DAIKIN

OPERATION MANUAL

CONVENI-PACK

LRYEQ16A7Y1
LCBKQ3AV1(E)

CONTENTS

The original instructions are written in English.
All other languages are translations of the original instructions.

Important information regarding the refrigerant used

This product contains fluorinated greenhouse gases. Do NOT vent gases into the atmosphere.
Refrigerant type: R410A
Global warming potential (GWP) value: 2087.5

⚠ NOTICE

In Europe, the **greenhouse gas emissions** of the total refrigerant charge in the system (expressed as tonnes CO_2-equivalent) is used to determine the maintenance intervals. Follow the applicable legislation.
Formula to calculate the greenhouse gas emissions: GWP value of the refrigerant x Total refrigerant charge [in kg] / 1000
Please contact your installer for more information.

⚠ WARNING

The refrigerant in the system is safe and normally does not leak. If the refrigerant leaks in the room, contact with a fire of a burner, a heater or a cooker may result in a harmful gas.
Turn off any combustible heating devices, ventilate the room and contact the room and contact the dealer where you purchased the unit.
Do not use the system until a service person confirms that the portion where the refrigerant leaks is repaired.

Periodical inspections for refrigerant leaks may be required depending on European or local legislation. Please contact your local dealer for more information.

1. SAFETY PRECAUTIONS

To gain full advantage of the CONVENI-PACK's functions and to avoid malfunction due to mishandling, we recommend that you read this instruction manual carefully before use.
This CONVENI-PACK is classified under "appliances not accessible to the general public".

This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial and household use by lay persons.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall only be done by persons described in manual.

The appliance is not intended for use by unattended young children or persons who are incompetent to operate CONVENI-PACK.
It may result in injury or electric shocks.

- **This manual classifies the precautions into WARNINGS and CAUTIONS. Be sure to follow all the precautions below: They are all important for ensuring safety.**

⚠ **WARNING**..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ **CAUTION**..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
It may also be used to alert against unsafe practices.

- **After reading, keep this manual in a convenient place so that you can refer to it whenever necessary. If the equipment is transferred to a new user, be sure also to hand over the manual.**

⚠ WARNING

Be aware that prolonged, direct exposure to cool or warm air from the air conditioner, or to air that is too cool or too warm can be harmful to your physical condition and health.

When the CONVENI-PACK is malfunctioning (giving off a burning odour, etc.) turn off power to the unit and contact your local dealer.
Continued operation under such circumstances may result in a failure, electric shocks or fire hazards.

Consult your local dealer about installation work.
Doing the work yourself may result in water leakage, electric shocks or fire hazards.

Consult your local dealer regarding modification, repair and maintenance of the CONVENI-PACK.
Improper workmanship may result in water leakage, electric shocks or fire hazards.

Do not place objects, including rods, your fingers, etc., in the air inlet or outlet.
Injury may result due to contact with the CONVENI-PACK's high-speed fan blades.

Never touch the air outlet or the horizontal blades while the swing flap is in operation.
Fingers may become caught or the unit may break down.

Beware of fire in case of refrigerant leakage.
If the CONVENI-PACK is not operating correctly (i.e. the interior temperature of the CONVENI-PACK does not drop efficiently), refrigerant leakage could be the cause.
Consult your dealer for assistance.
The refrigerant within the CONVENI-PACK is safe and normally does not leak.
However, in the event of a leakage, contact with a naked burner, heater or cooker may result in generation of noxious gas.
Do not longer use the CONVENI-PACK until a qualified service person confirms that the leakage has been repaired.

Consult your local dealer regarding what to do in case of refrigerant leakage.
When the CONVENI-PACK is to be installed in a small room, it is necessary to take proper measures so that the amount of any leaked refrigerant does not exceed the concentration limit in the event of a leakage. Otherwise, this may lead to an accident due to oxygen depletion.

Contact professional personnel about attachment of accessories and be sure to use only accessories specified by the manufacturer.
If a defect results from your own workmanship, it may result in water leaks, electric shock or fire.

Consult your local dealer regarding relocation and reinstallation of the CONVENI-PACK.
Improper installation work may result in leakage, electric shocks or fire hazards.

Do not replace fuses.
Do not use improper fuses, copper or other wires as a substitute, as this may result in electric shock, fire, injury or damage to the unit.

Be sure to earth the unit.
Do not earth the unit to a utility pipe, lightning conductor or telephone earth lead. Imperfect earthing may result in electric shocks or fire.
A high surge current from lightning or other sources may cause damage to the CONVENI-PACK.

Be sure to install an earth leakage breaker.
Failure to install an earth leakage breaker may result in electric shocks or fire.

Consult the dealer if the CONVENI-PACK submerges owing to a natural disaster, such as a flood or typhoon.
Do not operate the CONVENI-PACK in that case, or otherwise a malfunction, electric shock, or fire may result.

Do not start or stop operating the CONVENI-PACK with the power supply breaker turned ON or OFF.
Otherwise, fire or water leakage may result. Furthermore, because power failure compensation is set, the fan will rotate abruptly, which may result in injury.

Do not use the product in the atmosphere contaminated with oil vapor, such as cooking oil or machine oil vapor.
Oil vapor may cause crack damage, electric shocks, or fire.

Do not use the product in places with excessive oily smoke, such as cooking rooms, or in places with flammable gas, corrosive gas, or metal dust.
Using the product in such places may cause fire or product failures.

Do not use flammable materials (e.g., hairspray or insecticide) near the product.
Do not clean the product with organic solvents such as paint thinner.
The use of organic solvents may cause crack damage to the product, electric shocks, or fire.

Do not keep in the unit anything volatile or flammable.
Doing so may result in explosion or fire.

Be sure to use a dedicated power supply for the CONVENI-PACK.
The use of any other power supply may cause heat generation, fire, or product failures.

⚠ CAUTION

Do not use the CONVENI-PACK for purposes other than those for which it is intended.
Do not use the CONVENI-PACK for cooling precision instruments, works of art as this may adversely affect the performance, quality and/or longevity of the object concerned.

Do not use the unit for water cooling use.
Freezing may result.

Do not remove the unit's fan guard.
The guard protects against the unit's high speed fan, which may cause injury.

