

HEAT CONTROLLER

**INSTALLATION, OPERATION
& MAINTENANCE MANUAL**

**InverterFlex[®] Series
Indoor Ductless Mini-Split
Heat Pumps**

B-VFH09MA-1

B-VFH12MA-1

B-VFH18MA-1

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Caution


- Contact an authorized service technician for repair or maintenance of this unit
- Contact an authorized installed for installation of this unit.
- Installation work must be performed in accordance with local and national electrical codes and standards by authorized personnel only





- Read the follow SAFETY PRECAUTIONS carefully before installation.
- Electrical work must be performed by a licensed electrician.
- Incorrect installation due to ignoring the instruction will cause harm or damage.

■ **The seriousness is classified by the following indications.**

 WARNING!	This symbol indicates the possibility of death or serious injury.
 CAUTION!	This symbol indicates the possibility of injury or damage to property.

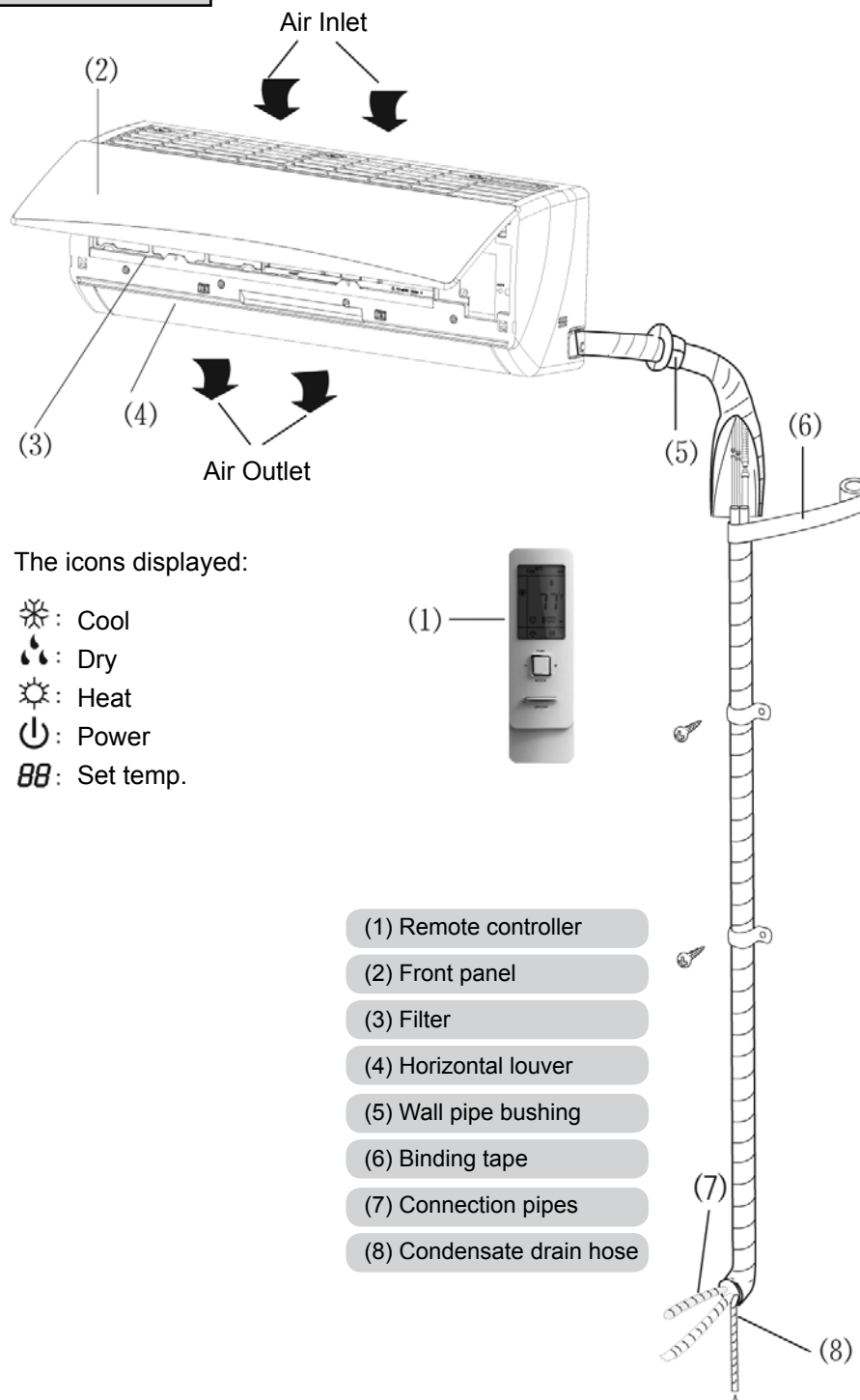
The items to be followed are classified by the symbols:

	This symbol denotes item that is PROHIBITED from doing.
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 WARNING!	
1) Do not install without an authorized servicer/installer.	
2) Install according to this installation instruction. If installation is defective, it can cause water leakage, or electric shock/fire.	
3) Use the supplied accessories and specified parts for installation.	
4) Install the indoor unit on a wall strong enough to hold the unit's weight.	
5) For electrical work, follow local and national electric codes and these installation instructions. An independent circuit and single outlet must be used. If electrical circuit capacity is not enough or defects are found in electrical work, it may cause electrical shock or fire.	
6) Use the specified cable and connect tightly. Clamp the cable so that no external force will stress the connections. Loose wiring may overheat at the connection points and create a possible fire hazard.	
7) Wiring routing must be properly arranged so that control board cover is fixed properly. If control board cover is not fixed perfectly, it will cause overheating at connection point of terminal, fire or electrical shock.	
8) When charging the unit, take care not to let air/substances other than the specified refrigerant go into refrigeration circuit. Otherwise it will cause lower capacity, abnormal high pressure in the refrigeration circuit, explosion and injury.	
 CAUTION!	
1) This equipment must be grounded it may cause electrical shock if grounding work doesn't comply with local/national electric codes.	
2) Do not install the unit in place where leakage of flammable gas may occur. If gas leaks and accumulates near the unit, it may cause fire.	
3) Condensate must properly drain away from the unit as mentioned in installation instructions. If not done correctly, water may enter the room and damage personal belongings.	

