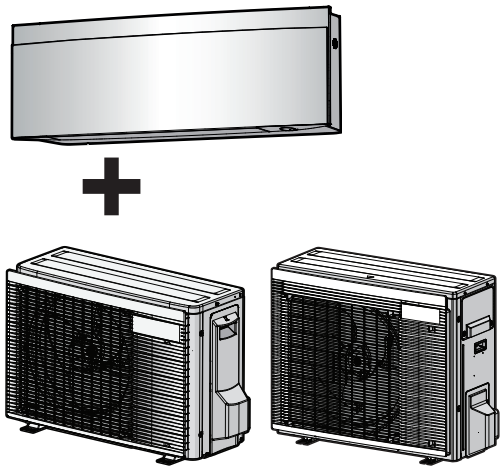
Service manual

Split Emura 3 R32



RXJ20A5V1B	FTXJ20A2V1BW	FTXJ20A2V1BS	FTXJ20A2V1BB
RXJ25A5V1B	FTXJ25A2V1BW	FTXJ25A2V1BS	FTXJ25A2V1BB
RXJ35A5V1B	FTXJ35A2V1BW	FTXJ35A2V1BS	FTXJ35A2V1BB
RXJ42A2V1B	FTXJ42A2V1BW	FTXJ42A2V1BS	FTXJ42A2V1BB
RXJ50A2V1B	FTXJ50A2V1BW	FTXJ50A2V1BS	FTXJ50A2V1BB

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Version log

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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

DANGER

Indicates a situation that results in death or serious injury.

DANGER: RISK OF ELECTROCUTION

Indicates a situation that could result in electrocution.

DANGER: RISK OF BURNING/SCALDING

Indicates a situation that could result in burning/scalding because of extreme hot or cold temperatures.

DANGER: RISK OF EXPLOSION

Indicates a situation that could result in explosion.

WARNING

Indicates a situation that could result in death or serious injury.

WARNING: FLAMMABLE MATERIAL

CAUTION

Indicates a situation that could result in minor or moderate injury.

NOTICE

Indicates a situation that could result in equipment or property damage.

INFORMATION

Indicates useful tips or additional information.

1.2 Dangers

DANGER: RISK OF BURNING/SCALDING

- Do NOT touch the refrigerant piping, water piping or internal parts during and immediately after operation. It could be too hot or too cold. Give it time to return to normal temperature. If you MUST touch it, wear protective gloves.
- Do NOT touch any accidental leaking refrigerant.

DANGER: RISK OF ELECTROCUTION

- Turn OFF all power supply before removing the switch box cover, connecting electrical wiring or touching electrical parts.
- Where applicable, stop the equipment's operation first and allow (refrigerant) pressure to equalize, before turning OFF the power.
- Disconnect the power supply for more than 10 minutes, and measure the voltage at the terminals of main circuit capacitors or electrical components before servicing. The voltage MUST be less than 50 V DC before you can touch electrical components. For the location of the terminals, see the wiring diagram. If the measured voltage is still higher than 50 V DC, discharge the capacitors in a safe manner by using a dedicated capacitor discharge pen to avoid possibility of sparking.
- Do NOT touch electrical components with wet hands.
- Do NOT leave the unit unattended when the service cover is removed.
- 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.

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.

WARNING

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 children, can play with them. Possible risk: 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).

WARNING

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.

WARNING

- 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.

WARNING

- In order to prevent oxygen deficiency and R32 combustion, keep the room well-ventilated 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.

WARNING

- 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 re-use 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 cylinders (no more than 60% volume liquid charge).
- 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.

