

**40MBDQ
Ducted Style Ductless System
Sizes 09 to 58**

Owner's Manual

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NOTE TO EQUIPMENT OWNER:

Please read this Owner's Information Manual carefully before installing and using this appliance and keep this manual for future reference.

For your convenience, please record the model and serial numbers of your new equipment in the spaces provided. This information, along with the installation data and dealer contact information, will be helpful should your system require maintenance or service.

UNIT INFORMATION

Model # _____

Serial # _____

INSTALLATION INFORMATION

Date Installed _____

DEALERSHIP CONTACT INFORMATION

Company Name: _____

Address: _____

Phone Number: _____

Technician Name: _____

A NOTE ABOUT SAFETY

Any time you see this symbol  in manuals, instructions and on the unit, be aware of the potential for personal injury. There are three levels of precaution:

DANGER identifies the most serious hazards which will result in severe personal injury or death.

WARNING signifies hazards that could result in personal injury or death.

CAUTION is used to identify unsafe practices which could result in minor personal injury or product and property damage.

NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.



WARNING

PERSONAL INJURY, DEATH AND / OR PROPERTY DAMAGE HAZARD

Failure to follow this warning could result in personal injury, death or property damage.

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause personal injury or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or service agency must use factory-authorized kits or accessories when modifying this product.

Read and follow all instructions and warnings, including labels shipped with or attached to unit before operating your new air conditioner.

GENERAL

The ducted fan coil unit provides quiet, maximum comfort. In addition to cooling and/or heating, the ducted fan coil unit matched with an outdoor condensing unit filters and dehumidifies the air in the room to provide maximum comfort.

IMPORTANT: The ducted fan coil unit should be installed by authorized personnel only; using approved tubing and accessories. If technical assistance, service or repair is needed, contact the installer.

The ducted fan coil unit can be set up and operated from the remote control (provided). **If the remote is misplaced, the system can be operated from the “Auto” setting on the unit.**

Operating Modes:

The ducted fan coil unit has five operating modes:

- Fan only
- Auto
- Heating (heat pump models only)
- Cooling
- Dehumidification (DRY)

Fan Only

In **FAN ONLY** mode, the system filters and circulates the room air without changing room air temperature.

Auto

In **AUTO** mode, the system automatically cools or heats the room according to the user-selected set point.

NOTE: **AUTO** mode is recommended for use on single zone applications only. Using Auto changeover on multi-zone applications could set an indoor unit to **STANDBY** mode, indicated with two dashes (--) on the display, which will turn off the indoor unit until all the indoor units are in the same mode (**COOLING** or **HEATING**). Heating is the system's priority mode. Simultaneous **HEATING** and **COOLING** is not allowed.

Heating

In **HEATING** mode, the system heats and filters the room air.

Cooling

In **COOLING** mode, the system cools, dries and filters the room air.

Dehumidification (DRY)

In **DEHUMIDIFICATION** mode, the system dries, filters and slightly cools the room air temperature. This mode prioritizes air dehumidification but it **does not** take the place of a dehumidifier.

Wireless Remote Control

The remote control transmits commands to set up and operate the system. The control has a window display panel that displays the current system status. The control can be secured to a surface when used with the mounting bracket provided.

Wired Remote Control (Optional)

Refer to the Wired Controller manual.

24V Interface (Optional)

Allows the control of the Ductless System with a third party thermostat.

