

Service manual Sky Air indoor units





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The following updates have been applied to the Service Manual:

• UV streamer air purifier unit BAEF125AWB was added.



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1 Safety precautions

The precautions described in this document cover very important topics, follow them carefully.

All activities described in the service manual must be performed by an authorized person.

If you are NOT sure how to install, operate or service the unit, contact your dealer.

In accordance with the applicable legislation, it might be necessary to provide a logbook with the product containing at least:

information on maintenance, repair work, results of tests, stand-by periods, ...

Also, at least, following information must be provided at an accessible place at the product:

- Instructions for shutting down the system in case of an emergency
- Name and address of fire department, police and hospital
- Name, address and day and night telephone numbers for obtaining service

In Europe, EN378 provides the necessary guidance for this logbook.

1.1 Meaning of warnings and symbols







INFORMATION

Indicates useful tips or additional information.

1.2 Dangers



Protect electric componennts from getting wet while the service cover is opened.

1.3 Warnings



WARNING

Improper installation or attachment of equipment or accessories could result in electrical shock, short-circuit, leaks, fire or other damage to the equipment. ONLY use accessories, optional equipment and spare parts made or approved by Daikin unless otherwise specified.



WARNING

Do NOT apply any permanent inductive or capacitance loads to the circuit without ensuring that this will NOT exceed the permissible voltage and current permitted for the equipment in use.





If a fault exists that could compromise safety, Do NOT connect electrical supply to the circuit until it is satisfactorily dealt with. If the fault CANNOT be corrected immediately but it is necessary to continue operation, an adequate temporary solution MUST be used. This MUST be reported to the owner of the equipment so all parties are advised.

Initial safety checks MUST include that:

- capacitors are discharged: this MUST be done in a safe manner to avoid possibility of sparking,
- NO live electrical components and wiring are exposed while charging, recovering or purging the system.



WARNING

Make sure that the refrigerating piping and components are installed in a position where they are unlikely to be exposed to any corroding substance.



WARNING

Make sure installation, testing and applied materials comply with applicable legislation (on top of the instructions described in the Daikin documentation).



WARNING

Make sure the work site environment is clean and safe to work in. Beware of spilled fluids, like water, oil or other substances.

Protect bystanders from injury and property from possible damage cause by service works.



WARNING

If any work is to be conducted on the refrigerating equipment or any associated parts which involves brazing, an appropriate dry powder or CO_2 fire extinguisher MUST be present.

When charging the unit, an appropriate dry powder or CO_2 fire extinguisher MUST be present.



WARNING

No person carrying out work in relation to a refrigerating system which involves exposing any pipe work shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, MUST be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs MUST be displayed.



WARNING

Tear apart and throw away plastic packaging bags so that nobody, especially NOT children, can play with them. **Possible consequence:** suffocation.

WARNING

During tests, NEVER pressurise the product with a pressure higher than the maximum allowable pressure (as indicated on the nameplate of the unit).





Make sure the total refrigerant charge is in accordance with the room size in which the unit is installed: please consult the detailed instructions on charging and allowed room sizes in the installation manual.



- NEVER mix different refrigerants or allow air to enter the refrigerant system.
- NEVER charge recovered refrigerant from another unit. Use recovered refrigerant only on the same unit where it was recovered from, or have it recycled at a certified facility.



WARNING

When reconnecting a connector to the PCB, make sure to connect it on the correct location and do NOT apply force, as this may damage the connector or connector pins of the PCB.



WARNING

ALWAYS recover the refrigerant. Do NOT release them directly into the environment. Use a vacuum pump to evacuate the installation.



WARNING

Removal of refrigerant MUST be according to the following:

When breaking into the refrigerant circuit to make repairs, be sure to remove the refrigerant from the system first. The refrigerant charge MUST be recovered into the correct recovery cylinders.



WARNING

Take sufficient precautions in case of refrigerant leakage. If refrigerant gas leaks, ventilate the area immediately. Possible risks:

- Excessive refrigerant concentrations in a closed room can lead to oxygen deficiency.
- Toxic gas might be produced if refrigerant gas comes into contact with fire.

WARNING

• Under no circumstances, potential sources of ignition SHALL be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) MUST NOT be used.

- Ensure that the detector is NOT a potential source of ignition and is suitable for the detection of R32.
- If a leak is suspected, all naked flames MUST be removed or extinguished.
- Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine MUST be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.
- If a leakage of refrigerant is found which requires brazing, all of the refrigerant MUST be recovered from the system, or isolated (by means of shut-off valves) in a part of the system remote from the leak.
- Only use the electronic leak tester for R32. The old flame leak tester CANNOT be used on a system with HFC refrigerant because there is no chlorine component in the refrigerant. In case of R32 (HFC) refrigerant, any flame in contact with (leaking) refrigerant is extremely dangerous.





- In order to prevent oxygen deficiency and R32 combustion, keep the room wellventilated for a healthy work environment. Do NOT work in a confined space. If a refrigerant leak is detected in a confined room or an inadequately ventilated location, do NOT start the work until the area has been ventilated appropriately.
- If the work area is NOT located in the open air, make sure the work area is adequately ventilated before breaking into the system or conducting any brazing. The ventilation MUST continue to operate during the period that the work is carried out to prevent accumulation of refrigerant in the work area. The ventilation should safely disperse any released refrigerant and preferably ventilate to the open air.



WARNING

Ensure that no external live wiring is exposed while charging, recovering or purging the system. Sparks created when live wiring is short-circuited might ignite the refrigerant if it is leaked into the room while charging, recovering or purging the system.



WARNING

Ensure that the unit is properly earthed prior to conducting maintenance or service or charging the system with refrigerant. Do NOT earth the unit to a utility pipe, surge absorber, or telephone earth. Incomplete earthing may cause electrical shock.



WARNING

- ONLY use copper wires.
- Make sure the field wiring complies with the applicable legislation.
- All field wiring MUST be performed in accordance with the wiring diagram supplied with the product.
- NEVER squeeze bundled cables and make sure they do NOT come in contact with the piping and sharp edges. Make sure no external pressure is applied to the terminal connections.
- Make sure to install earth wiring. Do NOT earth the unit to a utility pipe, surge absorber, or telephone earth. Incomplete earth may cause electrical shock.
- Make sure to use a dedicated power circuit. NEVER use a power supply shared by another appliance.
- Make sure to install the required fuses or circuit breakers.
- Make sure to install an earth leakage protector. Failure to do so may cause electrical shock or fire.
- When installing the earth leakage protector, make sure it is compatible with the inverter (resistant to high frequency electric noise) to avoid unnecessary opening of the earth leakage protector.



WARNING

Make sure the markings on the unit remain visible and legible after inspection or repair work. Markings and signs that are illegible shall be corrected.



WARNING

• After finishing the electrical work, confirm that each electrical component and terminal inside the electrical components box is connected securely.

Make sure all covers are closed before starting up the unit.



- The area MUST be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres.
- Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.
- Prior to and during work, the area MUST be checked with an appropriate refrigerant detector capable of detecting R32 refrigerant, to ensure a work environment free of refrigerant.

WARNING

- Equipment MUST be labelled stating that it has been de-commissioned and emptied of refrigerant.
- The label MUST be dated and signed.
- For appliances containing flammable refrigerants, ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.



WARNING

Before carrying out refrigerant recovery procedure, it is essential that the technician is completely familiar with the equipment and all its details. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample MUST be taken in case analysis is required prior to reuse of recovered refrigerant. It is essential that electrical power is available before the task is commenced.

- Become familiar with the equipment and its operation.
- Isolate system electrically.
- Ensure that mechanical handling equipment is available, if required, for handling refrigerant cylinders.
- Ensure that all personal protective equipment is available and is used correctly.
- Ensure that the recovery process is supervised at all times by a competent person.
- Ensure that recovery equipment and cylinders are conform to the appropriate standards.
- If a vacuum is NOT possible, make a manifold so that refrigerant can be removed from various parts of the system.
- Make sure that cylinder is situated on the scales before recovery takes place.
- Start the recovery machine and operate in accordance with instructions.
- Do NOT overfill the refrigerant cylinder, confirm with the supplier of the refrigerant cylinder about maximum filling ratio if NOT mentioned on the refrigerant cylinder itself.
- Do NOT exceed the maximum working pressure of the cylinder, NOT even temporarily.
- When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed.
- Recovered refrigerant MUST NOT be charged into another refrigerating system unless it has been cleaned and checked.



WARNING

All maintenance staff and others working in the local area MUST be instructed on the nature of work being carried out.





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.



WARNING

Prior to start working on systems containing flammable refrigerant, safety checks are necessary to ensure that the risk of ignition is minimised. Therefore, some instructions should be followed.

Please refer to the service manual for more information.

WARNING

If compressor is to be removed, ensure that the compressor has been evacuated to an acceptable level to make sure that flammable refrigerant does NOT remain within the lubricant. The evacuation process MUST be carried out prior to returning the compressor to the supplier. During the refrigerant recovery, confirm that the crankcase heater of the compressor body is energized to accelerate this process. When oil is drained from a system, it MUST be carried out safely.



WARNING

Make sure the ventilation machinery and outlets are operating adequately and are NOT obstructed.

1.4 Cautions



CAUTION

Wear adequate personal protective equipment (protective gloves, safety glasses,...) when installing, maintaining or servicing the system.



CAUTION

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



CAUTION

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

1.5 Notices







NOTICE

Make sure refrigerant piping installation complies with applicable legislation. In Europe, EN378 is the applicable standard.



NOTICE

Make sure the field piping and connections are NOT subjected to stress.



2 General operation

The Sky-Air is typically used for cooling or heating in commercial applications. Some units also have settings to perform technical cooling. The medium which is used to transfer the heat from inside to outside or vice versa, is refrigerant.

There are four different piping combinations to indoor units:

- Pair
- Twin
- Triple
- double twin.

They all have the same operation principle. Unlike multi-system, they have only one main expansion valve controlling the refrigerant flow to all indoor unit(s).



- a Compressor
- **b** Indoor heat exchanger (up to 4 indoor units)
- c Expansion valve
- **d** Outdoor heat exchanger
- e 4-way valve
- **f** Stop valve

In case of heating, the compressor builds up pressure and hence the temperature of the refrigerant is increased. The hot refrigerant is blown into the room by fan(s) which blow over heat exchanger(s). Colder refrigerant flows back to the outdoor unit, where temperature is further decreased by expansion through an expansion valve. After the expansion valve, the refrigerant is capable of taking up heat again. This is enabled by a fan that sucks outdoor air over a heat exchanger. This refrigerant is then transported to the compressor where temperature is further built up again and the cycle starts again. For cooling, it's just the other way round.



Outdoor units

Sky-Air systems have combination limits for different types of outdoor units (refer to Daikin Business Portal) and also limits for piping length and connection ratio for each indoor unit combination pattern (refer to the Engineering Databook of outdoor units).

There are different types of outdoor units, including Alpha, Advanced and Active series. Please be aware that some of the higher end outdoor series have more functions than others (e.g. infrastructure cooling setting,...).



3 Troubleshooting

3.1 To retrieve error codes and check error history

3.1.1 Via service monitoring tool

With the service monitoring tool, it is possible to monitor not only error codes but also some common retries and stepping down controls:

- Unit error
- Error code
- High pressure retry
- Low pressure retry
- Discharge pipe retry
- Inverter retry
- High pressure stepping down control
- Low pressure stepping down control
- Over current stepping down control
- Fin temperature stepping down control
- Compressor discharging stepping down control

3.1.2 Via the indoor unit remote controller BRC1H

INFORMATION

Images are in English and for reference ONLY. For more details on the Madoka Assistant please refer to the BRC1H training course material which is available on the Daikin Business Portal.

To retrieve the error code

To indicate a system error, the controller displays Δ on the messages zone of the home screen.



- b Middle button O
- c Error screen
- Press the middle button O to enter the main menu from the home screen.
 Result: An error screen is displayed.
- 2 Press the middle button **O** to return to the home screen.

Active error codes are also accessible through the Madoka Assistant for BRC1H.



d g ۵ Warnings Dust collector needs to be emptied 0 * 2 Errors [A] **ه**⁰ UC-00 3.01 1111 Fanis

The active error is shown on the home screen.

- **d** Active error
- e Home screen
- f Error(s) details
- g Notifications screen
- **3** Tap the active error.

Result: The detail(s) of the error(s) are shown on the Notifications screen.

To check the error history

To check the error history with the Madoka Assistant for BRC1H:

#	Action	Image for reference	Result
1	Tap the settings icon.	1722 0 0 E E E C Office 1 Image: C Image: C Image: C Image: C Image: C Image: C	The Unit settings screen is displayed.
2	Tap Errors and warnings.	Value Value Function lock Disabled > Maintenance ^ Errors and warnings > Unit number > AinNet address > Group address > Contact information > Field settings > Unit status > Operating hours >	The Errors and warnings screen is displayed.





3.1.3 Via the wired remote control BRC1E



INFORMATION

Images are in English and for reference ONLY. For more details on the BRC1E please refer to the user manual.

To retrieve the error code

In case of an error or warning, the operation lamp on the ON/OFF button blinks and an error message or warning is displayed at the bottom of the screen.



- a Operation lamp on the ON/OFF button
- **b** Error message
- c Warning





3 | Troubleshooting

To check the error hist	ory
-------------------------	-----

#	Action	Posult
1	Go to the basic screen.	
2	Press at least 4 seconds while the backlight of the screen is lit.	The Service Settings screen is displayed.
3	Select Error History	Service Settings 2/3 Indoor Unit Airnet Address Outdoor Unit Airnet Address Error History Indoor Unit Status Outdoor Unit Status Outdoor Unit Status Forced Fan ON
4	Press.	The Error History screen is displayed.
5	Select RC Error History or Indoor Unit Error History.	Error History RC Error History Indoor Unit Error History Return Setting \$
6	Press.	 The RC Error History screen shows error history for all units in case of group control The Indoor Unit Error History screen shows error history of the selected indoor unit Error History 1/3 Unit Error Date Time 1/4



3.1.4 Via the wireless controller BRC7

To retrieve the error code



a INSPECTION/TEST button

- **b** Unit No.
- **c** UP button
- d DOWN buttone MODE button
- e MODE butf Left digit
- g Right digit
- **1** Press and hold INSPECTION/TEST button for 5 seconds.

Result: The "unit indication" is displayed on screen and Unit No. is displayed as "0", blinking.

2 Set the Unit No. via UP/DOWN buttons until a buzzer sound* is generated from the indoor unit.

Result: *Possible buzzer sounds:

- 3 short beeps; conduct all items of the following procedure.
- 1 short beep; conduct steps 3 and 4. Continue the operation in step 4 until the buzzer sounds continuously.
- Continuous buzzer; indicates the error code is confirmed.
- **3** Press the MODE button.

Result: The left digit of the error code on display will blink.

4 Press UP/DOWN buttons to change the left digit of the error code.

Result: The left digit changes as indicated below.

°□°₽°€°€°₩°F°∪°L°₽°U°9°8°7°6°5°Ч

UP button

- 5 Continue to change until the matching buzzer sound** is generated.Result: **Possible buzzer sounds:
- Continuous buzzer; both digits match with the error code.
- 2 short beeps; left digit matches with the error code.
- 1 short beep; right digit matches with the error code.
- 6 Press the MODE button.

Result: The right digit of the error code on display will blink.

Press UP/DOWN buttons to change the right digit of the error code.Result: The right digit changes as indicated below.





- 8 Continue to change until the matching buzzer sound*** is generated. **Result:** ***Possible buzzer sounds:
- Continuous buzzer; both digits match with the error code.
- 2 short beeps; left digit matches with the error code.
- 1 short beep; right digit matches with the error code.

To check the error history



INFORMATION

It is not possible to acces the error history with the wireless controller BRC7.

3.1.5 Via the wired remote control BRC1D

To retrieve the error code



- a Remote controller's operation LED
- **b** Error code
- c Inspection display
- d TEST button
- e Unit No.
- f Temperature set button

If operation stops due to a malfunction, the remote controller's operation LED will blink and an error code will be displayed.

The error code will stay available at inspection mode even after forced off operation or after the error is reset.

The inspection display and error code blink while an error is active.

To access the error code while in normal operation; follow the procedure below:

1 Press TEST button once.

Result: Error code for corresponding Unit No will be displayed.



2 Press TEST button.

Result: Indoor unit model code will be displayed.

3 Press TEST button.

Result: Outdoor unit model code will be displayed.

4 Press TEST button.

Result: TEST operation will be displayed.

5 Press TEST button for the last time to return to home screen.

Result: The home screen appears.

To check the error history

To check the malfunction history, you will need to access Mode 40 on the BRC1D. Mode 40 stands for malfunction history display.

1 While in home screen, press TEST button for 5 seconds.

Result: Field settings mode is accessed.

2 While in field settings mode, press TEST button for 5 seconds.

Result: Mode 40 is accessed.

3 Push the temperature set button to change the History No. No 1 stands for the latest error.

Result: The History No. and error code are displayed.



4 Press TEST button to return to the home screen.

3.2 To activate emergency operation

The table below describes the purpose of the emergency operation.

lf	Then
Remote controller is defective	Emergency operation can be used to go
Indoor unit PCB is defective	to cooling or heating. In emergency
Outdoor unit PCB is defective	operate until the defective indoor or outdoor unit PCB is back online.



Starting conditions

In case the customer strongly needs the heating/cooling operation while waiting for the next service visit, you can manually operate the system by changing the emergency switch on the indoor unit and outdoor unit PCB from "normal" to "emergency". When emergency operation is active, the system CANNOT control the room temperature.

Both the indoor and outdoor unit MUST be set to "emergency" while the power is OFF.