Do not place objects that are susceptible to moisture directly beneath the indoor or outdoor units.
Under certain conditions, condensation on the main unit or refrigerant pipes, air filter dirt or drain blockage may cause dripping, resulting in fouling or failure of the object concerned.

To avoid oxygen depletion, ensure that the room is adequately ventilated if equipment such as a burner is used together with the CONVENI-PACK.

After prolonged use, check the unit stand and its mounts for damage.
If left in a damaged condition, the unit may fall and cause injury.

Do not place flammable sprays or operate spray containers near the unit as this may result in fire.

Be sure to stop the operation of the unit and turn off the power circuit breaker at the time of cleaning, maintenance and inspection.
Otherwise, electric shock or injury may result.

Turn off the power supply if the unit is not used for a long time.
Otherwise, dust gathered may result in heat generation or ignition.

To avoid electric shocks, do not operate with wet hands.

Do not place appliances that produce naked flames in places exposed to the air flow from the unit as this may impair combustion of the burner.

Do not place heaters directly below the unit, as resulting heat can cause deformation.

Do not allow a child to mount on the outdoor unit or avoid placing any object on it.
Falling or tumbling may result in injury.

Do not block air inlets nor outlets.
Impaired air flow may result in insufficient performance or trouble.

Do not wash the unit or the remote controller with water.
Doing so may result in electric shock or ignition.

Do not install the CONVENI-PACK at any place where there is a danger of flammable gas leakage.
In the event of a gas leakage, build-up of gas near the CONVENI-PACK may result in fire hazards.

Do not put flammable containers, such as spray cans, within 1 m from the blow-off mouth.
The containers may explode because the warm air output of the indoor or outdoor unit will affect them.

Perform drain piping to ensure perfect drainage.
Imperfect drainage may result in water leakage.

Do not place the controller exposed to direct sunlight.
The LCD display may get discolored, failing to display the data.

Do not wipe the controller operation panel with benzine, thinner, chemical dustcloth, etc.
The panel may get discolored or the coating peeled off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. And wipe it with another dry cloth.

The appliance is not intended for use by unattended young children or infirm persons.
Impairment of bodily functions and harm to health may result.

Children should be supervised to ensure that they do not play with the unit or its remote controller.
Accidental operation by a child may result in impairment of bodily functions and harm health.

Do not let children play on or around the outdoor unit.
If they touch the unit carelessly, injury may be caused.

Do not place water containers (flower vases, flowerpot, etc.) on the unit, as this may result in electric shocks or fire.

To avoid injury, do not touch the air inlet or aluminium fins of the unit.

Do not touch the aluminium fin directly at the time of cleaning.
Doing so may result in injury.

Do not place objects in direct proximity of the unit and do not let leaves and other debris accumulate around the unit.
Leaves are a hotbed for small animals which can enter the unit. Once in the unit, such animals can cause malfunctions, smoke or fire when making contact with electrical parts.

Consult your dealer regarding cleaning the inside of the CONVENI-PACK.
Improper cleaning may cause breakage of plastic parts, water leakage and other damage as well as electric shocks.

Do not operate the CONVENI-PACK when using a room fumigation - type insecticide.
Failure to observe could cause the chemicals to become deposited in the unit, which could endanger the health of those who are hypersensitive to chemicals.

Never press the button of the remote controller with a hard, pointed object.
The remote controller may be damaged.

Never pull or twist the electric wire of a remote controller.
It may cause the unit to malfunction.

Never touch the internal parts of the controller.
Do not remove the front panel. Touching certain internal parts will cause electric shocks and damage to the unit. Please consult your dealer about checking and adjustment of internal parts.

Do not leave the remote controller wherever there is a risk of wetting.
If water gets into the remote controller there is a risk of electrical leakage and damage to electronic components.

Watch your steps at the time of air filter cleaning or inspection.
High-place work is required, to which utmost attention must be paid.
If the scaffold is unstable, you may fall or topple down, thus causing injury.

There is a possibility that periodic inspections for refrigerant leakage are scheduled. Consult your local dealer for more information.

[Installation site]

Is the unit installed in a well-ventilated place with no obstacles around?

Do not use the product in the following places.
a. Places with mineral oil, such as cutting oil.
b. Places directly exposed to seawater spray and briny air.
c. Places where sulphide gas is generated, such as hot springs.
d. Places with radical voltage fluctuations, such as factories.
e. In vehicles or on board ships.
f. Places with sprays of oil or excessive steam, such as kitchens.
g. Places with machines generating electromagnetic waves.
h. Places with acid gas, alkaline gas, or steam.
i. Places with poor drainage.
j. Places in potentially explosive atmosphere.

Install the unit, power supply wiring, transmission wiring and refrigerant piping at least 1 meter away from televisions, radios and stereo sets.
Otherwise, the picture and sound may be interfered with noise.

Are snow protection measures taken?
For detailed arrangements, such as the installation of a snow protection hood, consult your dealer.

Is there no clearance around the through hole between the internal and external units?
The chilled air will leak from the clearance and the cooling efficiency of the unit will be degraded.

Is service space secured?

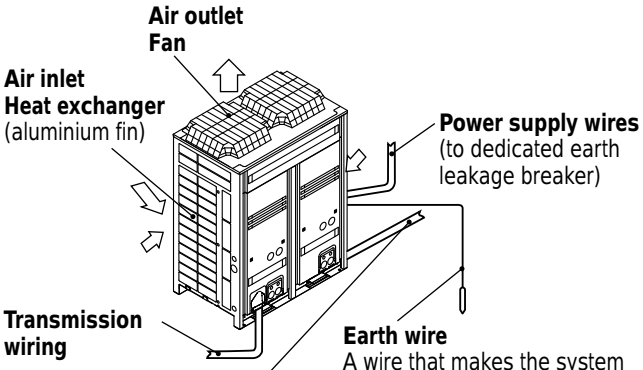
[Electrical work]

Do not attempt to conduct electrical work or grounding work unless you are licensed to do so.
Consult with your dealer for electrical work and grounding work.