PARTS LIST

Table 1—Parts List

PART NAME
INDOOR UNIT
DRAIN ADAPTER
AIR FILTER
WIRED CONTROLLER
WIRELESS REMOTE

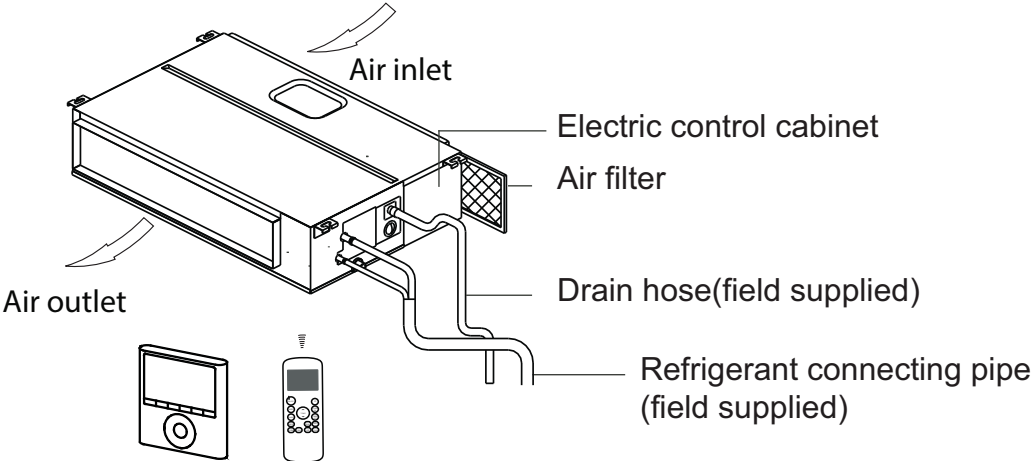


Fig. 1 – Parts List

NOTE: Images are for illustration purposes only.

DISPLAY PANELS (SHIPPED INSIDE THE CONTROL BOX)

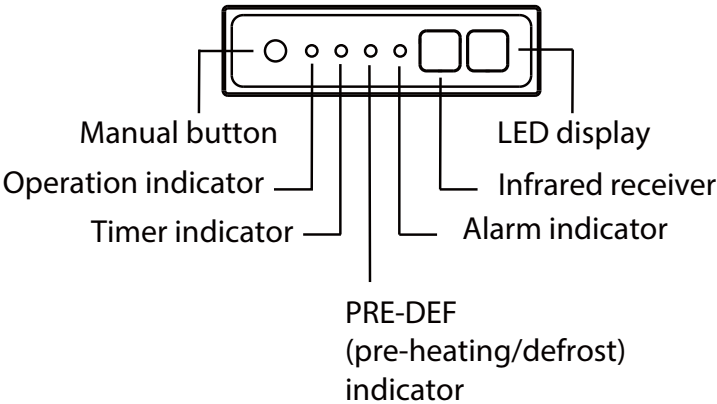


Fig. 2 – IR (Infrared)Receiver Display Panel

FUNCTION BUTTONS

Before you begin using your new air conditioner, make sure to familiarize yourself with the remote control. The following is a brief introduction to the remote control.