Ending conditions

You can end the emergency operation by changing the emergency switch on the indoor unit and outdoor unit PCB back to "normal" while the power is OFF.

Below table explains what will happen when the emergency switch is set to "emergency":

Changing the emergency switch on the	Switches ON the
Indoor unit	 Indoor unit fan
	 Drain pump
Outdoor unit	Compressor
	 Outdoor unit fan

Activate emergency operation

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

1 Set the emergency switch SS1 on the indoor unit PCB to the "Emg." position.



Emg. Emergency

- **2** Set the emergency DIP switch on the outdoor unit PCB to the "emergency" position, see outdoor unit service manual for more information.
- **3** Set the emergency DIP switch on the outdoor unit PCB to the desired forced operating mode (Cooling or Heating).
- 4 Turn ON the power using the respective circuit breaker.
- **5** Turn ON the unit.

Result: The system starts operating in emergency operation.

Active components

Component	Forced cooling	Forced heating	Forced defrost
Compressor	ON	ON	ON
4-way valve	OFF	ON	OFF
Outdoor unit fan	Steady-state control	Steady-state control	OFF
Indoor unit fan	Steady-state control	Steady-state control	OFF



Component	Forced cooling	Forced heating	Forced defrost
Drain pump	ON	ON	ON

Additional info

- The unit will NOT regulate the temperature during emergency operation.
- During emergency operation, do NOT attempt to operate the system using the remote controller. The remote controller shows "88" while emergency operation is active on the indoor unit.
- If a safety device is activated during emergency operation, all actuators are turned OFF.
- In cooling operation, the unit runs for 20 minutes and then stops for 10 minutes in order to avoid freeze-up of the indoor unit coil.
- In heating operation, defrost is activated for 3 minutes, once every hour.
- Emergency operation CANNOT be carried out when the PCB itself is seriously damaged.
- Make sure to set the emergency switch on both the outdoor and indoor unit PCB.
- Change the position of the emergency switch ONLY when the power is turned OFF.
- When the communication between the indoor unit(s) and outdoor unit is repaired, emergency operation will stop and the system returns to normal operation.

3.3 Error based troubleshooting

3.3.1 A1-01 – Indoor unit PCB abnormality

Trigger	Effect	Reset
Data read error from	Unit will stop operating.	Power reset via outdoor
EEPROM.		unit.

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Perform a power reset. If the error disappears and is raised again after a while, check for the presence of an external source causing electrical noise. See "5.4 External factors" [▶ 105].

Possible cause: External source may cause interference.

2 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.



3.3.2 A3-00 – Drain water level abnormality

Trigger	Effect	Reset
Float switch is open circuit during normal operation.	Unit will stop operating.	Remote controller reset.

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Check the power supply to the indoor unit. See "5.1 Electrical circuit" [> 99].

Possible cause:

- Faulty or disturbance of the power supply (imbalance),
- Phase missing,
- Power drop,
- Short circuit.
- 2 Check for excess water level in the drain pan. Empty the drain pan and correct installation of drain piping as needed. See indoor unit installation manual for more detailed information.

Possible cause: Excess water in the drain pan and/or incorrect installation of drain piping.

3 Perform a check of the float switch. See "4.2 Float switch" [> 51].

Possible cause: Faulty float switch.

4 Perform a check of the drain pump. See "4.1 Drain pump" [> 51].

Possible cause: Faulty drain pump.

5 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.3 A6-00 – Indoor unit fan motor abnormality

Trigger	Effect	Reset
The rotation speed of the fan motor is NOT detected while the output	Unit will stop operating.	Power reset via the outdoor unit.
voltage to the fan is at its maximum.		

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].



Possible cause: Faulty indoor unit main PCB.

2 Perform a check of the indoor unit fan motor. See "4.4 Indoor unit fan motor" [▶ 55].

Possible cause: Faulty indoor unit fan motor.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.4 A8-00 – Fan motor abnormality - power supply abnormality

Trigger	Effect	Reset
Input voltage detected by PCB too low or too high.	Units will stop operating.	Remote controller reset.

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Check the power supply to the indoor unit. See "5.1 Electrical circuit" [> 99].

Possible cause:

- Faulty or disturbance of the power supply (imbalance),
- Phase missing,
- Power drop,
- Short circuit.
- 2 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.

3 Perform a check of the indoor unit fan motor. See "4.4 Indoor unit fan motor" [▶ 55].

Possible cause: Faulty indoor unit fan motor.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.5 AH-19 – UV streamer air purifier unit abnormality

Trigger	Effect	Reset
Maulfunction detected in	Unit will NOT stop	Auto reset.
unit.	operating.	

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.



 Perform a check of the UV streamer air purifier unit. See "4.12 UV streamer air purifier unit" [▶ 93].

Possible cause: Faulty UV streamer air purifier unit.

2 Perform a check of the UV streamer air purifier unit main PCB. See "4.13 UV streamer air purifier unit main PCB" [▶ 95].

Possible cause: Faulty UV streamer air purifier unit main PCB.



If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.6 AJ-00 – Capacity setting abnormality

Trigger	Effect	Reset
Capacity class CANNOT be	Unit will stop operating.	Power reset via outdoor
read by indoor unit main		unit.
PCB.		

To solve the error code



1 Check the power supply to the indoor unit. See "5.1 Electrical circuit" [> 99].

Possible cause:

- Faulty or disturbance of the power supply (imbalance),
- Phase missing,
- Power drop,
- Short circuit.
- 2 Perform a power reset. If the error disappears and is raised again after a while, check for the presence of an external source causing electrical noise. See "5.4 External factors" [▶ 105].

Possible cause: External source may cause interference.

3 Check if the correct spare part is installed for the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59]. Check that the correct capacity setting adapter is connected to X23A of the PCB.

Possible cause: Incorrect spare part PCB or incorrect capacity setting adapter.

4 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.



3.3.7 C1-02 – Communication abnormality between main PCB and option PCB

Trigger	Effect	Reset
Communication abnormality between indoor unit main PCB and option PCB.	The unit stops and will resume operation in thermostat OFF.	Auto reset after option PCB is detected normally.

To solve the error code

INFORMATION

It is recommended to perform the checks in the listed order.

1 Check communication wiring (insertion and continuity) on the option PCB connector on the indoor unit main PCB and the connector on the option PCB. See "7.2 Wiring diagram" [▶ 111].

Possible cause: Faulty or damaged communication wiring between indoor unit main PCB and option PCB.

- 2 Perform power reset. If error is NOT resolved:
 - Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [> 59].

Possible cause: Faulty indoor unit main PCB.

Perform a check of the option PCB. See "5.3 Manufacturer components" [▶ 104].

Possible cause: Faulty option PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.8 C4-02 – Liquid heat exchanger thermistor short circuit

Trigger	Effect	Reset
Indoor unit liquid heat	The unit stops and will	Auto reset.
exchanger thermistor	resume operation in	
detected short-circuit.	thermostat OFF.	

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Perform a check of the indoor unit liquid heat exchanger thermistor. See "4.10 Thermistors" [▶ 85].

Possible cause: Faulty liquid heat exchanger thermistor.

2 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.





INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.9 C4-03 – Liquid heat exchanger thermistor open circuit

Trigger	Effect	Reset
Indoor unit liquid heat exchanger thermistor detected open circuit.	The unit stops and will resume operation in thermostat OFF.	Auto reset.

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Check that the connector of the indoor unit liquid heat exchanger thermistor is correctly connected to the main PCB. See "7.2 Wiring diagram" [▶ 111].

Possible cause: Open circuit on connector of indoor unit liquid heat exchanger thermistor.

2 Perform a check of the indoor unit liquid heat exchanger thermistor. See "4.10 Thermistors" [▶ 85].

Possible cause: Faulty liquid heat exchanger thermistor.

3 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.10 C5-02 – Middle heat exchanger thermistor short circuit

Trigger	Effect	Reset
Indoor unit middle heat exchanger thermistor detected short-circuit.	The unit stops and will resume operation in thermostat OFF.	Auto reset.

To solve the error code



It is recommended to perform the checks in the listed order.

1 Perform a check of the indoor unit middle heat exchanger thermistor. See "4.10 Thermistors" [▶ 85].

Possible cause: Faulty middle heat exchanger thermistor or connector fault.

2 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.11 C5-03 – Middle heat exchanger thermistor open circuit

Trigger	Effect	Reset
Indoor unit middle heat exchanger thermistor detected open circuit.	The unit stops and will resume operation in thermostat OFF.	Auto reset.

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Check that the connector of the indoor unit middle heat exchanger thermistor is correctly connected to the main PCB. See "7.2 Wiring diagram" [▶ 111].

Possible cause: Open circuit on connector of indoor unit middle heat exchanger thermistor.

2 Perform a check of the indoor unit middle heat exchanger thermistor. See "4.10 Thermistors" [> 85].

Possible cause: Faulty middle heat exchanger thermistor or connector fault.

3 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.12 C6-00 – Compatibility error between main PCB and fan PCB

Trigger	Effect	Reset
Indoor unit main PCB detected incompatible type indoor unit fan PCB.	Unit will stop operating.	Reset via remote controller.

To solve the error code

INFORMATION
It is recommended to perform the checks in the listed order.

1 Check if the correct spare part is installed for the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Incorrect spare part PCB.

2 Perform power reset. If error is NOT resolved:

 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.13 C9-02 – Suction air thermistor short circuit

Trigger	Effect	Reset
Indoor unit suction air	The unit stops and will	Auto reset.
thermistor detected	resume operation in	
short-circuit.	thermostat OFF.	

To solve the error code

INFOR
It is reco

NFORMATION is recommended to perform the checks in the listed order.

1 Perform a check of the indoor unit suction air thermistor. See "4.10 Thermistors" [▶ 85].

Possible cause: Faulty indoor unit suction air thermistor.

2 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.14 C9-03 – Suction air thermistor open circuit

Trigger	Effect	Reset
Indoor unit suction air	The unit stops and will	Auto reset.
thermistor detected open	resume operation in	
circuit.	thermostat OFF.	

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Check that the connector of the indoor unit suction air thermistor is correctly connected to the main PCB. See "7.2 Wiring diagram" [▶ 111].

Possible cause: Open circuit on connector of indoor unit suction air thermistor.

2 Perform a check of the indoor unit suction air thermistor. See "4.10 Thermistors" [▶ 85].

Possible cause: Faulty indoor unit suction air thermistor.



3 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.15 CC-00 – Humidity sensor abnormality

Trigger	Effect	Reset
 Disconnected sensor 	Unit will stop operating.	Manual reset via user
 Broken sensor 		interface.
Communication error		

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

Perform a check of the humidity sensor. See "4.3 Humidity sensor" [▶ 51].
 Possible cause: Faulty humidity sensor.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.16 CJ-00 – Remote controller air thermistor abnormality

Trigger	Effect	Reset
Remote controller air	Indoor unit will continue	Auto reset.
thermistor read-out is out	operating, using indoor	
of range.	unit air thermistor as	
	input.	

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

- **1** Clear the error history of the remote controller. See operation manual of the remote controller for detailed information.
- 2 If error is still active, replace the remote controller. See "4.7 Remote controller user interface" [▶ 73].



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.



3.3.17 U0-00 – Outdoor unit: Shortage of refrigerant

Trigger	Effect	Reset
Refrigerant shortage	Unit will stop operating.	Automatic reset.
detected.		Power reset via outdoor unit.

To solve the error code



It is recommended to perform the checks in the listed order.

1 Perform а check of all refrigerant side thermistors. See "4.10 Thermistors" [> 85] and see outdoor unit service manual.

Possible cause: Faulty refrigerant side thermistor(s).

- **2** Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [> 104]. Possible cause: Clogged refrigerant circuit.
- 3 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▶ 104].

Possible cause: Refrigerant shortage.

4 Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [> 104].

Possible cause: Non-condensables and/or humidity in the refrigerant circuit.

5 Perform a check of the compressor. See outdoor unit service manual.

Possible cause: Faulty compressor or miswiring of the compressor power supply cable.

6 Perform a check of all expansion valve. See outdoor unit service manual.

Possible cause: Faulty expansion valve.

7 Check for leaks in the refrigerant circuit. Look for oil traces on the unit(s). Check the brazing points on the field piping. Perform a pressure test, see "5.2 Refrigerant circuit" [> 104].

Possible cause: Leak in the refrigerant circuit.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.18 U1-00 – Malfunction by reverse phase/open phase

Trigger	Effect	Reset
Outdoor unit main PCB detects incorrect power supply.	Unit will stop operating.	Power reset via outdoor unit.



To solve the error code

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NFORMATION

It is recommended to perform the checks in the listed order.

1 Check if the power supply to the outdoor unit is compliant with the regulations. See outdoor unit service manual.

Possible cause:

- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.
- 2 Perform a check of the main PCB A1P. See outdoor unit service manual.

Possible cause: Faulty main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.19 U2-00 – Outdoor unit: Defect of power supply voltage

Trigger	Effect	Reset
There is no zero-cross detected in approximately 10 seconds (indoor unit PCB).	Unit will stop operating.	Power reset.
Abnormal voltage drop is detected by the DC voltage detection circuit.	Unit will stop operating.	Automatic restart after compressor stand-by of 3 minutes.
Abnormal voltage rise is detected by the overvoltage detection circuit.	Unit will stop operating.	Automatic restart after compressor stand-by of 3 minutes.

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Check if the power supply to the outdoor unit is compliant with the regulations. See outdoor unit service manual.

Possible cause:

- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.
- 2 Perform a check of the compressor. See outdoor unit service manual.

Possible cause: Faulty compressor or miswiring of the compressor power supply cable.

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3 Perform a check of the outdoor unit fan motor. See outdoor unit service manual.

Possible cause: Faulty outdoor unit fan motor.

4 Perform a check of the main PCB A1P. See outdoor unit service manual.

Possible cause: Faulty main PCB.

5 Perform a check of the inverter PCB (if applicable). See outdoor unit service manual.

Possible cause: Faulty inverter PCB.

6 Perform a check of the fan inverter PCB (if applicable). See outdoor unit service manual.

Possible cause: Faulty fan inverter PCB.

7 Perform a check of the noise filter PCB (if applicable). See outdoor unit service manual.

Possible cause: Faulty noise filter PCB.

8 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.

9 Wait until the compressor restarts.

Possible cause:

- Momentary drop of voltage,
- Momentary power failure.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.20 U4-00 – Indoor/outdoor unit communication problem

Trigger	Effect	Reset
Communication failure between outdoor and indoor unit.	Unit will stop operating.	Power reset via outdoor unit.

To solve the error code



It is recommended to perform the checks in the listed order.

1 Check if the power supply to the outdoor unit is compliant with the regulations. See outdoor unit service manual.

Possible cause:

- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.
- 2 Perform a check of the power supply, connections, wiring,... between the outdoor unit and the indoor unit. See "5.1 Electrical circuit" [▶ 99].


Possible cause: Faulty wiring between the outdoor unit and the indoor unit.

- **3** Perform a check of the main PCB A1P. See outdoor unit service manual. **Possible cause:** Faulty main PCB.
- 4 Perform a check of the outdoor unit fan motor. See outdoor unit service manual.

Possible cause: Faulty outdoor unit fan motor.

5 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.

6 Check that "standby electricity saving mode" is OFF. See installation manual.

Possible cause: "Standby electricity saving mode" is ON, while this mode is ONLY compatible with Split indoor units.

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

7 Wait until the rectifier voltage is below 10 V DC.



DANGER: RISK OF ELECTROCUTION

Wait for at least 10 minutes after the circuit breaker has been turned OFF, to be sure the rectifier voltage is below 10 V DC before proceeding.

8 Check that the thermal interface grease is applied properly on the (PCB or refrigerant piping) contact surface of the heat sink. Adjust if needed.

Possible cause: Thermal interface grease NOT applied properly on the heat sink.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.21 U5-00 – Communication abnormality between indoor unit main PCB and remote controller

Trigger	Effect	Reset
Transmission abnormality	Unit will stop operating.	Auto reset.
between indoor unit main		
PCB and remote		
controller.		

To solve the error code

INFORMATION

It is recommended to perform the checks in the listed order.

1 Check if multiple remote controllers are wired to the same indoor unit. One remote controller needs to be set to main while all other remote controllers need to be set to sub. Also check that the remote controllers are correctly wired. See installer reference guide of the remote controller for detailed information.



Possible cause: No main remote controller set when multiple units are wired to the same indoor unit.

2 Perform a check of the remote controller. See "4.7 Remote controller user interface" [▶ 73].

Possible cause: Faulty remote controller or faulty transmission wiring between remote controller and indoor unit.

- **3** If possible, switch the faulty remote controller with a remote controller from another indoor unit.
 - If error transfers to the other indoor unit, replace the remote controller. See "4.7 Remote controller user interface" [▶ 73].

Possible cause: Faulty remote controller.

 If error is still present on the indoor unit, Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [> 59].
 Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.22 UA-00 – Indoor unit, outdoor unit mismatching problem

Trigger	Effect	Reset
Signal transmission between outdoor and indoor unit abnormality. Improper combination of outdoor and indoor unit.	Unit will stop operating.	Power reset via outdoor unit.

To solve the error code



It is recommended to perform the checks in the listed order.

- **1** Check for improper combination of the indoor unit and the outdoor unit. See the combination table in the Databook for more information.
- 2 Perform a check of the power supply, connections, wiring,... between the outdoor unit and the indoor unit. See "5.1 Electrical circuit" [▶ 99].

Possible cause: Faulty wiring between the outdoor unit and the indoor unit.

3 Perform a check of the main PCB A1P. See outdoor unit service manual.

Possible cause: Faulty main PCB.

4 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.

5 Check that "standby electricity saving mode" is OFF. See installation manual.

Possible cause: "Standby electricity saving mode" is ON, while this mode is ONLY compatible with Split indoor units.





INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.23 UC-00 – Central address duplication error

Trigger	Effect	Reset
Same central address is assigned to multiple indoor units.	Central controller CANNOT communicate.	Auto reset.

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Consult remote controller manual and assign dedicated addresses to each indoor unit.

Possible cause: Incorrect address setting.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.24 UE-00 – Communication abnormality with central controller

Trigger	Effect	Reset
Transmission abnormality with central controller.	Unit will stop operating.	Auto reset.

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

If all indoor units display error UE-00

 Check the F1-F2 transmission line between the central controller and terminal X1M of the outdoor unit. See "5.1 Electrical circuit" [▶ 99].

Possible cause: Faulty or interruption in transmission line between central controller and outdoor unit.

2 Check the F1-F2 transmission line between the indoor units and outdoor unit. See "5.1 Electrical circuit" [▶ 99].

Possible cause: Faulty or interruption in transmission line between indoor units and outdoor unit.

If ONLY 1 indoor unit displays error UE-00

1 Check if the indoor unit has an assigned group address. Set a group address as needed. See installation manual of the remote controller for procedure to set group address.



Possible cause: No group address assigned to indoor unit.

- 2 Perform a power reset on the central controller and check if error is resolved.
- **3** Using the service monitoring tools, check the communication registers.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.25 UF-00 – Reversed piping or bad communication wiring detection

Trigger	Effect	Reset
The interunit wiring between indoor and outdoor unit is incorrect.	Unit will stop operating.	Automatic reset.
Piping abnormality.		

To solve the error code



It is recommended to perform the checks in the listed order.

1 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▶ 104].

Possible cause: Refrigerant shortage.

- Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▶ 104].
 Possible cause: Clogged refrigerant circuit.
- 3 Check that the piping and wiring connections of the system are correctly installed. See "7.3 Piping diagram" [▶ 119] and "7.2 Wiring diagram" [▶ 111] in this manual and in the outdoor unit service manual.

Possible cause: Piping and/or wiring mismatch.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.26 UJ-10 - Communication abnormality between indoor unit and wireless LAN adapter

Trigger	Effect	Reset
Communication abnormality between indoor unit main PCB and wireless LAN adapter.	Unit will continue operating.	Auto reset.

To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.



1 Check the communication wiring (insertion and continuity) on the connectors X35A and X50A of the indoor unit main PCB and the connector on the wireless LAN adapter. See "7.2 Wiring diagram" [▶ 111].

Possible cause: Faulty or damaged communication wiring between indoor unit main PCB and wireless LAN adapter.

2 Perform a check of the wireless LAN adapter. See "5.3 Manufacturer components" [▶ 104].

Possible cause: Faulty wireless LAN adapter or faulty transmission wiring.

3 Perform a check of the indoor unit main PCB. See "4.5 Indoor unit main PCB" [▶ 59].

Possible cause: Faulty indoor unit main PCB.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.27 UJ-11 – Wireless LAN adapter - Router connection abnormality

Trigger	Effect	Reset
Communication abnormality between router and wireless LAN adapter.	Unit will continue operating.	Auto reset.

To solve the error code

1 Check the communication between the router and the wireless LAN adapter. If the communication between the router and other devices (e.g. smartphones, TV, ...) is normal, please reconnect the wireless LAN adapter with the router via the app. If the communication between the router and other devices (e.g. smartphones, TV, ...) is NOT normal, please restart the router and check the internet connection with the router. If the problem is NOT solved, check the router. See documentation of the router.

Possible cause: Communication lost between router and wireless LAN adapter or faulty router.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.

3.3.28 UJ-12 - Router - Cloud connection abnormality

Trigger	Effect	Reset
Communication abnormality between router and cloud.	Unit will continue operating.	Auto reset.



To solve the error code



INFORMATION

It is recommended to perform the checks in the listed order.

1 Check the internet connection by connecting other devices (e.g. smartphones, TV, ...) to the router.

Possible cause: Faulty internet connection.

2 If internet connection is normal, check with the Daikin dealers.

Possible cause: Maintenance or abnormality of the Daikin cloud.



INFORMATION

If all procedures listed above have been performed and the problem is still present, contact the helpdesk.



3.4 Symptom based troubleshooting

3.4.1 Operation does not start

Check	Detail
When the operation lamp is off, there is a power failure. Check the power supply.	 Is the power supply breaker ON? Do other electrical appliances work? Is the rated voltage (± 10%) supplied? Check the insulation of the electric system.
Check the type of the indoor unit.	Is the indoor unit type compatible with the outdoor unit?
Check the transmission between indoor and outdoor.	Connection wires.
Check the outdoor air thermistor.	Check the resistance of the outdoor air thermistor.Check the connection of the outdoor air thermistor.
When the operation lamp blinks, there may be an error code, activating the protection device. Diagnose with remote controller	See "3.3 Error based troubleshooting" [▶ 25].
indication.	
Check the operation circuit.	 Is the thermal fuse blown. Are wire size and wire connections OK?.
Check fan motor.	 Is the magnetic switch defective? Is the overcurrent relay defective?
Check compressor.	 Is the contact defective? Is the protection thermostat defective? Is the compressor itself defective?

3.4.2 Operation sometimes stops

Check	Detail
When the operation lamp is off, there is a power failure.	• A power failure of 2 to 10 cycles stops air conditioner operation.
Check the power supply.	
Check the outdoor air thermistor.	 Check the resistance of the outdoor air thermistor.
	 Check the connection of the outdoor air thermistor.



3 Troubleshooting

Check	Detail
When the operation lamp blinks, there may be an error code, activating the protection device.	See "3.3 Error based troubleshooting" [▶ 25].
Diagnose with remote controller indication.	

3.4.3 Operation starts but the unit does not cool/heat

Check	Detail
Check the electrical power supply.	Is the rated voltage (± 10%) supplied?
Check for piping and wiring errors in the connection between the indoor unit	 Refrigerant piping is too long; is the length within specified range?
and outdoor unit.	 Field piping is defective; is there a refrigerant leakage?
	 Is there capacity loss over the condensor, saturation pressure or sound because of air mixed in to the circuit?
	 Incorrect size of connection wiring.
When the operation lamp blinks, there may be a thermistor detection error	 Check the resistance of all thermistors.
code, activating the protection device.	 Check the connection of all thermistors.
	 Is there a malfunction in the room temperature thermistor or outdoor temperature thermistor?
Check for faulty operation of the electronic expansion valve.	Set the unit to cooling operation, and check the temperature of the liquid pipe to see if the electronic expansion valve works.
Diagnose by service port pressure and operating current.	Check for refrigerant shortage.
Check if the set temperature is appropriate.	thermostat "off" can be activated, set the appropriate temperature.
Check the type of the indoor and outdoor units.	Is the indoor unit type compatible with the outdoor unit?
Check the air filter.	Is the air filter clean?
Check the installation conditions (specified in the installation manual).	 Does the installed model has sufficient capacity?
	• Is there a short circuit air flow caused by insufficient installation space?



Check	Detail
Check the internal leakage of the 4-way valve	 After compressor running for 10 minutes, is there a temperature difference between the suction pipe and the discharge pipe? Is the pressure difference between the internal service port (small) and the gas pipe service port sufficient (>0.2MPa)2

3.4.4 Operating noise and vibrations

Check	Detail
Check the installation conditions (specified in the installation manual).	 Use general vibration prevention where needed.
	 If the mounting wall is too thin, you must use cushion material or rubber, or change the installation place.
	 Refrigerant piping is too short; is the length within specified range?
	 Due to bad installation or general conditions there may be deformation of the unit.
	 Are all the screws installed and tightened properly?
	 Is all piping secured, fixed and supported by inserting a cushion material where needed?
	 Install piping weights or correct by hand if any piping is in contact with other parts.
	 Is the fan in contact with other parts? If so separate the fan from the other parts.
Check refrigerant charge.	 Is the unit filled with the specified refrigerant volume?
	 Is there a flushing noise, due to refrigerant shortage?
	Is there air in the system?
Check the expansion valve.	If a passing sound is heard from the pressure reducing valve, apply sound insulation sheets of putty to reduce the valve noise.



3.4.5 Abnormal high pressure

In cooling mode

Check item	Detail
Does the outdoor unit fan run normally?	Visual inspection
Is the outdoor unit heat exchanger clogged?	Visual inspection
Is there clogging before or after the expansion valve (capillary)?	 Check if there is a temperature difference before and after expansion valve (capillary).
	 Check if the main valve unit of expansion valve operates (by noise, vibration).
Is the High Pressure Switch normal?	Check continuity by using a tester.
Is the outdoor unit installed under such conditions that short circuit easily occurs?	Visual inspection
Is the minimum piping length respected?	Visual inspection
Does air enter the refrigerant system?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.
Is the refrigerant overcharged?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.

In heating mode

Check item	Detail
Does the indoor unit fan run normally?	Visual inspection
Is the indoor unit heat exchanger clogged?	Visual inspection
Is the indoor unit installed under such conditions that short circuit easily occurs?	Visual inspection
Is there clogging before or after the expansion valve (capillary)?	 Check if there is a temperature difference before and after expansion valve (capillary).
	 Check if the main valve unit of expansion valve operates (by noise, vibration).
Is the High Presure Switch normal?	Check continuity by using a tester.
Is the minimum piping length respected?	Visual inspection
Does air enter the refrigerant system?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.



Check item	Detail
Is the refrigerant overcharged?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.

3.4.6 Abnormal low pressure

Abnormally low pressure level is mostly caused by the evaporator side. The following contents are provided based on field checking of service engineer. Further, the number is listed in the order of degree of influence.

In cooling mode

Check item	Detail
Does the indoor unit fan run normally?	Visual inspection
Is the indoor unit heat exchanger clogged?	Visual inspection
Is the indoor unit installed under such conditions that short circuit easily occurs?	Visual inspection
Is there clogging before or after the expansion valve (capillary)?	 Check if there is a temperature difference before and after expansion valve (capillary).
	 Check if the main valve unit of expansion valve operates (by noise, vibration).
Is the check valve (if applicable) clogged?	Check if there is a temperature difference before and after check valve. If YES, the check valve is clogged.
Is there a shortage of refrigerant?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.

In heating mode

Check item	Detail
Does the outdoor unit fan run normally?	Visual inspection
Is the outdoor unit heat exchanger clogged?	Visual inspection
Is there clogging before or after the expansion valve (capillary)?	 Check if there is a temperature difference before and after expansion valve (capillary). Check if the main valve unit of expansion valve operates (by noise, vibration).
Is the check valve (if applicable) clogged?	Check if there is a temperature difference before and after check valve. If YES, the check valve is clogged.



3 Troubleshooting

Check item	Detail
Is the outdoor unit installed under such conditions that short circuit easily occurs?	Visual inspection
Is there a shortage of refrigerant?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.

3.4.7 Indoor fan starts operating but the compressor does not operate

Check	Detail
Check the power supply.	• Is the rated voltage (± 10%) supplied?
	 Check the insulation of the electric system.
Check the thermistor.	Connection with PCB.
	• Output.
Check PCB's HAP LED's (if applicable).	 if green led on the control PCB is not blinking, then the microprocessor is not working.
	 if the green led on the main PCB is not blinking, then the microprocessor is not working.
	• if first green LED on the service monitor PCB is not blinking, then the microprocessor is not working.
Check the magnetic switch.	
Check the power transistor.	
Check the compressor.	Defective contact.
	Defective compressor.
	Defective protection thermostat.
Check the outdoor temperature.	 Heating operation cannot be used when the outdoor temperature is 18°C WB or higher.
	 Cooling operation cannot be used when the outdoor temperature is below –10°C DB.



3.4.8 Operation starts and the unit stops immediately

Check	Detail
Check the power supply.	 Is the capacity of the safety breaker as specified?
	 If the earth leakage breaker is too sensitive, then increase the set value of the earth leakage current of the breaker or replace the breaker.
	 Is the circuit exclusive?
	• Is the rated voltage (± 10%) supplied?
	 Is there an incorrect size of connection wiring?
Check the refrigerant charge.	Overcharge.
	• Air in the system.
	Water in the system.
Check the fan motor.	 Check the magnetic switch.
	 Check the overcurrent relay.
Check the four way valve coil.	 Is there a short circuit?
	Is the four way valve coil broken?
Check the outdoor PCB.	 Is there a short circuit?
	Is the outdoor PCB broken?
Check the heat exchanger.	Soiled heat exchanger, obstruction.
Check the airflow.	Soiled air filter, obstruction, installation space.

3.4.9 Operation stops, unit cannot start for a while

Check	Detail
Check if standby function is activated.	 Compressor delay timer is counting.
	 Wait for minimum 3 minutes.
Check the power supply.	Low voltage?
	 Is the size of the power cable sufficient?
Check the refrigerant charge.	 Incorrect charge.
	• Air in the system.
	 Water in the system.
	 Obstruction in the system.
Check compressor.	 Overcurrent relay.
	 Protection thermostat.



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3.4.10 Unit discharges white mist

Check	Detail
Check installation conditions.	Humid site.
	 Dirty site.
	• Oil mist.
Check installation conditions.	Dirty heat exchanger.
Air filter.	Dirty air filter.
Fan motor.	Defective fan motor.

3.4.11 Swing flap does not operate

Symptom	Check	Detail
Swing flap does not operate	Check swing flap motor	Some functions can force the swing flap into a fixed position, although swing mode is selected on the remote controller. This is not a unit error, but a control function to prevent draft to the customer.
	Check indoor unit PCB	Connector connection



4 Components



CAUTION

When replacing a component ALWAYS make sure the correct spare part for your unit is installed.

4.1 Drain pump

Not available yet

4.2 Float switch

Not available yet

4.3 Humidity sensor

4.3.1 Checking procedures

To perform a power check of the humidity sensor

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

- 1 Remove the required plate work, see "4.6 Plate work" [> 67].
- **2** Open the suction grille of the decoration panel.
- **3** Turn the locks of the air filter grille clockwise and open the air filter grille.
- **4** Cut the tie strap that fixes the humidity sensor bracket.



- **a** Tie strap
- **b** Bracket
- c Mount
- **d** Humidity sensor (PCB)
- **5** Remove the humidity sensor bracket with humidity sensor from the mount.
- **6** Click the humidity sensor (PCB) out of the bracket and leave the wiring harness connected.
- 7 Turn ON the power of the unit.



8 Measure the power supply voltage between the pins 1-3 on the humidity sensor connector CN1.

Is the measured power supply voltage correct?	Action
Yes	Perform an electrical check of the humidity sensor, see "4.3.1 Checking procedures" [> 51].
Νο	Continue with the next step.

- 9 Remove the switch box cover of the UV streamer air purifier unit, see "4.6 Plate work" [> 67].
- **10** Measure the output voltage between between the pins 1-3 on the connector X83A on the UV streamer air purifier unit main PCB.

Is the output voltage on the UV streamer air purifier unit main PCB correct?	Action
Yes	Replace the humidity sensor wiring harness, see "4.3.2 Repair procedures" [> 53].
Νο	Perform a check of the UV streamer air purifier unit main PCB, see "4.13.1 Checking procedures" [> 95].

Result: The measured voltage MUST be 5 V DC.

To perform an electrical check of the humidity sensor

Prerequisite: First perform a power check of the humidity sensor, see "4.3.1 Checking procedures" [> 51].

Prerequisite: Remove the switch box cover of the UV streamer air purifier unit, see "4.6 Plate work" [67].

- 1 Turn ON the power of the unit.
- 2 Disconnect the humidity sensor connector from the UV streamer air purifier unit main PCB.
- 3 Measure the humidity sensor output voltage between the pins 2-3 of the humidity sensor connector.

Result: The measured output voltage MUST be according to the table below:

Relative humidity	Temperature		
	5°C	25°C	45°C
20%	1.059 V	0.846 V	0.882 V
30%	1.207 V	1.133 V	1.186 V
40%	1.581 V	1.537 V	1.556 V
50%	1.891 V	1.862 V	1.878 V
60%	2.149 V	2.133 V	2.172 V
70%	2.378 V	2.400 V	2.422 V
80%	2.619 V	2.640 V	2.651 V
90%	2.864 V	2.885 V	2.878 V





4 Components

Is the measured output voltage correct?	Action
Yes	Humidity sensor is OK. Return to the troubleshooting of the specific error and continue with the next procedure.
No	Continue with the next step.

4 Disconnect the wiring harness from the humidity sensor (PCB).

5 Measure the continuity of the humidity sensor wiring harness.

Is the humidity sensor wiring harness OK?	Action
Yes	Replace the humidity sensor, see "4.3.2 Repair procedures" [> 53].
No	Replace the humidity sensor wiring harness, see "4.3.2 Repair procedures" [> 53].

4.3.2 Repair procedures

To remove the humidity sensor

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

- 1 Remove the required plate work, see "4.6 Plate work" [> 67].
- **2** Open the suction grille of the decoration panel.
- **3** Turn the locks of the air filter grille clockwise and open the air filter grille.
- 4 Cut the tie strap that fixes the humidity sensor bracket.



- **a** Tie strap
- **b** Bracket
- c Mountd Humidity sensor (PCB)
- **5** Remove the humidity sensor bracket with humidity sensor from the mount.
- 6 Click the humidity sensor (PCB) out of the bracket.
- 7 Disconnect the wiring harness from the humidity sensor (PCB).
- **8** Remove the humidity sensor (PCB).
- **9** To install the humidity sensor (PCB), see "4.3.2 Repair procedures" [> 53].



To install the humidity sensor

- **1** Connect the humidity sensor wiring harness to the humidity sensor (PCB).
- Click the humidity sensor (PCB) on the bracket and make sure the wiring 2 harness is correctly routed.