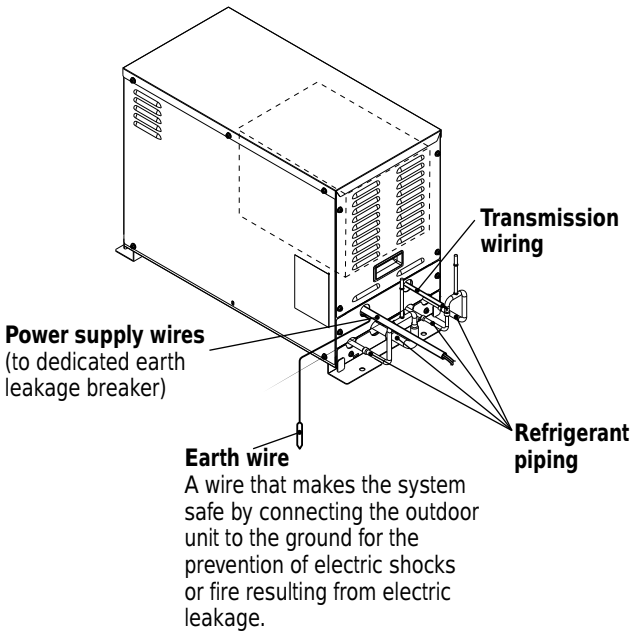
Check that the power supply is suitable to the unit and that an exclusive circuit is provided to the unit.
Check the electric capacity and voltage.

2. NAME OF PART

2-1 In the case of LRYEQ16A7Y1



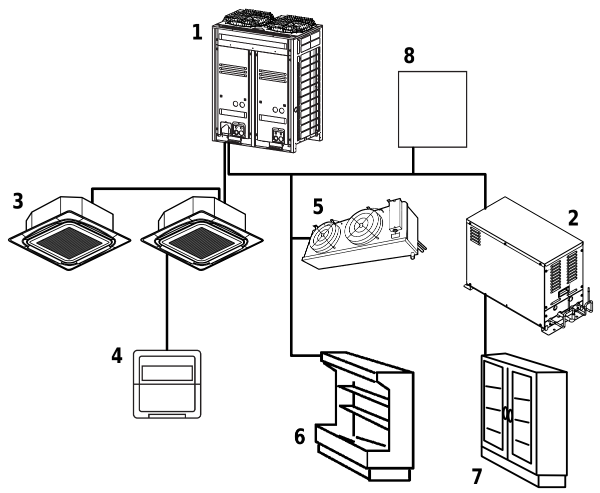
2-2 In the case of LCBKQ3AV1(E)



3. WHAT TO DO BEFORE OPERATION

This operation manual is for the following system with standard control. Before initiating operation, contact your Daikin dealer for the operation that corresponds to your system type and mark.
If your installation has a customized control system, ask your Daikin dealer for the operation that corresponds to your system.

Example of connecting system



1 Outdoor unit
2 Booster unit
3 Indoor unit for air-conditioning
4 Remote controller
5 Blower coil (Indoor unit for refrigerating)
6 Showcase (Indoor unit for refrigerating)
7 Showcase (Indoor unit for freezing)
8 Defrost control panel

For the device except outdoor unit and booster unit, refer to the Operation Manuals of the respective pieces of equipment.

4. REMOTE CONTROLLER AND COOL/HEAT SELECTOR: NAME AND FUNCTION OF EACH SWITCH AND DISPLAY

Refer to the operation manual attached with the remote controller if a remote controller is BRC1E51A. (This manual assumes that a remote controller is BRC1C62.)

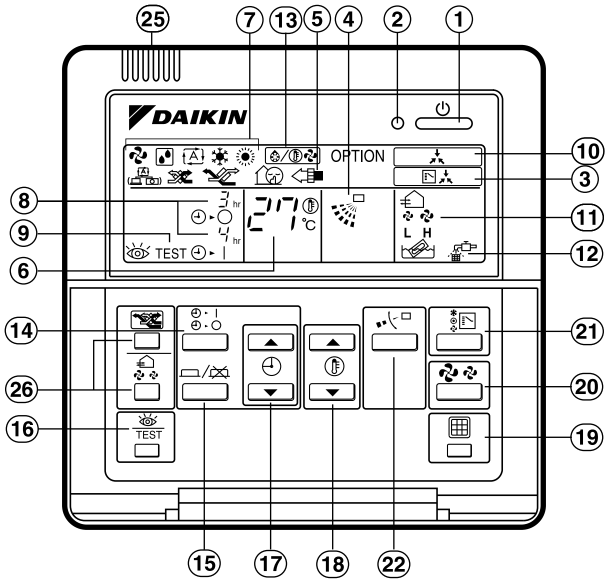


Fig.1

1. **On/off button**
   Press the button and the system will start. Press the button again and the system will stop.
2. **Operation lamp (red)**
   The lamp lights up during operation.
3. **Display “ ” (changeover under control)**
   It is impossible to changeover heat/cool with the remote controller which display this icon.
4. **Display “ ” (air flow flap)**
   Refer to the chapter “Operation procedure - Adjusting the air flow direction”.
5. **Display “ OPTION ” (ventilation/air cleaning)**
   This display shows that the ventilation unit are in operation. (these are optional accessories)
6. **Display “ 27 °C ” (set temperature)**
   This display shows the temperature you have set.
7. **Display “ ” “ ” “ ” “ ” “ ” (operation mode)**
   This display shows the current operation mode.
8. **Display “ 3hr 4hr ” (programmed time)**
   This display shows the programmed time of the system start or stop.
9. **Display “ TEST ” (inspection/test operation)**
   When the inspection/test operation button is pressed, the display shows the mode in which the system actually is.

10. Display “ ” (under centralized control)
When this display shows, the system is under centralized control. (This is not a standard specification.)

11. Display “ ” (fan speed)
This display shows the fan speed you have selected.

12. Display “ ” (time to clean air filter)
Refer to the operation manual of indoor unit.

13. Display “ ” (defrost/hot start)
Refer to the chapter “Operation procedure - Explanation of heating operation.”

14. Timer mode start/stop button
Refer to the chapter “Operation procedure - Programming start and stop of the system with timer.”

15. Timer on/off button
Refer to the chapter “Operation procedure - Programming start and stop of the system with timer.”

