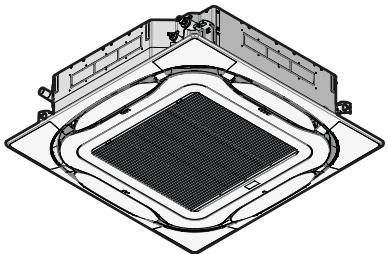




Installation and operation manual



Split system air conditioners



FCAG35BVEB
FCAG50BVEB
FCAG60BVEB
FCAG71BVEB
FCAG100BVEB
FCAG125BVEB
FCAG140BVEB

Installation and operation manual
Split system air conditioners

English

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1 About the documentation

1.1 About this document



WARNING

Make sure installation, servicing, maintenance, repair and applied materials follow the instructions from Daikin (including all documents listed in "Documentation set") and, in addition, comply with applicable legislation and are performed by qualified persons only. In Europe and areas where IEC standards apply, EN/IEC 60335-2-40 is the applicable standard.

Target audience

Authorised installers + end users



INFORMATION

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.

Documentation set

This document is part of a documentation set. The complete set consists of:

- **General safety precautions:**
 - Safety instructions that you must read before installing
 - Format: Paper (in the box of the indoor unit)
- **Indoor unit installation and operation manual:**
 - Installation and operation instructions
 - Format: Paper (in the box of the indoor unit)
- **Installer and user reference guide:**
 - Preparation of the installation, good practices, reference data,...
 - Detailed step-by-step instructions and background information for basic and advanced usage
 - Format: Digital files on <https://www.daikin.eu>. Use the search function to find your model.

The latest revision of the supplied documentation is published on the regional Daikin website and is available via your dealer.

Scan the QR code below to find the full documentation set and more information about your product on the Daikin website.

FCAG-B



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

Technical engineering data

- A **subset** of the latest technical data is available on the regional Daikin website (publicly accessible).
- The **full set** of the latest technical data is available on the Daikin Business Portal (authentication required).

2 Specific installer safety instructions

Always observe the following safety instructions and regulations.

General



WARNING

Make sure installation, servicing, maintenance, repair and applied materials follow the instructions from Daikin (including all documents listed in "Documentation set") and, in addition, comply with applicable legislation and are performed by qualified persons only. In Europe and areas where IEC standards apply, EN/IEC 60335-2-40 is the applicable standard.



WARNING: MILDLY FLAMMABLE MATERIAL

The R32 refrigerant (if applicable) in this unit is mildly flammable. Refer to the outdoor unit specifications for the type of refrigerant to be used.

Unit installation (see "12 Unit installation" [▶ 10])



WARNING

The appliance using R32 refrigerant shall be stored so as to prevent mechanical damage and in a well-ventilated room without continuously operating ignition sources (e.g. open flames, an operating gas appliance, or an operating electric heater). The room size shall be as specified in the General safety precaution.



CAUTION

Appliance NOT accessible to the general public, install it in a secured area, protected from easy access.

This unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment.

Refrigerant piping installation (see "13 Piping installation" [▶ 13])



CAUTION

Piping MUST be installed according to instructions given in "13 Piping installation" [▶ 13]. Only mechanical joints (e.g. braze+flare connections) that are compliant with the latest version of ISO14903 can be used.



CAUTION

Install the refrigerant piping or components in a position where they are unlikely to be exposed to any substance which may corrode components containing refrigerant, unless the components are constructed of materials that are inherently resistant to corrosion or are suitably protected against corrosion.

Electrical installation (see "14 Electrical installation" [▶ 14])



WARNING

ALWAYS use multicore cable for power supply cables.



WARNING

- All wiring MUST be performed by an authorised electrician and MUST comply with the national wiring regulation.
- Make electrical connections to the fixed wiring.
- All components procured on-site and all electrical construction MUST comply with the applicable legislation.



WARNING

- If the power supply has a missing or wrong N-phase, equipment might break down.
- Establish proper earthing. Do NOT earth the unit to a utility pipe, surge absorber, or telephone earth. Incomplete earthing may cause electrical shocks.
- Install the required fuses or circuit breakers.
- Secure the electrical wiring with cable ties so that the cables do NOT come in contact with sharp edges or piping, particularly on the high-pressure side.
- Do NOT install a phase advancing capacitor, because this unit is equipped with an inverter. A phase advancing capacitor will reduce performance and may cause accidents.



WARNING

Use an all-pole disconnection type breaker with at least 3 mm between the contact point gaps that provides full disconnection under overvoltage category III.



WARNING

If the supply cord is damaged, it MUST be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.



WARNING

Do NOT extend the power supply or the interconnection cable by using wire connectors, wire connection clamps, taped wires, extension cords.

These can cause overheating, electric shock or fire.

Commissioning (see "15 Commissioning" [▶ 16])



WARNING

If the panels on the indoor units are not installed yet, make sure to power OFF the system after finishing the test run. To do so, turn OFF operation via the user interface. Do NOT stop operation by turning OFF the circuit breakers.

For the user

3 User safety instructions

Always observe the following safety instructions and regulations.

3.1 General



WARNING

If you are NOT sure how to operate the unit, contact your installer.

3 User safety instructions



WARNING

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 NOT be made by children without supervision.



WARNING

To prevent electrical shocks or fire:

- Do NOT rinse the unit.
- Do NOT operate the unit with wet hands.
- Do NOT place any objects containing water on the unit.



CAUTION

- Do NOT place any objects or equipment on top of the unit.
- Do NOT sit, climb or stand on the unit.

- Units are marked with the following symbol:



This means that electrical and electronic products may NOT be mixed with unsorted household waste. Do NOT try to dismantle the system yourself: dismantling the system, treatment of the refrigerant, of oil and of other parts MUST be done by an authorised installer and MUST comply with applicable legislation.

Units MUST be treated at a specialised treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. For more information, contact your installer or local authority.

- Batteries are marked with the following symbol:



This means that the batteries may NOT be mixed with unsorted household waste. If a chemical symbol is printed beneath the symbol, this chemical symbol means that the battery contains a heavy metal above a certain concentration.

Possible chemical symbols are: Pb: lead (>0.004%).

Waste batteries MUST be treated at a specialised treatment facility for reuse. By ensuring waste batteries are disposed of correctly, you will help to prevent potential negative consequences for the environment and human health.

3.2 Instructions for safe operation



WARNING

- Do NOT modify, disassemble, remove, reinstall or repair the unit yourself as incorrect dismantling or installation may cause an electrical shock or fire. Contact your dealer.
- In case of accidental refrigerant leaks, make sure there are no naked flames. The refrigerant itself is entirely safe, non-toxic and non-combustible, but it will generate toxic gas when it accidentally leaks into a room where combustion air from fan heaters, gas cookers, etc. is present. ALWAYS have qualified service personnel confirm that the point of leakage has been repaired or corrected before resuming operation.



CAUTION

- NEVER touch the internal parts of the controller.
- Do NOT remove the front panel. Some parts inside are dangerous to touch and appliance problems may happen. For checking and adjusting the internal parts, contact your dealer.



WARNING

This unit contains electrical and hot parts.



WARNING

Before operating the unit, be sure the installation has been carried out correctly by an installer.



CAUTION

It is unhealthy to expose your body to the air flow for a long time.



CAUTION

To avoid oxygen deficiency, ventilate the room sufficiently if equipment with burner is used together with the system.



CAUTION

Do NOT operate the system when using a room fumigation-type insecticide. Chemicals could collect in the unit, and endanger the health of people who are hypersensitive to chemicals.



WARNING

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.



CAUTION

NEVER expose little children, plants or animals directly to the airflow.



WARNING

Do NOT place a flammable spray bottle near the air conditioner and do NOT use sprays near the unit. Doing so may result in a fire.

Maintenance and service (see "7 Maintenance and service" [p 7])



CAUTION: Pay attention to the fan!

It is dangerous to inspect the unit while the fan is running. Make sure to turn OFF the main switch before executing any maintenance task.



CAUTION

Do NOT insert fingers, rods or other objects into the air inlet or outlet. When the fan is rotating at high speed, it will cause injury.



WARNING

NEVER replace a fuse with a fuse of a wrong ampere ratings or other wires when a fuse blows out. Use of wire or copper wire may cause the unit to break down or cause a fire.



CAUTION

After a long use, check the unit stand and fitting for damage. If damaged, the unit may fall and result in injury.



DANGER: RISK OF ELECTROCUTION

To clean the air conditioner or air filter, be sure to stop operation and turn all power supplies OFF. Otherwise, an electrical shock and injury may result.