Parts Identification

Indoor Unit



Operation of wireless remote control

Features and functions of wireless remote control

NOTE: Be sure that there are no obstructions between the unit's receiver and remote control. Be careful not to drop the remote control; Don't let any liquid get inside the remote control, don't put the remote control directly in sunlight or any other place where it is very hot.

Signal transmitter



Remote controller

NOTE: When operating buttons on the cover please make sure the cover is closed completely on the remote.

ON/OFF

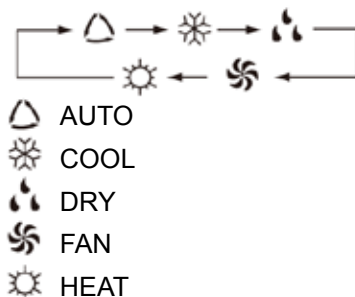
ON/OFF button

- Press this button, the unit will turn on, press it once more, the unit will turn off. Sleep function cancels while unit is off.

MODE

MODE button

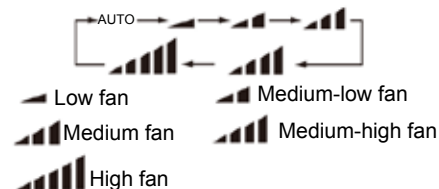
- Press this button, Auto, Cool, Dry, Fan, Heat mode can be selected sequentially. When unit powers on, Auto mode is the default mode. In Auto mode, the temperature is not shown on the display. The unit will operate in heating or cooling modes automatically based on the room temperature. Under Heat mode the initial set point is 28°C (82°F); in other modes, the initial set point is 25°C (77°F).



FAN

FAN button

- Press this button, Auto, Low, Medium-low, Medium, Medium-high, High speed can be sequentially selected. Auto mode is the default mode. In dry mode, the only available fan speed is low.



TEMP

TEMP button

- Press this button, the following temperatures can be set sequentially: the set temperature, indoor ambient temperature and outdoor ambient temperature. When the indoor unit first powers on, it will display the set temperature and this icon . If the button is pressed again, this icon and the indoor ambient temperature is shown. Pressing the button a third time will display this icon and the outdoor ambient temperature. 3 seconds later the display will return to the set temperature or unless there is another signal.

NOTE: Outdoor ambient temperature display range is 0~60°C (32~99°F). However, if the outdoor ambient temperature is below 0°C, it still will display 0°C (32°F). The display can't show temps below 0°C (32°F).

Operation of wireless remote control

Features and functions of wireless remote control

Remote controller



CLOCK

CLOCK button

- To set the time, press the clock button until the clock symbol blinks. While blinking, the time can be adjusted by pressing the (+) or (-) buttons within 5 seconds. Once the time is set, press the clock button again to confirm, the clock symbol ☉ will no longer blink. The first time the unit is powered on the time will display 12:00 as the default.

LIGHT

LIGHT button

- When powered on the light is defaulted on. Press the light button to turn on/off the light.

TURBO

TURBO button

- Under Cool or Heat mode, the turbo button can turn on or turn off the Turbo function. After the Turbo function turned on, the Turbo symbol will display. The Turbo mode will be automatically cancelled if the mode or fan speed is changed. The Turbo mode can be used to quickly heat or cool the room.

X-FAN

X-FAN button

- By pressing X-FAN button in COOL or DRY mode, the icon ☼ is displayed and the indoor fan will operate for 2 minutes in order to dry the indoor unit after powering off the unit. X-FAN OFF is the default setting. The X-FAN feature is not available in AUTO, FAN or HEAT mode. The X-FAN mode is used to dry the unit out when it won't be used for a long time. This helps prevent mold and mildew from forming inside the unit.

+

+ button

- Using this button, the temperature can be increased. The temperature can be set to 61-86°F (16-30°C). The temperature adjustment can not be made in Auto mode.

-

- button

- Using this button the temperature can be decreased. The temperature can be set to 61-86°F (16-30°C). The temperature adjustment can not be made in Auto mode.

QUIET

QUIET button

When quiet mode is used, the fan operates at a low speed. Pressing the Quiet button activates the mode and the icon "🔇" is displayed. To cancel Quiet mode, press the button again.

- When Quiet mode is selected during the cooling mode, the fan speed operates at Medium-high speed for 10 minutes or until the room temperature is $\leq 82^{\circ}\text{F}$ (28C), after that the fan speed decreases to Medium-low.
- In heating mode, the indoor fan operates at Medium fan speed.
- During Auto mode, when Quiet mode is enabled, the Quiet icon "🔇" along with the "AUTO" icon is displayed. The fan will operate as noted above, depending on the mode the unit selects based on the room temperature (COOL, HEAT, or FAN ONLY).

Operation of wireless remote control

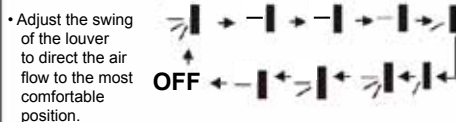
Features and functions of wireless remote control

Remote controller



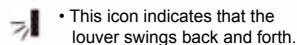
SWING UP AND DOWN button

- Press this button to set swing angle of the louver, which cycles through the options below.