- а Tie strap
- **b** Bracket
- c Mount d Humidity sensor (PCB)
- **3** Install (click) the humidity sensor bracket (with humidity sensor) in the correct location on the mount. Make sure the wiring harness is correctly routed.
- **4** Install a new tie strap to fix the humidity sensor bracket to the mount.
- **5** Close the air filter grille and turn the locks counter clockwise.
- **6** Close the suction grille of the decoration panel.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

To remove the humidity sensor wiring harness

Prerequisite: Remove the humidity sensor, see "4.3.2 Repair procedures" [> 53].

- Remove the switch box cover of the UV streamer air purifier unit, see 1 "4.6 Plate work" [> 67].
- 2 Disconnect the wiring harness connector from the UV streamer air purifier unit main PCB.
- **3** Cut all tie straps (if any) that fix the wiring harness.
- 4 Route the wiring harness out of the harness retainers and remove the humidity sensor wiring harness.
- 5 To install the humidity sensor wiring harness, see "4.3.2 Repair procedures" [> 53].

To install the humidity sensor wiring harness

1 Connect the wiring harness connector to the UV streamer air purifier unit main PCB.







WARNING

When reconnecting a connector to the PCB, make sure to connect it on the correct location and do NOT apply force, as this may damage the connector or connector pins of the PCB.

- **2** Route the wiring harness through the appropriate harness retainers towards the humidity sensor (PCB).
- **3** Connect the wiring harness to the humidity sensor (PCB).
- 4 Fix the wiring harness using new tie straps (if needed).
- **5** Install the humidity sensor, see "4.3.2 Repair procedures" [> 53].

Is the problem solved?	Action
Yes	No further actions required.
Νο	Return to the troubleshooting of the specific error and continue with the next procedure.

4.4 Indoor unit fan motor

4.4.1 Checking procedures



To perform a mechanical check of the DC fan motor assembly

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- **1** Check the fan for damage, deformations and cracks. Replace the fan as needed.
- **2** Check that the fan is correctly installed on the DC fan motor. Correct as needed.
- **3** Manually rotate the fan and check the friction of the DC fan motor shaft bearing.

Is the DC fan motor shaft friction normal?	Action
Yes	Perform an electrical check of the DC fan motor assembly, see "4.4.1 Checking procedures" [> 55].
No	Replace the DC fan motor assembly, see "4.4.2 Repair procedures" [> 58].

To perform an electrical check of the DC fan motor assembly

1 First perform a mechanical check of the DC fan motor assembly, see "4.4.1 Checking procedures" [▶ 55].



INFORMATION

Check the DC fan motor power supply (voltage) circuit on the PCB.



INFORMATION

The DC fan motor connector MUST be plugged into the appropriate PCB.

- 2 Turn ON the power of the unit.
- **3** Activate Fan ONLY via the user interface.
- 4 Check the functioning of the indoor unit fan.

Indoor unit fan	Action
Rotates continuously (without interruption)	DC fan motor assembly is OK. Return to the troubleshooting of the specific error and continue with the next procedure.
Does not rotate or rotates for a short time	Continue with the next step.

- **5** Turn OFF the unit via the user interface.
- **6** Turn OFF the respective circuit breaker.



DANGER: RISK OF ELECTROCUTION

Wait for at least 10 minutes after the circuit breaker has been turned OFF, to be sure the rectifier voltage is below 10 V DC before proceeding.

7 Disconnect the DC fan motor connector X20A and measure the resistance on the connector pins shown below.

Result: The measured resistance MUST be:

VDC	Comm	Resistance
1	4	>1 MΩ
2	4	>100 kΩ
3	4	>100 Ω
7	4	>100 kΩ



INFORMATION

The measured resistance values may deviate from the listed values due to instability during the measurements.

DC fan motor resistance measurements are correct?	Action
Yes	Continue with the next step.
No	Replace the indoor unit fan motor, see "4.4.2 Repair procedures" [▶ 58].

- **8** Connect the DC fan motor connector X20A to the indoor unit main PCB.
- **9** Turn ON the power of the unit.





CAUTION

Ensure that the system CANNOT start the fan. Disable all modes (heating, cooling, ...) on the unit. The unit MUST be kept powered.



DANGER: RISK OF ELECTROCUTION

Do NOT touch any live parts or PCB's.

10 Measure the voltage on the connector pins 4-7 (= fan motor power supply) on the indoor unit main PCB.

Result: The voltage MUST be:

Unit	Measured voltage
FAA71B	200~380 V DC
FAA100B	260~390 V DC

11 Measure the voltage on the connector pins 4-3 (= fan motor control) on the indoor unit main PCB.

Result: The voltage MUST be 15±10% V DC.

Are both measured voltages correct?	Action
Yes	Continue with the next step.
No	Perform a check of the indoor unit main PCB, see "4.5.1 Checking procedures" [▶ 59].

- **12** Operate the indoor unit in Fan ONLY mode.
- **13** Measure the voltage on the DC fan motor connector X20A pins 2-4 (= rotation command) on the indoor unit main PCB.

Result: The measured voltage should NOT be 0 V DC. It should be:

Unit	Measured voltage
FAA71B	0~7.5 V DC
FAA100B	0~6.5 V DC
Is the measured voltage 0 V DC?	Action
Yes	Perform a check of the indoor unit main PCB, see "4.5.1 Checking procedures" [> 59].
No	Continue with the next step.

- **14** Turn OFF the respective circuit breaker.
- **15** Remove the indoor unit fan motor, see "4.4.2 Repair procedures" [▶ 58]. Make sure to keep the power supply wiring connected when removing the switch box.
- **16** Connect the DC fan motor connector to the indoor unit main PCB.
- **17** Turn ON the power of the unit.



CAUTION

Ensure that the system CANNOT start the fan. Make sure unit operation is OFF. The unit MUST be kept powered.



18 Manually (slowly) rotate the shaft of the indoor unit fan motor 1 turn and measure the voltage on the DC fan motor connector pins 1-4.

Result: 4 pulses MUST be measured.

Pulses are measured during fan motor shaft rotation?	Action
Yes	Perform a check of the indoor unit main PCB, see "4.5.1 Checking procedures" [> 59].
No	Replace the indoor unit fan motor, see "4.4.2 Repair procedures" [> 58].

4.4.2 Repair procedures

To remove the DC fan motor assembly

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- 1 Remove the switch box, see "4.6 Plate work" [> 67].
- 2 Remove the 2 screws and click out the brackets.



- A FAA71B unit
- **B** FAA100B unit
- a Screwb Bracke
- b Bracketc Indoor unit fan motor
- **3** Manually open the swing flaps.
- **4** Loosen the screw that fixes the cross flow fan assembly to the fan motor shaft.
- **5** Slide the indoor unit fan motor out of the indoor unit.
- 6 To install the indoor unit fan motor, see "4.4.2 Repair procedures" [> 58].

To install the DC fan motor assembly

- 1 Install the indoor unit fan motor in its correct location on the cross flow fan assembly. Make sure the fan motor shaft is correctly inserted in the cross flow fan assembly.
- **2** Install and tighten the screw to fix the cross flow fan assembly to the fan motor shaft.





- 4 Install and tighten the 2 screws to fix the brackets.
- 5 Install the switch box, see "4.6 Plate work" [> 67].

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

4.5 Indoor unit main PCB

4.5.1 Checking procedures

INFORMATION

It is recommended to perform the checks in the listed order.

To perform a power check of the indoor unit main PCB

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- 1 Visually check the PCB for damage and burnt-out components. If any damage found, replace the PCB, see "4.5.2 Repair procedures" [▶ 64].
- **2** Turn ON the power of the unit.
- **3** Measure the voltage between the pins 1-2 of the connector X27A on the indoor unit main PCB.

Result: The measured voltage MUST be 230 V AC.





a Connector X27A

Is the measured voltage on the indoor unit main PCB correct?	Action
Yes	Return to "4.5.1 Checking procedures" [> 59] of the indoor unit main PCB and continue with the next procedure.
No	Continue with the next step.

4 Check the power supply to the indoor unit, see "5.1.1 Checking procedures" [> 99].

Is the power supply to the indoor unit correct?	Action
Yes	Correct the wiring between the power supply terminal of the indoor unit and the indoor unit main PCB, see "4.5.2 Repair procedures" [> 64].
No	See "To check the power supply to the indoor unit" ("5.1.1 Checking procedures" [> 99]) for the next steps.

To check the HAP LED of the indoor unit main PCB

Prerequisite: First perform a power check of the indoor unit main PCB, see "4.5.1 Checking procedures" [> 59].

1 Locate the HAP LED on the indoor unit main PCB.







a HAP LED



INFORMATION

Make sure the correct software is available on the PCB. If NOT, update using the updater tool.

Does the HAP LED blink in regular intervals (1 second ON/1 second OFF)?	Action
Yes	Return to "4.5.1 Checking procedures" [> 59] of the indoor unit main PCB and continue with the next procedure.
No	Replace the indoor unit main PCB, see "4.5.2 Repair procedures" [> 64].

To check if the correct spare part is installed

Prerequisite: First perform all earlier checks of the indoor unit main PCB, see "4.5.1 Checking procedures" [▶ 59].

- **1** Visit your local spare parts webbank.
- **2** Enter the model name of your unit and check if the installed spare part number corresponds with the spare part number indicated in the webbank.
- **3** Check that the correct capacity setting adapter is installed on connector X23A of the spare part indoor unit main PCB.

Indoor unit	Capacity setting adapter
FAA71B	J80
FAA100B	J112



4 | Components

Is the correct spare part for the indoor unit main PCB installed?	Action
Yes	Return to "4.5.1 Checking procedures" [> 59] of the indoor unit main PCB and continue with the next procedure.
No	Replace the indoor unit main PCB, see "4.5.2 Repair procedures" [> 64].

To check the wiring of the indoor unit main PCB

Prerequisite: First perform all earlier checks of the indoor unit main PCB, see "4.5.1 Checking procedures" [▶ 59].

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

- **1** Check that all wires are properly connected and that all connectors are fully plugged-in.
- 2 Check that no connectors or wires are damaged.
- 3 Check that the wiring corresponds with the wiring diagram, see "7.2 Wiring diagram" [▶ 111].



INFORMATION

Correct the wiring as needed.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to "4.5.1 Checking procedures" [> 59] of the indoor unit main PCB and continue with the next procedure.

To check the rectifier voltage of the indoor unit main PCB

Prerequisite: First perform all earlier checks of the indoor unit main PCB, see "4.5.1 Checking procedures" [▶ 59].

- **1** Turn ON the power of the unit.
- 2 Measure the voltage on the rectifier voltage check terminals (V DC out (+) and V DC out (-)) on the indoor unit main PCB.

Result: The measured voltage MUST be approximately 324 V DC.





a V DC out (+) terminalb V DC out (-) terminal

Is the rectifier voltage on the indoor unit main PCB correct?	Action
Yes	Return to "4.5.1 Checking procedures" [> 59] of the indoor unit main PCB and continue with the next procedure.
No	Replace the indoor unit main PCB, see "4.5.2 Repair procedures" [> 64].

To perform a diode module check

1 First check the rectifier voltage of the indoor unit main PCB, see "4.5.1 Checking procedures" [▶ 59].



INFORMATION

If the rectifier voltage is OK, the diode module is OK. If rectifier voltage is NOT OK, proceed as described in the rectifier voltage check procedure.

Below procedure describes how to check the diode module itself.

Prerequisite: Stop the unit operation via the user interface.

2 Turn OFF the respective circuit breaker.



DANGER: RISK OF ELECTROCUTION

Wait for at least 10 minutes after the circuit breaker has been turned OFF, to be sure the rectifier voltage is below 10 V DC before proceeding.

3 Check the diode module in reference with the image and the table below.





- a V DC out (+)
- **b** V AC in
- c V AC in
- d V DC out (-)



INFORMATION

When measuring on the front of the main PCB, make sure to locally remove the protective varnish with the test leads of the multi meter.

VDC	Com	Ref	VDC	Com	Ref
d	b	0.51~0.52 V	b	d	O.L
b	а	0.51~0.52 V	а	b	O.L
d	С	0.51~0.52 V	С	d	O.L
С	а	0.51~0.52 V	а	С	O.L

4 If the diode module is NOT OK, replace the indoor unit main PCB, see "4.5.2 Repair procedures" [▶ 64].

Problem solved?

After all checking procedures listed above have been performed:

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

4.5.2 Repair procedures

To correct the wiring from the indoor unit power supply terminal to the indoor unit main PCB

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].



 Correct the wiring from the indoor unit power supply terminal to the PCB, see "7.2 Wiring diagram" [▶ 111].

Is the problem solved?	Action
Yes	No further actions required.
No	Return to "4.5.1 Checking procedures" [> 59] of the indoor unit main PCB and continue with the next procedure.

To remove the indoor unit main PCB

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

1 Remove the required plate work, see "4.6 Plate work" [> 67].



DANGER: RISK OF ELECTROCUTION

Wait for at least 10 minutes after the circuit breaker has been turned OFF, to be sure the rectifier voltage is below 10 V DC before proceeding.

2 Cut the tie straps that fix the ground wire and power supply wiring.



- **a** Tie strap
- b Ferrite corec Ground wire on power supply wiring terminal
- **d** Indoor unit main PCB
- **3** Remove the ferrite core from the ground wire.
- 4 Disconnect the ground wire from the power supply wiring terminal.
- **5** Disconnect all connectors from the infoor unit main PCB.
- 6 Carefully pull the PCB at the side and unlatch the PCB holders one by one.
- 7 Remove the indoor unit main PCB from the indoor unit.
- **8** To install the indoor unit main PCB, see "4.5.2 Repair procedures" [> 64].

To install the indoor unit main PCB

1 Install the indoor unit main PCB in the correct location. Firmly latch the PCB holders to fix the PCB.



- **a** Tie strap
- **b** Ferrite core
- **c** Ground wire on power supply wiring terminal
- **d** Indoor unit main PCB
- 2 Connect all connectors to the indoor unit main PCB.



INFORMATION

Use the wiring diagram and connection diagram for correct installation of the connectors, see "7.2 Wiring diagram" [▶ 111].



WARNING

When reconnecting a connector to the PCB, make sure to connect it on the correct location and do NOT apply force, as this may damage the connector or connector pins of the PCB.

3 Check that the correct capacity setting adapter is installed on connector X23A of the spare part indoor unit main PCB.

Indoor unit	Capacity setting adapter
FAA71B	J80
FAA100B	J112

- **4** Connect the ground wire to the power supply wiring terminal.
- **5** Install the ferrite core on the ground wire.
- **6** Fix the ground wire and power supply wiring using new tie straps.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to "4.5.1 Checking procedures" [> 59] of the indoor unit main PCB and continue with the next procedure.



4.6 Plate work

4.6.1 To remove the front panel

1 Open the front panel. Hold the front panel by the panel tabs on both sides and open until the panel stops.



- a Panel tabs
- 2 Remove the front panel by pushing hooks on either side of the front panel towards the side of the unit and remove the panel. Or remove it by sliding the front panel either to the left or right and pulling it forward.



a Panel hook

4.6.2 To remove the front grille



Wear adequate personal protective equipment (protective gloves, safety glasses,...) when installing, maintaining or servicing the system.

- Remove the front panel. See "4.6 Plate work" [> 67]. 1
- 2 Remove the screws (3 for class 71, 6 for class 100) and remove grille clamps (only for class 100) with the flat screwdriver or a coin.
- 3 for class 71:



a Grille clamps



3 Push down the upper hooks marked with a symbol with 3 circles in the direction of the arrows (3 for class 71, 4 for class 100).



a Hook

4 Making sure not to catch the horizontal flaps, remove the front grille by pulling in the direction of the arrow.



4.6.3 To remove the electrical wiring box cover

TO OPEN THE SERVICE COVER

- **1** Remove 1 screw from the service cover.
- 2 Pull out the service cover horizontally away from the unit.



- **b** Service cover
- **3** Remove 1 screw from the shield plate.
- **4** Pull out the shield plate horizontally away from the unit.







- B FAA100B unit
- a Shield plate screw
- **b** Shield plate



When closing the service cover, make sure that the tightening torque does NOT exceed 1.4 (±0.2) N∙m.

TO REMOVE THE ELECTRICAL WIRING BOX COVER

Prerequisite: Remove the front grille.

- **1** Remove the 2 screws from the electrical wiring box.
- 2 Open the electrical wiring box cover by pulling the protruding part and pressing the retaining lip on the top of the cover.
- **3** Unhook the tab(s) on the bottom and remove the electrical wiring box cover.



4.6.4 To remove the switch box cover

Prerequisite: Stop the unit operation via the user interface.

1 Turn OFF the respective circuit breaker.



4 Components



DANGER: RISK OF ELECTROCUTION

Wait for at least 10 minutes after the circuit breaker has been turned OFF, to be sure the rectifier voltage is below 10 V DC before proceeding.

