USER'S MANUAL
Split Wall-Mounted Air Conditioner

MODEL
KFR-25GW/GX1b
KFR-35GW/GX1b
Air conditioners are units that should have the professional technicians do the installation for you. This instruction manual is the universal-purpose version for the models of split wall mounted air conditioners manufactured by our Co. The appearance of the units that you purchase might be slightly different from the ones described in the Manual, but it does not affect your proper operations and usage. Please read carefully the sections corresponding to the specific model you choose, and keep the Manual properly so as to facilitate your reference at later time.

**Addition to the user manual:**

The appliance is not intended for use by young children or infirm persons without supervision; Young children should be supervised to ensure that they do not play with the appliance.

When the ambient temperature is either below -7°C or above 43°C, don't operate the appliance, other air conditioning patterns are recommended.

In the situation of starting up, if it is detected that outdoor ambient temperature is lower -10°C, the unit will protect itself and become inoperable.

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Instructions to users

Please read the "Instruction Manual" carefully prior to the use of your air conditioner so as to ensure proper operations.

Instructions for Installation

- Make sure to have the professional after sales service person of our company or the authorized dealers to install the units before you use.

1. The units are not to be installed at places where there might be leakage of combustible gases.

   ![Image](Image)

   In case that the leaked gas accumulates around the units, there might occur the accident of fire hazards.

   After the connecting of the wires between the indoor unit and the outdoor unit, check whether the connecting is loose or not by pulling the wire with slight force.

   ![Image](Image)

   The loose connecting might result in fire hazard.

   Make sure that the earth leakage-circuit breaker is installed.

   ![Image](Image)

   Absence of the earth leakage-circuit breaker might lead to electric shock and some other hazards.

Instructions for Operation

- Never try to stop the operation of the air conditioner by operate the switch.

   ![Image](Image)

   Such performance might cause electric shocks or fire hazards.

- Do not operate the switch by wet hands.

   ![Image](Image)

   It might cause electric shock.

- Never use the fuse with incorrect capacity or any other metal wires.

   ![Image](Image)

   The use of metal or copper wires for fuse might cause operational failures or fire hazards.

- Make sure that the air conditioner is properly grounded.

   ![Image](Image)

   The grounding wire on the air conditioner should be tightly connected to the ground of the power source. Improper grounding might cause electric shocks or other hazards.

- Do not press, stretch, damage, heat or modify the power line.

   ![Image](Image)

   It might cause electric shocks, overheating, fire hazards, etc. If the power line wire is damaged or needs to be replaced due to some other reasons, please make sure to have dealer or the authorized maintenance people to do the replacement.
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<th>Instructions for Removal and Repair</th>
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<tr>
<td>When removal or repair is needed, please contact the dealer or authorized maintenance &amp; installation people.</td>
</tr>
<tr>
<td>In case of any abnormal occurrences (smell of burning), please stop the operation at once, cut off the power supply and contact the dealer or authorized maintenance people.</td>
</tr>
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</table>
【The name of each part and its function】

There are many models, features, and appearance will vary, all the figures provide a demonstration to introduce the function.

**Indoor Unit**

- **Air return grid**
  Takes in the indoor air

- **Air filter**

- **Left/right air flow direction adjusting fin**

- **Up/down air flow direction adjusting flap**

- **Air outlet**
  Air blows out from here

- **Drain tube**
  Drain the water dehumidified out of the air

**Outdoor Unit**

- **Air inlet**
  at sides & rear surface

- **Refrigerant piping connection**

**Unit operation section**

**How to open**

Push down the air inlet grid and the push both sides of air inlet grid at the bottom.

Lightly push both sides of the air inlet grid at the bottom and pull it to this side till a resistance is felt.

**How to close**

This button can be used as an emergency measure to turn on/off unit when remote controller is not available.

*Note: Do not open the grid at an angle over 60 degrees. Do not operate the units with too much force.*
Indication of unit 3

Fan speed indicator
Setting temperature, timer time and multifunction code indicator
Timer indicator

Indication of unit 4

Ceiling indicator
Health indicator (cooling and heating mode)
Auto mode indicator
Swinging indicator
Timer time indicator

Sensing indicator
Setting temperature indicator
Setd temperature is "OFF" will store 0.

Fan speed indicator
It can show high, mid and low speeds.

Note: The indicator may be changed, but it does not affect your operation please subject to what you purchase.

[Operation and indication sections of remote controller]

OPERATION MODE indicator
Indicates selected operation mode.

Fan speed indicator
Indicates the selected air flow.

TIME indicator
During normal operation, indicator BLINKS. During normal operation, indicator PRESENT TIME.

SET TEMPERATURE button
This button sets the room temperature.