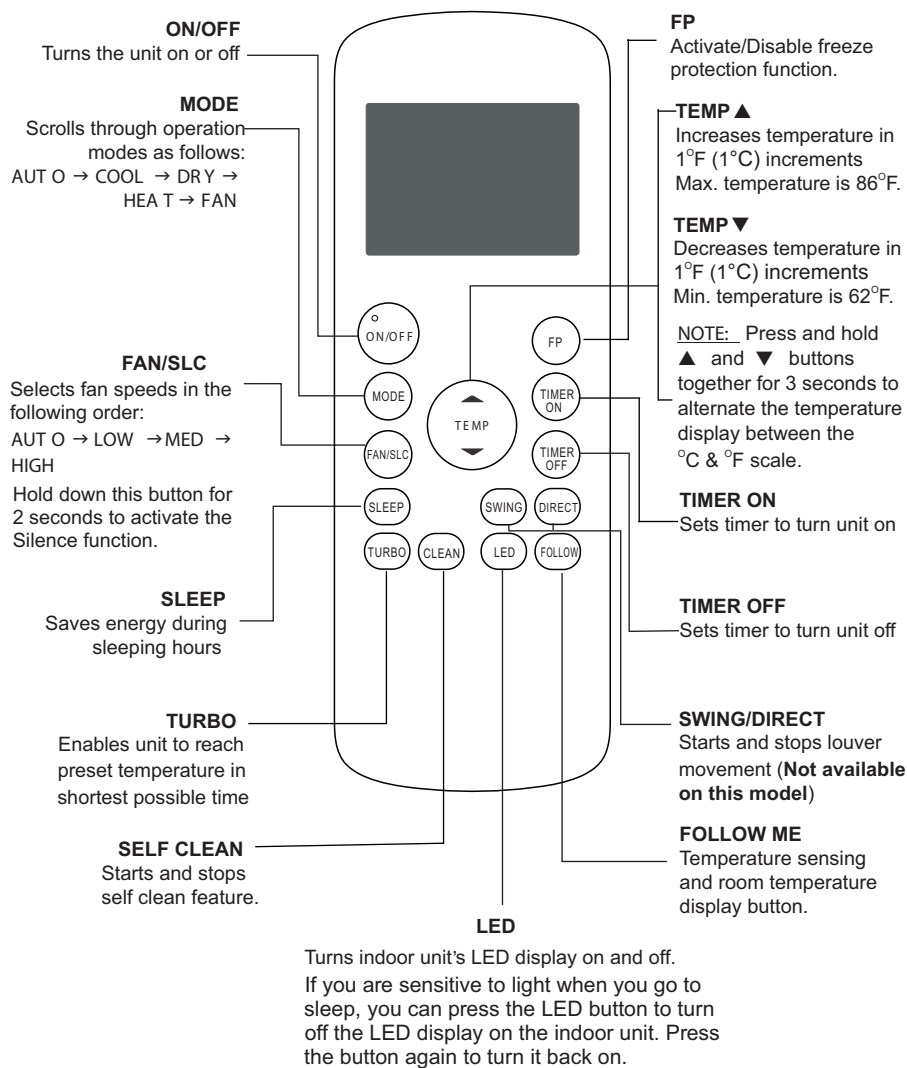


Fig. 3 – Remote Controller

NOTE: For advanced functions, refer to the RG57F3(B)/BGEFU1 Wireless Remote Controller's Service Manual.

REMOTE CONTROLLER



Fig. 4 – Remote Controller

Remote Controller Display

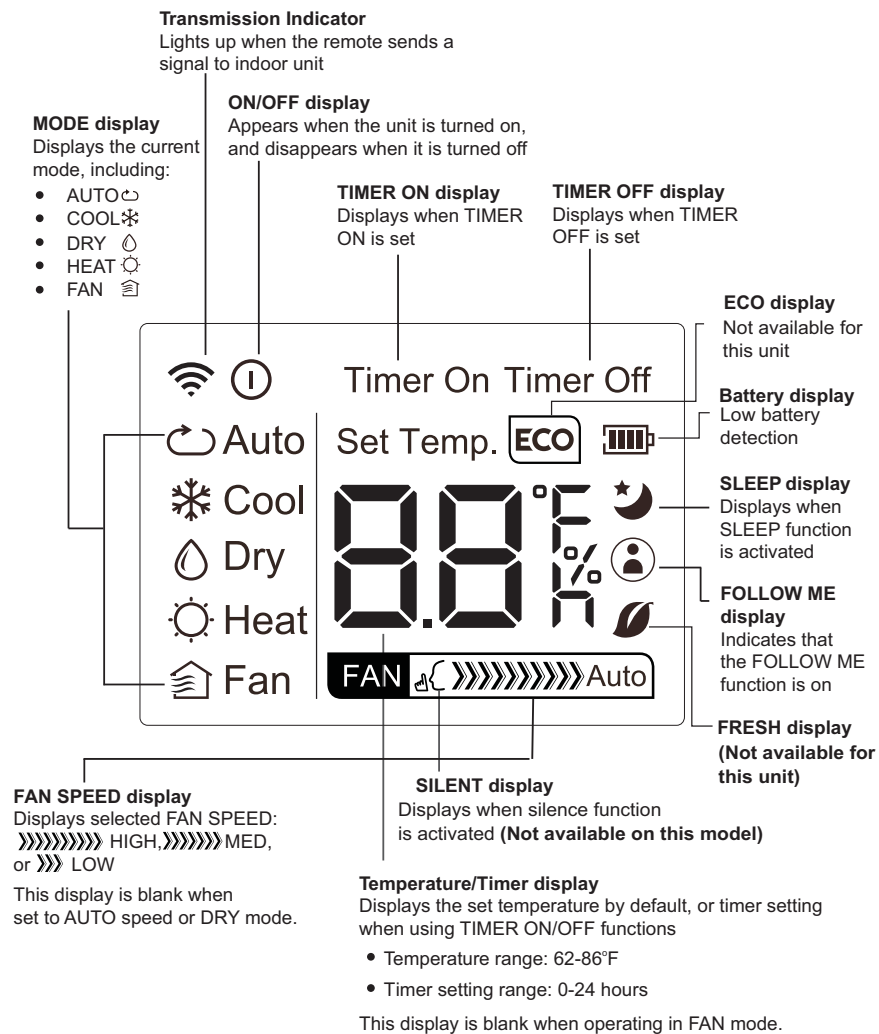


Fig. 5 – Unit Display

⚠ CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage.
Handle the control with care and avoid getting the control wet.

