Windows AC OPP MSII COMP Service Manual





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1. Precaution

■ 1.1 Warning

- Plug in power plug properly. Otherwise, it may cause electric shock or fire due to excess heat generation. Do not operate or stop the unit by inserting or pulling out the power plug. It may cause electric shock or fire due to heat generation. Do not damage or use an unspecified power cord. It may cause electric shock or fire. If the power cord is damaged, it must be replaced by the manufacturer or an authorised service centre or a similarly qualified person in order to avoid a hazard.
- Always install circuit breaker and a dedicated power circuit. Incorrect installation may cause fire and electric shock. Do not operate with wet hands or in damp environment. It may cause electric shock. Do not direct airflow at room occupants only. This could damage your health.
- Always ensure effective grounding. Incorrect grounding may cause electric shock. Do not allow water to run into electric parts. It may cause failure of machine of electric shock. Do not modify power cord length or share the outlet with other appliances. It may cause electric shock or fire due to heat generation.
- Unplug the unit if strange sounds, smell, or smoke comes from it. It may cause fire and electric shock. Do not use the socket if it is loose or damaged. It may cause fire and electric shock. Do not open the unit during operation. It may cause electric shock.
- Keep firearms away. It may cause fire. Do not use the power cord close to heating appliances. It may cause fire and electric shock. Do not use the power cord near flammable gas or combustibles, such as gasoline, benzene, thinner, etc. It may cause an explosion or fire.
- Ventilate room before operating air conditioner if there is a gas leakage from another appliance. It may cause explosion, fire and, burns. Do not disassemble or modify unit. It may cause failure and electric shock..

Caution

- When the air filter is to be removed, do not touch the metal parts of the unit. It may cause an injury. Do not put a pet or house plant where it will be exposed to direct air flow. This could injure the pet or plant. Ventilate the room well when used together with a stove, etc. An oxygen shortage may occur.
- Do not use strong detergent such as wax or thinner but use a soft cloth. Appearance may be deteriorated due to change of product color or scratching of its surface. Do not clean the air conditioner with water. Water may enter the unit and degrade the insulation. It may cause an electric shock. Do not use for special purposes. Do not use this air conditioner to preserve precision devices, food, pets, plants, and art objects. It may cause deterioration of quality, etc.
- Stop operation and close the window in storm or hurricane. Operation with windows opened may cause wetting of indoor and soaking of household furniture. When the unit is to be cleaned, switch off, and turn off the circuit breaker. Do not clean unit when power is on as it may cause fire and electric shock, it may cause an injury. Ensure that the installation bracket of the outdoor appliance is not damaged due to prolonged exposure.
- If bracket is damaged, there is concern of damage due to falling of unit. Always insert the filters securely. Clean filter once every two weeks. Operation without filters may cause failure. Hold the plug by the head of the power plug when taking it out. It may cause electric shock and damage. Turn off the main power switch when not using the unit for a long time. It may cause failure of product or fire.
- Do not place obstacles around air-inlets or inside of air-outlet. It may cause failure of appliance or

accident. Do not place heavy object on the power cord and ensure that the cord is not compressed. There is danger of fire or electric shock. Do not drink water drained from air conditioner. It contains contaminants and could make you sick.

- Use caution when unpacking and installing. Sharp edges could cause injury.
- If water enters the unit, turn the unit off at the power outlet and switch off the circuit breaker. Isolate supply by taking the power-plug out and contact a qualified service technician.
- 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 beengivensu pervision 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.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The appliance shall be installed in accordance with national wiring regulations.
- Do not operate your air conditioner in a wet room such as a bathroom or laundry room.
- The appliance with electric heater shall have at least 1 meter space to the combustible materials.
- Contactthe authorised service technician for repair or maintenance of this unit.
- Contact the authorised installer for installation of this unit.
- Do not operate the louvers with your hands, it may cause an injury.