**WARNING**

Be careful with ladders when working in high places.

**CAUTION**

Turn off the unit before cleaning the air filter, suction grille, air outlet and outside panels.

**CAUTION**

Before accessing terminal devices, make sure to interrupt all power supply.

**WARNING**

Do NOT let the indoor unit get wet. **Possible consequence:** Electrical shock or fire.

**DANGER: RISK OF ELECTROCUTION**

Disconnect the power supply for more than 10 minutes, and measure the voltage at the terminals of main circuit capacitors or electrical components before servicing. The voltage MUST be less than 50 V DC before you can touch electrical components. For the location of the terminals, see the warning label for persons performing service and maintenance.

About the refrigerant (see "7.5 About the refrigerant" [▶ 9])

**WARNING: MILDLY FLAMMABLE MATERIAL**

The R32 refrigerant (if applicable) in this unit is mildly flammable. Refer to the outdoor unit specifications for the type of refrigerant to be used.

**WARNING**

The appliance using R32 refrigerant shall be stored so as to prevent mechanical damage and in a well-ventilated room without continuously operating ignition sources (e.g. open flames, an operating gas appliance, or an operating electric heater). The room size shall be as specified in the General safety precaution.

**WARNING**

- Do NOT pierce or burn refrigerant cycle parts.
- Do NOT use cleaning materials or means to accelerate the defrosting process other than those recommended by the manufacturer.
- Be aware that the refrigerant inside the system is odourless.

**WARNING**

- R410A is a non-combustible refrigerant, and R32 is a mildly flammable refrigerant; they normally do NOT leak. If the refrigerant leaks in the room and comes into contact with fire from a burner, a heater, or a cooker, this may result in a fire (in case of R32), or the formation of a harmful gas.
- Turn OFF any combustible heating devices, ventilate the room, and contact the dealer from where you purchased the unit.
- Do NOT use the unit until a service person confirms that the part from which the refrigerant leaked has been repaired.

Troubleshooting (see "8 Troubleshooting" [▶ 9])

**WARNING**

Stop operation and shut OFF the power if anything unusual occurs (burning smells etc.).

Leaving the unit running under such circumstances may cause breakage, electrical shock or fire. Contact your dealer.

4**About the system**

The indoor unit of this split system air conditioner can be used for heating/cooling applications.

**WARNING**

- Do NOT modify, disassemble, remove, reinstall or repair the unit yourself as incorrect dismantling or installation may cause an electrical shock or fire. Contact your dealer.
- In case of accidental refrigerant leaks, make sure there are no naked flames. The refrigerant itself is entirely safe and non-toxic. R410A is a non-combustible refrigerant, and R32 is a mildly flammable refrigerant, but they will generate a toxic gas when they accidentally leak into a room where combustible air from fan heaters, gas cookers, etc. is present. Always have qualified service personnel confirm that the point of leakage has been repaired or corrected before resuming operation.

**NOTICE**

Do NOT use the system for other purposes. In order to avoid any quality deterioration, do NOT use the unit for cooling precision instruments, food, plants, animals, or works of art.

**NOTICE**

For future modifications or expansions of your system: A full overview of allowable combinations (for future system extensions) is available in technical engineering data and should be consulted. Contact your installer to receive more information and professional advice.

5**User interface****CAUTION**

- NEVER touch the internal parts of the controller.
- Do NOT remove the front panel. Some parts inside are dangerous to touch and appliance problems may happen. For checking and adjusting the internal parts, contact your dealer.

This operation manual offers a non-exhaustive overview of the main functions of the system.

**NOTICE**

Do NOT wipe the controller operation panel with benzine, thinner, chemical dust cloth, etc. The panel may get discoloured 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. Wipe it with another dry cloth.

**NOTICE**

NEVER press the button of the user interface with a hard, pointed object. The user interface may be damaged.

**NOTICE**

NEVER pull or twist the electric wire of the user interface. It may cause the unit to malfunction.

For more information about the user interface, see the operation manual of the installed user interface.

6 Operation

6 Operation

6.1 Operation range



INFORMATION

For the operation limits see the technical data of the connected outdoor unit.

6.2 About operation modes



INFORMATION

Depending on the installed system, some operation modes will not be available.

- The air flow rate may adjust itself depending on the room temperature or the fan may stop immediately. This is not a malfunction.
- If the main power supply is turned off during operation, operation will restart automatically after the power turns back on again.
- Setpoint.** Target temperature for the Cooling, Heating, and Auto operation modes.
- Setback.** A function that keeps the room temperature in a specific range when the system is turned off (by the user, the schedule function, or the OFF timer).

6.2.1 Basic operation modes

The indoor unit can operate in various operation modes.

Icon	Operation mode
	Cooling. In this mode, cooling will be activated as required by the setpoint, or by Setback operation.
	Heating. In this mode, heating will be activated as required by the setpoint, or by Setback operation.
	Fan only. In this mode, air circulates without heating or cooling.
	Dry. In this mode, the air humidity will be lowered with a minimal temperature decrease. The temperature and fan speed are controlled automatically and cannot be controlled by the controller. Dry operation will not function if the room temperature is too low.
	Auto. In Auto mode, the indoor unit automatically switches between heating and cooling mode, as required by the setpoint.

6.2.2 Special heating operation modes

Operation	Description
Defrost	To prevent a loss of heating capacity due to frost accumulation in the outdoor unit, the system will automatically switch to defrost operation. During defrost operation, the indoor unit fan will stop operation, and the following icon will appear on the home screen:

6.3 To operate the system



INFORMATION

For setting of the operation mode, airflow direction, active circulation airflow or other settings, see the reference guide or operation manual of the user interface.

Symbol	Explanation
	Measure the voltage at the terminals of main circuit capacitors or electrical components before servicing.

7 Maintenance and service

7.1 Precautions for maintenance and service



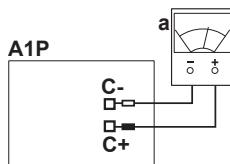
CAUTION

See "3 User safety instructions" [▶ 3] to acknowledge all related safety instructions.



DANGER: RISK OF ELECTROCUTION

Disconnect the power supply for more than 10 minutes, and measure the voltage at the terminals of main circuit capacitors or electrical components before servicing. The voltage MUST be less than 50 V DC before you can touch electrical components. For the location of the terminals, see the warning label for persons performing service and maintenance.



A1P Main printed circuit board
a Multimeter
C Residual voltage measuring points



NOTICE

NEVER inspect or service the unit by yourself. Ask a qualified service person to perform this work. However, as end user, you may clean the air filter, suction grille, air outlet and outside panels.



NOTICE

Maintenance MUST be done by an authorised installer or service agent.

We recommend performing maintenance at least once a year. However, applicable legislation might require shorter maintenance intervals.



NOTICE

Do NOT wipe the controller operation panel with benzine, thinner, chemical dust cloth, etc. The panel may get discoloured 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. Wipe it with another dry cloth.



NOTICE

When cleaning the heat exchanger, make sure to remove the switch box, fan motor, drain pump and float switch. Water or detergent might deteriorate the insulation of electronic components and result in burnout of these components.

Following symbols may occur on the indoor unit:

7.2 Cleaning the air filter, suction grille, air outlet and outside panels



CAUTION

Turn off the unit before cleaning the air filter, suction grille, air outlet and outside panels.



NOTICE

- Do NOT use gasoline, benzene, thinner polishing powder or liquid insecticide. **Possible consequence:** Discoloration and deformation.
- Do NOT use water or air of 50°C or higher. **Possible consequence:** Discoloration and deformation.
- Do NOT scrub firmly when washing the blade with water. **Possible consequence:** The surface sealing peels off.

7.2.1 To clean the air filter

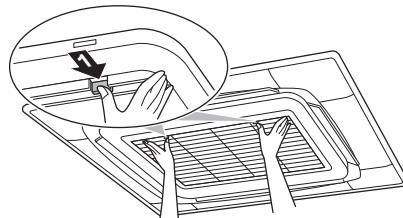
When to clean the air filter:

- Rule of thumb: Clean every 6 months. If the air in the room is extremely contaminated, increase the cleaning frequency.
- Depending on the settings, the user interface can display the "Time to clean filter" notification. Clean the air filter when the notification is displayed.
- If the dirt becomes impossible to clean, change the air filter (= optional equipment).

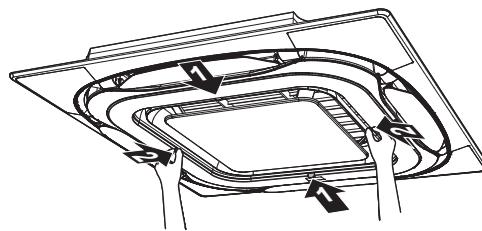
How to clean the air filter:

- 1 Open the suction grille.