IMPORTANT: The wireless remote control can operate the unit from a distance of up to 26 ft. (8 m) as long as there are no obstructions.

NOTE: If a Wireless Remote controller is used, relocate the IR (Infrared) Receiver within line of sight of the remote location using the 6 ft. cable included. The factory location of the IR receiver is inside the control box.

When the timer function is used, the remote control should be kept in the vicinity of the fan coil (within 26 ft. (8 m)).

The remote control can perform the following basic functions:

- Turn the system **ON** and **OFF**
- Select the operating mode
- Adjust the room air temperature set point and fan speed

Refer to the *Remote Control Function* section for a detailed description of all the remote control's capabilities.

Battery Installation

Two AAA 1.5v alkaline batteries (included) are required to operate the remote control.

To install or replace batteries:

1. Slide the back cover off the control to open the battery compartment.
2. Insert the batteries. Follow the polarity markings inside the battery compartment.
3. Replace the battery compartment cover.

NOTE:

1. When replacing batteries, do not use old batteries or a different type battery. This may cause the remote control to malfunction.
2. If the remote is not going to be used for several weeks, remove the batteries. Otherwise battery leakage may damage the remote control.
3. The average battery life under normal use is about 6 months.
4. Replace the batteries when there is no audible beep from the indoor unit or if the Transmission Indicator fails to light.
5. When batteries are removed, the remote control erases all programmed settings. The control must be reprogrammed after insertion of new batteries.

Remote Control Operation – Quick Start

NOTE: When transmitting a command from the remote control to the unit, be sure to point the control toward the right side of the unit. The unit confirms receipt of a command by sounding an audible beep.

1. Turn the unit on by pushing the **ON/OFF** button.
2. If there is a preference for °C rather than °F (default), press and hold the increase ▲ and decrease ▼ temperature set point buttons together for approximately 3 seconds.
3. Select the desired mode by pushing **MODE**.



Fig. 6 – Modes

4. Select the temperature set point by pointing the control toward the unit and pressing the increase/decrease temperature set point buttons until the desired temperature appears on screen.
5. Select the desired fan speed by pressing **FAN**.

NOTE: If the unit is operating in **DRY** or **AUTO** mode, the fan speed will be automatically set.

Manual Operation

If the remote control is lost, damaged, or the batteries are exhausted, the **MANUAL** button located on the IR Receiver can be used to run the unit.

When **MANUAL** is pressed once, the **AUTO** mode takes affect (heat or cool). When **MANUAL** is pressed twice, the system enters the **TEST** mode and runs for 30 minutes in the **COOLING** mode (it will run in the **AUTO** mode afterward). When pressed three times, the system turns off.

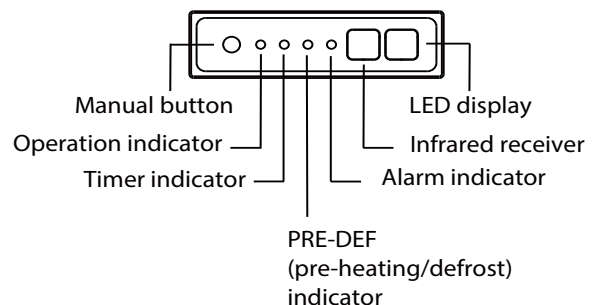


Fig. 7 – IR Receiver Display Panel

The set conditions of manual operation are as follows:

- Preset set point: 76°F (24°C)
- Fan speed: **AUTO**

REMOTE CONTROL FUNCTIONS

Pressing On/Off

When the air conditioner is not in operation, the remote control displays the last set point and mode.

- Press **ON/OFF** to start the unit.
 - The unit starts in the last operating mode and set point. The **ON/OFF** indicator appears.
- Press **ON/OFF** to stop the unit.
 - All the indicator lights on the unit go out, and the remote control displays the set point and mode.

NOTE: If **ON/OFF** is pressed too soon after a stop, the compressor will not start for 3 to 4 minutes due to the inherent protection against frequent compressor cycling. The unit only emits an audible beep when the signals are received correctly.