WARNING for Using R32 Refrigerant

- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- 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).
- Do not pierce or burn.
- Be aware that the refrigerants may not contain an odour.
- Appliance should be installed, operated and stored in a room with a floor area according to the amount of refrigerant to be charged. For specific information on the type of gas and the amount, please refer to the relevant label on the unit itself. When there are differences between the lable and the manual on the Min. room area description, the description on label shall prevail.
- Appliance shall be installed, operated and stored in a room with a floor area larger than 4 m². Appliance shall not be installed in an unventilated space, if that space is smaller than 4 m².
- No any open fire or device like switch which may generate spark/arcing shall be around appliance to avoid causing ignition of the flammable refrigerant used. Please follow the instructions carefully when storing or maintaining the appliance to prevent mechanical damage from occurring.

-Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance

and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.

-DO NOT modify the length of the power cord or use an extension cord to power the unit.

-DO NOT share a single outlet with other electrical appliances.

Improper power supply can cause fire or electrical shock.

-Please follow the instruction carefully to handle, install, clear, service the appliance to avoid any damage or hazard.

-When maintaining or disposing the appliance, the refrigerant(R32) shall be recovered properly, shall not discharge to air directly.

-Compliance with national gas regulations shall be observed.

-Keep ventilation openings clear of obstruction.

-The appliance shall be stored so as to prevent mechanical damage from occurring.

-The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.

-Any person who is involved with working on or breaking into a refrigerant circuit should hold a current

valid certificate from an industry-accredited assessment authority, which authorises their competence to

handle refrigerants safely in accordance with an industry recognised assessment specification. All

training shall follow the ANNEX HH requirements of UL 60335-2-40.

Examples for such working procedures are:

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

1. Transport of equipment containing flammable refrigerants See transport regulations

2. Marking of equipment using signs See local regulations.

3. Disposal of equipment using flammable refrigerants See national regulations.

4.Storage of equipment/appliances The storage of equipment should be in accordance with the manufacturer's

instructions.

5.Storage of packed (unsold) equipment Storage package protection should be constructed such that mechanical

damage to the equipment inside the package will not cause a leak of the refrigerant charge. The maximum number

of pieces of equipment permitted to be stored together will be determined by local regulations.

6.Information on servicing

1)Checks to the area

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimised. For repair to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.

2)Work procedure

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

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 of. Ensure that the conditions within the area have been made safe by control of flammable material.

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 flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

5)Presence of fire extinguisher

If any hot work is to be conducted on the refrigeration 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.

6)No ignition sources

No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant 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 flammable 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.

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.

8)Checks to 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 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.

9)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 there no live electrical components and wiring are exposed while charging, recovering or purging the system; That there is continuity of earth bonding.

7.Sealed electrical components shall be replaced.

8. Intrinsically safe components must be replaced.

9.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.

10.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 systems containing flammable refrigerants. Electronic leak detectors shall be used to detect flammable refrigerants, but 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 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 of valves) in a part of the system remote from the leak. Removal of refrigerant shall be according to Removal and evacuation.

11.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 (optional for A2L);

-Evacuate (optional for A2L);

-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 (optional for A2L). This process shall be repeated until no refrigerant is within the system (optional for A2L). 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.

12.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 minimise 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). Extremely care shall be taken not to overfill the refrigeration system.

Prior to recharging the system it shall be pressure tested with OFN. 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.

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

a) Become familiar with the equipment and its operation.

b) Isolate system electrically.

c) 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.

d) Pump down refrigerant system, if possible.

e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.

f) Make sure that cylinder is situated on the scales before recovery takes place.

g) Start the recovery machine and operate in accordance with manufacturer's instructions.

h) Do not overfill cylinders. (No more than 80 % volume liquid charge).

i) Do not exceed the maximum working pressure of the cylinder, even temporarily.

j) 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.

k) Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned

and checked. cylinders. (No more than 80 % volume liquid charge).

14.Labelling

Equipment shall be labelled stating that it has been de-commissioned 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.

15.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.