Standard panel:



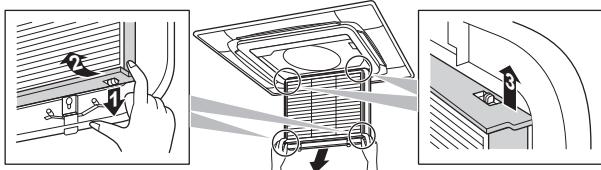
Design panel:



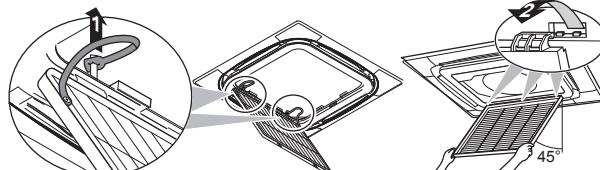
- 2 Remove the air filter.

7 Maintenance and service

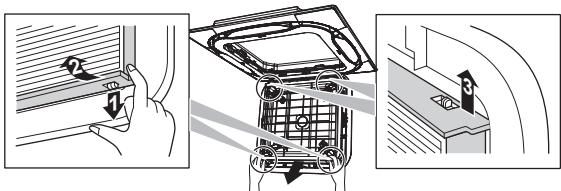
Standard panel:



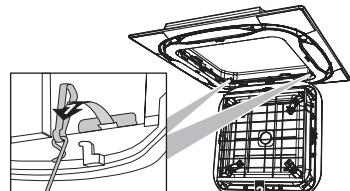
Standard panel:



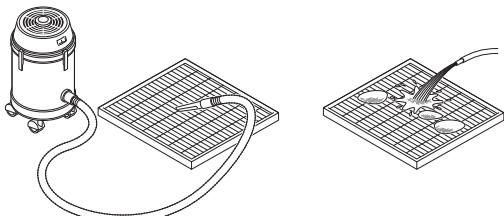
Design panel:



Design panel:



3 Clean the air filter. Use a vacuum cleaner or wash with water. If the air filter is very dirty, use a soft brush and neutral detergent.



4 Dry the air filter in the shadow.

5 Reattach the air filter and close the suction grille.

6 Turn ON the power.

7 To remove warning screens, see the reference guide of the user interface.

7.2.2 To clean the suction grille

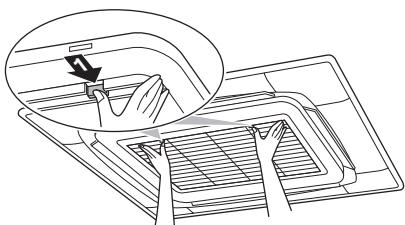


NOTICE

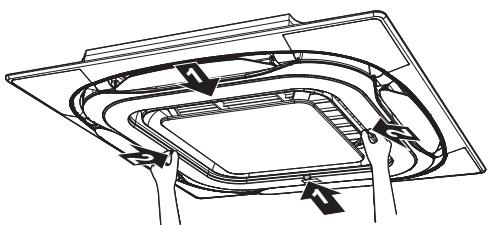
Do NOT use water of 50°C or higher. **Possible consequence:** Discoloration and deformation.

1 Open the suction grille.

Standard panel:

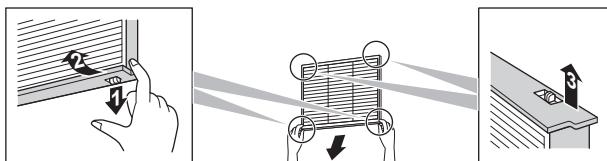


Design panel:



2 Remove the suction grille.

3 Remove the air filter.



4 Clean the suction grille. Wash with a soft bristle brush, and water or neutral detergent. If the suction grille is very dirty, use a typical kitchen cleaner, leave it on for 10 min, then wash it with water.

5 Reattach the air filter (step 3 in reverse order).

6 Reattach the suction grille and close it (step 2 and 1 in reverse order).

7.2.3 To clean the air outlet and outside panels



WARNING

Do NOT let the indoor unit get wet. **Possible consequence:** Electrical shock or fire.



NOTICE

- Do NOT use gasoline, benzene, thinner polishing powder or liquid insecticide. **Possible consequence:** Discoloration and deformation.
- Do NOT use water or air of 50°C or higher. **Possible consequence:** Discoloration and deformation.
- Do NOT scrub firmly when washing the blade with water. **Possible consequence:** The surface sealing peels off.

Clean with a soft cloth. If it is difficult to remove stains, use water or neutral detergent.

7.3 Maintenance after a long stop period

- Check and remove everything that might be blocking inlet and outlet vents of indoor units and outdoor units.
- Clean air filters and casings of indoor units (see "7.2.1 To clean the air filter" [▶ 7] and "7.2.3 To clean the air outlet and outside panels" [▶ 8]).

7.4 Maintenance before a long stop period

- Let the indoor units run in fan only operation for about half a day in order to dry the interior of the units.
- Turn off the power. The user interface display disappears.

- Clean air filters and casings of indoor units (see "7.2.1 To clean the air filter" [p 7] and "7.2.3 To clean the air outlet and outside panels" [p 8]).

7.5 About the refrigerant

This product contains fluorinated greenhouse gases. Do NOT vent gases into the atmosphere.

Refrigerant type: R32

Global warming potential (GWP) value: 675

Refrigerant type: R410A

Global warming potential (GWP) value: 2087.5



NOTICE

Applicable legislation on **fluorinated greenhouse gases** requires that the refrigerant charge of the unit is indicated both in weight and CO₂ equivalent.

Formula to calculate the quantity in CO₂ equivalent tonnes: GWP value of the refrigerant × total refrigerant charge [in kg]/1000

Contact your installer for more information.



WARNING: MILDLY FLAMMABLE MATERIAL

The R32 refrigerant (if applicable) in this unit is mildly flammable. Refer to the outdoor unit specifications for the type of refrigerant to be used.



WARNING

The appliance using R32 refrigerant shall be stored so as to prevent mechanical damage and in a well-ventilated room without continuously operating ignition sources (e.g. open flames, an operating gas appliance, or an operating electric heater). The room size shall be as specified in the General safety precaution.



WARNING

- Do NOT pierce or burn refrigerant cycle parts.
- Do NOT use cleaning materials or means to accelerate the defrosting process other than those recommended by the manufacturer.
- Be aware that the refrigerant inside the system is odourless.



WARNING

- R410A is a non-combustible refrigerant, and R32 is a mildly flammable refrigerant; they normally do NOT leak. If the refrigerant leaks in the room and comes into contact with fire from a burner, a heater, or a cooker, this may result in a fire (in case of R32), or the formation of a harmful gas.
- Turn OFF any combustible heating devices, ventilate the room, and contact the dealer from where you purchased the unit.
- Do NOT use the unit until a service person confirms that the part from which the refrigerant leaked has been repaired.

8 Troubleshooting

If one of the following malfunctions occurs, take the measures shown below and contact your dealer.



WARNING

Stop operation and shut OFF the power if anything unusual occurs (burning smells etc.).

Leaving the unit running under such circumstances may cause breakage, electrical shock or fire. Contact your dealer.

The system MUST be repaired by a qualified service person.

Malfunction	Measure
If a safety device such as a fuse, a circuit breaker or a residual current device frequently actuates or the ON/OFF switch does NOT function properly.	Turn OFF all main power supply switches to the unit.
If water leaks from the unit.	Stop operation.
The operation switch does NOT function properly.	Turn OFF the power supply.
If the user interface displays	Notify your installer and report the error code. To display an error code see the reference guide of the user interface.



INFORMATION

Refer to the reference guide located on <https://www.daikin.eu> for more troubleshooting tips. Use the search function to find your model.

After checking all the items above, if it is impossible to fix the problem yourself, contact your installer and state the symptoms, the complete model name of the unit (with manufacturing number if possible) and the installation date.

9 Relocation

Contact your dealer to remove and reinstall the entire unit. Moving units requires technical expertise.

10 Disposal



NOTICE

Do NOT try to dismantle the system yourself: dismantling of the system, treatment of the refrigerant, oil and other parts MUST comply with applicable legislation. Units MUST be treated at a specialised treatment facility for reuse, recycling and recovery.