Selecting an Operating Mode

Use **OPERATING MODE** to select one of the available modes.



Fig. 8 – Display

Setting the Room Temperature Set Point

Press the increase temperature set point ▲ and decrease ▼ buttons to raise or lower the temperature.

The unit confirms the signal receipt with a beep and the value of the set temperature appears on the display and changes accordingly. The temperature can be set between 62°F (17°C) and 86°F (30°C) in increments of 1°F or 1°C.

NOTE: In the **COOLING** mode, if the temperature selected is higher than the room temperature, the unit will not start. The same applies for the **HEATING** mode if the selected temperature is lower than the room temperature.

Selecting the Fan Speed

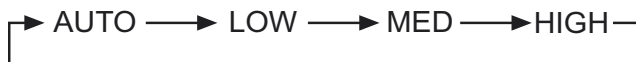


Fig. 9 – Fan Speeds

The fan speed can be selected by pressing **FAN**.

NOTE: When the unit is on, the fan runs continuously in cooling or heating. When in heating, there might be situations where the fan will slow down or shut off to prevent cold blow.

DIRECT

NOTE: The DIRECT feature is not available on this model.

SWING

NOTE: The SWING feature is not available on this model.

Timer Function

TIMER ON (to start the unit) and **TIMER OFF** (to stop the unit) can be used separately or together.

Timer ON only

This function allows the unit to start automatically at the set time. The **TIMER ON** can be set while the unit is on or off.

UNIT ON

- Press **TIMER ON**  to initiate the auto-on time sequence. The set time is displayed in the remote control display. Every time **TIMER ON** is pressed, the time increases by 30 minutes, up to 10 h. It increases by 60 minutes, afterwards, until the time setting reaches 24 h.
- When **TIMER ON** is set, the unit's **TIMER** light illuminates. The unit continues to run at the set time.

UNIT OFF

- Set the timer described in the **UNIT ON** section.
- The unit starts at the set time.

Adjust the **TIMER ON** settings to 0.0 to cancel this option.

Timer OFF only

This function allows the unit to stop automatically at the set time. The timer can be set while the unit is on or while it is off.

UNIT ON

- Press **TIMER OFF**  to initiate the auto-off time sequence. The set time appears on the remote control display. Every time **TIMER OFF** is pressed, the time increases by 30 minutes, up to 10 h. It increases by 60 minutes, afterwards, until the time settings reach 24 h.
- When **TIMER OFF** is set, the timer light on the unit illuminates and the unit turns off automatically at the set time.

UNIT OFF

- Set the **TIMER OFF** as described in the **UNIT ON** section. The **TIMER** display on the unit illuminates and the unit remains off.
- Adjust the **TIMER ON** settings to 0.0 to cancel this option.

Timer ON and Timer OFF

Use both functions to program the unit to turn on and shut off at specified times.

UNIT OFF

- Set **TIMER ON** as previously described.
- Set **TIMER OFF** as previously described. The unit starts automatically at the set **TIME ON** and turns off at the set **TIME OFF**.

UNIT ON

- Set **TIME OFF** as previously described.
- Set **TIME ON** as previously described. The unit turns off automatically at the set **TIME OFF** and turns on at the set **TIME ON**.

Sleep Mode

SLEEP mode is used to conserve energy and can be used when the unit is in the **COOL**, **HEAT** or **AUTO** mode only.

Cool Mode

- a. Push **SLEEP**. After 1 hour the set point raises by 1.8°F (1°C). After another hour, the set point raises by another 1.8°F (1°C) and the fan runs in a low speed. The unit shuts off 5 hours after setting the **SLEEP** mode. The **SLEEP** mode cancels if either **MODE**, **TEMP**, **FAN**, **TIMER**, or **ON/OFF** on the remote control are pressed.

Heat Mode

Same as cooling mode however set points are lowered by 1.8°F (1°C).

Turbo Mode

Use the **TURBO** mode to cool or heat the room rapidly.

- a. Press **TURBO**. An audible “beep” is heard if the indoor unit supports this function. The fan runs on super high speed. The **TURBO** mode terminates automatically 20 minutes after pushing **TURBO**. It can be terminated immediately by selecting **TURBO** again. When the **TURBO** mode is terminated, the unit reverts to the original setting.