WARNING

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

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

- In case refrigerant recovery is required, use the appropriate service ports.
- If applicable for your unit, use the appropriate recovery mode or field setting to smoothly recover the refrigerant.
- ONLY use leak free hoses, couplings and manifolds in good working condition.
- ONLY use recovery cylinders designated and labelled to recover R32. Note that thread connection to the cylinder is counter clock.
- Always use a calibrated scale in good condition prior and during the refrigerant recovery process to determine the weight of the recovered refrigerant into the external refrigerant cylinder.
- Read the operation instructions of the recovery unit prior to connecting the recovery unit. Verify the recovery unit is suited for R32 refrigerant, check that it is in good working condition, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.
- 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. Generally the maximum filling amount should be limited to 60% of the maximum volume of the cylinder.
- Do NOT exceed the maximum working pressure of the refrigerant cylinder, NOT even temporarily.
- When the cylinders have been filled correctly, and the refrigerant recovery process is completed, make sure that the cylinders and the equipment are removed from site promptly and all stop valves on the equipment are (kept) closed.
- The recovered refrigerant MUST be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant waste transfer note arranged. Do NOT mix refrigerants in recovery units and especially NOT in cylinders.
- Recovered refrigerant MUST NOT be charged into another refrigerant system unless it has been cleaned and checked.

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.

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 water quality complies with EU directive 2020/2184.
- Check the system for leaks after each repair/modification of the water side.
- Check drainage system(s) after repairs.
- Be careful when tilting units as water may leak.

NOTICE

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

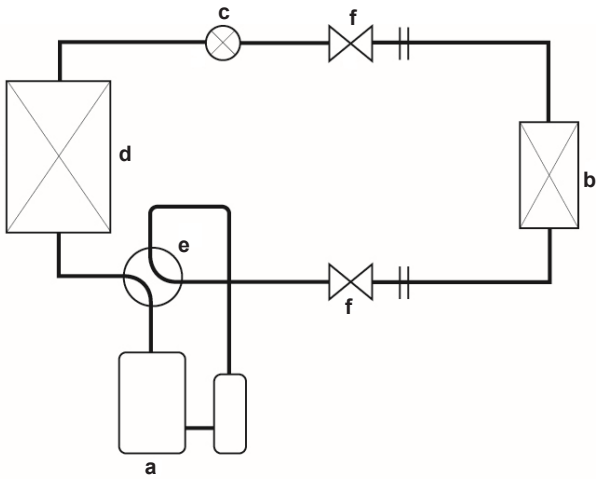
NOTICE

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

2 General operation

The Split Emura 3 is typically used for cooling or heating in residential applications.

The medium which is used to transfer the heat from inside to outside or vice versa, is refrigerant R32.



a Compressor
b Indoor heat exchanger
c Expansion valve
d Outdoor heat exchanger
e 4-way valve
f Stop valves

In case of cooling, the compressor builds up pressure and hence the temperature of the refrigerant is increased. The hot refrigerant is carried to the outdoor heat exchanger which will cool down the hot refrigerant by the fan.

The temperature of the refrigerant is further decreased by expansion through the expansion valve. The cold refrigerant flows into the indoor unit and is capable of taking up heat again. This is enabled by a fan that sucks indoor air over the heat exchanger.

This refrigerant is then transported to the compressor where temperature is built up again and the cycle restarts.

For heating, it's just the other way round.

INFORMATION

Some of the indoor unit models CAN be used as Multi application as well. For further general operation, please consult Multi Split service manual.

3 Troubleshooting

3.1 To display the error code on the wireless remote controller

1 Press ··· to enter the main menu and navigate to the wireless remote control settings menu using < and >.

Wireless remote control setting menu

Software version (self-diagnosis menu)

2 Press ✓ to enter the menu.

3 Navigate to the software and version screen using < and >.

4 Keep ✓ pressed for at least 5 seconds to enter the self-diagnosis menu.

5 Navigate to the error code indication screen using < and >. Press ✓ to confirm your selection.

Error code indication

Error code list

6 Aim the wireless remote control at the unit and scroll through the list of error codes using < and >, until you hear a long beep.

Result: A long beep indicates the corresponding error code.

7 Press ··· to return to the home screen or press ✓ to return to the self-diagnosis menu.

3.2 To reset the error code via remote controller

Prerequisite: Problem is solved.