16. Inspection/test operation button
This button is only used by qualified service persons for maintenance purposes.

17. Programming time button
Use this button for setting the programming start and/or stop time.

18. Temperature setting button
Use this button for setting the desired temperature.

19. Filter sign reset button
Refer to the operation manual of indoor unit.

20. Fan speed control button
Press this button to select the fan speed of your preference.

21. Operation mode selector button
Press this button to select the operation mode of your preference.

22. Air flow direction adjust button
Refer to the chapter “Operation procedure - Adjusting the air flow direction”.

23. Fan only/air conditioning selector switch
Set the switch to “ ” for fan only operation or to “ ” for heating or cooling operation.

24. Cool/heat changeover switch
Set the switch to “ ” for cooling operation or to “ ” for heating operation.

25. Thermistor
It sense the room temperature around the remote controller.

26. These button are used when the ventilation unit are installed (These are optional accessories)
Refer to the operation manual of the ventilation unit.

NOTE

- In contradistinction to actual operating situations, the display on figure 2 shows all possible indications.
- Figure 1 shows the remote controller which is opened the cover.

5. OPERATION PROCEDURE

- Operation procedure varies according to the combination of outdoor unit and remote controller. Read the chapter “What to do before operation”.
- To protect the unit, turn on the main power switch 6 hours before operation.
- And do not turn off the power supply during the air conditioning season because of smoothly start up.
- If the main power supply is turned off during operation, operation will restart automatically after the power turns back on again.

5-1 COOLING, HEATING, AUTOMATIC AND FAN ONLY OPERATION

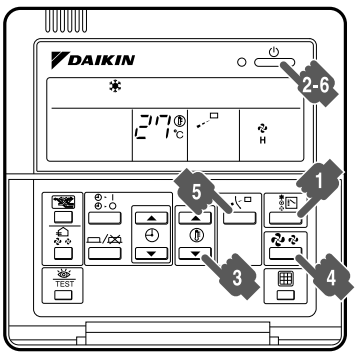


Fig.2

1 Press the operation mode selector button several times and select the operation mode of your choice;
- “ ” Cooling operation
- “ ” Heating operation
- “ ” Fan only operation

2 Press the on/off button.
The operation lamp lights up and the system starts operation.

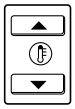
- The operation mode cannot be changed with the remote controller whose display shows “ ” (changeover under control).
Change the operation mode with the remote controller whose display does not show “ ”.
- When the display “ ” (changeover under control) flashes, refer to the chapter “Operation procedure - Setting the master remote controller”.

- The fan may keep on running for about 1 minute after the heating operation stops for removing the heat in the indoor unit.
- The air flow rate may be adjusted automatically depending on the room temperature or the fan may stop immediately. This is not a malfunction.
- For machine protection the system may control the air flow rate automatically.
- It may take sometime for finishing to change the air flow rate.
  This is normal operation.

ADJ USTMENT (Refer to Fig.2)

For adjustment the desired temperature, fan speed and air flow direction (only for the remote controller: FXC, FXF, FXH), follow the procedure shown below.

3 Press the temperature setting button and set the desired temperature.



Each time this button is pressed, the temperature setting rises or lowers 1°C.

NOTE

- Set the temperature within the operation range.
- The temperature setting is impossible for fan only operation.

4 Press the fan speed control button and select the fan speed of your preference.

5 Press air flow direction adjust button.
Refer to the chapter “Adjusting the air flow direction” for details.

STOPPING THE SYSTEM (Refer to Fig.2)

6 Press the on/off button once again.
The operation lamp goes off and the system stops operation.

NOTE

- Do not turn off the power immediately after the unit stops.
- The system need at least 5 minutes for residual operation of drain pump device. Turning off the power immediately will cause water leak or trouble.

EXPLANATION OF HEATING OPERATION

- For general heating operation, it may take longer to reach the set temperature than in cooling operation.
  We recommend starting the operation which was used before using timer operation.
- The following operation is performed in order to prevent the heating capacity from dropping or cold air from blowing.

Defrost operation

- In heating operation, freezing of the outdoor unit heat exchanger increases. Heating capability decreases and the system goes into defrost operation.
- The indoor unit fan stops and the remote controller displays “ ”.
- After maximum 10 minutes of defrost operation, the system returns to heating operation again.

Hot start

- In order to prevent cold air from blowing out of an indoor unit at the start of heating operation, the indoor fan is automatically stopped. The display of the remote controller shows “ ”.

NOTE

- The heating capacity drops as the outside temperature falls. If this happens, use another heating device together with the unit. (When using the appliances which produce open fire together, ventilate a room constantly.)
  Do not place appliances which produce open fire in places exposed to the air flow from the unit or under the unit.
- It takes some time for the room to warm up from the time the unit is started since the unit uses a hot-air circulatory system to warm the entire room.
- If the hot air rises to the ceiling, leaving the area above the floor cold, we recommend using the circulator (the indoor fan for circulating air). Contact your dealer for details.

5-2 PROGRAM DRY OPERATION

- The function of this operation is to decrease the humidity in your room with a minimum temperature decrease.
- The micro computer automatically determines temperature and fan speed.
- The system does not go into operation if the room temperature is low.
- The microcomputer automatically controls the temperature and fan speed, so these cannot be set using the remote controller.
- This function is not available if the room temperature is 20°C or lower.

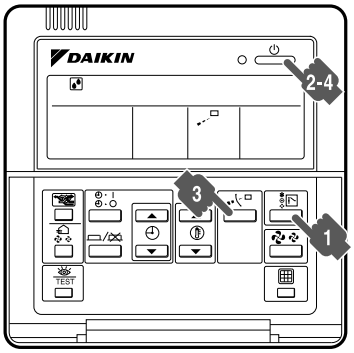


Fig.3

1. Press the operation mode selector button several times and select " " (program dry operation).
2. Press the on/off button.
   The operation lamp lights up and the system starts operation.
3. Press the air flow direction adjust button (only for FXC, FXF, FXH). Refer to the chapter "Adjusting the air flow direction" for details.
4. Press the on/off button once again.
   The operation lamp goes off and the system stops operation.

NOTE

- Do not turn off the power immediately after the unit stops.
- The system need at least 5 minutes for residual operation of drain pump device. Turning off the power immediately will cause water leak or trouble.