Self Clean Mode (Available only on sizes 18 to 24)

Press **CLEAN** to activate or deactivate the self-cleaning function. Under this function, the air conditioner automatically cleans and dries the evaporator. The cleaning cycle takes 16 minutes, after which the unit turns off automatically. Pressing **CLEAN** in the middle of the cycle cancels the operation and turns off the unit. This function can be activated only in the **COOL** or **DRY** mode.

Follow Me Mode

Press **FOLLOW ME** to activate or deactivate this function. Under this setting, the temperature that appears in the remote control is the actual temperature at its location. The remote control sends this signal to the air conditioner every 3 minutes. This function is not available for **DRY** and **FAN** modes.

This function can also be deactivated if:

1. No **FOLLOW ME** signal is received by the unit for continuous 7 min
2. Users adjust the operation mode
3. Users turn off the unit
4. Users turn off the **FOLLOW ME** function

NOTE: If **FOLLOW ME** is used with the wireless remote controller, make sure that the remote’s IR sender is within line-of-sight of the IR receiver of the unit and is within the maximum range of 25 feet of the indoor unit. If **FOLLOW ME** is de-activated by pressing **MODE**, **OFF** or **FOLLOW ME** on the remote, the icon on the remote will turn off.

Freeze Protection Mode

Press **FP** for approximately 2 seconds to activate or deactivate the freeze protection mode (heating set back). The indoor unit displays “FP”.

NOTE: This function is only available in the heating mode.

Under this function, the unit operates at high fan speed and the coil temperature automatically sets to 46°F (8°C). This mode can also be deactivated by pressing **ON/OFF**, **SLEEP**, **MODE**, **FAN**, or either **TEMP**.

Silence Mode

NOTE: The Silence Mode (SLC) feature is not available on this model.

LED Light

Press **LED** to turn the display light on and off.

Resetting the Remote Control

If the batteries in the remote control are removed, the current settings will be cancelled and the control returns to the initial settings and will be in standby mode. Push **ON/OFF** to activate.

Time Delay

If **ON/OFF** is pressed too soon after a stop, the compressor will not start for 3 to 4 minutes due to the inherent protection against frequent compressor cycling. The unit only emits an audible beep when the signals are received correctly.

Heating Features

If the unit is in the heating mode, there is a delay when the fan starts. The fan starts only after the coil is warmed up to prevent cold blow.

Auto Defrost Operation

In **HEATING** mode, if the outdoor coil is frosted, the indoor fan and outdoor fan turns off while the system removes the frost from the outdoor coil. The system automatically reverts to normal operation when frost is removed from the outdoor unit.

Auto Start

If the power fails while the unit is operating, the unit stores the operating condition, and the unit will start operation automatically under those conditions when the power is restored.

CLEANING, MAINTENANCE AND TROUBLESHOOTING

⚠ CAUTION

ELECTRICAL SHOCK HAZARD

Failure to follow this caution may result in personal injury or death.

Always turn off power to the system before performing any cleaning or maintenance to the system. Turn off the outdoor disconnect switch located near outdoor unit. Be sure to disconnect indoor unit if on a separate switch

⚠ CAUTION

EQUIPMENT DAMAGE/OPERATION HAZARD

Failure to follow this caution may result in equipment damage or improper unit operation.

Operating the system with dirty air filters may damage the indoor unit and could cause reduced cooling performance, intermittent system operation, frost build-up on indoor coil or blown fuses.

Periodic Maintenance

Periodic maintenance is recommended to ensure proper operation of the unit. Recommended maintenance intervals may vary depending on the installation environment, e.g., dusty zones, etc. Refer to Table 2.

⚠ CAUTION

CUT HAZARD

Failure to follow this caution may result in personal injury.

The coil fins are very sharp. Use caution when cleaning.

Always wear safety protection.

Cleaning the Coil

Clean the coil at the beginning of each cooling season, or when necessary. Use a vacuum cleaner or a long-bristle brush to avoid damage to the coil fins.

Air Filters

Remove and clean the air filters once a month.

NOTE: If the air filters show signs of excessive wear or are torn, they must be replaced. Contact your local dealer for replacement filters.