2. Model

OPP					
MWHUK-05CMN8-BCK0	MWHUK-06CMN8-BCK0				
172012	MWHUK-06CRN8-BCK0				
MWHUK-05CRN8-BCL1					
MSII					
MWHUK-06CRN8-BCL1	MWHUK-08CRN8-BCJ9				
MWHUK-08CRN8-BCL0	MWIUKB11-08CRN8-BCK4N				
COMP					
MWAUK-10CRN8-BCJ9	MWAUK-10CRN8-BCL0				
102073	MWAUK-12CRN8-BCL0				
MWAUK-14.5CRN8-BCK3N	MWAUKB11-10CRN8-BCK4N				
MWAUKB11-12CRN8-BCK4N	MWAUK-14CRN8-BCJ9N				
102134	102231				

3.Dimension



Dimension Mode	W (mm, inch)		H (mm, inch)		D (mm, inch)	
OPP	406	16.0	306	12.0	335	13.2
MSII	471	18.5	340	13.4	400	15.7
MSII(B11)	470	18.5	340	13.4	410	16.1
COMPII	482	19.0	372	14.6	545	21.5
COMPIII(B11)	480	18.9	403	15.9	565	22.2

4. Operation Modes and Instructions

4.1 Display control



On-Off Button

Press to turn on or off the unit.

automatically the Energy Saver function under cool, Dry, Auto (only Auto-Cooling and Auto-Fan) modes.

2 Up and Down Button

Press or hold either

Up or 🔍 Down the

setting temperature 1°C/ 2

°F each times from 62°F (17°C) to 88°F (30°C). Also

can be used for time adjust in Timer function. Some models press and hold both Up and Down

buttons for 3 seconds, will change the display from °F

to ℃.

3 Mode select Button

Press void to change the operation mode, each time you press the button, a mode is selected in a sequence that goes from Auto, Cool, Dry and Fan. The unit will initiate automatically the Energy Saver function under Cool, Dry, Auto (only Auto-Cooling and Auto Fan) modes.

Base on Energy Stars' requirement.

4 Fan speed Button

Press

Sr)

to change the fan speed, each time you

press the button, the fan speed in four steps, Auto, Low, Med and High.

On Dry mode, the fan speed is controlled at Low automatically.



Press () to start or stop the Auto On or Auto Off

function. Press or hold either \bigcirc Up or \bigcirc Down the setting time from 0.0 to 24 hours.

6 Sleep Button

Press O to start or stop the sleep function.

The Energy Saver Button

Press to start or stop the energy saver function. This function is available on Cool, Dry, Auto (only Auto-Cooling and Auto-Fan) modes.

When the room temperature is meet the compressor shut off condition, the fan motor will continue running for 3 minutes, after that, the fan motor will running for 2 minutes every 10 minutes, until the compressor start.

8 Check Filter Button

This function is a reminder to clean the Air Filter for more efficient and more healthy. The LED light will keep illuminate after 250 hours of operation, until



Mechanical:



① On-Off and Mode select switch

Use this switch to turn on or off the unit, and select the operation mode for Low Cooling, High Cooling, Low Fan, High Fan.

② Temperature switch

Use this switch to setting the temperature for cooling mode.



On-Off switch

Use this switch to turn on or off the unit, the unit will only running at cooling mode..

Note: To protect the compressor, every time when the customer turn on the unit, we suggest to wait for three minutes.

4.2 Remote control

RG15A(B)/E



RG51G5(1)/CEU1



LOCK

Press together °C/°F & TIMER OFF buttons simultaneously for 5 seconds to lock the keyboard. Press together the two buttons for 2 seconds to unlock the keyboard.