- Open the suction grille of the decoration panel. 2
- 3 Remove the screws from the switch box cover.
- 4 Remove the switch box cover from the unit.
- To install the switch box cover, see "4.6 Plate work" [> 67]. 5

4.6.5 To remove the switch box

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- Disconnect the power supply wiring from the wiring terminal X2M. 1
- Disconnect the transmission wiring from the wiring terminal X1M. 2



- a Wiring terminal X2M
- **b** Wiring terminal X1M
- c Screw (cover)
- d Cover **e** Screw (ground wire)
- f Indoor unit main PCB
- Screw (switch box) g
- h Switch box





- **f** Indoor unit main PCB
- **g** Screw (switch box)
- **h** Switch box
- **3** Pull the clip and remove the 2 heat exchanger thermistors from their holder.
- **4** Remove the screw and remove the cover.
- **5** Remove the screw to disconnect the ground wire from the heat exchanger.
- **6** Disconnect the connectors of the indoor unit fan motor and the swing flap motor(s) from the indoor unit main PCB.
- 7 Detach these wiring harnesses from the switch box.
- 8 Remove the screw and remove the switch box from the indoor unit.
- **9** To install the switch box, see "4.6 Plate work" [> 67].
- 4.6.6 To install the switch box
 - **1** install the switch box in the correct location on the indoor unit.







c Screw (cover)

c Screw (cover)

- **d** Cover
- e Screw (ground wire)
- f Indoor unit main PCB
- **g** Screw (switch box)
- **h** Switch box
- **2** Route the connectors of the indoor unit fan motor and swing flap motor(s) inside the switch box and connect them to the indoor unit main PCB.
- **3** Install and tighten the screw to secure the switch box.
- 4 Install the 2 heat exchangers thermistor in their holder.
- **5** Attach the wiring harnesses to the switch box as needed.
- 6 Connect the ground wire to the heat exchanger using the screw.
- 7 Install the cover. Install and tighten the screw to fix the cover.
- **8** Connect the power supply wiring to the wiring terminal X2M.
- **9** Connect the transmission wiring to the wiring terminal X1M.
- 4.6.7 To install the switch box cover
 - **1** Install the switch box cover in the correct location on the unit.
 - 2 Install and tighten the screws to fix the switch box cover.
 - **3** Properly close the suction grille of the decoration panel.

4.6.8 To re-install the front grille

- 1 Install the front grille and firmly engage the upper hooks (3 for class 71, 4 for class 100).
- 2 Install the screws back (3 for class 71, 6 for class 100).
- **3** For class 100, re-install grille clamps and install the 3 screw covers (accessory).




- **4** Re-install front panel, see "4.6 Plate work" [> 67].
- 4.6.9 To re-install the front panel
 - **1** To attach the front panel, align the hooks of the front panel with the slots and push them all the way in.



2 Close the front panel slowly.

4.7 Remote controller user interface

4.7.1 Checking procedures



INFORMATION

It is recommended to perform the checks in the listed order.

To check the correct functioning of the remote controller user interface

- **1** Check the display for the following items:
 - Pinhole, bright spot, black spot, white spot, black line, white line, foreign particle, bubble:
 - The color of a small area is different from the remainder. The phenomenon does NOT change with voltage.
 - Contrast variation: The color of a small area is different from the remainder. The phenomenon changes with voltage.
 - Polarizer defect:
 - Scratch, dirt, particle, bubble on polarizer or between polarizer and glass.
 - Dot defect:
 - The pixel appears bright or dark abnormally.
 - Functional defect:

No display, abnormal display, open or missing segment, short circuit, false viewing direction.

Glass defect:

Glass cracks, shaved corner of glass, surplus glass.

- **2** Check that information is shown correctly and can be navigated through on the display of the remote controller user interface.
- 3 Check that settings can be changed and saved, see "4.7.2 Repair procedures" [▶ 75].

4 | Components

Does the remote controller user interface function correctly?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Continue with the next step.

4 Perform a check of the communication wiring between the remote controller and the unit PCB.

Communication wiring is correct?	Action
Yes	Replace the remote controller user interface, see "4.7.2 Repair procedures" [> 75].
No	Correct the wiring between the remote controller and the unit PCB, see "7.2 Wiring diagram" [▶ 111].

To check the settings

1 See the relevant documentation (installer reference guide, remote controller manual, ...) to check if the specific setting is correct.

Is the setting correct?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Adjust the specific setting see "4.7.2 Repair procedures" [> 75].

To check the software and EEPROM version

1 Compare the software ID and EEPROM version of the remote controller user interface and the PCB with the ones provided in the Updater Tool. Re-install the software with the Updater Tool if versions do NOT match.

Is the installed software and EEPROM version correct?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Re-install the software with the Updater Tool see "4.7.2 Repair procedures" [> 75].

To check the communication wiring between the remote controller and the unit PCB

- 1 Make sure that all wires between the remote controller user interface P1/P2 and the connector X30A: 7-8 on the indoor unit main PCB are firmly and correctly connected, see "7.2 Wiring diagram" [▶ 111].
- **2** Check the continuity of all wires.
- **3** Replace any damaged or broken wires.

INFORMATION

Correct the wiring as needed.

- 4 Make sure that all wires between the remote controller user interface P1/P2 and the connector X30A: 5-6 on the indoor unit PCB are firmly and correctly connected, see "7.2 Wiring diagram" [▶ 111].
- **5** Check the continuity of all wires.
- 6 Replace any damaged or broken wires.



INFORMATION

Correct the wiring as needed.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

4.7.2 Repair procedures

To remove the user interface

- **1** See relevant manual of the user interface (remote controller) for the correct procedure.
- 2 To install the user interface, see "4.7.2 Repair procedures" [> 75].

To install the user interface

1 See relevant manual of the user interface (remote controller) for the correct procedure.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

To adjust the settings

1 See the relevant documentation (installer reference guide, remote controller manual, ...) to adjust the specific setting.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

To install the software

1 Install the software using the Updater Tool. See the Business Portal (http://www.mydaikin.eu) for more information about the Updater Tool.

Is the problem solved?	Action
Yes	No further actions required.

4 Components

Is the problem solved?	Action
Νο	Return to the troubleshooting of the specific error and continue with the next procedure.

4.8 Streamer unit

4.8.1 Checking procedures

1 See "4.12.1 Checking procedures" [> 93] of the UV streamer air purifier unit.

4.8.2 Repair procedures

To remove the streamer unit

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- **1** Open the suction grille of the decoration panel.
- 2 Turn the locks of the air filter grille clockwise and open the air filter grille.
- **3** Carefully lift the air filter grille off the hooks and remove the air filter grille from the unit.



- **a** Air filter grille
- **b** Hook
- **c** Screw (streamer unit cover)
- **d** Streamer unit cover
- e Screw (streamer unit)
- **f** Streamer unit
- 4 Remove the 3 screws and remove the streamer unit cover.
- **5** Remove the 2 screws that fix the streamer unit to the UV streamer air purifier unit.
- **6** Carefully remove the streamer unit and disconnect the connector from the streamer unit.
- 7 To install the streamer unit, see "4.8.2 Repair procedures" [> 76].

To install the streamer unit

1 Connect the streamer unit harness to the streamer unit.



- **2** Install the streamer unit in the correct location on the UV streamer air purifier unit.
- **3** Install and tighten the 2 screws to fix the streamer unit.



- **5** Install and tighten the 3 screws to fix the streamer unit cover.
- **6** Correctly install the air filter grille on the hooks.
- 7 Close the air filter grille and turn the locks counter clockwise.
- 8 Close the suction grille of the decoration panel.

Is the problem solved?	Action
Yes	No further actions required.
Νο	Return to the troubleshooting of the specific error and continue with the next procedure.

4.9 Swing flap motor

4

4.9.1 Main swing flap motor

Checking procedures

To perform an electrical check of the swing flap motor

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- **1** Disconnect the swing flap motor connector from the indoor unit main PCB.
- 2 Measure the resistance between the following pins of the motor connector. **Result:** The measurements MUST be as shown in the table below.



4 | Components

Unit	Pins	Measured resistance (Ω)
FAA71B	1-2	325.5~374.5
	1-3	
	1-4	
	1-5	
	2-3	602~798
	2-4	
	2-5	
	3-4	
	3-5	
	4-5	
FAA100B	1-2	353.4~406.6
	1-3	
	1-4	
	1-5	
	2-3	653.6~866.4
	2-4	
	2-5	
	3-4	
	3-5	
	4-5	

Swing flap motor resistance measurements are correct?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Continue with the next step.

- **3** Remove the swing flap motor, see "Repair procedures" [> 83].
- **4** Measure the resistance between the following pins of the connector on the swing flap motor.

Result: The measurements MUST be as shown in the table below.



Unit	Pins	Measured resistance (Ω)
FAA71B	1-2	325.5~374.5
	1-3	
	1-4	
	1-5	
	2-3	602~798
	2-4	
	2-5	
	3-4	
	3-5	
	4-5	
FAA100B	1-2	353.4~406.6
	1-3	
	1-4	
	1-5	
	2-3	653.6~866.4
	2-4	
	2-5	
	3-4	
	3-5	
	4-5	

Swing flap motor resistance measurements are correct?	Action
Yes	Replace the swing flap motor wiring harness, see "Repair procedures" [> 79].
No	Replace the swing flap motor, see "Repair procedures" [> 79].

Repair procedures

To remove the swing flap motor

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- **1** Remove both swing flaps from the indoor unit (by clicking it out).
- **2** Remove the screw (class 71) or 3 screws (class 100) from the swing flap motor.





- FAA71B unit Α
- В FAA100B unit Screw а
- **b** Swing flap motor
- **3** Remove the swing flap motor from the coupling piece.
- Disconnect the connector from the swing flap motor. 4
- To install the swing flap motor, see "Repair procedures" [> 79]. 5

To install the swing flap motor



INFORMATION

For class 100 units: Main and secondary swing flap motor come as 1 spare part.

- Connect the wiring harness to the swing flap motor. 1
- 2 Install the swing flap motor in the correct location on the indoor unit. Make sure the swing flap motor shaft is correctly inserted in the coupling piece. For class 100: make sure the secondary swing flap motor is also installed correctly.



- A FAA71B unit
- В FAA100B unit
- Screw а **b** Swing flap motor
- Install and tighten the screw (class 71) or 3 screws (class 100) to fix the swing 3 flap motor.
- Install both swing flaps in the indoor unit (by clicking it on). 4

Is the problem solved?	Action
Yes	No further actions required.



4 Components

Is the problem solved?	Action
No	Return to the troubleshooting of the specific error and continue with the next procedure.

To remove the swing flap motor wiring harness

INFORMATION

For class 100 units: Main and secondary swing flap motor are connected to the same wiring harness.

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [▶ 67].

- **1** Disconnect the wiring harness from the main swing flap motor and secondary swing flap motor (class 100 units ONLY).
- 2 Cut all tie straps that fix the wiring harness.
- **3** Route the wiring harness out of the retainers.
- 4 Disconnect the wiring harness from the indoor unit main PCB.
- **5** To install the swing flap motor wiring harness, see "Repair procedures" [> 79].

To install the swing flap motor wiring harness



INFORMATION

For class 100 units: Main and secondary swing flap motor are connected to the same wiring harness.

- **1** Connect the wiring harness to the main swing flap motor and secondary swing flap motor (class 100 units ONLY).
- **2** Route the wiring harness through the appropriate retainers towards the indoor unit main PCB.
- **3** Connect the wiring harness to the indoor unit main PCB.



WARNING

When reconnecting a connector to the PCB, make sure to connect it on the correct location and do NOT apply force, as this may damage the connector or connector pins of the PCB.

4 Install new tie straps to fix the wiring harness as needed.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

4.9.2 Secondary swing flap motor



INFORMATION

ONLY for FAA100B units.



Checking procedures

To perform an electrical check of the swing flap motor

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- **1** Disconnect the swing flap motor connector from the indoor unit main PCB.
- 2 Measure the resistance between the following pins of the motor connector. **Result:** The measurements MUST be as shown in the table below.

Pins	Measured resistance (Ω)
6-7	353.4~406.6
6-8	
6-9	
6-10	
7-8	653.6~866.4
7-9	
7-10	
8-9	
8-10	
9-10	

Swing flap motor resistance measurements are correct?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Continue with the next step.

3 Remove the swing flap motor, see "Repair procedures" [> 83].

4 Measure the resistance between the following pins of the connector on the swing flap motor.

Result: The measurements MUST be as shown in the table below.

Pins	Measured resistance (Ω)
1-2	353.4~406.6
1-3	
1-4	
1-5	
2-3	653.6~866.4
2-4	
2-5	
3-4	
3-5	
4-5	



4 Components

Swing flap motor resistance measurements are correct?	Action
Yes	Replace the swing flap motor wiring harness, see "Repair procedures" [> 83].
No	Replace the swing flap motor, see "Repair procedures" [▶ 83].

Repair procedures

To remove the swing flap motor

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- **1** Remove both swing flaps from the indoor unit (by clicking it out).
- 2 Remove the 3 screws from the swing flap motor.



а

a Screwb Swing flap motor

- **3** Remove the swing flap motor from the coupling piece.
- **4** Disconnect the wiring harness from the swing flap motor.
- **5** To install the swing flap motor, see "Repair procedures" [> 83].

To install the swing flap motor

INFORMATION

Main and secondary swing flap motor come as 1 spare part.

- **1** Connect the wiring harness to the swing flap motor.
- 2 Install the swing flap motor on the correct location on the indoor unit. Make sure the swing flap motor shaft is correctly inserted in the coupling piece. Make sure the main swing flap motor is also installed correctly.





- a Screwb Swing flap motor
- **3** Install and tighten the 3 screws to fix the swing flap motor.
- 4 Install both swing flaps in the indoor unit (by clicking it on).

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

To remove the swing flap motor wiring harness



INFORMATION

Main and secondary swing flap motor are connected to the same wiring harness.

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [▶ 67].

- 1 Disconnect the wiring harness from the main and secondary swing flap motor.
- **2** Cut all tie straps that fix the wiring harness.
- **3** Route the wiring harness out of the retainers.
- 4 Disconnect the wiring harness from the indoor unit main PCB.
- **5** To install the swing flap motor wiring harness, see "Repair procedures" [> 83].

To install the swing flap motor wiring harness



INFORMATION

Main and secondary swing flap motor are connected to the same wiring harness.

- **1** Connect the wiring harness to the main and secondary swing flap motor.
- **2** Route the wiring harness through the appropriate retainers towards the indoor unit main PCB.
- **3** Connect the wiring harness to the indoor unit main PCB.





WARNING

When reconnecting a connector to the PCB, make sure to connect it on the correct location and do NOT apply force, as this may damage the connector or connector pins of the PCB.

4 Install new tie straps to fix the wiring harness as needed.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

4.10 Thermistors

4.10.1 Checking procedures



INFORMATION

It is recommended to perform the checks in the listed order.

To perform a mechanical check of the specific thermistor

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

1 Locate the thermistor and remove the insulation if needed. Check that the thermistor is correctly installed and that there is thermal contact between the thermistor and the piping or ambient (for air thermistor).

Is the thermistor correctly installed (thermal contact between the thermistor and the piping)?	Action
Yes	Perform an electrical check of the specific thermistor, see "4.10.1 Checking procedures" [> 85].
No	Correctly install the thermistor, see "4.10.2 Repair procedures" [> 88].

To perform an electrical check of the specific thermistor

- 1 First perform a mechanical check of the thermistor, see "4.10.1 Checking procedures" [▶ 85].
- **2** Locate the thermistor.



3 Measure the temperature using a contact thermometer.



4 | Components

FAA-B

Name	Symbol	Location (PCB)	Connector (pins)	Reference (table)
Air thermistor	R1T	A1P (I/U)	X16A:1-2	А
Heat exchanger thermistor	R2T	A1P (I/U)	X18A:1-2	A
Intermediate heat exchanger thermistor	R3T	A1P (I/U)	X17A:1-3	A

BAEF125AWB

Name	Symbol	Location (PCB)	Connector (pins)	Reference (table)
Intake air thermistor	R1T	A5P (UV streamer air purifier unit)	X16A:1-2	A

4 Determine the thermistor resistance that matches the measured temperature.

Thermistor – Table A

Т°С	kΩ	T °C	kΩ	T °C	kΩ	T °C	kΩ
-20	197.81	10	39.96	40	10.63	70	3.44
-19	186.53	11	38.08	41	10.21	71	3.32
-18	175.97	12	36.30	42	9.81	72	3.21
-17	166.07	13	34.62	43	9.42	73	3.11
-16	156.80	14	33.02	44	9.06	74	3.01
-15	148.10	15	31.50	45	8.71	75	2.91
-14	139.94	16	30.06	46	8.37	76	2.82
-13	132.28	17	28.70	47	8.05	77	2.72
-12	125.09	18	27.41	48	7.75	78	2.64
-11	118.34	19	26.18	49	7.46	79	2.55
-10	111.99	20	25.01	50	7.18	80	2.47



T °C	kΩ	T °C	kΩ	T °C	kΩ	T °C	kΩ
-9	106.03	21	23.91	51	6.91		
-8	100.41	22	22.85	52	6.65		
-7	95.14	23	21.85	53	6.41		
-6	90.17	24	20.90	54	6.65		
-5	85.49	25	20.00	55	6.41		
-4	81.08	26	19.14	56	6.18		
-3	76.93	27	18.32	57	5.95		
-2	73.01	28	17.54	58	5.74		
-1	69.32	29	16.80	59	5.14		
0	65.84	30	16.10	60	4.87		
1	62.54	31	15.43	61	4.70		
2	59.43	32	14.79	62	4.54		
3	56.49	33	14.18	63	4.38		
4	53.71	34	13.59	64	4.23		
5	51.09	35	13.04	65	4.08		
6	48.61	36	12.51	66	3.94		
7	46.26	37	12.01	67	3.81		
8	44.05	38	11.52	68	3.68		
9	41.95	39	11.06	69	3.56		

5 Disconnect the thermistor connector from the appropriate PCB.

- **6** Measure the resistance between the appropriate pins of the thermistor connector.
- 7 Check that the measured resistance value matches the resistance determined through the measured temperature (earlier step in the procedure).
 - E.g. R1T thermistor:
 - Measured temperature with contact thermometer: 23.1°C,
 - Resistance value determined through temperature (using the thermistor table A):

Resistance at 20°C: 24.6 kΩ,

Resistance at 25°C: 19.6 kΩ,

- Disconnect connector and measure resistance between X16A pin 1-2: Measured resistance: 22.6 k $\Omega,$
- Measured resistance value is inside the range. R1T thermistor passes the check.