1 Press the ON/OFF button of the remote controller to reset the error.

3.3 To reset the error code via outdoor unit

Prerequisite: Problem is solved.

1 Perform a power reset to reset the error code.

3.4 To perform a test run

INFORMATION

If the unit runs into an error during commissioning, see the service manual for the detailed troubleshooting guidelines.

Prerequisite: Power supply MUST be in the specified range.

Prerequisite: Test run may be performed in cooling or heating mode.

Prerequisite: Test run should be performed in accordance with the operation manual of the indoor unit to make sure that all functions and parts are working properly.

1 In cooling mode, select the lowest programmable temperature. In heating mode, select the highest programmable temperature. Test run can be disabled if necessary.

2 When the test run is finished, set the temperature to a normal level. In cooling mode: 26~28°C, in heating mode: 20~24°C.

3 The system stops operating 3 minutes after the unit is turned OFF.

INFORMATION

- Even if the unit is turned OFF, it consumes electricity.
- When the power turns back on after a power break, the previously selected mode will be resumed.

3.4.1 To perform a test run using the wireless remote control

1 Press ··· to enter main menu and navigate to “Wireless remote control settings menu” by < and >. Press ✓ to enter menu.

2 Navigate to “Software and version” screen by < and >.

3 Keep pressed ✓ for at least 5 seconds to enter “Self-diagnosis menu”.

Wireless remote control setting menu

Self-diagnosis menu

4 In the "Self-diagnosis menu", navigate to "Test run menu" by < and >.

Test run menu

5 Press ✓ to enter the menu.

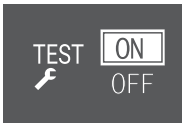
6 Change status to ON by ^ and ˅.

7 Press ✓ to confirm the selection.

Result: The indoor unit enter test run mode, during which normal operation is not possible.

Test run OFF

Test run ON



During test run

Result: Test run operation will stop automatically after about 30 minutes.

8 Test run mode will stop if the ON/OFF button is pressed.

Result: The indoor units leave test operation mode.

9 Check the function of operation modes.

INFORMATION

You CANNOT set the Econo, Outdoor unit silent and Powerful operation or change the temperature setpoint during the test run.

10 Check the error code history. If required, solve the cause of the errors and perform the test operation again.

INFORMATION

- The test run is only completed if the indoor unit does not report any error code.
- See the service manual for the complete list of error codes and a detailed troubleshooting guideline for each error.

3.5 Error based troubleshooting

3.5.1 A1-00 – PCB abnormality

Trigger	Effect	Reset
The system CANNOT set the internal settings.	Unit will stop operating.	Power reset via outdoor unit.

To solve the error code

INFORMATION

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" [▸ 60].

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

3 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

Possible cause:
- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.

4 Perform a check of the indoor unit main PCB. See Indoor unit PCB.

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.

3.5.2 A5-00 – Outdoor unit: High pressure peak cut / freeze protection problem

Trigger	Effect	Reset
During cooling operation, indoor heat exchanger temperature is below 0°C (freeze-up protection control).	Unit will stop operating.	Automatic reset when temperature is within range.
During heating operation, indoor heat exchanger temperature is above 65°C (heating peak-cut control).		

To solve the error code

INFORMATION

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

1 Check for objects near the indoor unit that may block the airflow. See "5.3 External factors" [▸ 70].

Possible cause: Airflow of the indoor unit is blocked.

2 Clean the air filter of the indoor unit(s). See "6 Maintenance" [▸ 72].

Possible cause: Faulty or dirty air filter.

3 Clean the indoor unit heat exchanger. See "6 Maintenance" [▸ 72].

Possible cause: Dirty indoor unit heat exchanger.

4 Perform a check of the indoor unit heat exchanger thermistor. See Thermistors.

Possible cause: Faulty indoor unit heat exchanger thermistor.

5 Perform a check of the indoor unit main PCB. See Indoor unit PCB.

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.

3.5.3 A6-00 – Indoor unit fan motor abnormality

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

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 Indoor unit PCB.