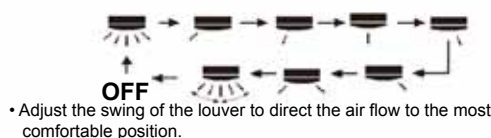
AUTO LOUVER SWING button

- Press swing, + and - buttons continuously for more than 2s, the louver will swing back and forth when you release the button, the louver will stop swinging and the present position of the louver will be kept.



SWING LEFT AND RIGHT button

- Press this button to set left & right swing angle cycling as shown below.



AUTO LOUVER SWING LEFT-RIGHT button

- Press swing left and right buttons continuously more than 2s the lower will swing back and forth from the left to the right. When you release the buttons the louver will stop swinging and the present position of the louver will be kept.

TIMER OFF button

- Press the Timer off button to create the timer off program. The Timer off icon will blink, indicating it is in programming mode. The set up process is the same as the timer on process - see Timer On for instructions. The timer off program allows you to determine when the unit should turn off based on how much time has transpired.

TIMER ON button

- The Timer feature is a program that can be used to turn the unit on/off after a certain amount of time has transpired. To set the Timer on, press the Timer on button. The "ON" icon will blink indicating that the program can be set. Press the (+) or (-) buttons to adjust the time duration in minutes. After the time duration is set, press the Timer on button again to begin the Timer on operation. To cancel the Timer on operation, press the Timer on button again.

NOTE: Be sure the clock is set to the actual time before setting the timer. See clock instructions to set the clock time.

I FEEL button

- Due to temperature stratification in the room, it is more comfortable if the unit senses the temperature at the level the remote sits, rather than at the indoor unit, which is up high on the wall. To select the sensing at the remote control room temperature rather than at the unit, press the I-FEEL button. The I-FEEL icon will be displayed and the temperature signal will be sent from the remote to the unit every 10 minutes as long as the remote controller is in range of the indoor unit. To cancel, press the I-FEEL button again.

Operation of wireless remote control

Features and functions of wireless remote control



Sleep Button:

The sleep program allows for the most comfortable conditions while you sleep, as body temperatures change. To activate the sleep mode, press the sleep mode button. There are (3) different programmed settings to choose from Sleep 1 (☾1), Sleep 2 (☾2), and Sleep 3 (☾3) described below. To cancel the Sleep mode, press the Sleep mode button and cycle through options 1, 2, and 3, until the Sleep icon disappears from the display.

NOTE: The Sleep function can not be enabled when the unit is in Fan or Auto mode. Sleep 1 can only be selected when the unit is in Cool or Dry mode. When Sleep mode is enabled, Quiet mode is also automatically enabled in conjunction. However, Quiet mode can be turned off manually.

Sleep 1 (☾1):

When Sleep 1 is activated while the unit is in Cool or Dry mode, the unit's set temperature will increase 1-2 degrees during the first hour, then after 2 hours it will decrease by 3-4 degrees more and then continue to run at this temp. When Sleep mode is activated while the unit is in Heat mode, the unit will operate by decreasing the set temperature by 1-2 degrees the first hour and then by 3-4° degrees the next 2 hours. Then the unit will continue to run at this temperature.

Sleep 2 (☾2):

Sleep 2 operates differently than Sleep 1, as it takes into account the set temperature.

Cool Mode:

- When the initial set temperature is between 61°F-74°F (16°C-23°C), the temperature will increase 1-2 degrees every hour until it reaches a 5-6 degree difference. It will operate at this setting for (7) hours. After 7 hours, the temperature will decrease 1-2 degrees and continue to operate under this condition.
- When the initial set temperature is between 75°F-81°F (24°C-27°C), the temperature will increase 1-2 degrees every hour until a 3-4 degree difference is achieved. This will be maintained for (7) hours, after which another 1-2 degree decrease will take place. Then the unit will continue to operate under this condition.

Operation of wireless remote control

Features and functions of wireless remote control



- When the initial set temperature is between 82°F-85°F (28°C-29°C), the temperature will increase 1-2 degrees every hour until a 1-2 degree increase is achieved and that will be maintained for (7) hours. After (7) hours, the temperature will decrease another 1-2 degrees and continue to operate under this condition.
- When the initial set temperature is 86°F (30°C), after 7 hours the temperature will decrease 1-2 degrees and continue to run under this condition.

Heat Mode:


- When the initial set temperature is set to 61°F (16°C), the unit will maintain this temperature.
- When the initial set temperature is between 62°F-68°F (17°C-20°C), the temperature will decrease 1-2 degrees every hour until a 1-2 degree decrease is maintained.
- When the initial set temperature is between 69°F-81°F (21°C-27°C), the temperature decreases 1-2 degrees every hour, then this temperature is maintained.
- When the initial set temperature is between 82°F-86°F (28°C-30°C), the temperature decrease 1-2 degrees every hour until a 5-6 degree decrease has been achieved. Then the unit will continue to operation under this condition

Sleep 3 (3):

Allows customization of the Sleep mode conditions by setting the temperature and hours it will be maintained up to 8 hours. To create the individualized program under the Sleep 3 mode, hold the turbo button until the remote control displays "1 hour" and the set temperature will display and blink "88". Adjust the set temperature by pressing the (+) or (-) buttons for the first hour of sleep mode. Press the "Turbo" button to confirm. The remote will advance to the next hour and display "2 hours" and allow you to set the temperature again. After the set temp is set, press the turbo button to confirm. Repeat this process for the 8 hours of Sleep mode, setting the temperature for each hour. After programming is complete, the remote will resume it's normal display.

Special features of the wireless remote

Keypad Lock:

Press + and - buttons simultaneously to lock or unlock the keypad. If the remote controller is locked, the icon  will be displayed. If the keyboard is unlocked, the mark will disappear.

Fahrenheit and Centigrade:

While the unit is off, press the MODE and - buttons simultaneously to switch between °C and °F.