INFORMATION

All thermistors have a resistance tolerance of 3%.



INFORMATION

Connect the service monitoring tool to the unit or use field settings mode 1 (see service manual of the outdoor unit) to monitor the thermistors.

If the measured resistance value matches the resistance determined through the measured temperature, but the temperature for the corresponding thermistor via service monitoring tool or field settings mode 1 is NOT correct, replace the applicable PCB.



4 Components

Does the measured resistance of the thermistor match with the temperature determined resistance?	Action
Yes	Thermistor is OK. Return to the troubleshooting of the specific error and continue with the next procedure.
No	Replace the specific thermistor, see "4.10.2 Repair procedures" [> 88].

4.10.2 Repair procedures

To remove the thermistor

Indoor unit air (room) thermistor

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

1 Cut the tie strap that fixes the thermistor to the switch box and remove the thermistor from the switch box.



- **a** Tie strap
 - **b** Air thermistor
- **2** Cut all tie straps that fix the thermistor harness and route the harness out of the retainers.
- **3** Disconnect the thermistor connector from the appropriate PCB and remove the thermistor.

Other refrigerant side thermistors

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- **1** Locate the thermistor that needs to be removed.
- **2** If applicable, remove the insulation or putty from the thermistor. Keep the putty for reuse.
- **3** Pull the clip that fixes the thermistor.





- **a** Clip
- b Thermistorc Thermistor holder
- **4** Remove the thermistor from the thermistor holder.
- **5** Cut all tie straps that fix the thermistor harness.
- **6** Disconnect the thermistor connector from the appropriate PCB and remove the thermistor.
- 7 To install the thermistor, see "4.10.2 Repair procedures" [> 88].

To install the thermistor

Indoor unit air (room) thermistor

1 Install the air thermistor in the correct location on the switch box. Fix the thermistor using a new tie strap.



a Tie strap

- **b** Air thermistor
- **2** Route the thermistor harness through the appropriate retainers towards the indoor unit main PCB.
- **3** Connect the thermistor harness to the indoor unit main PCB.



WARNING

When reconnecting a connector to the PCB, make sure to connect it on the correct location and do NOT apply force, as this may damage the connector or connector pins of the PCB.



4 Fix the thermistor harness using new tie straps.

Other refrigerant side thermistors

1 Pull the clip and install the thermistor in the specific thermistor holder. Make sure the clip is in the correct position (blocking the thermistor).



- a Clip
- **b** Thermistor
- **c** Thermistor holder
- 2 Route the thermistor harness towards the appropriate PCB.
- **3** Connect the thermistor connector to the appropriate PCB.



WARNING

When reconnecting a connector to the PCB, make sure to connect it on the correct location and do NOT apply force, as this may damage the connector or connector pins of the PCB.

- 4 Fix the thermistor harness using new tie straps.
- **5** If applicable, install the insulation or putty around the thermistor.

Is the problem solved?	Action
Yes	No further actions required.
Νο	Return to the troubleshooting of the specific error and continue with the next procedure.

4.11 UV-C LED module

4.11.1 Checking procedures

1 See "4.12.1 Checking procedures" [> 93] of the UV streamer air purifier unit.

4.11.2 Repair procedures

To remove the UV-C LED module

Prerequisite: Stop the unit operation via the user interface. **Prerequisite:** Turn OFF the respective circuit breaker.



Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- **1** Open the suction grille of the decoration panel.
- 2 Turn the locks of the air filter grilleclockwise and open the air filter grille.



- **a** Lock (air filter grille)
- **b** Air filter grille
- **c** Screw (UV-C LED module assy)
- d UV-C LED module assy
- **3** Remove the 4 screws that fix the UV-C LED module assembly to the UV streamer air purifier unit.
- **4** Carefully remove the UV-C LED module assembly and disconnect the connector from the UV-C LED module.
- **5** Remove the 3 screws and separate the UV-C LED module and mounting bracket from the frame.



- a Screw (UV-C LED module mounting bracket)
- **b** UV-C LED module mounting bracket
- **c** Frame
- **d** Screw (UV-C LED module)
- e UV-C LED module
- **6** Remove the 2 screws from the UV-C LED module
- **7** Remove the UV-C LED module from its mounting bracket while carefully guiding the wiring harness through the hole in the mounting bracket.
- 8 To install the UV-C LED module, see "4.11.2 Repair procedures" [> 90].

To install the UV-C LED module

- 1 Carefully guide the UV-C LED module wiring harness through the hole in the mounting bracket.
- **2** Install the UV-C LED module in the correct location on the mounting bracket while guiding the wiring harness.
- **3** Install and tighten the 2 screws to fix the UV-C LED module.



- **a** Screw (UV-C LED module mounting bracket)
- **b** UV-C LED module mounting bracket
- **c** Frame
- d Screw (UV-C LED module)e UV-C LED module
- **4** Install the UV-C LED module and its mounting bracket in the correct location on the frame.
- **5** Install and tighten the 3 screws to fix the UV-C LED module mounting bracket to the frame.
- **6** Install the UV-C LED module assembly in the correct location on the UV streamer air purifier unit.
- 7 Install and tighten the 4 screws to fix the UV-C LED module assembly.



- **a** Lock (air filter grille)
- **b** Air filter grille
- c Screw (UV-C LED module assy)
- **d** UV-C LED module assy
- 8 Close the air filter grille and turn the locks counter clockwise.
- **9** Close the suction grille of the decoration panel.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.



4.12 UV streamer air purifier unit

4.12.1 Checking procedures



INFORMATION

It is recommended to perform the checks in the listed order.

To perform a power check of the UV streamer air purifier unit

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- **1** Turn ON the power of the unit.
- **2** Measure the voltage between terminal R and S on the unit power supply terminal X4M.

Result: The measured voltage MUST be 230 V AC \pm 10%.

Is the measured voltage (power supp correct?	ly) Action
Yes	Perform a functionality check of the UV streamer air purifier unit, see "4.12.1 Checking procedures" [> 93].
No	Continue with the next step.

3 Check the power supply to the outdoor unit, see service manual of the outdoor unit.

Does the unit receive power?	Action
Yes	Correct the wiring from the main power supply terminal to the indoor unit power supply terminal, see "5.1.2 Repair procedures" [> 102].
No	Adjust the power supply to the unit, see outdoor unit service manual.

To perform a functionality check of the UV streamer air purifier unit

- First check the power supply to the UV streamer air purifier unit, see "4.12.1 Checking procedures" [▶ 93].
- 2 Locate the LEDs on the UV streamer air purifier unit.



3 Compare the behaviour of the LEDs to the table below.



4 Components

LED	State	Action
LED OFF	Unit OFF	-
Blue LED continuously ON	Indoor unit ON	All OK
Blue LED blinking	Streamer unit error	Replace streamer unit, see "4.8.2 Repair procedures" [▶ 76].
Red LED blinking	UV-C LED error	Replace UV-C LED module, see "4.11.2 Repair procedures" [▶ 90].
Red LED continuously ON	Replacement of streamer or UV-C LED required	Replace streamer unit, see "4.8.2 Repair procedures" [▶ 76] or replace UV-C LED module, see "4.11.2 Repair procedures" [▶ 90].

Do the LEDs function correctly?	Action
Yes	UV streamer air purifier unit functions correctly. Return to the troubleshooting of the specific error and continue with the next procedure.
No	Perform necessary action as described in the table above.

4 After necessary action has been performed, again check the behaviour of the LEDs.

Do the LEDs function correctly?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Replace the UV streamer air purifier unit, see "4.12.2 Repair procedures" [> 94].

4.12.2 Repair procedures

To remove the UV streamer air purifier unit

- **1** See installation instructions of the UV streamer air purifier unit for correct procedure.
- 2 To install the UV streamer air purifier unit, see "4.12.2 Repair procedures" [> 94].

To install the UV streamer air purifier unit

1 See installation instructions of the UV streamer air purifier unit for correct procedure.

Is the problem solved?	Action
Yes	No further actions required.





4 Components

Is the problem solved?	Action
No	Return to the troubleshooting of the specific error and continue with the next procedure.

4.13 UV streamer air purifier unit main PCB

4.13.1 Checking procedures



INFORMATION

It is recommended to perform the checks in the listed order.

To perform a power check of the UV streamer air purifier unit main PCB

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- 1 Visually check the PCB for damage and burnt-out components. If any damage found, replace the PCB, see "4.13.2 Repair procedures" [▶ 97].
- **2** Turn ON the power of the unit.
- **3** Measure the voltage on connector X27A of the UV streamer air purifier unit main PCB.

Result: The voltage MUST be 230 V AC±10%.



a Connector X27A

Does the UV streamer air purifier unit main PCB receive power?	Action
Yes	Return to "4.13.1 Checking procedures" [> 95] of the UV streamer air purifier unit main PCB and continue with the next procedure.
No	Continue with the next step.

4 Check the power supply to the UV streamer air purifier unit, see "4.12.1 Checking procedures" [▶ 93].

Does the unit receive power?	Action
Yes	Correct the wiring from the unit power supply terminal to the UV streamer air purifier unit main PCB, see "4.13.2 Repair procedures" [> 97].
No	Perform as described in "To perform a power check of the UV streamer air purifier unit", see "4.12.1 Checking procedures" [> 93].



To check the HAP LED of the UV streamer air purifier unit main PCB

Prerequisite: First perform a power check of the UV streamer air purifier unit main PCB, see "4.13.1 Checking procedures" [> 95].

1 Locate the HAP LED on the UV streamer air purifier unit main PCB.



a HAP LED

Does the HAP LED blink in regular intervals (approximately 1 Hz)?	Action
Yes	Return to "4.13.1 Checking procedures" [> 95] of the UV streamer air purifier unit main PCB and continue with the next procedure.
No	Replace the UV streamer air purifier unit main PCB, see "4.13.2 Repair procedures" [> 97].

To check if the correct spare part is installed

Prerequisite: First perform all earlier checks of the UV streamer air purifier unit main PCB, see "4.13.1 Checking procedures" [> 95].

- **1** Visit your local spare parts webbank.
- **2** Enter the model name of your unit and check if the installed spare part number corresponds with the spare part number indicated in the webbank.

Is the correct spare part for the UV streamer air purifier unit main PCB installed?	Action
Yes	Return to "4.13.1 Checking procedures" [> 95] of the UV streamer air purifier unit main PCB and continue with the next procedure.
No	Replace the UV streamer air purifier unit main PCB, see "4.13.2 Repair procedures" [> 97].

To check the wiring of the UV streamer air purifier unit main PCB

Prerequisite: First perform all earlier checks of the UV streamer air purifier unit main PCB, see "4.13.1 Checking procedures" [> 95].

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

- **1** Check that all wires are properly connected and that all connectors are fully plugged-in.
- 2 Check that no connectors or wires are damaged.
- 3 Check that the wiring corresponds with the wiring diagram, see "7.2 Wiring diagram" [▶ 111].





INFORMATION

Correct the wiring as needed.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to "4.13.1 Checking procedures" [> 95] of the UV streamer air purifier unit main PCB and continue with the next procedure.

To check the fuse of the UV streamer air purifier unit main PCB

Prerequisite: First perform all earlier checks of the UV streamer air purifier unit main PCB, see "4.13.1 Checking procedures" [> 95].

1 Measure the continuity of the fuse. If no continuity is measured, the fuse has blown.

a Fuse F1U

Blown fuse on the UV streamer air purifier unit main PCB?	Action
Yes	Replace the UV streamer air purifier unit main PCB, see "4.13.2 Repair procedures" [> 97].
No	Return to "4.13.1 Checking procedures" [> 95] of the UV streamer air purifier unit main PCB and continue with the next procedure.

Problem solved?

After all checking procedures listed above have been performed:

Is the problem solved?	Action
Yes	No further actions required.
Νο	Return to the troubleshooting of the specific error and continue with the next procedure.

4.13.2 Repair procedures

To correct the wiring from the unit power supply terminal to the UV streamer air purifier unit main PCB

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

- 1 Remove the required plate work, see "4.6 Plate work" [> 67].
- 2 Make sure that all wires are firmly and correctly connected, see "7.2 Wiring diagram" [▶ 111].
- **3** Check the continuity of all wires.
- **4** Replace any damaged or broken wires.

4 | Components

Is the problem solved?	Action
Yes	No further actions required.
No	Return to "4.13.1 Checking procedures" [> 95] of the UV streamer air purifier unit main PCB and continue with the next procedure.

To remove the UV streamer air purifier unit main PCB

NOT available yet.

To install the UV streamer air purifier unit main PCB

NOT available yet.



5 Third party components

5.1 Electrical circuit

5.1.1 Checking procedures

To check the power supply to the indoor unit

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

- 1 Remove the required plate work, see "4.6 Plate work" [> 67].
- **2** Check that the power supply cables and earth connection are firmly fixed to the indoor unit power supply terminal X2M.
- **3** Measure the insulation resistance between each power supply terminal and the ground using a megger device of 500 V DC. All measurements MUST be >1 $M\Omega$. If insulation resistance is <1 $M\Omega$, earth leakage is present.
- 4 Turn ON the power using the respective circuit breaker.
- **5** Measure the voltage between terminal 1 and 2 on the indoor unit power supply terminal X2M.

Result: The voltage MUST be 230 V AC \pm 10%.

Is the measured voltage (power supply) correct?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Continue with the next step.

6 Check the power supply to the outdoor unit, see service manual of the outdoor unit.

Does the unit receive power?	Action
Yes	Correct the wiring from the main power supply terminal to the indoor unit power supply terminal, see "5.1.2 Repair procedures" [> 102].
No	Adjust the power supply to the unit, see outdoor unit service manual.

To check F1-F2 transmission

To check the F1-F2 wiring

- **1** Check that the wiring:
- is within installation length limits,
- is of the proper wire type,
- is of the proper wire thickness,
- is properly fixed to the terminals,
- is executed according to the installation manual, with no star connections.



- **2** Check that no shielded cables are used or that shielded cables are grounded only on one side of the cable.
- **3** Check that F1-F2 wiring has continuity all over.
- **4** Check that the minimum distance between the power cables and communication cables outside the units is respected (see table below).

Power supply cable current (X)	Distance between power and communication cables
X ≤10 A	≥300 mm
10 A <x a<="" td="" ≤50=""><td>≥500 mm</td></x>	≥500 mm
50 A <x a<="" td="" ≤100=""><td>≥1000 mm</td></x>	≥1000 mm
X >100 A	≥1500 mm
Is the wiring correctly executed, as indicated in the installation manual?	Action
Yes	Continue with the next step in this checking procedure.

To measure the F1-F2 transmission

No

F1-F2 transmission is a D3Net rectangular waveform, 16 VDC \pm 5 V with 16-5V amplitude that appears on the 16V base line:

manual.

Modify the wiring, see the installation



F1-F2 terminals on indoor units, outdoor units and central controllers are all possible measurement points. Use as many points as you can and take the time necessary for measurement if analyzing with an oscilloscope.

On outdoor units, measurement should be done either at F1-F2 IN or F1-F2 OUT. If the F1-F2 OUT terminal is not used, then measure at the F1-F2 IN terminal.

You can conduct the measuring with a multimeter or an oscilloscope.

To measure the F1-F2 transmission with a multimeter:

- **5** Set the multimeter to DC Voltage measurement.
- **6** Measure on the F1 and F2 terminals.

Result: 16 V DC should be read.

To measure the F1-F2 transmission with an oscilloscope:



INFORMATION

Ensure that probes are securely connected to F1-F2 terminals. Otherwise, distortions will be generated resulting in misinterpretation of data. It is recommended to connect temporary cables to the probes and then connect the cables to the terminals securely.

7 Measure at as many points as you can, this can help to determinate the problem.



For example: if the measurements at the indoor unit side are distorted while central controller and outdoor unit seem OK, you can suppose that the failure in transmission is related to the indoor unit side.

- 8 Set time base (horizontal) to 50 μ s/div to 100 μ s. Voltage axis (vertical) should be set to 2V/div to 5V. Set position properly, otherwise the data may appear outside the screen. In AC mode, which is a sampling mode in oscilloscopes, waveforms appear in the middle of the screen. So, it is recommended to use AC mode if possible.
- **9** Set the triggering mode of the oscilloscope to "Normal". If "Auto" mode is selected, observed waveforms may be cleared instantaneously leading to misinterpretation of data.
- **10** Ignore very short-time pulses of 1V amplitude or less, or overshooting at the rising edge may be ignored. Focus on the shown points of the waveform below:



Examples of waveform distortions on D3Net and possible causes:







After checking and correcting possible causes of F1-F2 transmission problems, perform a communication reset (see "5.1.2 Repair procedures" [> 102]).

To check the wiring between the outdoor unit and the indoor unit

- **1** Check that all wires are properly connected and that all connectors are fully plugged-in.
- 2 Check that no connectors or wires are damaged.
- 3 Check that the wiring corresponds with the wiring diagram, see "7.2 Wiring diagram" [▶ 111].



INFORMATION

Correct the wiring as needed.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

5.1.2 Repair procedures

To perform a communication reset



1 Set multimeter to V DC measurement. The example below is performed while COM-F1 and V DC-F2, the polarity will be opposite than the graph below if connected otherwise (which is not a problem).





- **b** X: Time
- **2** Push BS3 (RETURN) and hold it for 5 seconds until the 7-segment display shows "000". Then release BS3.

Result: After a while, voltage will drop to almost 0 V DC. At this stage it means that re-initialization has started.

Result: Depending on the system size, voltage will rise to 16 V DC and hit 0 V back again several times.

Result: When finished, 7-Segment Display will turn OFF. This indicates that reinitialization has completed.