5-3 ADJUSTING THE AIR FLOW DIRECTION (only for Double-flow, Multi-flow, Ceiling-suspended)

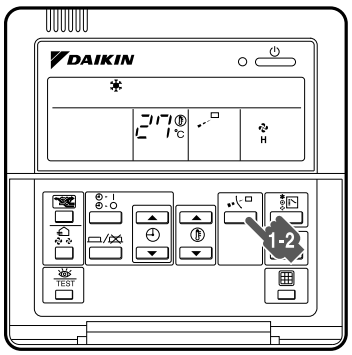


Fig.4

1. Press the air flow direction button to select the air direction.
   The air flow flap display swings as shown right and the air flow direction continuously varies. (Automatic swing setting)

2. Press the air flow direction adjust button to select the air direction of your choice.

   The air flow flap display stops swinging and the air flow direction is fixed. (Fixed air flow direction setting)

MOVEMENT OF THE AIR FLOW FLAP

For the following conditions, a micro computer controls the air flow direction which may be different from the display.

COOLING	HEATING
———	• When starting operation. • When the room temperature is higher than the set temperature. • At defrost operation.
• When operating continuously at horizontal air flow direction. • When continuous operation with downward air flow is performed at the time of cooling with a ceiling-suspended or a wall-mounted unit, the micro-computer may control the flow direction, and then the remote control indication also will change.	

The air flow direction can be adjusted in one of the following ways.

- The air flow flap itself adjusts its position.
- The air flow direction can be fixed by the user. Automatic " " or desired position " ".

NOTE

- The movable limit of the flap is changeable. Contact your Daikin dealer for details. (Only for Double-flow, Multi-flow, Corner, Ceiling-suspended and Wall-mounted.)
- Avoid operating in the horizontal direction " ". It may cause dew or dust to settle on the ceiling.

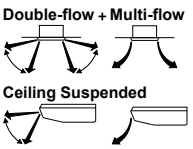


Fig.5

5-4 PROGRAMMING START AND STOP OF THE SYSTEM WITH TIMER

- The timer is operated in the following two ways.
  Programming the stop time " ◷ ▸ ◯ ". The system stops operating after the set time has elapsed.
  Programming the start time " ◷ ▸ | ". The system starts operating after the set time has elapsed.
- The timer can be programmed for a maximum of 72 hours.
- The start and the stop time can be simultaneously programmed.

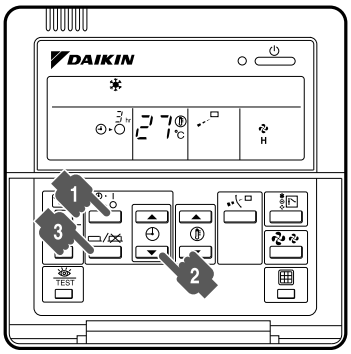
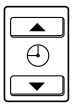


Fig.6

1 Press the timer mode start/stop button several times and select the mode on the display.

The display flashes.
- For setting the timer stop " ◷ ▸ ◯ "
- For setting the timer start " ◷ ▸ | "

2 Press the programming time button and set the time for stopping or starting the system.



Each time this button is pressed, the time advances or goes backward by 1 hour.

3 Press the timer on/off button.
The timer setting procedure ends. The display " ◷ ▸ ◯ " or " ◷ ▸ | " changes from flashing light to constant light.

NOTE

- When setting the timer off and on at the same time, repeat the above procedure (from " 1 " to " 2 ") once again.
- After the timer is programmed, the display shows the remaining time.
- Press the timer on/off button once again to cancel programming. The display vanishes.

For example:
When the timer is programmed to stop the system after 3 hours and start the system after 4 hours, the system will stop after 3 hours and start 1 hour later.

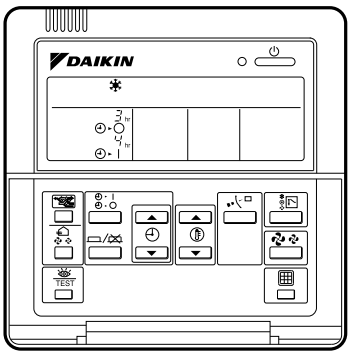


Fig.7

5-5 PRECAUTIONS FOR GROUP CONTROL SYSTEM OR TWO REMOTE CONTROLLER CONTROL SYSTEM

This system provides two other control systems beside individual control (one remote controller controls one indoor unit) system. Confirm about your system to Daikin dealer.

- **Group control system**
  One remote controller controls up to 16 indoor units. All indoor units are equally set.
- **Two remote controller control system**
  Two remote controllers control one indoor unit (in case of group control system, one group of indoor units). The unit is individually operated.

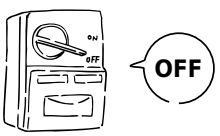
NOTE

- Contact your Daikin dealer in case of changing the combination or setting of group control and two remote controller control systems.

6. OPTIMUM OPERATION

Observe the following precautions to ensure the system operates properly.
- Turn off the power if the unit is not operated for a long time.

The unit will consume a power of several watts to several tens of watts if the power is on (see note). For the purpose of machine protection, however, be sure to turn on the power at least 6 hours before resuming the operation of the unit.



Note: The power consumption of the unit varies with the operating factors, such as the CONVENI-PACK model.

- Install an alarm if operational errors are likely to degrade the commodities in storage.

The unit is provided with a terminal to output an alarm signal.
If the system should malfunction and there is no alarm, the operation of the unit will be interrupted for a long time and damage to the commodities in storage may result.
The installation of an alarm is recommended in order to take appropriate measures promptly in such cases.
For details, consult your dealer.

- Adjust the air outlet properly and avoid direct air flow to room inhabitants.
- Adjust the room temperature properly for a comfortable environment. Avoid excessive heating or cooling.
- Prevent direct sunlight from entering a room during cooling operation by using curtains or blinds.
- Ventilate often.
  Extended use requires special attention to ventilation.
- Do not keep doors and windows opened. If the doors and windows remain open, air will flow out of your room causing a decrease in the cooling or heating effect.
- Never place objects near the air inlet or the air outlet of the unit. It may cause deterioration in the effect or stop the operation.
- Turn off the main power supply switch to the unit when the unit is not used for longer periods of time. If the switch is on, it uses electricity. Before restarting the unit, turn on the main power supply switch 6 hours before operation to ensure smooth running. (Refer to the chapter "Maintenance" in the indoor unit manual.)
- When the display shows " " (time to clean the air filter), ask a qualified service person to clean the filters. (Refer to the chapter "Maintenance" in the indoor unit manual.)
- Keep the indoor unit and remote control at least 1 m away from televisions, radios, stereos, and other similar equipment.
  Failing to do so may cause static or distorted pictures.
- Do not use other heating devices directly beneath the indoor unit.
  If you do, they might get deformed by the heat.
- It takes time for the room temperature to reach the set temperature.
  We recommend starting the operation in advance using timer operation.