1. Unscrew filters from the frame.
2. Pull filters down to remove.

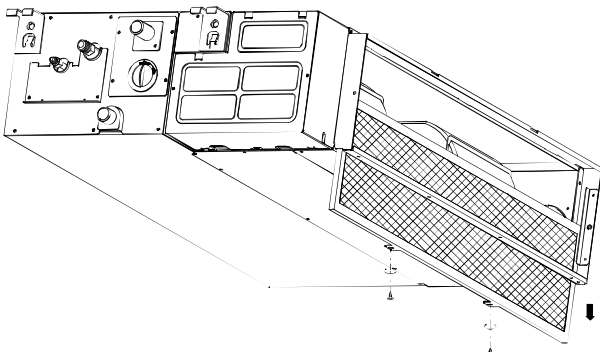


Fig. 10 – Remove the Filters

3. Vacuum filters.

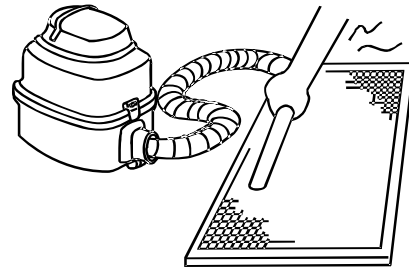


Fig. 11 – Vacuum the Filters

4. Clean with warm water.

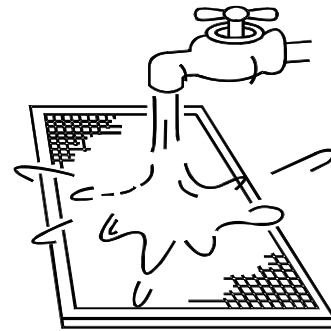


Fig. 12 – Clean Filter with Warm Water

5. Shake filter to remove excess water and dry thoroughly.
6. Replace filter by sliding into rack until filter snaps in place.
7. Close front panel on unit.

⚠ CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage.

When cleaning the front panel, do not use water hotter than 105°F (40.6°C) and do not pour water onto the fan coil. Do not use abrasive or petroleum based cleaners as they may damage the front panel.

Preparing for Extended Shutdown Period

Clean the filters and place them back into the unit. Operate the unit in **FAN ONLY** mode for 12 hours to dry all internal parts. Turn the main power supply off and remove the batteries from the remote control.

System Operation Recommendations

The items outlined in the following list help to assure proper system operation:

- Replace both remote control batteries at the same time.
- Point the remote control toward the unit display panel when transmitting a command.
- Keep doors and windows closed while unit is operating.
- Contact an authorized service representative if a problem arises that cannot be easily resolved.
- Do not perform cleaning or maintenance activities while the unit is on.
- Keep the display panel on the unit away from direct sunlight and heat as this may interfere with remote control transmissions.
- Do not block air intakes and outlets on the indoor or outdoor units.

Energy Saving Recommendations

The following recommendations will add greater efficiency to the ductless system:

- Select a comfortable thermostat setting and leave it at chosen setting. Avoid continually raising and lowering the setting.
- Keep the filter clean. Frequent cleaning may be necessary depending on indoor air quality.
- Use drapes, curtains or shades to keep direct sunlight from heating the room on very hot days.
- Limit the unit's run time by using the **TIMER** function.
- Do not obstruct the air intake on the front panel.
- Turn on the air conditioning unit before the indoor air becomes too uncomfortable.

TROUBLESHOOTING

Refer to Table 4 before contacting your local dealer.

Table 2—Periodic Maintenance

INDOOR UNIT	EVERY MONTH	EVERY 6 MONTHS	EVERY YEAR
Clean Air Filter*	•		•
Change Remote Control Batteries			•
OUTDOOR UNIT	EVERY MONTH	EVERY 6 MONTHS	EVERY YEAR
Clean Outdoor Coil from Outside		•	•
Clean Outdoor Coil from Inside†			•
Blow Air Over Electric Parts†			•
Check Electric Connection Tightening†			•
Clean Fan Wheel†			•
Check Fan Tightening†			•
Clean Drain Pan†			•

* Increase frequency in dusty zones.

† Maintenance to be carried out by qualified service personnel. Refer to the Installation Manual.



CAUTION

If one of the following conditions occurs, switch off the power supply immediately and contact your dealer for further assistance.