Possible cause: Faulty indoor unit main PCB.

2 Perform a check of the indoor unit fan motor. See Indoor unit fan motor.

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.

3.5.4 AH-00 – Streamer unit abnormality

Trigger	Effect	Reset
Streamer unit starts electric discharge when operation starts after approximately 90 to 180 seconds.	Unit will NOT stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the streamer unit. See Streamer unit.

Possible cause: Faulty streamer unit.

INFORMATION

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

3.5.5 C4-00 – Heat exchanger temperature sensor problem

Trigger	Effect	Reset
Refrigerant liquid thermistor detects an open or short circuit during compressor operation.	Unit will stop operating.	Power reset.

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 heat exchanger thermistor. See Thermistors.

Possible cause: Faulty indoor unit heat exchanger thermistor.

2 Perform a check of the indoor unit main PCB. See Indoor unit PCB.

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.

3.5.6 C9-00 – Room thermistor abnormality

Trigger	Effect	Reset
Resistance value is out of range. Temperature measured <–43.6°C or >90°C.	Unit will stop operating.	Automatic reset when resistance is within range.

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 air (room) thermistor. See Thermistors.

Possible cause: Faulty indoor unit air (room) thermistor.

2 Perform a check of the indoor unit main PCB. See Indoor unit PCB.

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.

3.5.7 CC-00 – Humidity sensor abnormality

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

To solve the error code

INFORMATION

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

1 Perform a check of the humidity sensor. See Humidity sensor.

Possible cause: Faulty humidity sensor.

INFORMATION

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

3.5.8 CE-00 – Intelligent thermal sensor abnormality

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

To solve the error code

INFORMATION

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

1 Perform a check of the intelligent thermal sensor. See Grid eye sensor.

Possible cause: Faulty intelligent thermal sensor.

INFORMATION

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

3.5.9 E1-00 – Outdoor unit: PCB defect

Trigger	Effect	Reset
Main PCB detects that EEPROM is abnormal.	Unit will stop operating.	Manual reset via user interface.
		Power reset.

To solve the error code

INFORMATION

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

1 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

2 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

Possible cause:
- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.

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

Possible cause: Faulty outdoor unit fan motor.

4 Perform a check of the compressor. See Compressor.

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

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

5 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.

6 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.

3.5.10 E3-00 – Outdoor unit: Actuation of high pressure switch

Trigger	Effect	Reset
High pressure switch opens due to measured pressure above high pressure switch operating point.	Unit will stop operating.	Manual reset via user interface.
High pressure control (measured pressure just below high pressure switch operating point) occurs 16 times within 300 minutes.		

To solve the error code

INFORMATION

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

1 Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Closed stop valve in the refrigerant circuit.

2 Perform a check of the high pressure switch. See High pressure switch.

Possible cause: Faulty high pressure switch.

3 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

4 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Refrigerant overcharge.

5 Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▸ 62].

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

6 Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Clogged refrigerant circuit.

7 Perform a check of the outdoor unit fan motor. See Outdoor unit fan motor.

Possible cause: Faulty outdoor unit fan motor.

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

3.5.11 E5-00 – Outdoor unit: Overheat of inverter compressor motor

Trigger	Effect	Reset
Compressor overload is detected.	Unit will NOT stop operating.	Automatic reset if the unit runs without warning for 60 seconds.

To solve the error code

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

1 Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Closed stop valve in the refrigerant circuit.

2 Perform a check of the discharge pipe thermistor. See Thermistors.

Possible cause: Faulty discharge pipe thermistor or connector fault.

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

Possible cause: Faulty outdoor unit fan motor.

4 Perform a check of the compressor. See Compressor.

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

5 Perform a check of the expansion valve. See Expansion valve.

Possible cause: Faulty expansion valve.

6 Perform a check of the 4-way valve. See 4-way valve.

Possible cause: Faulty 4-way valve.

7 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

8 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Refrigerant shortage.

9 Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▸ 62].

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

10 Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Clogged refrigerant circuit.