Energy Saving Mode:

In cool mode PRESS the "TEMP" and "CLOCK" buttons simultaneously to enable the energy saving mode. The remote control will display "SE". Repeat this operation to cancel the Energy Saving mode.



This button is not operable with your particular unit.

Battery Installation and Replacement Instructions

1. Press the place with  and push the back cover of wireless remote controller in the direction of the arrow.
2. Take out the old batteries.
3. Insert two new AAA1.5V dry batteries. Ensure they are inserted with the proper polarity (+/-). (As show in Fig. 2.)

NOTE:


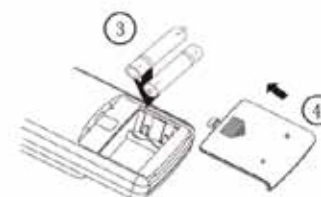
- When changing the batteries, do not use the old or different brands of batteries, otherwise it can cause a malfunction of the wireless remote control.
- If the wireless remote control will not be used for a long time, please take the batteries out. Old batteries can leak battery acid and damage the remote.
- Ensure the signal of the remote is not obstructed and is in range of the indoor unit.
- Due to possible signal interference with other devices, such radios or televisions, be sure these devices are at least 3 ft (1m) away.
- If the remote control cannot operate normally, take the batteries out and then reinsert them 30s later; if abnormal operation continues, aim remote controller at the receiver of the indoor at a closer proximatey to improve the receiving sensitivity of the indoor unit.
- When the remote controller sends out a signal a  symbol will flicker for about 1s. The beep signal will be heard when the indoor unit receives the signal from the remote. Absence of this icon/beep signal may indicate that the batteries need to be replaced in the remote.

Fig. 1



Fig. 2



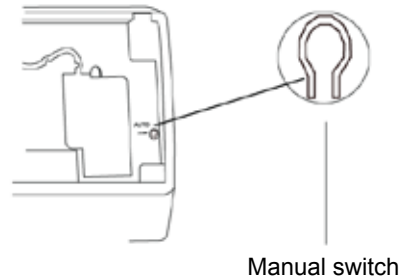
Manual Operation

Manual Operation

When the remote controller is lost or damaged, please use the manual switch on the main unit. The unit will operate in AUTO mode based on the room temperature.

NOTE: In this mode, the set temperature and fan speed can not be changed.

- **Turn on the unit:** Press AUTO/STOP button to enter AUTO mode.
The indoor unit will select the mode (COOL, HEAT, FAN) according to the room temperature.
- **Turn off the unit:** Press AUTO/STOP button again to turn off the indoor unit.



Operation Tips

Cooling Operation

Principle:

- Air conditioners absorb heat in the room and transmit it to the outdoor unit, so that the room temperature decreases. The cooling capacity will increase or decrease according to outdoor ambient temperature.

Antifreeze Function:

- If the unit is operating in COOL mode and in low ambient temperatures, frost may form on the heat exchanger. When indoor heat exchanger temperature decreases below zero, compressor will stop operation to protect the unit.

Heating Operation

Principle:

- Air conditioners absorb heat from outdoors and transmit it to the indoor unit, increasing room temperature. The heating capacity will decrease in low ambient temperatures.

Defrosting:

- When outdoor temperature is low but humidity is high, frost may form on the outdoor unit during extended operation, affecting heating efficiency. The air conditioner may stop operation during auto defrosting operation.
- During auto defrosting, the fan motors of indoor unit and outdoor unit will stop.
- During defrosting, the indoor unit heating indicator flashes and the outdoor unit may emit vapor. This is normal during defrost mode.
- After defrosting is finished, the heating operation will restart automatically.

Ant-cold Air Function:

- In HEAT mode, the indoor fan will not operate for approximately 2 minutes in order to prevent cold air blowing out until the unit is ready to heat.

Residual Heat Removal:

1. In HEAT mode, once the room temperature reaches the set point, the compressor stops and the indoor fan still run for 60s, to remove any residual heat from the refrigerant circuit.
2. In HEAT mode, if you turn off the unit, the compressor stops and the indoor fan still runs for 10s to remove residual heat from the refrigerant circuit.

Care and Cleaning



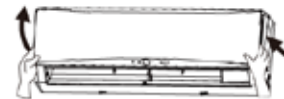
CAUTION!

- Disconnect the power supply before performing any cleaning or maintenance.
- Be sure water does not get inside the unit when cleaning. To avoid electrical shock and damage to the unit.
- The cabinet can be cleaned with a dry or damp cloth. Do not use harsh chemical cleaners, wax, or polish.

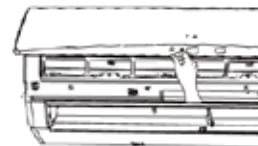
Cleaning the Air Filter (every 3 months)

NOTE: Do not touch the fins of indoor coil during the cleaning to avoid personal injury. The fins of the indoor unit have sharp edges that can cut. Failure to clean the filter can make the unit inefficient and possibly inoperable.

- ① **Remove the air filter**
Lift up the front panel.
Pull the air filter downwards to take it out as shown in Fig. 3 and 4.



(Fig. 3)



(Fig. 4)

- ② **Clean the air filter**
Use a vacuum cleaner to remove dust.
If the filter is dirty, wash with warm water and mild detergent.
Air dry the filters indoors and avoid direct sunlight.



NOTE: Cleaning with extremely hot water over 113°F (45°C) can deform or discolor the filter.

- ③ **Reinstall the air filter**
Reinstall the filters by pushing back into place along the direction of the arrows shown.
Close the panel.