11 About the box

For the installer

11 About the box

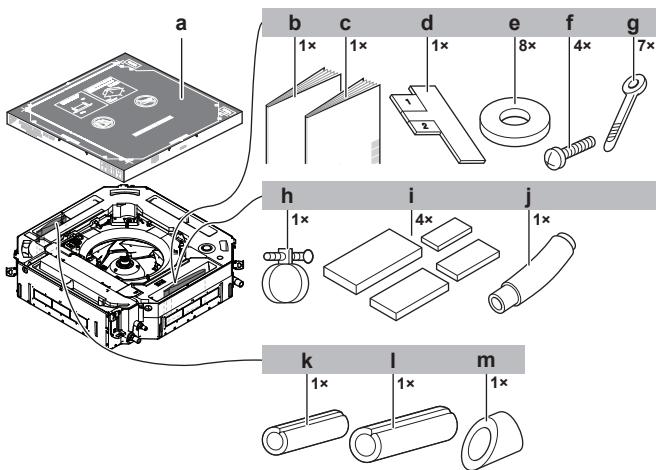
11.1 Indoor unit



WARNING: MILDLY FLAMMABLE MATERIAL

The R32 refrigerant (if applicable) in this unit is mildly flammable. Refer to the outdoor unit specifications for the type of refrigerant to be used.

11.1.1 To remove the accessories from the indoor unit



- a Paper pattern for installation (upper part of packing)
- b General safety precautions
- c Indoor unit installation and operation manual
- d Installation guide
- e Washers for hanger brackets
- f Screws (to temporarily attach the paper pattern for installation to the indoor unit)
- g Cable ties
- h Metal clamp
- i Sealing pads: Large (drain pipe), medium 1 (gas pipe), medium 2 (liquid pipe), small (electrical wiring)
- j Drain hose
- k Insulation piece: Small (liquid pipe)
- l Insulation piece: Large (gas pipe)
- m Insulation piece (drain pipe)

12 Unit installation

12.1 Preparing the installation site



WARNING

The appliance using R32 refrigerant shall be stored so as to prevent mechanical damage and in a well-ventilated room without continuously operating ignition sources (e.g. open flames, an operating gas appliance, or an operating electric heater). The room size shall be as specified in the General safety precaution.

12.1.1 Installation site requirements of the indoor unit



INFORMATION

The sound pressure level is less than 70 dBA.

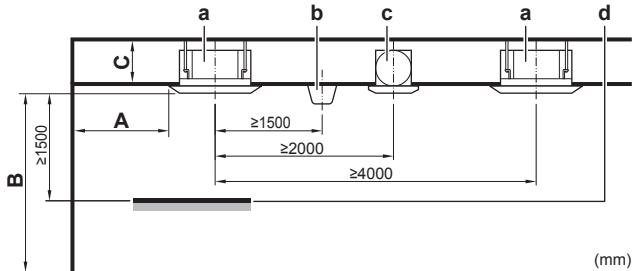


CAUTION

Appliance NOT accessible to the general public, install it in a secured area, protected from easy access.

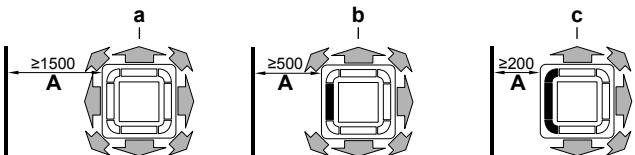
This unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment.

- **Spacing.** Mind the following requirements:



- A Minimum distance to the wall (see below)
- B Minimum and maximum distance to the floor (see below)
- C **35-71 class:**
 - ≥227 mm: In case of installation with standard panel
 - ≥269 mm: In case of installation with design panel
 - ≥307 mm: In case of installation with self-cleaning panel
 - ≥277 mm: In case of installation with standard panel + fresh air intake kit
 - ≥319 mm: In case of installation with design panel + fresh air intake kit
- 100-140 class:**
 - ≥269 mm: In case of installation with standard panel
 - ≥311 mm: In case of installation with design panel
 - ≥349 mm: In case of installation with self-cleaning panel
 - ≥319 mm: In case of installation with standard panel + fresh air intake kit
 - ≥361 mm: In case of installation with design panel + fresh air intake kit
- a Indoor unit
- b Lighting (the figure shows ceiling-mounted lighting, but recessed lighting is also allowed)
- c Air fan
- d Static volume (example: table)

- **A: Minimum distance to the wall.** Depends on the airflow directions towards the wall.



- a Air outlet and corners open
- b Air outlet closed, corners open (optional blocking pad kit required)
- c Air outlet and corners closed (optional blocking pad kit required)

- **B: Minimum and maximum distance to the floor:**

- Minimum: 2.5 m to avoid accidental touching.
- Maximum: Depends on the airflow directions and the capacity class. See "16.1 Field setting" [▶ 16].



INFORMATION

Maximum distance to the floor for the 3-way and the 4-way airflow (which require an optional blocking pad kit) may differ. See the installation manual of the optional blocking pad kit.

12.2 Mounting the indoor unit

12.2.1 Guidelines when installing the indoor unit



INFORMATION

Optional equipment. When installing optional equipment, also read the installation manual of the optional equipment. Depending on the field conditions, it might be easier to install the optional equipment first.

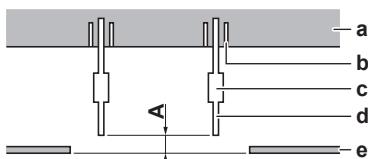
- **In case of installation with a fresh air intake kit.** Install the fresh air intake kit always **before** installing the unit.
- **Decoration panel.** Install the decoration panel always **after** installing the unit.



NOTICE

After installing the decoration panel:

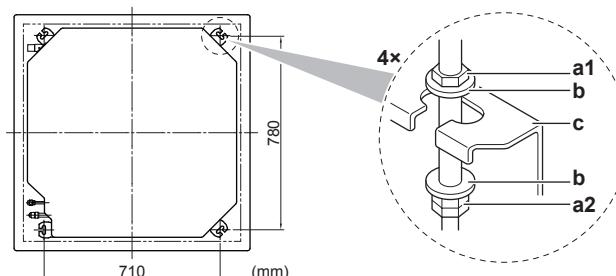
- Make sure there is no gap between the unit body and the decoration panel. **Possible consequence:** Air might leak and cause dew drop.
- Make sure no oil remains on the plastic parts of the decoration panel. **Possible consequence:** Degradation and damage of plastic parts.
- **Ceiling strength.** Check whether the ceiling is strong enough to support the weight of the unit. If there is a risk, reinforce the ceiling before installing the unit.
 - For existing ceilings, use anchors.
 - For new ceilings, use sunken inserts, sunken anchors or other field supplied parts.



A **50-100 mm:** In case of installation with standard panel
100-150 mm: In case of installation with fresh air intake kit or design panel
130-180 mm: In case of installation with auto cleaning decoration panel

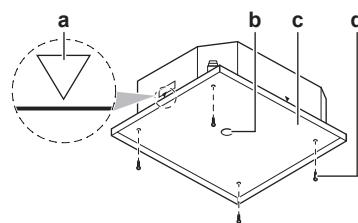
a Ceiling slab
b Anchor
c Long nut or turnbuckle
d Suspension bolt
e Suspended ceiling

- **Suspension bolts.** Use M8~M10 suspension bolts for installation. Attach the hanger bracket to the suspension bolt. Fix it securely using a nut and washer from the upper and lower sides of the hanger bracket.



a1 Nut (field supply)
a2 Double nut (field supply)
b Washer (accessories)
c Hanger bracket (attached to the unit)

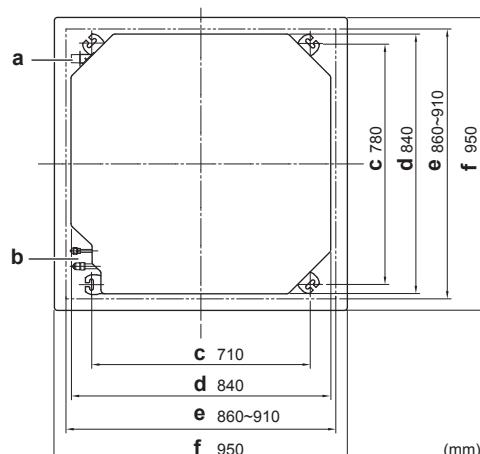
- **Paper pattern for installation** (upper part of the packing). Use the paper pattern to determine the correct horizontal positioning. It contains the necessary dimensions and centers. You can attach the paper pattern to the unit.



a Centre of the unit
b Centre of the ceiling opening
c Paper pattern for installation (upper part of the packing)
d Screws (accessories)

Ceiling opening and unit:

- Make sure the ceiling opening is within the following limits:
Minimum: 860 mm to be able to fit the unit.
Maximum: 910 mm to ensure enough overlap between the decoration panel and the suspended ceiling. If the ceiling opening is larger, add extra ceiling material.
- Make sure the unit and its hanger brackets (suspension) are centered within the ceiling opening.