The time this procedure takes, depends on the amount of indoor units.

To correct the wiring from the main power supply terminal to the indoor unit power supply terminal

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.6 Plate work" [> 67].

- Make sure that all wires are firmly and correctly connected, see "7.2 Wiring diagram" [▶ 111].
- **2** Check the continuity of all wires.
- **3** Replace any damaged or broken wires.



INFORMATION

If applicable, also check the electrical components between the main power supply terminal and the indoor unit power supply terminal (e.g. intermediate terminal, noise filter, fuse, ...).

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.



5.2 Refrigerant circuit

5.2.1 Checking procedures

	INFORMATION	
	Depending on the combination between the indoor unit and outdoor unit, these procedures may differ. See the service manual of the appropriate outdoor unit for the correct procedures.	
i	INFORMATION It is recommended to perform the checks in the listed order.	

5.2.2 Repair procedures



5.3 Manufacturer components

5.3.1 Checking procedures

To check the correct operation / setting of the manufacturer component

1 See the specific dealer manual to check for the correct installation, operation or setting of your component.

Does the component function correctly?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Adjust the specific component, see "5.3.2 Repair procedures" [> 104].

5.3.2 Repair procedures

To adjust the manufacturer component

1 See the specific dealer manual to adjust your component.

Is the problem solved?	Action
Yes	No further actions required.
Νο	Return to the troubleshooting of the specific error and continue with the next procedure.





5.4 External factors

5.4.1 Checking procedures

To check the outdoor temperature

1 The temperature ranges for the different operation modes of the unit can be found in the databook on Business Portal.

INFO

INFORMATION

If the outdoor temperature is outside the range of operation, the unit may NOT operate or may NOT deliver the required capacity.

Is the outdoor temperature within the operating range?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Wait for the outdoor temperature to return within the operating range.

To check for objects that may block the airflow

1 Check for the presence of object(s) near the indoor unit that may block the airflow. Remove the object(s) as needed.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.



6 Maintenance



6.1 To clean the indoor unit heat exchanger

- Straighten the hair fins. 1
- 2 Clear the indoor unit heat exchanger from dust, ... using a fin-comb or compressed air/ N_2



CAUTION

Avoid bending or damaging the hair fins of the indoor unit heat exchanger during the cleaning process.

Is the problem solved?	Action
Yes	No further actions required.
Νο	Return to the troubleshooting of the specific error and continue with the next procedure.

6.2 To clean the indoor unit heat exchanger in extreme condition

When cleaning the indoor unit heat exchanger (contaminated by cooking oil, ...), make sure to:

- Use proper field supply cleaning agent which is suitable for cleaning heat exchangers and drain pans.
- Clearly follow the instructions of local supply cleaning agent and to NOT use household cleaning agents.
- Rinse the heat exchanger and drain pan with water after the cleaning process.



CAUTION

Rinse out the cleaning agent until there is NO cleaning agent left. Otherwise, the corrosion of heat exchanger and drain pan may occur. Pay attention to the cleaning agent that may also corrode other materials of the indoor unit (Aluminium, copper, plastic, ABS, ...).

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.



6.3 To clean the air outlet and exterior



WARNING

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

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

6.4 To clean the front panel



WARNING

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

You can remove the front panel to clean it.

1 Open the front panel. Hold the front panel by the panel tabs on both sides and open until the panel stops.



- **a** Panel tab
- **2** Remove the front panel by pushing hooks on either side of the front panel towards the side of the unit and remove the panel.



- **3** Clean the front panel. Wipe it with a soft cloth soaked in water by using only neutral detergent.
- **4** Wipe panel with a dry soft cloth and let it dry up in the shade.
- **5** Attach the front panel. Align the hooks of the front panel with the slots and push them all the way in.



6 Close the front panel slowly.



6.5 To clean the air filters

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 front panel. Hold the front panel by the panel tabs on both sides and open until the panel stops.



- **a** Panel tab
- **2 Remove the air filter.** Push up the tab in the center of the air filter slightly then pull the air filter out in a downward direction.



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. Replace the air filter as it was.
- **6 Close the front panel.** Hold the front panel by the panel tabs on both sides and close it slowly.
- 7 Turn ON the power.
- 8 To remove warning screens, see the reference guide of the user interface.

Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.


6.6 Maintenance for UV streamer air purifier unit

To ensure optimilitation and on the unit, the following maintenance is required.			
Component	Spare part number	Replacement interval	
Pleated filter	Accessories: Merv13	1 year	
Streamer unit	BFE089A4	7 years	
UV-C LED module	BFE103A4	7 years	

To ensure optimal availability of the unit, the following maintenance is required:



7.1 Detailed information setting mode

7.1.1 Detailed information setting mode: Indoor unit

See the installer reference guide on business portal for more information.

7.1.2 Detailed information setting mode: Remote controller

See the installer reference guide on business portal for more information.



7.2 Wiring diagram

7.2.1 Wiring diagram: Indoor unit

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	(L)	Protective	earth
-þ				
+	Connection		Protective	earth (screw)
∞-∞- ∞,)-	Connector	Ø, 🔀	Rectifier	
Ļ	Earth	-(=	Relay conn	ector
::	Field wiring		Short-circu	it connector
	Fuse	-0-	Terminal	
INDOOR	Indoor unit		Terminal st	rip
OUTDOOR	Outdoor unit	0 •	Wire clamp)
	Residual current device		Heater	
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



Symbol	Meaning
E*H	Heater
FU*, F*U, (for characteristics, refer to	Fuse
	Connector (frame ground)
	Harness
H*P, LED*, V*L	Pilot lamp, light emitting diode
НАР	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
Ν	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



Symbol	Meaning
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
V*R	Diode bridge, Insulated-gate bipolar transistor (IGBT) power module
WRC	Wireless remote controller
Χ*	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



Wiring diagram



INFORMATION

The diagrams shown in this manual may be incorrect due to changes/updates to the unit. Correct diagrams are supplied with the unit and can also be found in the technical data book.



3D134261



7.2.2 Wiring diagram: UV streamer air purifier unit

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	Sym	bol	Meaning	
	Circuit breaker			Protective	earth
-Þ					
×	-				
-	Connection			Protective	earth (screw)
•••-••••,]	Connector	A), 🔀	Rectifier	
Ļ	Earth	-	-(—-	Relay conr	nector
:	Field wiring			Short-circu	uit connector
	Fuse		-0-	Terminal	
INDOOR	Indoor unit			Terminal s	trip
OUTDOOR	Outdoor unit	(⊃ ●	Wire clam	р
	Residual current device			Heater	
Symbol	Colour	Sym	bol		Colour
BLK	Black	ORC	Ĵ		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			Meani	ng	
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		Conne	ction, conn	ector	
D*, V*D		Diode			
DB*			Diode bridge		
DS*			DIP switch		
E*H			Heater		



Symbol	Meaning
FU*, F*U, (for characteristics, refer to	Fuse
PCB inside your unit)	
FG*	Connector (frame ground)
H*	Harness
H*P, LED*, V*L	Pilot lamp, light emitting diode
НАР	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



Symbol	Meaning
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
V*R	Diode bridge, Insulated-gate bipolar transistor (IGBT) power module
WRC	Wireless remote controller
Χ*	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



Wiring diagram



INFORMATION

The diagrams shown in this manual may be incorrect due to changes/updates to the unit. Correct diagrams are supplied with the unit and can also be found in the technical data book.





7.3 Piping diagram

7.3.1 Piping diagram: Indoor unit



INFORMATION

The diagrams shown in this manual may be incorrect due to changes/updates to the unit. Correct diagrams are supplied with the unit and can also be found in the technical data book.



- **a** Field piping (liquid: Ø9.5 mm flare connection)
- **b** Field piping (gas: Ø15.9 mm flare connection)
- c Crossflow Fan
- **d** Heat exchanger
- **e** Distributor
- M1F Fan motor
- R2T Heat exchanger thermistor
- --- Heating
- --- Cooling



7.4 Component overview

7.4.1 Component overview: Indoor unit



- **a** Heat exchanger
- **b** Intermediate heat exchanger thermistor R3T
- c Fan motor M1F
- d Heat exchanger thermistor R2T
- e Swing flapf Swing flap motorg Switch box
- **h** Indoor unit main PCB
- i Room thermistor R1T





- **a** Heat exchanger
- **b** Intermediate heat exchanger thermistor R3T
- c Fan motor M1F
- **d** Heat exchanger thermistor R2T
- e Main swing flap
- f Secondary swing flap
 g Secondary swing flap motor M2S
 h Main swing flap motor M1S
- i Switch box
- **j** Indoor unit main PCB
- k Room thermistor R1T



7.4.2 Component overview: UV streamer air purifier unit



- **a** Streamer unit
- **b** Air filter grille
- c UV-C LED module
- **d** Humidity sensor A7P
- e UV-C control PCB A6P
- f Main PCB A5P
- g Power supply terminal X4M

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7.5 Field information report

See next page.



In case a problem occurred on the unit which could not be resolved by using the content of this service manual or in case you have a problem which could be resolved but of which the manufacturer should be notified, we advise you to contact your distributor.

To facilitate the investigation, additional information is required. Please fill out the following form before contacting your distributor.

FIELD INFORMATION REPORT			
Key person information			
Name:	Company name:		
Your contact details			
Phone number:	E-mail address:		
Site address:			
Your reference:	Date of visit:		
Claim information			
Title:			
Problem description:			
Error code:	Trouble date:		
Problem frequency:			
Investigation steps done:			
Insert picture of the trouble.			
Current situation (solved, not solved,):			
Countermeasures taken:			
Comments and proposals:			
Part available for return (if applicable):			

Application information

Application (house, apartment, office,...):

New project or reimbursement:

Heat emitters (radiators / under floor heating / fan coils /...):

Hydraulic layout (simple schematic):

Unit / Installation information Model name: Serial number: Installation / commissioning date: Software version hydro PCB A1P Software version hydro PCB A5P Software version user interface: Software version outdoor PCB: Minimum water volume: Maximum water volume: Brine composition and mixture: Brine freeze up temperature: Space heating control (leaving water temperature, room thermostat, external room thermostat): Space heating setpoint: Domestic hot water control (reheat only, schedule only, reheat + schedule): Domestic hot water setpoint: Provide pictures of the field settings overview (viewable on the user interface).

7.6 Service tools

- **1** For an overview of the available service tools, check the Daikin Business Portal (authentication required).
- **2** Go to the tab After-sales support on the left navigation pane and select Technical support.



3 Click the button Service tools. An overview of the available service tools for the different products is shown. Also additional information on the service tools (instruction, latest software) can be found here.



7.7 Field settings

7.7.1 To retrieve the field settings

Via the wired remote controller BRC1E



INFORMATION

Images are in English and for reference ONLY. For more details on the BRC1E please refer to the user manual.

To access the field settings screen

#	Action	Result
1	Go to the basic screen.	Cool Set to 28°C
2	Press at least 4 seconds while the backlight of the screen is lit.	The Service Settings menu is displayed.
3	Select Field Settings.	Service Settings 1/3 Test Operation Maintenance Contact Field Settings Demand Demand Min Setpoints Differential Group Address €
4	Press.	The Field Settings screen is displayed.

In case of individual setting per indoor unit

#	Action	Result
1	Highlight the Mode.	The desired field setting mode is selected.
2	When Mode No. such as 20, 21, 22, 23, 25 are selected, highlight the Unit No Select the Indoor unit No. to be set.	 The indoor unit for which you want to set the field settings is selected. Current settings are displayed. Second Code No. "-" means no function. Field Settings Unit No. Mode 0 0 4 5 9 100 120 3-00 8 9 10 11 12 13 Wetwork Setting



#	Action	Result
3	Highlight the Second Code No. of the First Code No. to be changed.	Field Settings Unit No. Mode 0 20 0-101 1-00 4 5 6 7 8 9 12 13 13 14 15 4
	Select the desired Second Code No.	
	Multiple identical mode number settings are available.	

In case of group total settings

#	Action	Result
1	Highlight the Mode.	 The desired field setting mode is selected. All Second Code No. which may be set are displayed as "*". Second Code No. "-" means no function.
2	Highlight the Second Code No. of the First Code No. to be changed. Select the desired Second Code No. Multiple identical mode number settings are available.	<pre>"*" is changed to the set Second Code No. Field Settings Mode 10 </pre>

To save the field settings

#	Action	Result
1	Press.	Setting confirmation screen is displayed.
2	Select Yes.	Field Settings Save the settings? Yes No Return Setting →



#	Action	Result
3	Press.	Setting details are determined and Field Settings screen is displayed.
4	In case of multiple settings, repeat previous steps to change the settings	
5	Press twice.	 Backlight is lit.
		 Once initialization is done, the basic screen is displayed.

- The connection of optional accessories to the indoor unit might cause changes to some field settings. For more information, see the installation manual of the optional accessory.
- For details about the specific field settings of each type of indoor unit, see the installation manual of the indoor units.
- Field settings that are not available for a connected indoor unit are not displayed.
- Field setting default values are different depending on the indoor unit model. For more information, see the service manual of the indoor units.

Via the wireless controller BRC7

To set the field settings, you have to change:

- Mode No.
- First Code No.
- Second Code No.



- **a** Mode No.
- **b** Field setting mode
- c RESERVE button
- **d** First Code No.
- e Second Code No.f UP button
- **g** DOWN button
- h MODE button
- i INSPECTION/TEST button
- **1** Press the INSPECTION/TEST button for at least 4 seconds during normal mode.

Result: Field setting mode is entered.



- 2 Press the MODE button to select the desired Mode No.
- **3** Press the UP button to select the First Code No.
- 4 Press the DOWN button to select the Second Code No.
- **5** Press the RESERVE button to set the present settings.
- 6 Press the INSPECTION/TEST button.

Result: Return to normal mode.

Via the indoor unit remote controller BRC1H

BRC1H remote controller

See the installer and user reference guide of the Madoka wired remote controller for correct procedure.

Madoka Assistant for BRC1H



INFORMATION

Images are in English and for reference ONLY. For more details on the Madoka Assistant please refer to the BRC1H training course material which is available on the Daikin Business Portal.

To set as installer mode

In order to retrieve the field settings, the Madoka Assistant app has to be set as installer mode. If already set as, skip to "To retrieve field settings".

#	Action	Image	Result
1	Tap the menu icon.	TOTAL Image: Second	The menu screen is diaplyed.
2	Tap About in the menu screen.	1723 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	The About menu screen is displayed.





#	Action	Image	Result
3	Tap Application version 5 times.	Terms of Use Terms of Use Data protection Open Source Licenses Application version 1.6.2	Installer mode screen is displayed.
4	Select (tap) the length of time the Madoka Assistant app is set as installer mode: • Temporary for 30 minutes • Indefinite for unlimited time	1233 0.0 0 0 0 Image: All Control Contro Control Control	The Madoka Assistant app is set as installer mode.

To retrieve field settings

#	Action	Image	Result
1	Tap the settings icon.	1722 0 0 11 1 2 4 60% # ← Office 1 ♣ ● ① ① ● ① ① ● ① ① ● ① ① ● ② ① ● ② ① ● ② ① ● ② ① ● ○ ① ● ○ ① ● ○ ① ● ○ ① ● ○ ① ● ○ ① ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ ○ ● ○ <th>The Unit settings screen is displayed.</th>	The Unit settings screen is displayed.



#	Action	Image	Result
2	Tap Field settings.	1735 0 0 □ 0 EXXect 4654 ← Unit settings Function lock Disabled > Maintenance ^ Errors and warnings > Unit number > AirNet address > Group address > Contact information > Field settings > Unit status > Operating hours > III	The Field settings screen is displayed.
3	Tap and select the type for which you want to set the field settings:Indoor unitRemote controller	1600 ■ ∞.4 40% ± ✓ Field settings 1 ▼ Field settings 1 ● Indoor unit ● Remote controller 4 N 000 0 N 000 0 III ✓ ✓	Field settings can now be set for the selected type.
4	Tap and select the desired Mode No. from the drop down list.	17.34 € 0 € € Ext € 6 0 €	The field setting mode is now selected.



#	Action	Image	Result
5	In the case of setting per indoor unit during group control (When Mode No. such as 20, 21, 22, 23, 25 are selected), tap and select the Indoor unit No. which is required to set. In the case of group total setting, this operation is NOT needed.	Year of the set of the s	 In the case of individual setting per indoor unit, current settings are displayed. In the case of group total setting, all of Second Code No. which may be set are displayed as "*". Second Code No. "-" means no function.
6	Tap the Second Code No. of the First Code No. to be changed. Select the desired Second Code No. Multiple identical mode number settings are available.	1724 0 0 0 0 0 0 11 0 11 0 11 0 11 0 11 0 11 0 11 0 1	Field settings are now set as desired, but still need to be saved.



INFORMATION

In case of multiple settings, repeat previous steps to change the settings.

To save field settings

#	Action	Image	Result	
1	Tap Done.	1700 B B < A 30 b B	The screen to apply the field settings is displayed.	
		Type Indoor unit Y		
		Mode 10 V Unit Group mode SELECT ALL		
		0 1 2 3 0 1 2 1		
		4 5 6 7 0 0 0 1		



#	Action	Image	Result
2	Tap Apply to remote controller.	1710 0 0.000 X Feld settings Dote Addition Dote Make indoor unit and/or remote controller field Base indoor unit and/or remote metering for indoor unit verter (south) You selected 1 setting(s) Base indoor unit and unit a	Changes are applied to the field settings.
3	Tap Apply.	Image: Description Image: D	Changes to the field settings are confirmed.
4	Tap Return to field settings.	17:12 I I I I I I I I I I I I I I I I I I I	Field settings are saved.