Troubleshooting

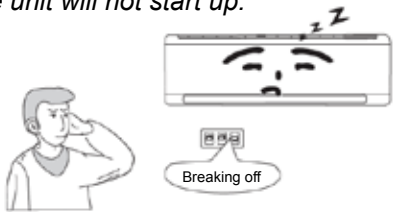
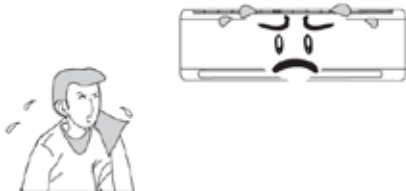
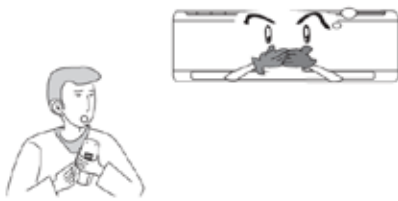


Caution


- The air conditioner is not user serviceable. Incorrect repair may cause electric shock or fire. Please contact an authorized service center or professional to repair. Performing the following checks prior to contacting may save you time and money.

Problem	Troubleshooting
<p><i>The unit does not operate:</i></p> 	<ul style="list-style-type: none"> • The unit does not operate if it is turned on immediately after it is turned off. This is to protect the unit. You should wait about 3 minutes to restart. • Be sure the unit is in the correct mode and within its designed operation limits. If temperatures outside are too low the unit may not operate.
<p><i>Odors are emitted:</i></p> 	<ul style="list-style-type: none"> • Some odors may be emitted from the indoor unit. This maybe the result of room smells (such as furniture, tobacco, etc.) which have been taken into the air conditioner's intake and are being exhausted back out. • Consult authorized service center for cleaning if the odors still exist after any sources of odor in your home have been removed.
<p><i>"Water flowing" noise:</i></p> 	<ul style="list-style-type: none"> • A swishing noise, like water flowing is the refrigerant flowing inside the unit. This is a normal noise during operation.
<p><i>Mist is emitted in COOL mode:</i></p> 	<ul style="list-style-type: none"> • During cooling operation, a thin mist may be seen emitted from the indoor unit due to high room temperature and humidity. The mist will disappear, as the room temperature and humidity decreases. This is normal under high room temperature and humidity conditions.
<p><i>Cracking noise:</i></p> 	<ul style="list-style-type: none"> • This is the sound caused by expansion and/or contraction of panel or other parts due to the change of temperature. This is normal.

Troubleshooting

Phenomenon	Troubleshooting
<p><i>The unit will not start up:</i></p> 	<p>Check these things before calling for service:</p> <ul style="list-style-type: none"> • Is the power on? • Has the circuit breaker tripped? • Is the TIMER correctly used?
<p><i>Cooling/Heating is poor:</i></p> 	<ul style="list-style-type: none"> • Is temperature set appropriately? • Is the inlet or outlet blocked? • Is the filter dirty? • Is a window or the door open in the room the unit is operating in? • Is low fan speed set? • Are there other heat sources in the room?
<p><i>Remote control is not working:</i></p> 	<ul style="list-style-type: none"> • Be sure not objects are blocking the signal. • Replace the batteries. • Try to use the remote while closer to the indoor unit.
<p><i>Water leakage of indoor unit:</i></p>	<ul style="list-style-type: none"> • Drain hose is loose or clogged. • The room's humidity level might be too high.
<p><i>Water leakage of outdoor unit:</i></p>	<ul style="list-style-type: none"> • During cooling operation, condensate is generated around the pipes and connection joints. • During defrosting operation, the thawed water flows out. • During heating operation, the water on the heat exchanger drips out.
<p><i>Noise from indoor unit:</i></p>	<ul style="list-style-type: none"> • There is noise emitted when the fan or compressor relay is switching on or off. • When the defrosting operation has started or stopped, there is a sound of refrigerant flowing in the reverse direction.

Troubleshooting

Problem	Troubleshooting
<i>Indoor unit can not blow air:</i>	<ul style="list-style-type: none"> • In HEAT mode, when the temperature of indoor heat exchanger is very low, air flow stops in order to prevent cold air from blowing for 2 minutes. • In HEAT mode, when the outdoor temperature is low or humidity is high, frost will form on the outdoor heat exchanger. The unit will defrost automatically and indoor unit will stop blowing air for 3-12 minutes. • In DRY mode, the indoor fan will stop blowing air for 3-12 minutes in order to avoid condensed water being vaporized.
<i>Moisture on air outlet:</i>	<ul style="list-style-type: none"> • If the unit operates in a high humidity environment for a long time, moisture may condense in the air outlet grill and then drip off. Try changing the position of the louver on the indoor unit to prevent this.
<i>Heating indicator blinks: ON for 10s and OFF for 0.5s.</i>	<ul style="list-style-type: none"> • It is normal, the unit is in defrost mode. Operation will return when defrosting is complete.
<i>Buttons on the cover are not working or are insensitive.</i>	<ul style="list-style-type: none"> • Please check whether the cover is closed completely.
 If any one of the following situations occur, immediately turn off and cut off the power supply, then contact an authorized servicer.	
<div> <ul style="list-style-type: none"> • There is loud/abnormal noise during operation. • Strong odors are emitted during operation, such as burning smells. • Water is leaking excessively from the unit. • The circuit breaker trips often. • Error codes "C5, F1, F2, H6" appear on the display. </div> <div> Turn off the unit and cut off the power supply. </div>	

Installation Notices:



CAUTION!

1. The unit must only be installed by authorized servicer and in compliance with this installation instruction.
2. Installation must be performed in accordance with the requirements of NEC or CEC and all local codes by authorized personal only.
3. **WARNING:** Before obtaining access to terminals, all supply circuits must be disconnected.
4. Due to high temperature of the refrigerant circuit, please keep all conduit cables away from the copper tubes to prevent melting the insulation.