5 Wiring Diagram



MWHUK-05CMN8-BCK0 (22020310004897/22020310004937/22020310004817) MWHUK-06CMN8-BCK0;

172012, MWHUK-05CRN8-BCL1, MWHUK-06CRN8-BCK0, MWHUK-06CRN8-BCL1 MWHUK-08CRN8-BCJ9, MWIUKB11-08CRN8-BCK4N, MWHUK-08CRN8-BCL0;



MWAUK-10CRN8-BCJ9, MWAUKB11-10CRN8-BCK4N, MWAUK-10CRN8-BCL0, 102073, MWAUKB11-12CRN8-BCK4N, MWAUK-12CRN8-BCL0, MWAUK-14.5CRN8-BCK3N, MWHUK-06CRN8-BCK0(22020310004197), MWHUK-08CRN8-BCJ9(22020310004417/ 22020310004797) MWHUK-05CMN8-BCK0 (22020310005097 / 22020310004957); MWAUK-14CRN8-BCJ9N;



MWHUK-05CMN8-BCK0 (22020310004437 / 22020310004997/ 22020310005217)





172012 (22020310004438) ; MWHUK-06CRN8-BCK0 (22020310004439)







• 6. Refrigerant Cycle Diagram

The figure below is a brief description of the important components and their function in what is called the refrigeration system.



7 Electronic function(For remote

control models)

7.1 Terms and definitions

- TA: Temperature of indoor ambient (T1)
- TE: Temperature of evaporator (T2).
- TC: Temperature of condenser (T3).
- TO: Temperature of outdoor ambient (T4)
- TS: The set temperature.
- DAHT: Sensor of heater(T5)

7.2 Protection function

1. The compressor restart protection functions with a delay of 3 minutes.

2. Sensor redundancy and automatic shutoff.

7.3 Auto mode

In Auto mode, the unit will choose cooling or fan-only mode according to $\Delta T(\Delta T = TA-Ts)$

∆T=TA-Ts	Running mode
ΔT>4°F	Cooling
-2°F≤∆T≤4°F	Fan-only

7.4 Fan-only mode

1. The temperature can't be controlled at the mode, and the room ambient temperature is display on LED.

The temperature only display 32 to 99 °F (0 to 37°C), If

out of range will display LO or HI.

2. The Ion/ Timer functions are valid at the fan-only mode.

3. Auto fan: In fan-only mode, AC operates the same as auto fan in cooling mode with the temperature set at $24^{\circ}C(75^{\circ}F)$.

7.5 Cooling mode

1. The temperature can be set from 62 to 86°F(17 to

30°C)

2. Compressor Control

The compressor operates as below:





When T1>TS+2°F, compressor on

3. Fan Control

In cooling mode, the indoor fan operates continuously. The fan speed can be set to high, medium or low.

· The auto fan acts as below rules:



4. Auto-defrosting function protection as below:

When TE is lower, it means that the evaporator frosts. Then the unit starts defrosting, and the indoor fan keeps working at the moment. When the temperature is up, the unit stops defrosting.



7.6 Heating mode

1. The temperature can be set from 62 to 86 $^\circ\mathrm{F}(17$ to 30 $^\circ\mathrm{C})$

2. Compressor Control

The compressor operates as below:



3. Fan control

In heating mode, the indoor fan operates continuously. The fan speed can be set to high, medium or low.

1) When the fan runs at low fan: when T1 ${\leq}TS{\text -}2.5^{\circ}{\rm F}$

(1.5 $^\circ \!\! C$), the fan will run at medium fan.

2) When the fan runs at medium fan:

A. After 1 minute, switch to high fan when T1 \leq TS-2.5 °F (1.5°C).

B. After 1 minute, switch to low fan when T1 \ge TS+1 $^\circ\mathrm{F}$ (0.5 $^\circ\mathrm{C}$)

3) When the fan runs at high fan for 1 minute , it will run at medium fan when T1 \ge TS.

4. In heating mode, ION/Sleep/Timer/Follow me function are valid.

7.7 Dry mode

1. The temperature can be setting the same as cooling mode.

2. The fan speed will keep running at low speed and can't be controlled at the mode.

7.8 Sleep mode

1. The sleep function is available in cooling, heating, or auto mode.

2. In this mode the fan speed will be change to auto fan.

3. In this mode the selected temperature will increase (cooling) or decrease (heating) by 2°F/1 (or 2) °C 30 minutes after the mode is selected. The temperature will then increase (cooling) or decrease (heating) by another 2°F/1 (or 2) °C after an additional 30 minutes. This new temperature will be maintained for 7 hours before it returns to the originally selected temperature. This ends the Sleep mode and the unit will continue to operate as originally programmed.