SLEEP button
This button changes to SLEEP operation.

AUTOSTART button
This button is used for selecting timed starting.

AUTO STOP button
This button is used for selecting timed stopping.

TEMPERATURE indicator
Indicates the set temperature, 0 degree indicates temperature when operation mode is AUTO mode.

AIR FLOW indicator
Indicates selected fan mode.

ON/OFF button
This button, when pressed, starts operation and stops when released.

VANE CONTROL button
This button changes the flap modes.

OPERATION MODE select button
This button whenever pressed changes the mode in the following order: "COOLING" "HEATING" "FAN" "DRY" "AUTO"

FAN SPEED button
This button sets fan speed.

SWING button
This button changes the air swinging direction.

TIME SET button
The button is used for setting present time and start time or stop time.
[Use of remote controller]

CAUTION: restarting the unit must wait 3 minutes

AUTO MODE OPERATION PROCEDURE
Operates by selecting automatically the operation mode (DRY, COOL, or HEAT) depending on the room temperature at starting.
With the remote controller pointing the air conditioner.

1. Press the ON/OFF button.
When the unit is not at AUTO SELECT mode.

2. Press the MODE button. Set to "AUTO SELECT"
When the "C" is displayed, the air conditioner is automatically controlled at the optimum temperature.

TO Stop: Press the ON/OFF button.
The operation of the AUTO SELECT mode can be performed by only pressing the ON/OFF button from the next time.

When "C" is not displayed, press the MODE button to set the "AUTO select mode.

Each time the button is pressed, the operation mode is changed in sequence from "C" (AUTO), "C(DRY)" to "C(HEAT)/C(FAN)"

Temperature adjusting procedure during AUTO SELECT operation

Adjusts air temperature during AUTO SELECT operation, press the "△" button or the "▽" button, adjusts temperature.

Press "△" one time, the temperature raises about 1°C or 1°F.
Press "▽" one time, the temperature reduces about 1°C or 1°F.

Cool/Heat(Fan)/Dry mode Operation Procedure

With the remote controller pointing toward the air conditioner.

1. Press the ON/OFF button.

2. Press the MODE select button
Select the operation mode (COOL, DRY, HEAT/FAN, AUTO, AUTO SELECT).

3. Press the △ or ▽ button, Set to your favorite temperature press △ or ▽ button

   HEAT
   COOL
   16°C(61°F)-43°C(109°F)
   16°C(61°F)-48°C(118°F)
   If CONT. is selected, room temperature isn’t controlled, operation being continued.

4. Press the FAN SPEED button, Set to your favorite air flow rate.

   Changing procedure of the content of the operation
   Set to the content.
   The content of the operation can be set or changed even while the air conditioner is off operation.
Air flow direction adjustment procedure

**Adjusting up/down air flow direction**

Up/down direction can be adjusted by using the VANE CONTROL button on the remote controller. This button, each time pressed, changes the mode in the following sequence:

- (1) ➔ (2) ➔ (3) ➔ (4) ➔ (5) ➔ (AUTO)

Change to the VANE CONTROL mode.

**TO change the VANE CONTROL velocity press the FAN SPEED button.**

Each time the button is pressed, fan speed is changed in sequence, from Lo ➔ Mid ➔ Hi ➔ AUTO.

To cool the whole room, use the Hi (HI) mode. (COOL MODE). If the sound of the air conditioner operating disturbs your sleep, use the SLEEP mode.

**Recommended horizontal VANE range.**

Use in the AUTO (AUTO) position usually. Use positions (1) or (2) in the COOL or DRY mode and positions (3) to (5) in the HEAT mode when adjusting to your requirements.

**NOTE**

- In the cooling operation, when the air conditioner is operated with VANE CONTROL blowing down (4) or (5) for 1 hour, the VANE CONTROL direction is automatically set to level to prevent condensed water from dripping.
- Adjust the vertical VANE CONTROL direction using the remote controller. If the horizontal vane are moved manually, it may cause trouble.
- In heating operation, if the output air temperature is too low or when defrosting is done, the horizontal vane position is set to (1).

**SWING ADJUSTMENT PROCEDURE**

Press the SWING button

- To release the SWING operation mode;

Press the SWING button again

- If the SWING button is pressed during swing
PRESENT TIME SETTING PROCEDURE
When cells are inserted, the present is automatically set to AM 12:00 EX: Set to AM 10:30

1. Press the CLK button. Insert the back cover with the tip of a ball pen, etc. The time indicator is flickering and can set the present time.

2. Press the HOUR button, (Set to AM 10:)

3. Press the MIN button, (Set to 30)

4. Press the CLK button again, then reattach the back cover.

NOTE: The timer is set on the basis of the present time. Set the present time correctly.

