirty, use a soft brush and a neutral detergent.
3. Dry the air filter in a cool place.
4. Reinstall the filter.
5. Close the air inlet grille when the air is being redirected.
6. Power on.

Maintenance before a long stop period

E.g. At the end of the season.

- Let the indoor unit run in fan mode for about half a day to dry inside.
- Turn off the power. Check the A/C display light off or not. Note: even not turn on the A/C, its inside still have electricity.
- Clean the air filter and housing of the indoor unit. Ensure that the cleaned air filter is installed back in its original position.



Maintenance after a long stop period

E.g. At the beginning of the season.

- Check and remove anything that may block the inlet and outlet vents of the indoor and outdoor units.
- Check whether the grounding is in right place or not.
- Check for disconnection. Please contact your distributor if you have any questions.
- Clean the air filter and housing of the indoor unit. Ensure that the cleaned air filter is installed back in its original position.
- Turn on the A/C at least 6 hours before the normal usage. The A/C display would be lightened up when power on.

Troubleshooting

Please check the following things about your air conditioner before making a service call.

Unit fails to start			
<p>Is the power source switch adjust cut in ?</p>  <p>Power supply switch is not ON.</p>	<p>Is city supply power in normal?</p> 	<p>Isn't the signal receiving section exposed to the direct sunlight or strong illumination?</p>	<p>Isn't the earth leakage breaker in action?</p> <p>It is dangerous. Turn off the power supply switch immediately and contact the sales dealer.</p>

Cooling or heating is not sufficient			
<p>Is the thermostat adjust as required ?</p>	<p>Isn't the air filter dirty?</p>	<p>Isn't any doors or windows left open?</p>	<p>Doesn't any obstacle exist at the air inlet or outlet?</p>
<p>Isn't the swing blade horizontal?(AT HEATING mode) If swing blade is horizontal, The blowing wind may not able to reach the floor.</p>			


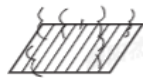


Cooling is not sufficient			
<p>Isn't sun-shine invading direct?</p>	<p>Isn't any unexpected heating load generated?</p>	<p>Isn't the room much crowded?</p>	<p>The wind does not blow during heating operation</p> <p>Isn't it warming up?</p>

or when the following phenomenons are observed,,stop the operation of the air conditioner and contact your sales dealer.

- The fuse or breaker often shuts down.
- Water drops off during cooling operation.
- There is a irregularity in operation or abnormal sound is audible.
- When the CHECK LED (red)flickers,an irregularity has occurred in the air conditioner.

Troubleshooting

The followings are not malfunction

<p>Water flowing sound is heard.</p> 	<p>When A/C get started or stopped., it sometimes sounds "shuru shuru"or "gobo gobo".It is the flowing sound of the refrigerant,and it is not a trouble.</p>
<p>Cracking sound is heard.</p>	<p>This is caused by heat expansion or contraction of plastics.</p>
<p>Smelly Air-blowing.</p>	<p>Air which blows out from the indoor unit sometimes smells.The smell results from residents of tobacco smoke or cosmetics stuck inside of unit.</p>
<p>During operation, white fog comes out of indoor unit.</p> 	<p>When the air conditioner is used at restaurant etc.where lampblack exists,white fog sometimes blows out of air outlet during operation.In this case consult sales dealer for cleaning the heat exchanger.</p>
<p>It is switched into the FAN mode during cooling.</p>	<p>To prevent frost from being accumulated on the indoor unit heat exchanger, it is sometimes automatically switched to the FAN mode,but it will soon return to the cooling mode.</p>
<p>The air conditioner can not be restarted soon after it stops.</p> 	<p>Even turning on A/C again, it cannot conduct cooling, heating or dehumidifying mode immediately unless 3 minutes later due to the activation of protecting programme.</p> 
<p>No Air blows out or the fan speed can not be changed during the dehumidifying mode.</p>	<p>When the room temperature is excessively cooled during dehumidifying process, the PCB would keep reducing the fan speed.</p>
<p>The operation mode change by itself during the running..</p>	<p>Isn't the AUTO mode selected? In the case of AUTO mode,operation mode is changed automatically from cooling to heating or vise-versa according to the room temperature.</p>
<p>Water or steam generates from the outdoor unit during heating.</p>	<p>This results from defrosting process of the A/C.</p>

Indoor Unit Trouble Shooting

EN

Contents of Malfunction	display
Malfunction of indoorunit ambient temperature sensor	E1
Malfunction of indoorunit pipe temperature sensor	E2
Indoor unit EEPROM abnormal	E4
Abnormal communication between indoor and outdoor units	E7
Abnormal communication between wiredcontroller and indoorunit	E8
Indoor unit AC PUMP abnormal	E12
Indoor unit DC fanmotor abnormal	E14

Operation

Wi-Fi

- The system architecture diagram



- The application environment
Smart mobile phone and wireless router are necessary for the application.
Wireless router must be able to connect to the Internet.
Smart mobile phone requires IOS or Android system:



IOS system
must support IOS 9.0 or above



Android system
must support Android 5.0 or above

- Configuration method
Scan the QR code below to download "hOn"APP.Other
Download options:Please search hOn APP on:



- App Store (IOS)
 - Google Play (Android)
 - Huawei AppGallery (Android)
- After App Download,please register,connect the air conditioner and enjoy using hOn to manage your device.
Please refer to the HELP section inside the APP for more details about how to register,connect the unit,and other operations.