4. When the function is start, if you do any operation below, the function will stop.

• Press sleep button again, or use the remote control to set anything.

• Turn off the unit.

• It is time to turn off the unit, for timer off function.

8 Installation Instructions

WINDOW REQUIREMENTS

Your air conditioner is designed to install in standard double hung windows with opening widths of 23 to 36 inches (584mm to 914mm).



Model	5000~6000Btu/h	6000~8000Btu/h	10000~14500Btu/h	
н	13 [″] (330mm)	14″(356mm)	15-1/2"(394mm)	

CAUTION:

Do not, under any circumstances, cut or remove the third (ground) prong from the power cord.

Do not change the plug on the power cord of the air conditioner.

Aluminum house wiring may present special problems- consult a qualified electrician. When handling unit, be careful to avoid cuts from sharp metal edges and aluminum fins on front and rear coils.

TOOLS YOU WILL NEED



TOOLS YOU MAY USE



Screwdriver

Pencil

Ruler or tape measure

Scissors or knife

8.1 Prepare The Window

Lower sash must open sufficiently to allow a clear vertical opening. The window opening height shall be based on the different Models:

13inches/330mm (5k~6k units), 14inches/356mm (6k~8k units), 15-1/2inches/394mm (10k~12k units). Side louvers and the rear of the AC must have clear air space to allow enough airflow through the condenser, for heat removal. The rear of the unit must be outdoors, not inside a building or garage.



8.2 Prepare Air Conditioner

A: Remove the air conditioner from the carton and place on a flat surface.

B: Remove top rail and R1 hardware and weather stripping from the packaging material as shown in Fig. A(R1 hardware and weather stripping are only available for≥15000Btu /h Energy star models).



C: Align the hole in the top rail with those in the top of the unit as shown in Fig.B



D: Secure the top rail to the unit with the 3/8" Screws as shown in Fig. C.



NOTE: For safety reasons, all four (4) screws MUST be securely fastened.

NOTE: The top rail hardware and the Fig.A, Fig.B and

Fig. C are not applicable to the units more than 10000Btu/h. Before installing unit, the top rail must be assembled on the unit (For <10000Btu/h models only).

8.3 Install The Accordion Panels

NOTE: Top rail and Sliding Panels at each side are offset to provide the proper pitch to the rear of (5/16"). This is necessary for proper condensed water utilization and drainage. If you are not using the Side Panels for any reason, this pitch to the rear must be maintained.



A.Place unit on floor, a bench or a table. Hold the Accordion Panel in one hand and gently pull back the center to free the open end. See Fig.1

B. Slide the free end " I" section of the panel directly into the cabinet as shown in Fig. 2. Slide the panel down. Be sure to leave enough space to slip the top and bottom of the frame into the rails on the cabinet.



Fig.2

C. Once the panel has been installed on the side of the cabinet, make sure it sits securely inside the frame channel by making slight adjustments. Slide the top and bottom ends of the frame into the top and bottom rails of the cabinet. Fig .3.



Fig.3

D. Slide the panel all the way in and repeat on the other side.



Fig.4

8.4 Secure The Accordion Panels

A. Keep a firm grip on the air conditioner, carefully place the unit into the window opening so the bottom of the air conditioner frame is against the window sill (Fig.5A and Fig.5B). Carefully close the window behind the top rail of the unit.



Fig.5A



Fig.5B

NOTE: Check that air conditioner is tilted back about H (Fig.5A and Fig.5B) (tiled about 3° to 4°downward to the outside). After proper installation, condensate should not drain from the overflow drain hole during normal use, correct the slope otherwise.

B. Extend the side panels out against the window frame(Fig.6).



8.5 Install Support Bracket

A. Place the frame lock between the frame extensions and the window sill as shown(Fig.7A for Wooden windows), (Fig.7B for Vinyl-Clad windows).