INFORMATION

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

3.5.12 E6-00 – Outdoor unit: Compressor startup defect

Trigger	Effect	Reset
The motor rotor does NOT rotate when the compressor is energized.	Unit will NOT stop operating.	Automatic reset after a continuous run for 10 minutes.
	Unit will stop operating	Manual reset via user interface.

To solve the error code

INFORMATION

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

1. Perform a check of the discharge pipe thermistor. See Thermistors.

   Possible cause: Faulty discharge pipe thermistor or connector fault.

2. Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▸ 62].

   Possible cause: Closed stop valve in the refrigerant circuit.

3. Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▸ 62].

   Possible cause: Clogged refrigerant circuit.

4. Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▸ 62].

   Possible cause: Refrigerant overcharge or shortage.

5. Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▸ 62].

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

6. Perform a check of the compressor. See Compressor.

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

7. Perform a check of the main PCB. See Main PCB.

   Possible cause: Faulty main PCB.

8. Perform a check of the 4-way valve. See 4-way valve.

   Possible cause: Faulty 4-way valve.

9. Perform a check of the expansion valve. See Expansion valve.

   Possible cause: Faulty expansion valve.

INFORMATION

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

3.5.13 E7-00 – Outdoor unit: Malfunction of outdoor unit fan motor

Trigger	Effect	Reset
Fan does NOT start 15~30 seconds after ON signal. It can occur that the error code is triggered when the fan motor is running caused by a faulty rotating sensor signal.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1. Perform a check of the outdoor unit fan motor. See Outdoor unit fan motor.

   Possible cause: Faulty outdoor unit fan motor.

2. Perform a check of the main PCB. See Main PCB.

   Possible cause: Faulty main PCB.

INFORMATION

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

3.5.14 E8-00 – Outdoor unit: Power input overvoltage

Trigger	Effect	Reset
Compressor running current exceeds standard value for 2.5 seconds.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1. Check the outdoor temperature. See "5.3 External factors" [▸ 70].

   Possible cause: Outdoor temperature is out of operation range.

2. Perform a check of the compressor. See Compressor.

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

3. Perform a check of the main PCB. See Main PCB.

   Possible cause: Faulty main PCB.

4. Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

Possible cause:
- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.

INFORMATION

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

3.5.15 EA-00 – Outdoor unit: Cool/heat switchover problem

Trigger	Effect	Reset
Room thermistor is NOT functioning within operation range.	Unit will NOT stop operating.	Automatic reset after a continuous operation for some time.
	If the error occurs too soon: unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the 4-way valve. See 4-way valve.

Possible cause: Faulty 4-way valve.

2 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

3 Perform a check of the indoor unit air (room) thermistor. See Thermistors.

Possible cause: Faulty indoor unit air (room) thermistor.

4 Perform a check of the indoor unit main PCB. See Indoor unit PCB.

Possible cause: Faulty indoor unit main PCB.

5 Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Closed stop valve in the refrigerant circuit.

6 Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Clogged refrigerant circuit.

7 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Refrigerant overcharge or shortage.

8 Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▸ 62].

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

INFORMATION

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

3.5.16 F3-00 – Outdoor unit: Malfunction of discharge pipe temperature

Trigger	Effect	Reset
Discharge pipe thermistor detects a too high temperature.	Unit will NOT stop operating.	Automatic reset when temperature drops normal level.
	If the error re-occurs too soon: unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Closed stop valve in the refrigerant circuit.

2 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Refrigerant overcharge or shortage.

3 Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▸ 62].

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

4 Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Clogged refrigerant circuit.

5 Perform a check of the 4-way valve. See 4-way valve.

Possible cause: Faulty 4-way valve.

6 Perform a check of the expansion valve. See Expansion valve.

Possible cause: Faulty expansion valve.

7 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

8 Perform a check of all refrigerant side thermistors. See Thermistors.

Possible cause: Faulty refrigerant side thermistor(s).