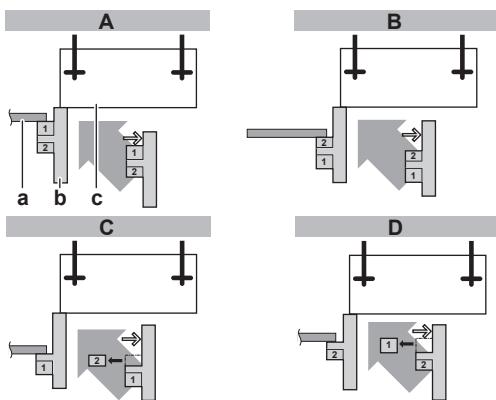
a Drain piping
b Refrigerant piping
c Hanger bracket pitch (suspension)
d Unit
e Ceiling opening
f Decoration panel

Example	If A ^(a)	Then	
		B ^(a)	C ^(a)
	860 mm	10 mm	45 mm
	910 mm	35 mm	20 mm

^(a) **A:** Ceiling opening
B: Distance between the unit and the ceiling opening
C: Overlap between the decoration panel and the suspended ceiling

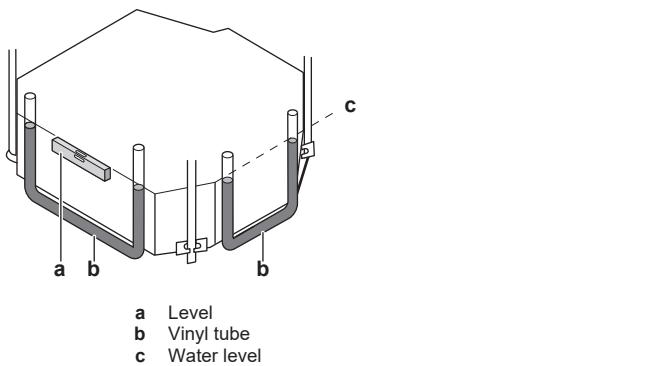
- **Installation guide.** Use the installation guide to determine the correct vertical position.

12 Unit installation



- A** In case of installation with standard decoration panel
- B** In case of installation with fresh air intake kit
- C** In case of installation with auto cleaning decoration panel
- D** In case of installation with design decoration panel
- a** Suspended ceiling
- b** Installation guide (accessory)
- c** Unit

- **Level.** Make sure the unit is level at all 4 corners using a level or a water-filled vinyl tube.



NOTICE

Do NOT install the unit tilted. **Possible consequence:** If the unit is tilted against the direction of the condensate flow (the drain piping side is raised), the float switch might malfunction and cause water to drip.

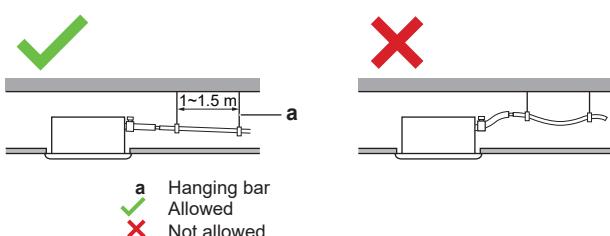
12.2.2 Guidelines when installing the drain piping

Make sure condensation water can be evacuated properly. This involves:

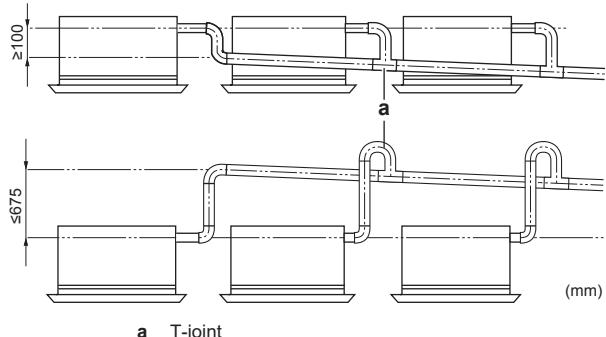
- General guidelines
- Connecting the drain piping to the indoor unit
- Checking for water leaks

General guidelines

- **Pipe length.** Keep drain piping as short as possible.
- **Pipe size.** Keep the pipe size equal to or greater than that of the connecting pipe (vinyl pipe of 25 mm nominal diameter and 32 mm outer diameter).
- **Slope.** Make sure the drain piping slopes down (at least 1/100) to prevent air from being trapped in the piping. Use hanging bars as shown.



- **Rising piping.** If necessary to make the slope possible, you can install rising piping.
 - Drain hose inclination: 0~75 mm to avoid stress on the piping and to avoid air bubbles.
 - Rising piping: ≤300 mm from the unit, ≤675 mm perpendicular to the unit.
- **Condensation.** Take measures against condensation. Insulate the complete drain piping in the building.
- **Combining drain pipes.** You can combine drain pipes. Make sure to use drain pipes and T-joints with a correct gauge for the operating capacity of the units.



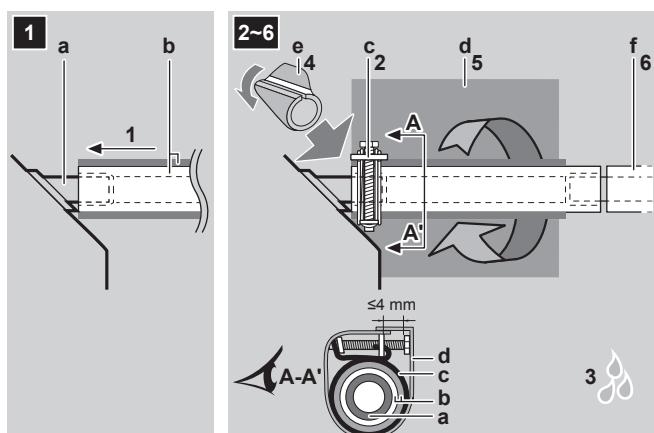
To connect the drain piping to the indoor unit



NOTICE

Incorrect connection of the drain hose might cause leaks, and damage the installation space and surroundings.

- 1 Push the drain hose as far as possible over the drain pipe connection.
- 2 Tighten the metal clamp until the screw head is less than 4 mm from the metal clamp part.
- 3 Check for water leaks (see "To check for water leaks" [▶ 12]).
- 4 Install the insulation piece (drain pipe).
- 5 Wind the large sealing pad (= insulation) around the metal clamp and drain hose, and fix it with tie wraps.
- 6 Connect the drain piping to the drain hose.



- a** Drain pipe connection (attached to the unit)
- b** Drain hose (accessory)
- c** Metal clamp (accessory)
- d** Large sealing pad (accessory)
- e** Insulation piece (drain pipe) (accessory)
- f** Drain piping (field supply)

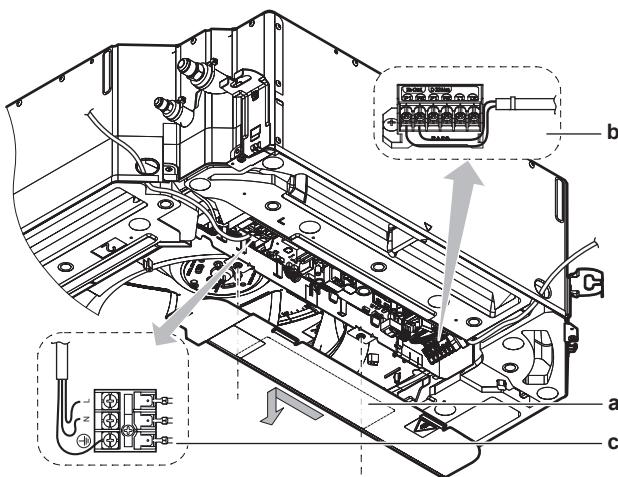
To check for water leaks

The procedure differs depending on whether electrical wiring is already finished. When electrical wiring is not finished yet, you need to temporarily connect the user interface and power supply to the unit.

When installation of the system is not yet completed

1 Temporarily connect electrical wiring.

- Remove the service cover.
- Connect the user interface.
- Connect the power supply.
- Reattach the service cover.