7. CARE AND CLEANING METHOD

Be sure to stop the operation of the unit with the power switch and turn off the power (i.e., turn off the earth leakage breaker) before starting the maintenance of the unit.

⚠ CAUTION

Do not touch the aluminium fin directly at the time of cleaning.
Doing so may result in injury.

Do not wash the unit with water.
Doing so may result in electric shock or ignition.

Be sure to stop the operation of the unit and turn off the power circuit breaker at the time of cleaning, maintenance and inspection.
Otherwise, electric shock or injury may result.

Cleaning the outdoor unit
- Consult your local dealer.

Cleaning the indoor unit
- As the system is an all-in-one air-conditioner and refrigerator, the fan may rotate in a heating mode even if operation is stopped with the remote controller.
  Be sure to stop operation with the remote controller and cut off the power breaker before cleaning.
  Refer to the operation manual attached to the indoor unit for details.

Cleaning the showcase and the unit cooler
- Refer to the operation manual attached to the showcase and the unit cooler for details.

Cleaning the drain pan (Optional accessory)
- Clean the drain pan so that it does not become clogged and dusty.
- Turn off the power (i.e., turn off the earth leakage breaker) if the unit is not used for a long time.

8. TROUBLESHOOTING

8-1 The following cases are not malfunctions.

1. The unit does not operate.
- **The air conditioner does not start immediately when restart the operation after stop the operation or change operation mode after set the operation mode.**
  If the operation lamp lights, the system is in normal condition.
  To prevent overloading of the compressor motor, the air conditioner starts 5 minutes after it is turned ON again in case it was turned OFF just before.

- **If “Centralized Control” is displayed on the remote controller and pressing the operation button causes the display to blink for a few seconds.**
  This indicates that the central device is controlling the unit.
  The blinking display indicates that the remote control cannot be used.
- **The system does not start immediately after the power supply is turned on.**
  Wait one minute until the micro computer is prepared for operation.

2. It stops sometimes

- **The remote controller display reads “U4” or “U5” and stops but then restarts after a few minutes.**
  This is because the remote control is intercepting noise from electrical appliances other than the air conditioner, and this prevents communication between the units, causing them to stop.
  Operation automatically restarts when the noise goes away.

3. COOL/HEAT cannot be changed over.

- **When the display shows “ ” (changeover under control).**
  It shows that this is a slave remote controller. Refer to “Setting the master remote controller”.
- **When the cool/heat selector switch is installed and the display shows “ ” (changeover under control).**
  This is because cool/heat changeover is controlled by the cool/heat selector. Ask your Daikin dealer where the remote control switch is installed.

4. Fan operation is possible, but cooling and heating do not work.

- **Immediately after the power is turned on.**
  The micro computer is getting ready to operate.
  Wait 10 minutes.

5. The fan strength does not correspond to the setting.

- **The fan strength does no change even if the fan strength adjustment button in pressed.**
  During heating operation, when the room temperature reaches the set temperature, the outdoor unit goes off and the indoor unit changes to whisper fan strength.
  This is to prevent cold air blowing directly on occupants of the room.
  The fan strength will not change even if the button is changed, when another indoor unit is in heating operation.

6. White mist comes out of a unit.

<Indoor unit for air conditioning>

- **When humidity is high during cooling operation.**
  If the interior of an indoor unit is extremely contaminated, the temperature distribution inside a room becomes uneven. It is necessary to clean the interior of the indoor unit. Ask your Daikin dealer for details on cleaning the unit. This operation requires a qualified service person.
- **Immediately after the cooling operation stops and if the room temperature and humidity are low.**
  This is because warm refrigerant gas flows back into the indoor unit and generates steam.

<Indoor unit for air-conditioning, outdoor unit>

- **When the system is changed over to heating operation after defrost operation.**
  Moisture generated by defrost becomes steam and is exhausted.

7. Noise of air-conditioners.

<Indoor unit for air-conditioning>

- **A continuous low “shah” sound is heard when the system is in cooling operation or at a stop.**
  When the drain pump (optional accessories) is in operation, this noise is heard.
- **A low “sah”, “choro-choro” sound is heard while the indoor unit is stopped.**
  When the other indoor unit is in operation, this noise is heard. In order to prevent oil and refrigerant from remaining in the system, a small amount of refrigerant is kept flowing.

<Outdoor unit, booster unit>

- **When the tone of operating noise changes.**
  This noise is caused by the change of frequency.

<Indoor unit for air-conditioning, outdoor unit, booster unit>

- **A continuous low hissing sound is heard when the system is in cooling or defrost operation.**
  This is the sound of refrigerant gas flowing through both indoor and outdoor units.
- **A hissing sound which is heard at the start or immediately after stopping operation or defrost operation.**
  This is the noise of refrigerant caused by flow stop or flow change.

8. Dust comes out of the unit.

- **When the unit is used after stopping for a long time.**
  This is because dust has gotten into the unit.

9. The units can give off odours.

- **During operation.**
  The unit can absorb the smell of rooms, furniture, cigarettes, etc., and then emit it again.

10. The outdoor unit fan does not spin.

- **During operation.**
  The speed of the fan is controlled in order to optimize product operation.

11. The display shows " 88 "

- **This is the case immediately after the main power supply switch is turned on.**
  This means that the remote controller is in normal condition. This continues for one minute.

12. The compressor or fan in the outdoor unit does not stop.

- **This is to prevent oil and refrigerant from remaining in the compressor. The unit will stop after 5 to 10 minutes.**

13. Hot air is emitted even though the unit is stopped.

- **Hot air can be felt when the unit is stopped.**
  Several different indoor units are being run on the same system, so if another unit is running, some refrigerant will still flow through the unit.

14. Does not cool very well.

- **Program dry operation.**
  Program dry operation is designed to lower the room temperature as little as possible.
  Refer to page 7.

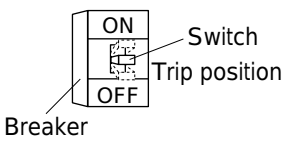
15. The indoor fan may rotate while the unit stops.