- The operation light continues to flash rapidly after the unit has been restarted.
- The remote control buttons do not work.
- The unit continually trips fuses or circuit breakers.
- A foreign object or water enters the air conditioner.
- Other abnormal situations.

Common Problems

The following symptoms are not malfunctions and in most situations will not require repairs.

Table 3—Common Problems

Problem	Possible Causes
Unit does not turn on when pressing ON/ OFF	The unit has a 3—minute protection feature that prevents the unit from overloading. The unit cannot be restarted within three minutes of being turned off.
	Cooling and Heating Models: If the Operation light and PRE—DEF (Pre—heating/ Defrost) indicators are lit up, the outdoor temperature is too cold and the unit's anti—cold wind is activated in order to defrost the unit.
	In Cooling—only Models: If the "Fan Only" indicator is lit up, the outdoor temperature is too cold and the unit's anti—freeze protection is activated in order to defrost the unit.
The unit changes from COOL mode to FAN mode	The unit changes its setting to prevent frost from forming on the unit. Once the temperature increases, the unit will start operating again.
	The set temperature has been reached, at which point the unit turns off the compressor. The unit will resume operating when the temperature fluctuates again.
The indoor unit emits white mist	In humid regions, a large temperature difference between the room's air and the conditioned air can cause white mist.
Both the indoor and outdoor units emit white mist	When the unit restarts in HEAT mode after defrosting, white mist may be emitted due to moisture generated from the defrosting process.
The indoor unit makes noises	A squeaking sound is heard when the system is OFF or in COOL mode. The noise is also heard when the drain pump (optional) is in operation.
	A squeaking sound may occur after running the unit in HEAT mode due to expansion and contraction of the unit's plastic parts.
Both the indoor unit and outdoor unit make noises	A low hissing sound may occur during operation. This is normal and is caused by refrigerant gas flowing through both the indoor and outdoor units.
	A low hissing sound may be heard when the system starts, has just stopped running or is defrosting. This noise is normal and is caused by the refrigerant gas stopping or changing direction.
The outdoor unit makes noises	The unit will make different sounds based on its current operating mode.
Dust is emitted from either the indoor or outdoor unit	The unit may accumulate dust during extended periods of non—use, which will be emitted when the unit is turned on. This can be mitigated by covering the unit during long periods of inactivity.
The unit emits a bad odor	The unit may absorb odors from the environment (such as furniture, cooking, cigarettes, etc.) which will be emitted during operations.
	The unit's filters have become moldy and should be cleaned.
The fan of the outdoor unit does not operate	During operation, the fan speed is controlled to optimize product operation.

Table 4—Troubleshooting Tips

PROBLEM	POSSIBLE CAUSE	SOLUTION
Unit/System Does Not Work	- The circuit breaker has tripped or a fuse has blown. - Power failure. - Diagnostic lights illuminate.* - Voltage is too low - Remote control batteries are dead - The unit's 3 minute protection has been activated.	- Reset the circuit breaker or replace the fuse with the specified replacement fuse. - Restart operation when the power is restored. - Call your service representative. - Call your service representative. - Replace the remote control batteries - Wait three minutes after restarting the unit.
Poor cooling performance	- The filter is blocked with dust. - Temperature is not set properly. - A window or door is open. - The outdoor unit is obstructed. - The fan speed is too low. - The operation mode is in Fan instead of Cool. - Low refrigerant due to leak or long—term use of refrigerant.	- Clean the air filter. - Check the temperature and reset if necessary. - Ensure all doors and windows are closed while operating the unit. - Turn the unit off, remove the obstruction and turn it back on. - Change the fan speed selection. - Change the operating mode to Cool or reset the unit. - Check for leaks, re—seal if necessary and top off refrigerant.
Poor heating performance	- The filter is blocked with dust. - Temperature is set too low. - A window or door is open. - The outdoor unit is obstructed.	- Clean the air filter. - Check the temperature and reset if necessary. - Ensure all doors and windows are closed while operating the unit. - Turn the unit off, remove the obstruction and turn it back on.
Unit Stops During Operation	- The Off timer is not operating correctly. - Diagnostic lights illuminate.*	- Restart the operating mode. - Call your service representative.

* Diagnostic lights are a combination of lights that will illuminate in the display area on the unit. They are a combination of the lights you see during normal operation.