SLEEP OPERATION PROCEDURE
Use this mode to reduce operation sound when sleeping, etc.

- Press the SLEEP button
  - To release the SLEEP mode;

- Press the SLEEP button again.
  - The airflow sound from the indoor unit is decreased.
  - When the FAN SPEED button is pressed during the SLEEP mode, the SLEEP mode is released.

Note
Use the sleep mode when you are going to bed. If this mode is used in the daytime, the capacity is reduced since the ambient temperature is too high. (COOL MODE).
How to set the ON timer

1. Press the AUTO START button to set the on timer mode during operation. Each time the button is pressed, the ON timer mode alternates between ON and OFF.

2. Set the time of the timer using the HOUR and MIN buttons. Each time the HOUR button is pressed, the set time is counted up by 1 hour; each time the "MIN" button is pressed, the set time is counted by 10 minutes.

To release the ON timer:
Press the AUTO START button to release the timer.

HOW to set the OFF timer

1. Press the AUTO STOP button to set the OFF timer mode during operation. Each time the button is pressed, the OFF timer mode alternates between ON and OFF.

2. Set the time of the timer using the HOUR and MIN buttons. Each time the HOUR button is pressed, the set time is counted up by 1 hour; each time the "MIN" button is pressed, the set time is counted by 10 minutes.

To release the OFF timer:
Press the AUTO STOP button to release the timer.

Programming timer operation
The ON timer and OFF timer can be used in combination. The time of the set time which is reached first will operate first (mark indicates the order of timer operations.)

If the current time has not been set, the timer operation cannot be done.

[Features of Heating Operations]

Basic principles and performances

- The machines absorb heat from the outdoor air and transfer it indoors so as to heat the room air. The heating capabilities through the principle of heat pump go up/down with the increase/decrease of the temperatures of the outdoor air.
- It only needs a fairly short time for such hot air circulation system to raise the room temperature.
- When the outdoor air temperature is very low, the system can be used together with other heating devices. But good maintenance should be maintained to ensure safety and prevent accidents.

Defrosting

When the outdoor air temperature is very low and humidity is very high, frosting will occur to the heat exchanger of the outdoor unit, which has a negative impact on the efficiency of the heating performance. In such case, the automatic defrosting function will come into play. The heating operation will be stopped for 5-10 minutes to do the defrosting.

- The fans of both the outdoor and indoor units are stopped. During the defrosting operation, the run light will flash slowly.
- During the defrosting, the outdoor unit might generate some steam. It is caused by fast defrosting, which is not a performance failure.
- Upon the completion of the defrosting process, the heating operation is resumed.
The air conditioner must be turned off power before the maintenance is to be carried out.

**Before the season of operation**

1. Check if there are any blocking materials in the intake and outlet vents of the indoor and outdoor units.
2. Check if the installation stand is corroded or rusty.
3. Check if the machine is properly grounded.
4. Check if the air filter is clean.
5. Connect to the power source.
6. Put batteries in the remote controller.

**During the season of operation**

1. Remove the air filter screen from the unit.
   - Gently press the two lower ends of the grid and open it.
   - Gently pull up the air filter screen and take it out in the direction of your body.
2. Clean the air filter screen.
   - If the screen is very dirty, please use lukewarm water (about 30°C or 86°F) to clean it. Air it dry after the cleaning.
   - Note:
     - Do not use boiling water to clean the screen.
     - Do not blast the screen dry over a fire.
     - Do not exert too much force in pulling and stretching the screen.
3. Install the air filter screen.
   - To operate the air conditioner without the air filter screen on will cause the interior of the machinery which might lead to poor performances or damages to the units.

**After the season of operation**

1. Set the temperature at 30°C or 86°F and operate in the fan status for about half a day.
   - To make the interior of the units dry
2. Stop the operation of the machine and turn off the power switch.
   - The air conditioner will consume about 5W of electric power after the machine is turned off. For the purpose of energy saving and safety, it is advisable to pull the plug out during the non-operational seasons.
3. Clean and install the air filter screen.
4. Clean the indoor and outdoor units.
5. Take the batteries out from the remote controller.

**Note:**
If the air filter screen is blocked by dust or dirt, the performance of cooling and heating will be affected, with the operation noise and power consumption increased. Therefore, the air filter screen should be cleaned regularly.
Treatment at service call

Please check the following before requesting after-sale service from your dealer.

The air conditioner does not operate at all.
- Is the power in an outlet?
- Is the time set to “ON” position?
- Is there a power failure or a blown fuse?

Poor cooling or heating performance.
- Is the room temperature setting suitable?
- Are the air filters clean (Not clogged)?
- Are the window(s) and door(s) opened?