INFORMATION

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

3.5.17 F6-00 – Outdoor unit: Abnormal high pressure in cooling

Trigger	Effect	Reset
Outdoor heat exchanger thermistor measures a too high temperature.	Unit will NOT stop operating.	Automatic reset when temperature drops.

To solve the error code

INFORMATION

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

1. Clean the outdoor heat exchanger. See "6 Maintenance" [▶ 72].

   Possible cause: Dirty outdoor heat exchanger.

2. Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▶ 62].

   Possible cause: Closed stop valve in the refrigerant circuit.

3. Perform a check of the heat exchanger thermistor. See Thermistors.

   Possible cause: Faulty heat exchanger thermistor.

4. Perform a check of the expansion valve. See Expansion valve.

   Possible cause: Faulty expansion valve.

5. Perform a check of the main PCB. See Main PCB.

   Possible cause: Faulty main PCB.

6. Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▶ 62].

   Possible cause: Refrigerant overcharge.

7. Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▶ 62].

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

8. Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▶ 62].

   Possible cause: Clogged refrigerant circuit.

9. Perform a check of the outdoor unit fan motor. See Outdoor unit fan motor.

   Possible cause: Faulty outdoor unit fan motor.

INFORMATION

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

3.5.18 F8-00 – System shutdown due to compressor internal temperature abnormality

Trigger	Effect	Reset
Temperature discharge pipe thermistor exceeds the determined limit.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Closed stop valve in the refrigerant circuit.

2 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Refrigerant overcharge.

3 Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▸ 62].

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

4 Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Clogged refrigerant circuit.

5 Perform a check of the discharge pipe thermistor. See Thermistors.

Possible cause: Faulty discharge pipe thermistor or connector fault.

INFORMATION

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

3.5.19 H0-00 – Outdoor unit: Voltage/current sensor problem

Trigger	Effect	Reset
Compressor voltage (DC) is out of range before start-up.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

2 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

Possible cause:
- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

3 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.

4 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.

3.5.20 H3-00 – Outdoor unit: Malfunction of high pressure switch

Trigger	Effect	Reset
High pressure switch is activated when compressor is off.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the high pressure switch. See High pressure switch.

Possible cause: Faulty high pressure switch.

2 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

3 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

Possible cause:
- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.

INFORMATION

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

3.5.21 H6-00 – Outdoor unit: Malfunction of position detection sensor

Trigger	Effect	Reset
Compressor fails to start within 15 seconds after the compressor run command signal is sent.	Unit will NOT stop operating.	Automatic reset after a continuous operation of 10 minutes.
	If the error re-occurs within 8 minutes: unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the compressor. See Compressor.

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

2 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

3 Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Closed stop valve in the refrigerant circuit.

4 Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Clogged refrigerant circuit.

5 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Refrigerant overcharge or shortage.

6 Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▸ 62].

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

7 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

Possible cause:
- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.

INFORMATION

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

3.5.22 H8-00 – Outdoor unit: Malfunction of compressor input system

Trigger	Effect	Reset
DC voltage or current sensor abnormality based on the compressor running frequency and the input current.	Unit will NOT stop operating.	Automatic reset when compressor runs normally for 60 minutes.
	If the error re-occurs too soon: unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

2 Perform a check of the compressor. See Compressor.

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

3 Perform a check of the reactor. See Reactor.

Possible cause: Faulty reactor.

INFORMATION

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

3.5.23 H9-00 – Outdoor unit: Malfunction of outdoor air thermistor

Trigger	Effect	Reset
Outdoor air thermistor input is out of range.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the outdoor air thermistor. See Thermistors.

Possible cause: Faulty ambient air thermistor.

2 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

INFORMATION

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

3.5.24 J3-00 – Outdoor unit: Malfunction of discharge pipe thermistor

Trigger	Effect	Reset
Discharge pipe thermistor input is out of range.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the discharge pipe thermistor. See Thermistors.

Possible cause: Faulty discharge pipe thermistor or connector fault.