7.7.2 Overview of field settings for indoor units

The overview lists all possible settings for the indoor units. The availability of the setting depends on the indoor unit type, see "Field settings as per type indoor unit". **Bold content is default setting**. See indoor unit or remote controller manuals for more detailed information to access the field settings.

Setting	1 st code	Description function	2 nd code	Description setting	Note
10/20	0	Filter contamination (time between 2 filter cleaning display indications)	01	Light	
			02	Неаvy	
	1	Long life filter type	01	Long life filter	
			02	Ultra long life filter (option)	
			03	No maintenance filter	
			04	Oil guard filter	
	2	Indoor thermostat sensor selection (no effect when used in conjunction with presence sensor BRYQ)	01	Use both the unit sensor (or remote sensor if installed) AND the remote controller sensor.	
			02	Use return air sensor only (or remote sensor if installed).	
			03	Use remote controller sensor only.	
			04	Use only remote control thermostat (priority on floor temperature)	
-	3	Filter sign display	01	Display	
			02	Do not display	
	6	Air thermistor selection in group wiring P1/P2	01	Return air thermistor (individual units)	
			02	Thermistor designated by field setting 20-2	
	7	Absence delay detecting time (presence sensor)	01	30 minutes	
			02	60 minutes	
	9	central control	01	Accept	
			02	Ignore	
11/21	1	Similtaneous operation setting	01	Unified setting	
			02	Individual setting	
	2	Fan OFF at thermostat OFF	01	Normal	
			02	OFF	
	3	Fan setting of heating	01	Standard	
			02	Slight increase (* 1.05)	
			03	Increase (* 1.10)	



Setting	1 st code	Description function	2 nd code	Description setting	Note
12/22	0	Output signal X1-X2 of the optional KRP1 PCB kit	01	Indoor unit Thermo ON Output	
			02	Option	
			03	Operation Output	
			04	Malfunction Output	
	1	External ON/OFF (T1/T2 input) = setting when forced	01	Forced OFF	
		onyorr is operated from outside.	02	ON/OFF Operation	
			03	Emergency	
	3	Fan speed Thermo OFF heating mode	01	u	
			02	Set speed by remocon	
			03	OFF	
			04	Monitoring LL	
	4	Differential ("D") for automatic changeover. Temperature difference between cooling setpoint and heating setpoint in automatic mode. Differential is cooling setpoint minus heating setpoint.	01	0°C (Default when HP Outdoor)	
	heating setpoint in automatic mode. Differential is cooling setpoint minus heating setpoint.		02	1°C	
			03	2°C	
			04	3°C (Default when HR Outdoor)	
			05	4°C (Default when VKM)	
			06	5°C	
			07	6°C	
		08	7°C		
			09	Automatic control	
	5	Auto-restart after power failure 0	01	Disabled	
			02	Enabled	
			03	Disabled in Japan. Enabled in other countries.	
	6	Fan speed Thermo OFF cooling mode	01	LL	
			02	Set speed by remote controller	
			03	OFF	
			04	Monitoring LL	



Setting	1 st code	Description function	2 nd code	Description setting	Note
13/23	0	Airflow setting (Ceiling height)	01	Normal ceiling (H <2.7 m)	
			02	Slightly higher ceiling 2.7 m <h <3="" m<="" td=""><td></td></h>	
			03	High ceiling (3 m <h <3.5="" m)<="" td=""><td></td></h>	
	1	Selection of airflow direction (set when an optional blocking path kit has been installed)	01	4 directions	
			02	3 directions	
			03	2 directions	
	2	Swing pattern setting if 4 swing motors	01	All directions, simultaneous swing	
			02	No meaning	
			03	Synchronized swing, opposite sides	
	3	Output to flap motor	01	Enabled	
			02	Disabled	
	4	Setting of airflow direction adjustment range	01	Draft prevention	
			02	Standard	
			03	Ceiling soiling prevention	
	5	Fanspeed setting	01	Standard	
			02	level 1	
			03	level 2	
			04	level 3	
	11	Duct air inlet	01	Rear	
			02	Bottom	
	12	Error history switching setting	01	Abnormality	
			02	Retry	
14/24	0	Power failure recovery delay	01	None	
			02	5 seconds delay	
			03	10 seconds delay	
			04	15 seconds delay	
	1	D3gate array width detecion mode setting	01	Outdoor judgment	
			02	Always ON	
			03	Always OFF	
	2	Display cleaning requirement on the remote control	01	Display after 1250 hours	
		according to number of operating nours	02	Display after 2500 hours	
			03	Display after 2500 hours	
	3	Brush/filter check sign display presence/absence	01	No display	
		serring	02	Display after 32000 hours	
			03	Display after 48000 hours	
			04	Display after 72000 hours	
	9	Filter cleaning for "self-cleaning decoration panel"	01	High amount of dust	
			02	Low amount of dust	



Setting	1 st code	Description function	2 nd code	Description setting	Note
15/25	0	Drain pump operation cooling thermostat-off	01	Delay off	
			02	Keep operation	
	1	Humidification during Thermo OFF (heating)	01	OFF	
			02	ON	
	3	Drain pump operation if humidifier is used (heating)	01	Not equipped	
			02	Heating operation: continuous operation,	
			03	Heating operation: 3 minutes ON/5 minutes OFF	
			04	Heating operation: 3 minutes ON/5 minutes OFF,	
			05	Heating operation: 3 minutes ON/5 minutes OFF,	
			06	Heating operation: 3 minutes ON/5 minutes OFF	
	4	Filter sign	01	By timer	
			02	By external input	
	5	Ventilation only	01	disabled	
			02	enabled	



Setting	1 st code	Description function	2 nd code	Description setting	Note
1b	0	Permission Level	01	Level 2	On-Off, Set Temp, Delay, Min-Max Operation, Fan speed, Swing
			02	Level 3	On-Off, Set Temp, Fan Speed
	0	Quiet Mode display	01	Show	Depends on Remocon type, see installer reference guide for Remote
			02	Hide	Controller
	1	Setback function	01	Not available	Older remocons equipped Home Leave Function, basicly same as
			02	Available	setback function but only available in Heating Mode.
	2	Thermistor in remocon (only for limit operation and	01	Use	
		setback function	02	Do not use	
	3	Start setback function	05	5°C	Depends on Remocon type, see installer reference guide for Remote
			06	6°C	Controller
			07	7°C	
			08	8°C	
			09	9°C	
			10	10°C	
			11	11°C	
			12	12°C	
			13	13°C	
			14	14°C	
			15	15°C	
	4	Stop setback function	01	1К	Depends on Remocon type, see installer reference guide for Remote
			02	2К	Controller
			03	ЗК	
			04	4K	
			05	5К	
	4	Error code detail	01	Without subcode	Depends on Remocon type, see installer reference guide for Remote
			02	With subcode in service mode	
			03	With subcode in basic mode	
			04	Without subcode on main screen and with subcode on error screen	
	5	Usage of 'limited' function in combination with centralised control	01	Not available	'Limited' function = additional mode to permit keeping the temperature between a minimum and maximum value
			02	Available	temperature between a minimum and maximum value.
	7	Display symbol for defrost and hot-start	01	ON	
			02	OFF	
	8	Daylight saving time	01	Not active	
			02	Automatic	
			03	Manual	
			04	According to central controller	
	11	Clock display in remocon	01	ON	
			02	OFF	
	13	Display method	01	Text	
			02	Symbols	
	14	Number of flaps that can be blocked by remocon setting	01	1	
			02	2	
			03	3	
			04	4	
			05	None	
	15	Swing setting	01	Swing can be set by remocon	Depends on indoor unit, check indoor unit installation manuals
			02	Swing setting disabled to set by remocon	

BRC1E + BRC1H



Setting	1 st code	Description function	2 nd code	Description setting	Note
1c	0	Display of room temperature	01	OFF	
			02	ON	
	1	Which thermistor to show on remocon	01	R1T on indoor unit	For Auto-function and Setback Function
			02	Thermistor on remocon	
	2	Selection mode display in auto mode	01	OFF	Whether or not 'heating/cooling' is displayed during automatic mode
			02	ON	(otherwise only 'automatic' is mentioned on remocon)
	3	Permission Level Setting	01	Level 2	Depends on indoor unit, check indoor unit installation manuals
			02	Level 3	Level2:Fan, On-Off, Mode / Level3: On-Off
	4	Backlight of remocon	01	Permanently OFF	
			02	ON for 30 seconds after 1st push	Goes OFF after 20 seconds when no button pushed
			03	Always ON	
	5	Operation when bakclight is OFF	01	No	When pushing a button, first backlight is activated, function of button is not activated
			02	Yes	When pushing a button, backlight is activated and immediately function of button is activated
	6	Display of remocon	01	Permanent display	The screen always shows values
			02	Screen goes blank after 5 minutes	Touching any button re-activates screen
	7	RC prohibited backup	01	Disabled	
			02	Enabled	
	8	Switching selection when there are main and sub	01	BRC air sensor	
		Remote controller	02	Air return air sensor	
	9	Sensor selection when there are Main & Sub Remocon	01	Main Remocon	Setting 1c-1 is taken into consideration of the selected remocon
			02	Sub Remocon	
	10	Sensor offset for Main Remocon	01	-3°C	Offset for temperature display
			02	-2.5°C	Depends on Remocon type, see installer reference guide for Remote
			03	-2°C	
			04	-15°C	-
			05	-1°C	-
			06	-0.5°C	-
			07	0°C	
			08	+0.5°C	
			00	11°C	-
	11	Soncor offect for Sub Romocon	03	2°C	Offset for temporature dienlau
	11	Sensor onset for sub-keniocon	02		Depends on Remocon type, see installer reference guide for Remote
			02	-2.5 C	Controller
			03		-
			04	-1.5 C	-
			05		-
			00		-
			07		-
			00	+0.5 C	-
			09	+1°C	
	12	option	01		Only when BRP7A
			02	Use	
	13	External input BC-B2 for keycard contact for BRP7A option	01	Do not use	Only when BRP7A
	14	AT primary	02	USE	
	14	۵۱ primary	01		-
			02	26	-
			03	3K	-
			04	4K	
	15	ΔT secondary	01	1K	
			02	2K	-
			03	ЗК	-
	1		04	4K	1



Setting	1 st code	Description function	2 nd code	Description setting	Note
1e	0	Set temp mode changeover' visibility in the menu	01	Visible in menu	
			02	Hidden	
	1	Temperature unit selection between "C and "F	01	Disabled	From factory, unit is locked to °C
			02	Enabled	Selection visible in the menu to switch between temperature units
	2	Setback function	01	Disabled	Only for older remocons, where Home Leave function is present.
			02	Enabled	Home Leave Function is basically Setback function but only in heating mode.
	2	Setback Function	01	Disabled	
			02	Enabled for heating	
			03	Enabled for cooling	
			04	Enabled for heating and cooling	
	3	Selection set temperature in limit operation when	01	Do not keep	
		power on/off	02	Кеер	
	4	Timer setting in case central controller present	01	Not visible	To avoid conflict between timer of central controller and remocon
			02	Visible	
	5	Hour display selection between 24h and 12h	01	Disabled	From factory, unit is locked to 24h
			02	Enabled	Selection visible in the menu to switch between 24h and 12h
	6	Count-down timer	01	Hidden	
			02	Visible in menu	
	7	Rotation overlap time	01	30 minutes	
			02	15 minutes	
			03	10 minutes	
			04	5 minutes	
	8	Home screen setpoint	01	Numeric	
			02	Symbolic	
	9	Change-over' and 'Centralized' Symbol display	01	Not visible	
			02	Visible	
	10	Display for prohibited function when remocon is	01	Key-symbol	
		locked through centralised control	02	Text message	
	11	Switching delay in automatic mode	01	15 minutes	
			02	30 minutes	
			03	60 minutes	
			04	90 minutes	
	12	Symbol view reference value (Cooling / upper)	01	Fixed 10°C	
			02	10°C+	
			03	20°C+	
			04	30°C+	
	13	Symbol view reference value (Cooling / lower)	01	+1°C	
			02	+2°C	
			03	+3°C	
			04	+4°C	
			05	+5°C	
			06	+6°C	
			07	+7°C	
			08	+8°C	
			09	+9°C	
			10	+10°C	
	14	Symbol view reference value (Heating / upper)	01	Fixed 10°C	
			02	10°C+	
			03	20°C+	
			04	30°C+	



Setting	1 st code	Description function	2 nd code	Description setting	Note
1e	15	Symbol view reference value (Heating / lower)	01	+1°C	
			02	+2°C	
			03	+3°C	
			04	+4°C	
			05	+5°C	
			06	+6°C	
			07	+7°C	
			08	+8°C	
			09	+9°C	
			10	+10°C	



Setting	1 st code	Description function	2 nd code	Description setting	Note
R1	0	Not used	-		
	1	Not used	-		
	2	Not used	-		
	3	Controller thermistor adjustment	00	−3°C	
		Cooling	01	-2.5°C	
			02	-2°C	
			03	−1.5°C	
			04	-1°C	
			05	-0.5°C	
			06	0°C	
			07	+0.5°C	
			08	+1°C	
			09	+1.5°C	
			10	+2°C	
			11	+2.5°C	
			12	+3°C	
	4	Controller thermistor adjustment	00	-3°C	
		neating	01	−2.5°C	
			02	-2°C	
			03	-1.5°C	
			04	-1°C	
			05	–0.5°C	
			06	0°C	
			07	+0.5°C	
			08	+1°C	
			09	+1.5°C	
			10	+2°C	
			11	+2.5°C	
			12	+3°C	
	5	Controller thermistor adjustment	00	-3°C	
		Auto change-over	01	-2.5°C	
			02	-2°C	
			03	–1.5°C	
			04	-1°C	
			05	–0.5°C	
			06	0°C	
			07	+0.5°C	
			08	+1°C	
			09	+1.5°C	
			10	+2°C	
			11	+2.5°C	
			12	+3°C	

BRC1H



Setting	1 st code	Description function	2 nd code	Description setting	Note
R1	5	Controller thermistor adjustment	00	-3°C	
		ran-omy	01	−2.5°C	
			02	-2°C	
			03	−1.5°C	
			04	-1°C	
			05	-0.5°C	-
			06	0°C	
			07	+0.5°C	
			08	+1°C	-
			09	+1.5°C	
			10	+2°C	
			11	+2.5°C	
			12	+3°C	
	6	Not used	-		
	7	Home screen	00	Detailed	
			01	Standard	
	8	Back-light no operation timer	00	5 seconds	
			01	10 seconds	
			02	20 seconds	
	9	Status indicator faintness	00	0% - OFF	
			01	1%	-
			02	2%	
			03	3%	
			04	5%	
			05	7%	
			06	9%	
			07	11%	
			08	13%	
			09	15%	
			10	17%	
			11	20%	
	10	Back-light faintness	00	0% - OFF	
	10		01	1%	
			02	2%	
			03	3%	
			04	4%	
			05	5%	
	11	Status indicator mode	00	Normal	
			01	Hotel setting 1	
			02	Hotel setting 2	
	12	Bluetooth Low Energy Advertising	00	Disable	
		Side cooline con energy rear change	01	Enabled	
	13	BLE advertising signal transmission	00		
	15	Dec daverability signal cransmission	01	Enable manually	
	14	Display of numeric comparison	00		
			01	Eived screen	
	15	Status display of BLE setting screen	00	Disabled	
	1.5	usping of bee betting bureen	01	Enabled	
ר מ		Buzzer	00	Disabled	
nz		Dutter	01	Enabled	
	1	Touch hutton indicator on screen	00	None	
		Touch button multator on Screen	00	Small	
			10	Medium	
			02		
	1		UD	LUISC	1


Setting	1 st code	Description function	2 nd code	Description setting	Note
R2	2	Touch switch sensitivity threshold	00	No correction	
		(leit and center)	01	1	
			02	2	
			03	3	
			04	4	
			05	5	
			06	6	
			07	7	
			08	8	
			09	9	-
			10	10	-
			11	11	-
			12	12	-
			13	13	
			14	14	
			15	15	
	3	Touch switch sensitivity threshold (right and center)	00	No correction	
			01	1	
			02	2	
			03	3	
			04	4	
			05	5	-
			06	6	-
			07	7	
			00	°	
			10	10	
			11	11	
			12	12	-
			13	13	
			14	14	
			15	15	
	4	Touch switch sensitivity threshold	00	No correction	
		(lert + center + right)	01	1	
			02	2	
			03	3	
			04	4	
			05	5	
			06	6	-
			07	7	-
			08	8	
			09	9	-
			10	10	
			11	11	
			12	12	
			13	10	-
			14	15	
	5	Type controller R32 safety system	00	Normal mode	Full control
	-		01	Only buzzer	Only sound
			02	Superviser mode	Sound + error
	6	Alarm (only if BRC1H52*)	01	Enabled	
			02	Disabled	
	7	Not used	-		



7 | Technical data

Setting	1 st code	Description function	2 nd code	Description setting	Note
R2	8	Not used	-		
	9	Not used	-		
	10	Not used	-		
	11	Not used	-		
	12	Not used	-		
	13	Not used	-		
	14	Bluetooth Low Energy module connection interval setting	00	35.0 ms	
			01	37.5 ms	
			02	40.0 ms	
			03	42.5 ms	
			04	45.0 ms	
			05	47.5 ms	
			06	50.0 ms	
			07	52.5 ms	
			08	55.0 ms	
			09	57.5 ms	
			10	32.5 ms	
			11	30.0 ms	
			12	27.5 ms	
			13	25.0 ms	
			14	22.5 ms	
			15	20.0 ms	
	15	Not used	-		

7.7.3 Field settings for UV streamer air purifier unit

It is required to set the field setting "High ceiling mode" when installing the UV streamer air purifier unit kit BAEF125AWB.

Please check the field setting list of each indoor unit.





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