Installation Location and Clearances

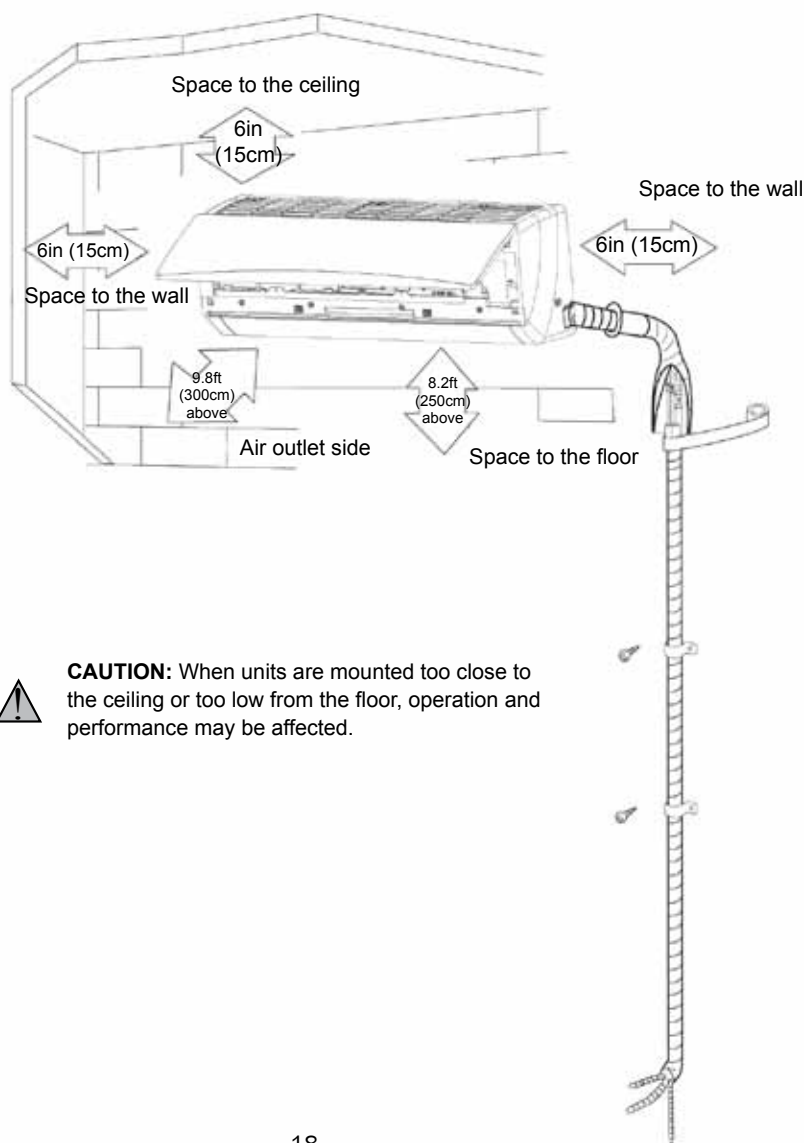
Selecting installation place

Choose a location that places the outdoor unit as close to the indoor unit as possible. The maximum unit separation and vertical lift (compressor above the evaporator) must be taking into account. Do not exceed allowable refrigerant line lengths.

Indoor unit

- Unit must be installed in a location that does not obstruct the flow of air and ensures clearances are maintained. (see installation drawing)
- The site must support the weight of the unit.
- The site must be easily accessible for cleaning, replacement of the air filter, maintenance and service.

- The indoor unit should be mounted as high up on the wall toward the ceiling, leaving a minimum of 6" (150mm) of space between the ceiling and the top of the indoor unit. see installation drawing)
- Due to the possibility of electronic interference with other devices, it is recommended that there should be at least 3 ft (1 meter) between the unit and other devices/appliances, such as televisions or radios.
- The unit should be installed away from possible exposure to fire, smoke, or flammable gases and be protected from direct sunlight (sunlight can interfere with the signal between the unit and the remote control).



Indoor unit installation

1. Wall Bracket Mounting

- There are two tabs on the back of the indoor unit that hold the wall bracket onto the unit. Press them down with a flat head screwdriver to release the wall bracket from the back of the unit.
- Mount the wall bracket flush on structural parts (studs) of the wall with proper unit clearances in consideration. (Fig. 5, 6 and Fig. 7)

NOTE: Any space between the unit and the wall may cause noise or vibration.

- Screw the wall bracket onto the wall with type "A" self-tapping screws. If the wall is made of brick, concrete or the like, drill 1/4" (5mm) diameter pilot holes in the wall. Use anchors in conjunction with mounting screws.

NOTE:

- Drill holes in the wall according to the stud locations and corresponding mounting points on the actual wall bracket that comes with your unit. Wall brackets may vary by model and specifications are subject to change.
- It is important to use all screws provided to secure the wall bracket to the wall.

2. Create Opening for refrigerant and condensate lines

- Determine hole position according to the wall bracket that comes with your unit, the unit's required clearances (Fig. 6 and 7) and which direction (left/right) the lines will be routed from the back of your unit (Fig. 11). Drill 2.5" (65mm) hole angled downward (approx. 45°) toward the outdoors. (Fig. 8).

NOTE: Ensure that neither studs nor plumbing are located directly behind the proposed hole location.

- Always use a conduit to route the piping through the hole in the wall. Properly seal the hole after routing the pipes through to prevent debris, insects, or small animals from entering.