8.6 Drive Locking Screws

A: For wooden windows:

Drive 1/ 2" (12.7 mm) locking screws through the frame lock and into the sill (Fig.8A).

NOTE: To prevent window sill from splitting, drill 1/8" (3mm) pilot holes before driving screws.

Drive 1/ 2" (12.7mm) locking screws through frame

holes into window sash (Fig.8B).

B: For Vinyl-Clad windows:

Drive 1/ 2" (12.7 mm) locking screws through the frame lock and into the window sash (Fig.8B).

NOTE: Before driving the screws, use a drill to drill 5 holes through the holes in the frame lock and frame extensions into the windows sash as shown (Fig. 8B).



Fig.8A

Fig.8B

C. To secure lower sash in place, attach right angle sash lock with 3/4" (19mm) or 1/2" (12.7mm) screw as shown (Fig.9).



D. Cut window sash seal foam and insert it in the space between the upper and lower sashes (Fig. 10).



8.7 Care and Cleaning

1. Cleaning filter

The air filter should be checked at least once a month to see if cleaning is necessary. Trapped particles in the filter can build up and cause an accumulation of frost on the cooling coils.

- · Push the vent handle to the Vent Closed position (where applicable). Open the front panel.
- Take the filter by the center and pull up and out.

· Wash the filter using liquid dishwashing detergent and warm water. Rinse filter thoroughly. Gently shake excess water from the filter. Be sure the filter is thoroughly dry before replacing. Instead of washing, you may vacuum the filter clean.











• Never use hot water over 104°F(40°C) to clean

the air filter. Never attempt to operate the unit without the air filter.

- Every time, when filter check LED light, we suggest to cleaning the filter, it will be better for healthy, and save energy.
- When the AC has not used for a long time, like one month or more, we suggest to cleaning the filter before re-use.
- 2 Cabinet Cleaning

• Be sure to unplug the air conditioner to prevent shock or fire hazard. The cabinet and front may be dusted with an oil-free cloth or washed with a cloth dampened in a solution of warm water and mild liquid dishwashing detergent. Rinse thoroughly and wipe dry.

• Never use harsh cleaners, wax or polish on the cabinet front.

• Be sure to wring excess water from the cloth before wiping around the controls. Excess water in or around the controls may cause damage to the air conditioner.

- Plug in air conditioner.
- 3. Winter Storage

If you plan to store the air conditioner during the winter, remove it carefully from the window according to the installation instructions. Cover it with plastic or return it to the original carton.

9 Troubleshooting

In general, possible trouble is classified in three kinds. One is called Starting Failure which is caused from an electrical defect, another is ineffective Air Conditioning caused by a defect in the refrigeration circuit and improper application, and the other is called the Structure Damage.