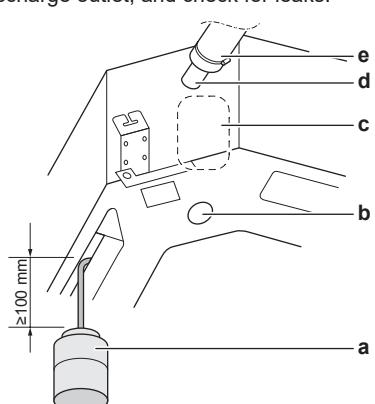


a Service cover with wiring diagram
b User interface terminal block
c Power supply terminal block

2 Turn ON the power.

3 Start fan only operation (see the reference guide or the service manual of the user interface).

4 Gradually pour approximately 1 l of water through the air discharge outlet, and check for leaks.



a Plastic watering can
b Service drain outlet (with rubber plug). Use this outlet to drain water from the drain pan
c Drain pump location
d Drain pipe connection
e Drain pipe

5 Turn OFF the power.

6 Disconnect the electrical wiring.

- Remove the service cover.
- Disconnect the power supply.
- Disconnect the user interface.
- Reattach the service cover.

When installation of the system is already completed

1 Start cooling operation (see the reference guide or the service manual of the user interface).

2 Gradually pour approximately 1 l of water through the water inlet, and check for leaks (see "When installation of the system is not yet completed" [p 13]).

13 Piping installation

13.1 Preparing refrigerant piping

13.1.1 Refrigerant piping requirements



CAUTION

Piping MUST be installed according to instructions given in "13 Piping installation" [p 13]. Only mechanical joints (e.g. braze+flare connections) that are compliant with the latest version of ISO14903 can be used.



NOTICE

The piping and other pressure-containing parts shall be suitable for refrigerant. Use phosphoric acid deoxidised seamless copper for refrigerant piping.

- Foreign materials inside pipes (including oils for fabrication) must be $\leq 30 \text{ mg/10 m}$.

Refrigerant piping diameter

Use the same diameters as the connections on the outdoor units:

Model	L1 liquid piping	L1 gas piping
FCAG35	$\varnothing 6.4$	$\varnothing 9.5$
FCAG50~60	$\varnothing 6.4$	$\varnothing 12.7$
FCAG71~140	$\varnothing 9.5$	$\varnothing 15.9$

Refrigerant piping material

Piping material

Phosphoric acid deoxidised seamless copper

Flare connections

Only use annealed material.

Piping temper grade and thickness

Outer diameter (Ø)	Temper grade	Thickness (t) ^(a)	
6.4 mm (1/4")	Annealed (O)	$\geq 0.8 \text{ mm}$	
9.5 mm (3/8")			
12.7 mm (1/2")			
15.9 mm (5/8")			

^(a) Depending on the applicable legislation and the maximum working pressure of the unit (see "PS High" on the unit name plate), larger piping thickness might be required.

13.1.2 Refrigerant piping insulation

▪ Use polyethylene foam as insulation material:

- with a heat transfer rate between 0.041 and 0.052 W/mK (0.035 and 0.045 kcal/mh°C)
- with a heat resistance of at least 120°C

▪ Insulation thickness:

Pipe outer diameter (Ø _p)	Insulation inner diameter (Ø _i)	Insulation thickness (t)
6.4 mm (1/4")	8~10 mm	$\geq 10 \text{ mm}$
9.5 mm (3/8")	12~15 mm	$\geq 13 \text{ mm}$
12.7 mm (1/2")	14~16 mm	$\geq 13 \text{ mm}$
15.9 mm (5/8")	17~20 mm	$\geq 13 \text{ mm}$



14 Electrical installation

If the temperature is higher than 30°C and the humidity is higher than RH 80%, the thickness of the insulation materials should be at least 20 mm to prevent condensation on the surface of the insulation.

13.2 Connecting the refrigerant piping



DANGER: RISK OF BURNING/SCALDING

13.2.1 To connect the refrigerant piping to the indoor unit



CAUTION

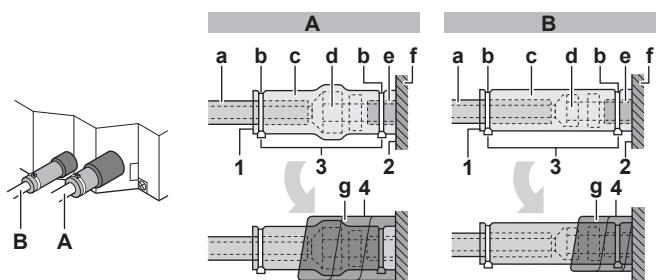
Install the refrigerant piping or components in a position where they are unlikely to be exposed to any substance which may corrode components containing refrigerant, unless the components are constructed of materials that are inherently resistant to corrosion or are suitably protected against corrosion.



WARNING: MILDLY FLAMMABLE MATERIAL

The R32 refrigerant (if applicable) in this unit is mildly flammable. Refer to the outdoor unit specifications for the type of refrigerant to be used.

- **Pipe length.** Keep refrigerant piping as short as possible.
- **Flare connections.** Connect refrigerant piping to the unit using flare connections.
- **Insulation.** Insulate the refrigerant piping on the indoor unit as follows:



A Gas piping
B Liquid piping

a Insulation material (field supply)
b Tie wrap (accessory)
c Insulation pieces: Large (gas pipe), small (liquid pipe) (accessories)
d Flare nut (attached to the unit)
e Refrigerant pipe connection (attached to the unit)
f Unit
g Sealing pads: Medium 1 (gas pipe), medium 2 (liquid pipe) (accessories)

- 1 Turn up the seams of the insulation pieces.
- 2 Attach to the base of the unit.
- 3 Tighten the tie wraps on the insulation pieces.
- 4 Wrap the sealing pad from the base of the unit to the top of the flare nut.



NOTICE

Make sure to insulate all refrigerant piping. Any exposed piping might cause condensation.

14 Electrical installation



DANGER: RISK OF ELECTROCUTION



WARNING

ALWAYS use multicore cable for power supply cables.



WARNING

Use an all-pole disconnection type breaker with at least 3 mm between the contact point gaps that provides full disconnection under overvoltage category III.



WARNING

If the supply cord is damaged, it MUST be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

14.1 Specifications of standard wiring components



NOTICE

We recommend using solid wires. If stranded wires are used, slightly twist the strands to consolidate the end of the conductor for either direct use in the terminal clamp or insertion in a round crimp-style terminal. Details are described in "Guidelines when connecting the electrical wiring" in the installer reference guide.

Component	Specification
Interconnection cable (indoor↔outdoor)	Only use harmonized wire providing double insulation and suitable for applicable voltage 4-core cable Minimum size 1.5 mm ²
User interface cable	Only use harmonized wire providing double insulation and suitable for applicable voltage 2-core cable Minimum size 0.75 mm ² Maximum length 500 m

14.2 To connect the electrical wiring to the indoor unit



WARNING

Do NOT extend the power supply or the interconnection cable by using wire connectors, wire connection clamps, taped wires, extension cords.

These can cause overheating, electric shock or fire.



NOTICE

- Follow the wiring diagram (delivered with the unit, located at the inside of the service cover).
- For instructions on how to connect the decoration panel and the sensor kit, see the installation manual delivered with the panel or the kit.
- Make sure the electrical wiring does NOT obstruct proper reattachment of the service cover.

It is important to keep the power supply and the interconnection wiring separated from each other. In order to avoid any electrical interference, the distance between both wirings should ALWAYS be at least 50 mm.

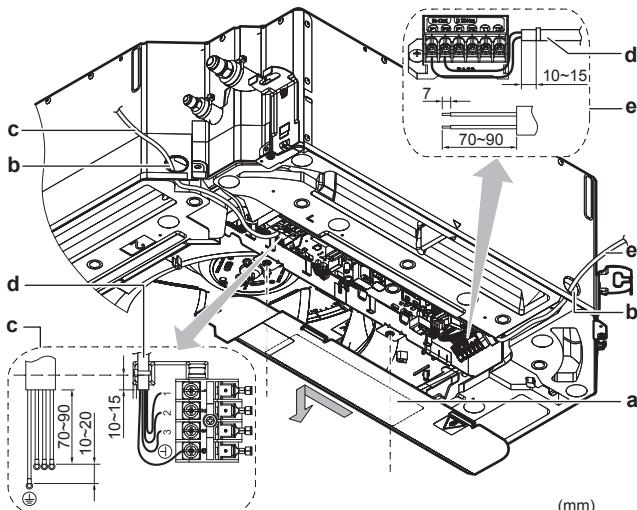


NOTICE

Be sure to keep the power line and interconnection line apart from each other. Interconnection wiring and power supply wiring may cross, but may NOT run parallel.