3. Condensate Drainage

- Run the drain hose sloping downward. Do not install the drain hose as illustrated in Fig. 9.
- When extending the drain hose, with locally purchased hose, insulate the connection with armaflex or similar pipe insulation material. (Fig. 10)

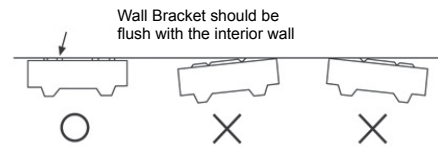


Fig. 5

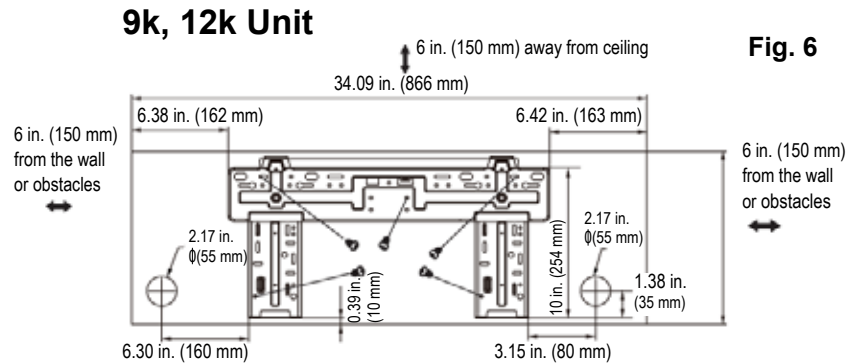


Fig. 6

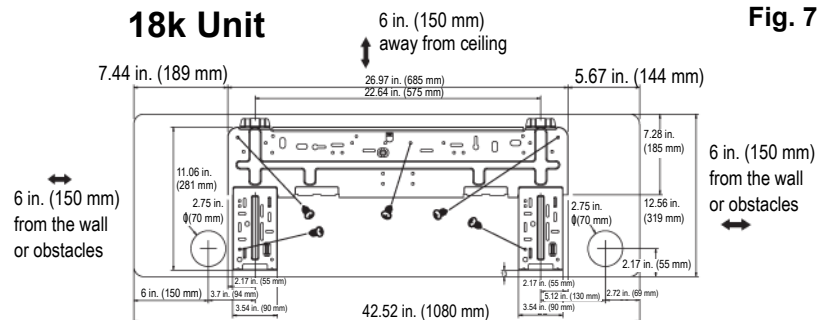


Fig. 7

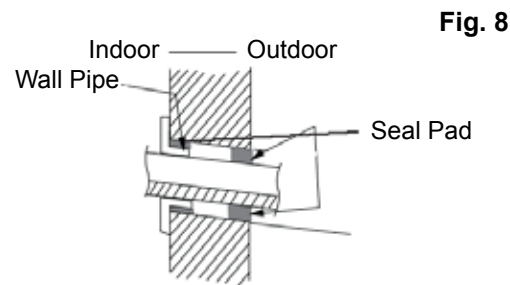


Fig. 8

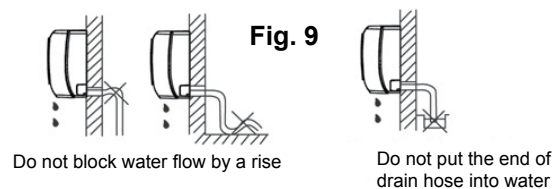


Fig. 9

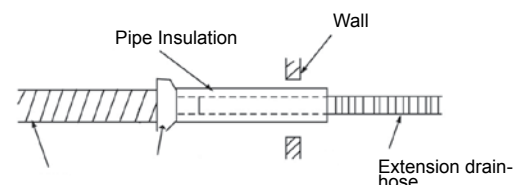


Fig. 10

Installation of Indoor Unit

4. Refrigerant Line Installation

- A. Remove the knockout from the desired side of the unit that the line set will be routed from. The lines from the unit can be routed either left or right, left back or right back (Fig. 11).
- B. Loosely run the line set connections from the indoor unit through the hole in the wall (Fig. 8).
- C. Hang the unit onto the top flanges of the wall bracket. Ensure the unit is properly seated. (Fig. 12)
- D. Keep the unit away from the wall to prevent the line set from being kinked or crushed, use a piece of styrofoam as a spacer between the back of the unit and the wall. (Fig. 13)
- E. Feed the condensate drain line and refrigerant line set through the hole such that the unit can sit flush against the wall then remove the spacer (Fig. 8).
- F. Push the bottom of the unit up and onto the lower flanges of the wall bracket. Ensure that unit is properly sealed.
- G. Be sure that the overall installation of the indoor unit and installation plate are flush against the wall and level.

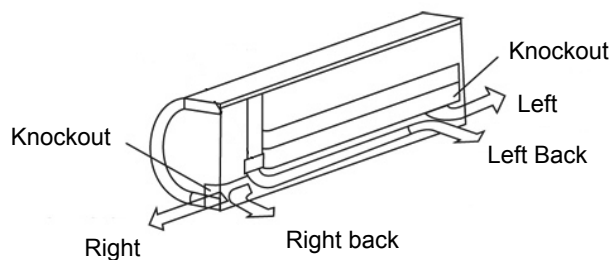


Fig. 11

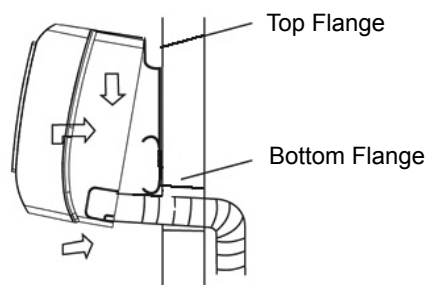


Fig. 12

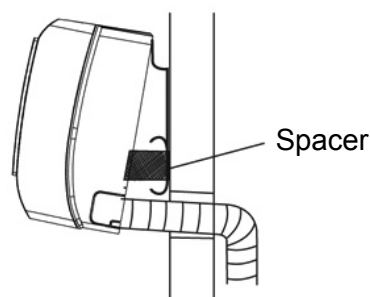


Fig. 13

5. Piping and insulating

- A. Bundle the tubing, connecting cable, and drain hose with tape or wire ties as shown in (Fig.14).
- B. Be sure to arrange the drain line such that it is at the lowest point within the bundle as they exit the unit and hole in the wall to the outdoors. (Fig. 14)
- C. Because the condensed water from rear of the indoor unit is gathered in the ponding. Do not put anything else in this area.
- E. Insulate the liquid line and suction lines separately.