2 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

INFORMATION

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

3.5.25 J6-00 – Outdoor unit: Malfunction of heat exchanger thermistor

Trigger	Effect	Reset
Outdoor heat exchanger thermistor input is out of range.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the heat exchanger thermistor. See Thermistors.

Possible cause: Faulty heat exchanger thermistor.

2 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

INFORMATION

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

3.5.26 L3-00 – Outdoor unit: Electrical box temperature rise problem

Trigger	Effect	Reset
Switch box temperature is too high.	Unit will stop operating.	Manual reset via remote controller.

To solve the error code

INFORMATION

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

1 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

2 Perform a check of the outdoor unit fan motor. See Outdoor unit fan motor.

Possible cause: Faulty outdoor unit fan motor.

3 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

Possible cause:
- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.

4 Clean the outdoor heat exchanger. See "6 Maintenance" [▸ 72].

Possible cause: Dirty outdoor heat exchanger.

INFORMATION

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

3.5.27 L4-00 – Outdoor unit: Malfunction of inverter radiating fin temperature rise

Trigger	Effect	Reset
Radiating fin thermistor measures a too high temperature.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the outdoor unit fan motor. See Outdoor unit fan motor.

Possible cause: Faulty outdoor unit fan motor.

2 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

Possible cause:
- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.

3 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

4 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.

5 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.

3.5.28 L5-00 – Outdoor unit: Inverter instantaneous overcurrent

Trigger	Effect	Reset
An output overcurrent is detected by checking the current that flows in the inverter DC section.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Closed stop valve in the refrigerant circuit.

2 Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Clogged refrigerant circuit.

3 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Refrigerant overcharge or shortage.

4 Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▸ 62].

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

5 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

6 Perform a check of the compressor. See Compressor.

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

7 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

Possible cause:
- Faulty or disturbance of the power supply (power supply MUST be within range of nominal operating voltage ±4%),
- Power drop,
- Short circuit.

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

8 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.

9 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.

3.5.29 P4-00 – Outdoor unit: Malfunction of radiating fin temperature sensor

Trigger	Effect	Reset
Radiating fin thermistor input is out of range.	Unit will stop operating.	Manual reset via user interface.

To solve the error code

INFORMATION

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

1 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

INFORMATION

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

3.5.30 U0-00 – Outdoor unit: Shortage of refrigerant

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

To solve the error code

INFORMATION

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

1 Perform a check of all refrigerant side thermistors. See Thermistors.

Possible cause: Faulty refrigerant side thermistor(s).

2 Check that all stop valves of the refrigerant circuit are open. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Closed stop valve in the refrigerant circuit.

3 Check if the refrigerant circuit is clogged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Clogged refrigerant circuit.

4 Check if the refrigerant circuit is correctly charged. See "5.2 Refrigerant circuit" [▸ 62].

Possible cause: Refrigerant shortage.

5 Check for the presence of non-condensables and/or humidity in the refrigerant circuit. See "5.2 Refrigerant circuit" [▸ 62].

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

6 Perform a check of the compressor. See Compressor.

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

7 Perform a check of the expansion valve. See Expansion valve.

Possible cause: Faulty expansion valve.

8 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" [▸ 62].

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.

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

Trigger	Effect	Reset
Power supply abnormality or instant power failure is detected.	Unit will stop operating.	Power reset via outdoor unit.

To solve the error code

INFORMATION

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

1 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

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 Compressor.

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

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

Possible cause: Faulty outdoor unit fan motor.

4 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

5 Wait until the compressor restarts.

Possible cause:
- Momentary drop of voltage,
- Momentary power failure.

6 Perform a check of the indoor unit main PCB. See Indoor unit PCB.

Possible cause: Faulty indoor unit main PCB.

7 Perform a check of the indoor unit power PCB. See Indoor unit power PCB.

Possible cause: Faulty indoor unit power PCB.

INFORMATION

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

3.5.32 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

INFORMATION

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

1 Check if the power supply is compliant with the regulations. See "5.1 Electrical circuit" [▸ 60].

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" [▸ 60].

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

3 Perform a check of the main PCB. See Main PCB.

Possible cause: Faulty main PCB.