- 1 Remove the service cover.
- 2 **User interface cable:** Route the cable through the frame, connect the cable to the terminal block, and fix the cable with a cable tie.

3 Interconnection cable (indoor↔outdoor): Route the cable through the frame, connect the cable to the terminal block (make sure the numbers match with the numbers on the outdoor unit, and connect the earth wire), and fix the cable with a cable tie.



- a Service cover (with wiring diagram on the back)
- b Opening for cables
- c Connection of interconnection cable (including earth)
- d Cable tie
- e Connection of user interface cable

4 Divide the small sealing (accessory) and wrap it around the cables to prevent water from entering the unit. Seal all gaps to prevent small animals from entering the system.



WARNING

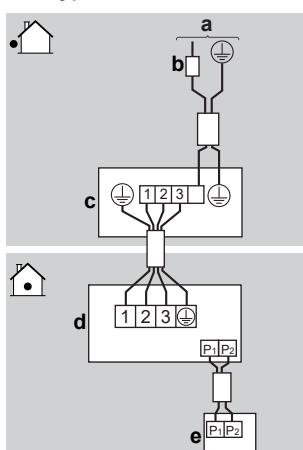
Provide adequate measures to prevent that the unit can be used as a shelter by small animals. Small animals that make contact with electrical parts can cause malfunctions, smoke or fire.

5 Reattach the service cover.

Complete system wiring example

For the wiring of outdoor units, refer to the installation manual attached to the outdoor units.

Pair type: 1 remote controller controls 1 indoor unit (standard)



- a Power supply
- b Residual current device
- c Outdoor unit
- d Indoor unit
- e User interface

Simultaneous operation system: 1 user interface controls up to 4 indoor units in 1 pair system (all indoor units operates equally)



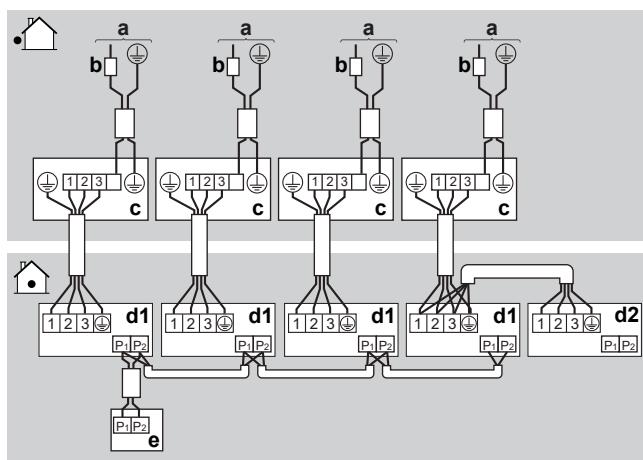
- a Power supply
- b Residual current device
- c Outdoor unit
- d1 Indoor unit (master)
- d2 Indoor unit (slave)
- e User interface

Connect the remote controller only to the master indoor unit. The thermistor reading of room temperature is effective only for the indoor unit connected to the user interface.

Refer to "16.1 Field setting" [▶ 16] for following settings:

- Number of the connected indoor units as simultaneous operation system
- Simultaneous operation system individual setting

Group control: 1 user interface controls up to 4 pair systems (all indoor units operate according to the user interface)

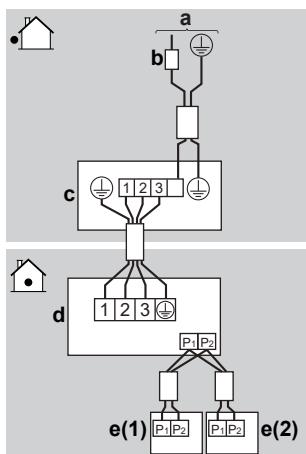


- a Power supply
- b Residual current device
- c Outdoor unit
- d1 Indoor unit (master)
- d2 Indoor unit (slave)
- e User interface

- You may control up to 16 units with 1 remote controller (combination of simultaneous operation and group control)
- All indoor units operate according to the user interface
- The thermistor reading of room temperature is effective only for the indoor unit connected to the user interface.

Control with 2 user interfaces: 2 user interfaces control 1 indoor unit

15 Commissioning



- a Power supply
- b Residual current device
- c Outdoor unit
- d Indoor unit
- e1 User interface (main)
- e2 User interface (sub)



INFORMATION

When using 2 user interfaces, one must be set to "MAIN" and the other to "SUB". For setting refer to the installation manual of the connected user interface.

15 Commissioning



NOTICE

General commissioning checklist. Next to the commissioning instructions in this chapter, a general commissioning checklist is also available on the Daikin Business Portal (authentication required).

The general commissioning checklist is complementary to the instructions in this chapter and can be used as a guideline and reporting template during commissioning and hand-over to the user.



NOTICE

ALWAYS operate the unit with thermistors and/or pressure sensors/switches. If NOT, burning of the compressor might be the result.

15.1 Checklist before commissioning

<input type="checkbox"/>	You have read the complete installation and operation instructions described in the installer and user reference guide .
<input type="checkbox"/>	The indoor unit is properly mounted.
<input type="checkbox"/>	The outdoor unit is properly mounted.
<input type="checkbox"/>	The drain piping is properly installed and insulated, and drainage flows smoothly. Check for water leaks. Possible consequence: condensate water might drip.
<input type="checkbox"/>	The refrigerant pipes (gas and liquid) are installed correctly and thermally insulated.
<input type="checkbox"/>	There are NO refrigerant leaks .
<input type="checkbox"/>	There are NO missing phases or reversed phases .
<input type="checkbox"/>	The system is properly earthing and the earth terminals are tightened.

<input type="checkbox"/>	The fuses or locally installed protection devices are installed according to this document, and have NOT been bypassed.
<input type="checkbox"/>	The power supply voltage matches the voltage on the identification label of the unit.
<input type="checkbox"/>	There are NO loose connections or damaged electrical components in the switch box.
<input type="checkbox"/>	There are NO damaged components or squeezed pipes on the inside of the indoor and outdoor units.
<input type="checkbox"/>	The stop valves (gas and liquid) on the outdoor unit are fully open.

15.2 To perform a test run



INFORMATION

- Perform the test run according to the instructions in the connected user interface manual.
- The test run is only completed if there is no malfunction code displayed on the user interface.
- See the service manual for the complete list of error codes and a detailed troubleshooting guideline for each error.



NOTICE

Do **NOT** interrupt the test run.

16 Configuration

16.1 Field setting

Make the following field settings so that they correspond with the actual installation setup and with the needs of the user:

- Ceiling height
- Decoration panel type
- Airflow direction
- Air volume when thermostat control is OFF
- Time to clean air filter
- Number of the connected indoor units as simultaneous operation system
- Simultaneous operation system individual setting
- Computerised control (forced OFF and ON/OFF operation)

Setting: Ceiling height

This setting must correspond with the actual distance to the floor, capacity class and airflow directions.

- For 3-way and 4-way airflow (which require an optional blocking pad kit), see the installation manual of the optional blocking pad kit.
- For all-round air flow, use the table below.

If the distance to the floor is (m)		Then ⁽¹⁾		
FCAG35~71	FCAG100~140	M	C1/ SW	C2/ —
≤2.7	≤3.2	13 (23)	0	01
2.7<x≤3.0	3.2<x≤3.6		02	
3.0<x≤3.5	3.6<x≤4.2		03	

Setting: Decoration panel type

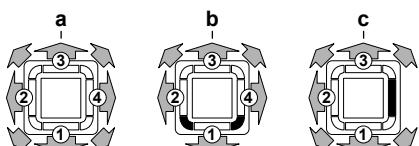
When installing or changing the decoration panel type, ALWAYS check if the correct values are set.

If the ... decoration panel is used	Then ⁽¹⁾		
	M	C1/ SW	C2/ —
Standard or self-cleaning	13 (23)	15	01
Design			02

Setting: Air flow direction

This setting must correspond with the actual used air flow directions. See the installation manual of the optional blocking pad kit and the manual of the user interface.

Default: 01 (= all-round air flow)

Example:

- a All-round air flow
- b 4-way air flow (all air outlets open, 2 corners closed)
(optional blocking pad kit required)
- c 3-way air flow (1 air outlet closed, all corners open)
(optional blocking pad kit required)

Setting: Air volume when thermostat control is OFF

This setting must correspond with the needs of the user. It determines the fan speed of the indoor unit during thermostat OFF condition.