ATTENTION: See outdoor installation instructions for line set and charging information and installation instructions.

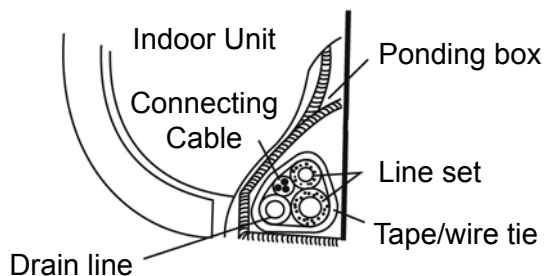


Fig. 14

Installation of Indoor Unit

INDOOR/OUTDOOR COMMUNICATING CABLE

Indoor Wiring

1. Wiring must conform to all local and national electric codes
2. Lift the indoor unit's panel up, remove the wiring cover and clamp as shown in (Fig.15).
3. Connect each conductor to the terminal of the indoor unit (N (1), 2 3, and Ground) based on the labels of each terminal (Fig. 15).
4. Use cable clamp to secure the cable (Fig. 15).
5. Ensure the wire color and location to and from each terminal are identical between the indoor and outdoor terminal strips.
6. Wrap any loose cables not connected with terminals with electrical tape, so that they will not touch any electrical components.
7. Refer to the wiring diagram located on the outdoor unit and/or under the front panel of the indoor unit for proper wiring
8. Heat Controller recommends using 600V THHN 14AWG/4 conductor unshielded stranded copper cable, however local and national codes for wire should always be followed based on your specific application.
9. Close front panel.

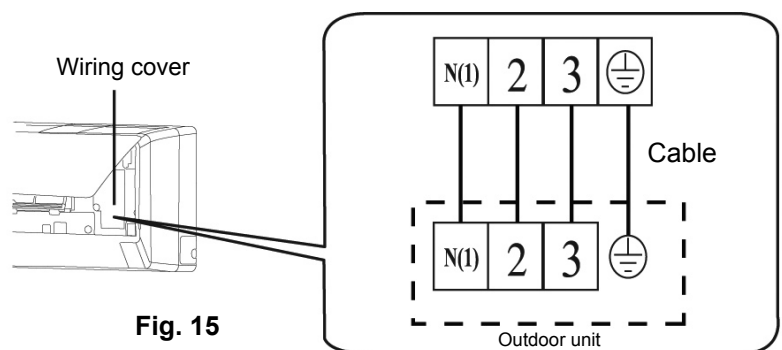


Fig. 15

Initial Start-up Checks

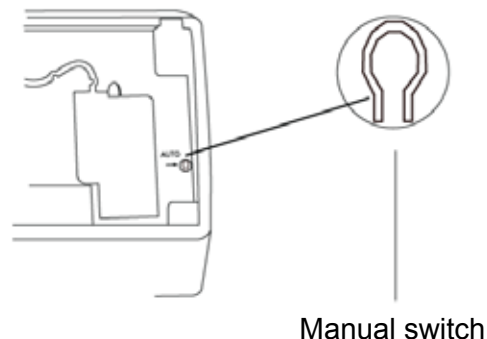
Operation of the unit will depend on the setting of the thermostat on the unit or the remote control.

IMPORTANT!

Both indoor and outdoor units must be completely installed. See outdoor installation instructions for the outdoor unit's installation. All panels must be installed, main power turned on and the wiring, refrigerant lines, and condensate drain lines properly connected before operating the unit.

Test-Run / Initial Start-up

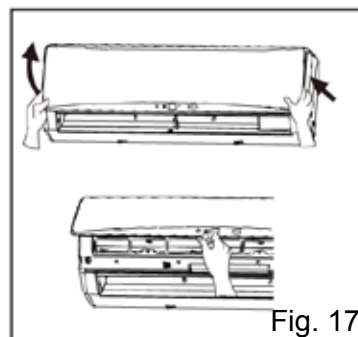
1. Press the ON/OFF button on the remote control to turn the unit on.
2. Press the mode button on the remote control to check that each mode works properly.
3. When the ambient temperature is too low to run the unit in cooling mode to check the system, the unit can be placed in manual operation.
4. To place the unit in manual operation, gently lift up the lower left and right sides of the front panel unit it opens and clicks into a locked position where it props itself open.
5. Press the button and manual switch will begin.
6. Manual operation will allow the unit to run auto mode while any final inspections are made.



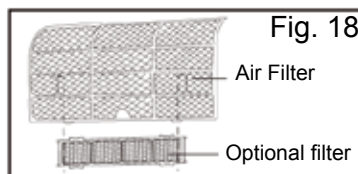
Installation of Optional Filter

NOTE: If optional filter was not shipped with your unit, disregard this step. Not all units require an optional filter.

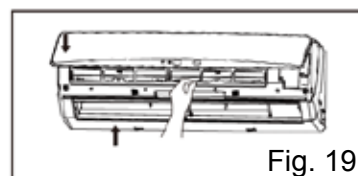
1. Lift up the front panel and then remove the air filter. (as shown in Fig. 17)



2. Attach the optional filter onto the larger air filter, (as shown in Fig. 18).



3. Reinstall the air filter properly (as shown in Fig. 19) and then close the panel.



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Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations.

Incentive and rebate programs have precise requirements as to product performance and certification. All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.

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