9.1 Troubleshooting Tips

Problem	Solution				
	Wall plug disconnected. Push plug firmly into wall outlet.				
	House fuse blown or circuit breaker tripped. Replace fuse with time delay type or reset circuit breaker.				
All conditioner does not start	Plug Current Device Tripped. Press the RESET button.				
	Power is OFF. Turn power ON.				
	Room temperature below 17 °C(62°F). Cooling may not occur until room temperature rises above 17 °C(62°F).				
Air from unit does not fool cold oncursh	Temperature sensing behind air filter element touching cold coil. Keep it from the cold coil.				
Air from unit does not leer cold enough	Set to a Lower temperature.				
	Compressor stopped when changing modes. Wait for 3 minutes after set to the COOL mode.				
	Outdoor temperature below 17 °C(62°F). To defrost the coil, set FAN ONLY mode.				
Air conditioner cooling, but room is too	Air filter may be dirty. Clean filter. Refer to Care and Cleaning section. To defrost, set to FAN ONLY mode.				
decorative front	Thermostat set too cold for night-time cooling. To defrost the coil, set to FAN ONLY mode. Then, set temperature				
	to a higher setting.				
	Dirty air filter- air restricted. Clean air filter. Refer to Care and Cleaning section.				
	Temperature is set too High, set temperature to a lower setting.				
Air conditioner cooling, but room is too	Air directional louvers positioned improperly. Position louvers for better air distribution.				
behind decorative front	Front of units is blocked by drapes, blinds, furniture, etc restricts air distribution. Clear blockage in front of unit.				
bening decorative nonit.	An open doors, windows, or register may allow cold air to escape. Close any doors, windows or registers.				
	The room may be too warm. Allow additional time to remove "Stored heat" from walls, ceiling, floor and furniture.				
	Dirty air filter- air restricted. Clean air filter				
Air conditioner turns on and off rapidly	Outside temperature extremely hot. Set FAN speed to a higher setting to bring air past cooling coils more				
	frequently.				
Noise when unit is cooling	Air movement sound. This is normal. If too loud, set to a slower FAN setting.				
Noise when unit is cooling	Window vibration - poor installation. Refer to installation instructions or check with installer.				
Water dripping INSIDE when unit is	Improper installation. Tilt air conditioner slightly to the outside to allow water drainage. Refer to installation				
cooling.	instructions - check with installer.				
Water dripping OUTSIDE when unit is	OUTSIDE when unit is				
cooling.	onic removing large quantity of moisture from numic room. This is normal during excessively numid days.				
Remote Sensing Deactivating	Remote control not located within range. Place remote control within 20 feet and pointed in the general direction of				
	the air conditioner unit.				
	Remote control signal obstructed. Remove obstruction.				
Room too cold	Set temperature too low. Increase set temperature.				

9.2 Sensor malfunction

LED display	Stand for				
AS	Room temperature sensor error				
HS	HS Electric heating sensor is in open circuit or has short circuited				
Check the connection between temperature sensor and PCB.					



9.3 Characteristic of temperature sensor

Temp.℃	Temp.°F	Resistance KΩ	Temp.℃	Temp.°F	Resistance KΩ
-10	14	62.2756	31	87.8	7.6241
-9	15.8	58.7079	32	89.6	7.2946
-8	17.6	56.3694	33	91.4	6.9814
-7	19.4	52.2438	34	93.2	6.6835
-6	21.2	49.3161	35	95	6.4002
-5	23	46.5725	36	96.8	6.1306
-4	24.8	44.0000	37	98.6	5.8736
-3	26.6	41.5878	38	100.4	5.6296
-2	28.4	39.8239	39	102.2	5.3969
-1	30.2	37.1988	40	104	5.1752
0	32	35.2024	41	105.8	4.9639
1	33.8	33.3269	42	107.6	4.7625
2	35.6	31.5635	43	109.4	4.5705
3	37.4	29.9058	44	111.2	4.3874
4	39.2	28.3459	45	113	4.2126
5	41	26.8778	46	114.8	4.0459
6	42.8	25.4954	47	116.6	3.8867
7	44.6	24.1932	48	118.4	3.7348
8	46.4	22.5662	49	120.2	3.5896
9	48.2	21.8094	50	122	3.4510
10	50	20.7184	51	123.8	3.3185
11	51.8	19.6891	52	125.6	3.1918
12	53.6	18.7177	53	127.4	3.0707
13	55.4	17.8005	54	129.2	2.959
14	57.2	16.9341	55	131	2.8442
15	59	16.1156	56	132.8	2.7382
16	60.8	15.3418	57	134.6	2.6368
17	62.6	14.6181	58	136.4	2.5397
18	64.4	13.918	59	138.2	2.4468
19	66.2	13.2631	60	140	2.3577
20	68	12.6431	61	141.8	2.2725
21	69.8	12.0561	62	143.6	2.1907
22	71.6	11.5000	63	145.4	2.1124
23	73.4	10.9731	64	147.2	2.0373
24	75.2	10.4736	65	149	1.9653
25	77	10.000	66	150.8	1.8963
26	78.8	9.5507	67	152.6	1.8300
27	80.6	9.1245	68	154.4	1.7665
28	82.4	8.7198	69	156.2	1.7055
29	84.2	8.3357	70	158	1.6469
30	86	7.9708			