1 If you have set the fan to operate, set the air volume speed:

	If you want		Then ⁽¹⁾		
	Outdoor unit		M	C1/SW	C2/—
During cooling operation	General	2MX/3MX/ 4MX/5MX	12 (22)	6	01
	LL ⁽²⁾				02
	Setup volume ⁽²⁾				03
	OFF				04
	Monitoring 1 ⁽²⁾				05
	Monitoring 2 ⁽²⁾				

	If you want		Then ⁽¹⁾			
	Outdoor unit	General	2MX/3MX/ 4MX/5MX	M	C1/SW	C2/—
During heating operation	LL ⁽²⁾		Monitoring 1 ⁽²⁾	12 (22)	3	01
	Setup volume ⁽²⁾		Monitoring 2 ⁽²⁾			02
	OFF					03
	Monitoring 1 ⁽²⁾					04
	Monitoring 3 ⁽²⁾					05

Setting: Time to clean air filter

This setting must correspond with the air contamination in the room. It determines the interval at which "Time to clean filter" notification is displayed on the user interface.

If you want an interval of... (air contamination)	Then ⁽¹⁾		
	M	C1/ SW	C2/ —
±2500 h (light)	10 (20)	0	01
±1250 h (heavy)			02
No notification		3	02

Setting: Number of the connected indoor units as simultaneous operation system**INFORMATION**

Pair/Twin/Triple/Double Twin - not needed to set anymore. ODU can detect this setting automatically.

For simultaneous operation system mode made following field setting:

If the system mode is...	Then ⁽¹⁾		
	M	C1/SW	C2/—
Pair (1 unit)	11 (21)	0	01
Twin (2 units)			02
Triple (3 units)			03
Double twin (4 units)			04

When using in **simultaneous operation** system mode, refer to "simultaneous operation system individual setting" section to set master and slave units separately.

Setting: Simultaneous operation system individual setting

Perform the following procedure when setting the master and slave unit separately.

1 Change setting:

If you want...	Then ⁽¹⁾		
	M	C1/SW	C2/—
Unified setting	11 (21)	1	01
Individual setting			02

2 Perform field setting for the master unit.

3 Turn off main power supply.

⁽¹⁾ Field settings are defined as follows:

- **M:** Mode number – **First number:** for group of units – **Number between brackets:** for individual unit
- **SW:** Setting number / **C1:** First code number
- **—:** Value number / **C2:** Second code number
- **■:** Default

⁽²⁾ Fan speed:

- **LL:** Low fan speed (set during thermostat OFF)
- **L:** Low fan speed (set by the user interface)
- **Setup volume:** The fan speed corresponds to the speed the user has set using the fan speed button on the user interface.
- **Monitoring 1, 2, 3:** The fan is OFF, but runs for a short time every 6 minutes to detect the room temperature by **LL** (Monitoring 1), **Setup volume** (Monitoring 2) or **L** (Monitoring 3).

17 Technical data

- 4 Detach user interface from the master unit and connect it to the slave unit.
- 5 Turn on the main power supply switch and set individual setting to 11(21)-1-02.
- 6 Perform field setting for slave unit.
- 7 Turn off the main power supply.
- 8 If there is more than one slave unit, repeat setting for each.
- 9 Detach user interface from the slave unit and reattach to the master unit.



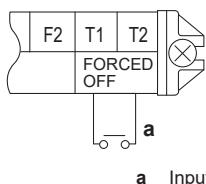
INFORMATION

- You do NOT need to rewire the user interface from the master unit if the optional user interface for slave unit is used. However, remove the wires attached to the user interface of the master unit.
- After the slave unit is set up, re-connect the user interface to master unit.
- The system does not operate properly when two or more user interfaces are attached in the simultaneous operation system mode.

Setting: Computerised control (forced OFF and ON/OFF operation)

Wire specifications and how to perform wiring

Connect input from outside to terminals T1 and T2 of the terminal block for user interface (there is no polarity).



Wire specification

Wire specification	Sheathed vinyl cord or cable (2 wire)
Gauge	0.75~1.25 mm ²
External terminal	Contact that can ensure the minimum applicable load of 15 V DC, 10 mA.

Actuation

Forced OFF	ON/OFF operation	Input from protection device
Input ON stops operation (impossible by user interface)	Input OFF → ON: Turns the unit ON	Input ON enables control by user interface
Input OFF enables control by user interface	Input ON → OFF: Turns the unit OFF	Input OFF stops operation: Triggers A0 error code

How to select FORCED OFF and ON/OFF OPERATION

- 1 Turn on the power and then use the user interface to select operation.
- 2 Change setting:

If you want...	Then ⁽¹⁾		
	M	C1/SW	C2—
Forced OFF	12 (22)	1	01
ON/OFF operation			02
Input from protection device			03

⁽¹⁾ Field settings are defined as follows:

- **M:** Mode number – **First number:** for group of units – **Number between brackets:** for individual unit
- **SW:** Setting number / **C1:** First code number
- **—:** Value number / **C2:** Second code number
- **■:** Default

17 Technical data

- A **subset** of the latest technical data is available on the regional Daikin website (publicly accessible).
- The **full set** of the latest technical data is available on the Daikin Business Portal (authentication required).

17.1 Wiring diagram

17.1.1 Unified wiring diagram legend

For applied parts and numbering, refer to the wiring diagram on the unit. Part numbering is by Arabic numbers in ascending order for each part and is represented in the overview below by "*" in the part code.

Symbol	Meaning	Symbol	Meaning
	Circuit breaker		Protective earth
			Noiseless earth
			Protective earth (screw)
—●	Connection	(A,	Rectifier
	Connector	—■	Relay connector
	Earth		Short-circuit connector
	Field wiring	—○—	Terminal
	Fuse		Terminal strip
	Indoor unit	○ ●	Wire clamp
	Outdoor unit		Heater
	Residual current device		

Symbol	Colour	Symbol	Colour
BLK	Black	ORG	Orange
BLU	Blue	PNK	Pink
BRN	Brown	PRP, PPL	Purple
GRN	Green	RED	Red
GRY	Grey	WHT	White
SKY BLU	Sky blue	YLW	Yellow

Symbol	Meaning
A*P	Printed circuit board
BS*	Pushbutton ON/OFF, operation switch
BZ, H*O	Buzzer
C*	Capacitor
AC*, CN*, E*, HA*, HE*, HL*, HN*, HR*, MR*_A, MR*_B, S*, U, V, W, X*A, K*R_*, NE	Connection, connector
D*, V*D	Diode
DB*	Diode bridge
DS*	DIP switch
E*H	Heater

Symbol	Meaning
FU*, F*U, (for characteristics, refer to PCB inside your unit)	Fuse
FG*	Connector (frame ground)
H*	Harness
H*P, LED*, V*L	Pilot lamp, light emitting diode
HAP	Light emitting diode (service monitor green)
HIGH VOLTAGE	High voltage
IES	Intelligent eye sensor
IPM*	Intelligent power module
K*R, KCR, KFR, KHuR, K*M	Magnetic relay
L	Live
L*	Coil
L*R	Reactor
M*	Stepper motor
M*C	Compressor motor
M*F	Fan motor
M*P	Drain pump motor
M*S	Swing motor
MR*, MRCW*, MRM*, MRN*	Magnetic relay
N	Neutral
n=*, N=*	Number of passes through ferrite core
PAM	Pulse-amplitude modulation
PCB*	Printed circuit board
PM*	Power module
PS	Switching power supply
PTC*	PTC thermistor
Q*	Insulated gate bipolar transistor (IGBT)
Q*C	Circuit breaker
Q*DI, KLM	Earth leak circuit breaker
Q*L	Overload protector
Q*M	Thermo switch
Q*R	Residual current device
R*	Resistor
R*T	Thermistor
RC	Receiver
S*C	Limit switch
S*L	Float switch
S*NG	Refrigerant leak detector
S*NPH	Pressure sensor (high)
S*NPL	Pressure sensor (low)
S*PH, HPS*	Pressure switch (high)
S*PL	Pressure switch (low)
S*T	Thermostat
S*RH	Humidity sensor
S*W, SW*	Operation switch
SA*, F1S	Surge arrester
SR*, WLU	Signal receiver
SS*	Selector switch
SHEET METAL	Terminal strip fixed plate
T*R	Transformer
TC, TRC	Transmitter
V*, R*V	Varistor

Symbol	Meaning
V*R	Diode bridge, Insulated-gate bipolar transistor (IGBT) power module
WRC	Wireless remote controller
X*	Terminal
X*M	Terminal strip (block)
Y*E	Electronic expansion valve coil
Y*R, Y*S	Reversing solenoid valve coil
Z*C	Ferrite core
ZF, Z*F	Noise filter

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