- **The fan rotates even if the operation is stopped with the remote controller.**
  As the system operates as an all-in-one air-conditioner and refrigerator, the fan works to prevent oil and refrigerant from accumulating on the air conditioner during operation of the showcase.

8-2 Check before Requesting Servicing.

1. The unit does not operate at all.

- Has the power supply fuse not blown out?
  Turn off the power. (Consult your dealer for the replacement of the power supply fuse.)
- Is the power circuit breaker not turned off?
  Turn on the power if the knob of the power circuit breaker is set to the OFF position.
  Do not turn on the power if the knob of the power circuit breaker is set to the trip position. (Consult your dealer.)



- Is there no blackout?
  Wait until power is restored. If power failure occurs during operation, the system automatically restarts immediately after the power supply is recovered.
- Are all the power supplies turned on?
  Turn all the power on.

2. The unit comes to a stop soon after the unit starts operating.

- Do obstacles not block the air inlet or outlet of the outdoor unit or indoor unit?
  Remove the obstacles.
- Check if the remote controller display shows " " (time to clean the air filter);
  Refer to the operation manual of the indoor unit for air-conditioning. And clean the air filter.

3. The system operates but cooling or heating is insufficient (Air-conditioning).

- Check if air inlet or outlet of outdoor or indoor unit is not blocked by obstacles.
  Remove any obstacle and make it well-ventilated.
- Check if the remote controller display shows " " (time to clean the air filter);
  Refer to the operation manual of the indoor unit. And clean the air filter.
- Check the temperature setting.
  Refer to “Operation procedure”.
- Check the fan speed setting on your remote controller.
  Refer to “Operation procedure”.
- Check for open doors or windows.
  Shut doors and windows to prevent wind from coming in.
- Check if there are too many occupants in the room during cooling operation.
- Check if the heat source of the room is excessive during cooling operation.
- Check if direct sunlight enters the room during cooling operation.
  Use curtains or blinds.
- Check if the air flow angle is not proper.
  Refer to “Operation procedure”.

4. The cooling operation of the unit is bad.

- Does the indoor unit (unit cooler and showcase) not have much frost?
  Defrost manually or shorten the cycle of defrosting operation.
- Are there not too many articles inside?
  Reduce the number of articles.
- Is the circulation of cold air in the indoor unit (unit cooler and showcase) smooth?
  Change the allocation of the articles.

- Is there not much dust on the heat exchanger of the outdoor unit?
  Remove the dust with a brush or vacuum cleaner without using water or consult your dealer.
- Is cold air not leaking outside?
  Stop the leakage of cold air.
- Is the set temperature in the indoor unit (unit cooler and showcase) not too high?
  Set the temperature appropriately.
- Are high-temperature articles not stored?
  Store them after they are once cooled off.
- Is the opening time of the door not long?
  Minimize the opening time of the door.

8-3 Consult your dealer in the following cases.

⚠ WARNING

When the CONVENI-PACK is malfunctioning (giving off a burning odour, etc.) turn off power to the unit and contact your local dealer.
Continued operation under such circumstances may result in a failure, electric shocks or fire hazards.

1. **Safety devices, such as the fuse, breaker, and earth leakage breaker, frequently operate or the operation of the RUN switch is not stable.**
   Contact your dealer after turning the power off.
2. **Turn off the power and consult your dealer if symptoms other than the above are noticed or the equipment does not go into normal operation after taking the steps specified in 8-2.**

9. INSPECTION

The preventive maintenance of the unit is required in order not to damage commercial products. Request a contractor authorized by our dealer for inspection.
Refer to information on maintenance inspection on page 15 for maintenance inspection.

10. PRODUCT MODELS AND MAIN SPECIFICATIONS

10-1Models and Main Specifications.

Model			LRYEQ16A7Y1	LCBKQ3AV1 (E)
Power supply			3 phase 380~415V 50Hz	1 phase 220~240V 50Hz
Refrigerant			R410A	
Operating condition	Evaporating temperature		-20°C~10°C (Refrigeration)	-45°C~-20°C
	Outdoor temperature	Refrigeration	-15°C~43°CDB	-15°C~43°CDB
		Cool	-5°C~43°CDB	
		Heat	-15°C~21°CDB -15°C~15.5°CWB	
Capacity (kW)	Cool	Air-conditioning	14	-
		Refrigerating	21.8	-
		Freezing	-	3.35
	Heat	Air-conditioning	27	-
		Refrigerating	21.8	-
		Freezing	-	3.35
Outer dimensions (HxWxD) (mm)			1680x1240x765	480x680x310
Product mass (kg)			370	47
Sound pressure level (dB(A))			62	49
Design pressure	High-pressure side	(bar)	40	38
		(MPa)	4.0	3.8
	Low-pressure side	(bar)	25	25
		(MPa)	2.5	2.5

Note:

- Operating conditions:
  Outdoor unit
  (Air-conditioning side) Indoor temperature: 27°CDB/19°CWB, Outdoor temperature: 32°CDB, Piping length: 7.5m, Level difference: 0m (In cooling priority mode)
  (Cooling equipment side) Evaporating temperature: -10°C, Outdoor temperature: 32°CDB, Suction SH: 10°C (In cooling priority mode)
  (Heating conditions) Indoor temperature: 20°CDB, Outdoor temperature: 7°CDB/6°CWB, Cooling equipment load: 18 kW,
  Piping length: 7.5 m, Level difference: 0 m
  Saturated temperature equivalent to suction pressure (Cooling equipment side) : -10°C (Under chilled condition),
  Connection capacity for indoor air-conditioner: 10HP, When heat recovery is 100%
  Sound pressure level is less than 70 dB(A).

  Booster unit
  Evaporating temperature: -35°C, Outdoor temperature: 32°C, Suction SH: 10°C, Saturated temperature to discharge pressure of booster unit: -10°C
- The figures for the outside unit models show values measured at a distance of 1 m in the front and a height of 1.5 m.
  Values measured with the models actually installed are usually larger then the values shown as a result of ambient noise and reflections.
  When the outdoor temperature is low, the temperature reading may be below the target evaporating temperature set for the protection of the unit.
- Values are subject to change without notice for product improvements.
- The "E" suffix indicates anti-corrosion models.