If the air conditioner does not operate properly even after conducting the above checks, write the doubt still remains even after consulting page 11 or in case that such phenomena as those shown below, turn off the power and contact your distributor.

Cases requiring immediate contact with the distributor

Pull out the power plug immediately and inform to your distributor in the following situations:

- Fuse or breaker often breaks off
- Malfunction is observed TV, radio or other devices.

- Switch does not actuate surely
- Abnormal noise is heard during operation

- When faulty operation movement is observed when the RUI button is pressed, even after restarting the operation after 3 minutes, faulty movement does not disappear.

- Minute go by, but why
## We hope you will know the following when using the unit

<table>
<thead>
<tr>
<th>The unit cannot be restarted just after shut down. \n{(RUN lamp is illuminated}</th>
<th>Restart is stopped for 3 minutes after shut down to protect the unit. \n{Please wait for 3 minutes}</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>Three-minute protection timer incorporated in the microcomputer actuates automatically. Except that power is connected, this function does not actuate.</td>
</tr>
<tr>
<td>Air is not blown out at starting of heating operation.</td>
<td>Air blow is stopped to prevent blowing out of cold air until the indoor heat exchanger is warmed (2 to 5 min). \n{HOT KEEPS}</td>
</tr>
<tr>
<td>Air is not blown out for 6 to 12 min. at heating operation.</td>
<td>When outdoor temperature is low and humidity is high, the unit sometimes performs defrosting automatically. Please wait. During defrosting, water or steam are raising from the outdoor unit.</td>
</tr>
<tr>
<td>Air is not blown out at DRY operation.</td>
<td>Indoor fan is sometimes stopped to prevent vapor of dehumidified moisture and save energy.</td>
</tr>
<tr>
<td>Mist is blown out at COOL operation.</td>
<td>This phenomenon sometimes occurs when the temperature and humidity of the room are very high, but it will disappear with the lowering of the temperature and humidity.</td>
</tr>
<tr>
<td>Odor is sent out.</td>
<td>Air blown out during operation may smell. This is the smell of tobacco or cosmetics stuck to the unit.</td>
</tr>
<tr>
<td>Noise is heard cracking sound.</td>
<td>This is caused by the refrigerant that is circulating inside the unit.</td>
</tr>
<tr>
<td>Noise is heard cracking sound. After a power stoppage or after disconnecting the power supply plug.</td>
<td>This is caused by heat expansion or contraction of plastics.</td>
</tr>
<tr>
<td>Operation can not be restarted even if the power is recovered.</td>
<td>The memory circuit of the microcomputer is cleared. Operate the remote controller again to restart the operation.</td>
</tr>
<tr>
<td>Remote control signals are not received.</td>
<td>Remote control signals may not be received when signal receiver on the air conditioner body is exposed to direct sunlight or strong lighting. In that case, interrupt the sunlight or darken the lighting.</td>
</tr>
<tr>
<td>Moisture may form on the air outlet grilles.</td>
<td>If the unit is operated for a long period of time with the high humidity, moisture may form on the air outlet grilles and drip down.</td>
</tr>
</tbody>
</table>
Points of attention
- HACR type breaker should be utilized along with proper installation;
- Make sure of the applicable voltage and cables or wires for the specific model to be used, before doing the connections;
- Read the prompts at the terminal board for wiring, make sure the wiring is done correctly;
- Pay attention to the poles of the signal terminal and connect the terminals to match the identification numbers;
- When the wiring connections are wrong, the compressor will not work.
- The connecting wires are not supplied,
- The provision for connection of one of the wiring systems that in accordance with the National Electric Code shall be had. ANSI/NFPA 70-1990 would be acceptable for it.
- The connecting wires specification is 14 AWG, VW (or THW), copper core and 90°C (or 194°F). Their set screw diameter is 4 mm. The power source is 115V, 60Hz and 1 phase. Minimum circuit capacity of the wiring systems is 20A.

Connection of wires for outdoor unit

![Diagram showing connection of wires](Image)

(cooling and heating mode)

To power source

Note:
- The environment conditions must be taken into consideration when the connections of power cable are made (such as the ambient temperature, direct exposure to heat/direct exposure to sunlight);
- The specifications for the power cable refer to the minimum values of the metal core wires. Taking into consideration the voltage losses, the core wire of power cable must be one size larger than the specifications;
- The grounding wire must be connected to the indoor units and outdoor units;
- The laying of power cables must be done by qualified electricians and comply with the regulations of the local power supply authorities and with the standards of the electric appliances;

Caution:
If you purchase the cooling and heating model, you should connect the indoor wire connector with outdoor probe wire connector for defrosting, see below figure:

![Diagram showing defrosting](Image)

Indoor wire connector

Outdoor probe wire connector for defrosting