11. AFTER-SALE SERVICE AND WARRANTY

11-1 After-sale Service

⚠ WARNING

Consult your local dealer regarding modification, repair and maintenance of the CONVENI-PACK.
Improper workmanship may result in water leakage, electric shocks or fire hazards.

Consult your local dealer regarding relocation and reinstallation of the CONVENI-PACK.
Improper installation work may result in leakage, electric shocks or fire hazards.

Beware of fire in case of refrigerant leakage.
If the CONVENI-PACK is not operating correctly (i.e. the interior temperature of the CONVENI-PACK does not drop efficiently), refrigerant leakage could be the cause.
Consult your dealer for assistance.
The refrigerant within the CONVENI-PACK is safe and normally does not leak.
However, in the event of a leakage, contact with a naked burner, heater or cooker may result in generation of noxious gas.
Do not longer use the CONVENI-PACK until a qualified service person confirms that the leakage has been repaired.

1. Inform your dealer of the following items when you request repairs.
- Model name Described in the warranty card.
- Serial number and date of installation Described in the warranty card.
- Defective condition – as precise as possible
- Your address, name, and telephone number

2. Repairs after Expiration of Warranty Period
Consult your dealer. Onerous repairs will be possible if the unit can maintain its original functions after the repairs are made.

3. Maintenance Inspection
The interior of the refrigeration CONVENI-PACK will become dirty and its performance may be degraded if it is used for several seasons.
The disassembly and internal cleaning of the unit requires specialized techniques. Therefore, our dealer recommends an onerous maintenance inspection besides usual maintenance services.
For details, consult your dealer.
Keep in mind that our dealer's warranty may not cover malfunctions resulting from the disassembly or internal cleaning of the unit conducted by contractors not authorized by our dealer.

4. Relocation and Disposal
- Contact your dealer for removing and reinstalling the system CONVENI-PACK since they require technical expertise.
- The system CONVENI-PACK uses fluorocarbon refrigerant.
  Contact your dealer for discarding the system CONVENI-PACK since it is required by law to collect, transport and discard the refrigerant in accordance with relevant local and national regulations.
- In either case, consult your dealer.

5. Inquiries
Contact your dealer for after-sale services.

11-2 Onerous Repairs (Outside Scope of Warranty Coverage)

11-2-1 Accidents Resulting from Use beyond Standards for Use

- Use beyond Limits
- Applications other than its designed purpose of use or modification.

Standards for Use

	Standards for Use	
Item	Outdoor unit	Booster unit
Power supply Voltage fluctuation	Within ±10% of rated voltage	
Outdoor temperature range (Cool)	-5°C~+43°CDB	-15°C~+43°CDB
Outdoor temperature range (Heat)	-15°C~21°CDB -15°C~15.5°CWB	
Connecting piping length	Within 130 m (Piping length between Indoor and Outdoor unit)	Within 30 m (Piping length between Indoor and Booster unit)
Height difference between inside and outside units	Within 35 m (within 10 m if the outside unit is lower)	Within 10 m (within 0 m if the booster unit is lower)
Height difference between outside unit and booster unit	Within 35 m (within 10 m if the outside unit is lower)	
Height difference between inside units (Air-condition side)	Within 0.5 m	—
Height difference between inside units (Showcase side)	Within 5 m	—

11-2-2 Selection, Installation, Work Failures Specified below and Other Failures

Note: Asterisk-marked items show concrete examples.

1. Model selection failures
- A model not suitable for storage applications is selected.
  * The cooling of products not reaching the target storage temperatures.
- Cooling overloading or underloading judged by our dealer.
  * The frequency of stoppage is 6 or more times per hour or the set cooling temperature is not attained.

2. Installation failure (Installation and environmental problems)

- The unit is not installed on a stable horizontal plane.
  - ∗ The unit is not fixed securely.
- The environmental conditions of the place of installation differ from normal atmospheric conditions.
  - ∗ Briny air environment, shore side, oil mist environment, kitchen exhaust side, other corrosive gas and adhesive mist environment.
- The place of installation had poor ventilation and heat dissipation.
  - ∗ The machine took in exhausted air again.

3. Work failure

- The interior of the piping was not vacuum dried sufficiently.
  - ∗ The clogging of the thin areas of the piping caused by icing.
- The interior of the piping was not sufficiently airtight.
  - ∗ Leakage of refrigerant gas.
- The interior of the piping was contaminated with foreign substance.
  - ∗ The clogging of the thin areas of the piping.
- The unit was adversely affected by on-site modification work.
  - ∗ The use of the unit beyond the operating temperature range as a result of on-site modification.
- An accident resulted from the improper handling of the unit under installation work.
  - ∗ The loosening or wobbling of the outer panel or broken or bent damage to the piping.

4. Operational failure

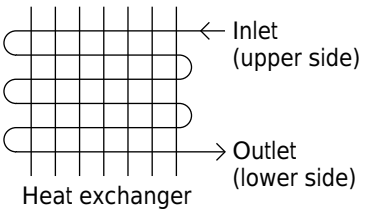
- Temperature settings for stored objects were wrong.
  - ∗ The storage of vegetables at temperatures below 0°C.
- The periodical maintenance of the unit was neglected.
  - ∗ The clogging of the air heat exchanger, rust generation from each part, gas leakage, and icing of the indoor unit (showcase and unit cooler).

5. Others

- Improvements recommended by our dealer in advance were not accomplished.
  - ∗ The simultaneous starting and stopping of a number of units.
- Accidents were caused by natural disaster or fire.
  - ∗ Damage to electrical parts caused by lightning.
- There were other installation and operational problems beyond common sense.
  - ∗ The use of the unit without heat insulation work on the piping.
- Work was conducted without keeping the following showcase restrictions.

  <Showcase restrictions>
  - · The design pressure for the indoor unit is 2.5 MPa or more.
  - · The installation of the thermostatic expansion valve and liquid supply solenoid valve (both of which are for R410A) on a showcase basis.

    Thermal insulation of feeler tube of thermostatic expansion valve must be thermal insulated.
  - · Install showcases on the same floor if the showcases are connected to a single outdoor unit.
  - · Make sure that the outlet of piping used for the heat exchanger is located downward (as shown on the following figure).



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4P448940-1A 2016.07