4 Perform a check of the outdoor unit fan motor. See Outdoor unit fan motor.

Possible cause: Faulty outdoor unit fan motor.

5 Perform a check of the indoor unit main PCB. See Indoor unit PCB.

Possible cause: Faulty indoor unit main PCB.

6 Perform a check of the indoor unit power PCB. See Indoor unit power PCB.

Possible cause: Faulty indoor unit power PCB.

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.

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

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

To solve the error code

INFORMATION

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

1 Check for improper combination of the indoor unit and the remote controller. See Business Portal for more information.

Possible cause: Improper combination of indoor unit and remote controller.

2 Perform a check of the remote controller. See documentation of the specific remote controller for more information.

Possible cause: Faulty remote controller.

3 Perform a check of the indoor unit main PCB. See Indoor unit PCB.

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.

3.5.34 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

INFORMATION

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" [▸ 60].

   Possible cause: Faulty wiring between the outdoor unit and the indoor unit.
3. Perform a check of the main PCB. See Main PCB.

   Possible cause: Faulty main PCB.
4. Perform a check of the indoor unit main PCB. See Indoor unit PCB.

   Possible cause: Faulty indoor unit main PCB.
5. Perform a check of the indoor unit power PCB. See Indoor unit power PCB.

   Possible cause: Faulty indoor unit power PCB.

INFORMATION

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

3.5.35 UH-00 – Malfunction of system

Trigger	Effect	Reset
In case of connection with multi indoor units, when error UA, U0 or A5 occurs in other indoor unit.	Unit will stop operating.	Auto reset.

To solve the error code

INFORMATION

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

1. Check all other indoor units for the following error codes. If found, see "3.5 Error based troubleshooting" [▸ 15] to solve the specific error.

- A5-00 – Outdoor unit: High pressure peak cut / freeze protection problem
- U0-00 – Outdoor unit: Shortage of refrigerant
- UA-00 – Indoor unit, outdoor unit mismatching problem
  Possible cause: Error on other indoor unit.

2 Perform a check of the indoor unit main PCB. See Indoor unit PCB.

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.

3.6 Symptom based troubleshooting

3.6.1 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 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.
When the operation lamp blinks, there may be an error code, activating the protection device. Diagnose with remote controller indication.	See "3.5 Error based troubleshooting" [▸ 15].
Check the remote controller addresses.	Are the address settings for the remote controller and indoor unit correct?
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?
Check remote controller.	▪ Are the batteries LOW? ▪ Are there incorrect settings?

3.6.2 Operation sometimes stops

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

Check	Detail
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.
When the operation lamp blinks, there may be an error code, activating the protection device. Diagnose with remote controller indication.	See "3.5 Error based troubleshooting" [▸ 15].

3.6.3 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 and outdoor unit.	▪ Refrigerant piping is too long; is the length within specified range? ▪ 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 code, activating the protection device.	▪ Check the resistance of all thermistors. ▪ 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	Detail
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 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.

3.6.4 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.

3.6.5 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 piping length ≤5 m?	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.

3.6.6 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.

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.

3.6.7 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.

3.6.8 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.

3.6.9 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.

3.6.10 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.

3.6.11 Humidifying problem

Check	Detail
Check the installation conditions.	▪ Insufficient heat insulation of duct. ▪ Ceiling too high for the floor size. ▪ Short circuit air flow caused by insufficient installation space.
Check the installation.	▪ Is the proper humidification hose, specified by Daikin, used? ▪ Breakage or blockage of the humidification hose. ▪ Is the length of the humidification hose correct (within specified length)? ▪ Is setting correct for the humidification hose length?
Check the outdoor temperature and humidity.	In case of extremely low outdoor temperature or extremely low humidity, the air outlet must be set at the height of 1,8m.
Check the temperature setting.	Is the set temperature too high?
Check the ventilation timing.	Is the room ventilated too often?
Check the air filter.	Is the air filter clogged?

3.6.12 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.

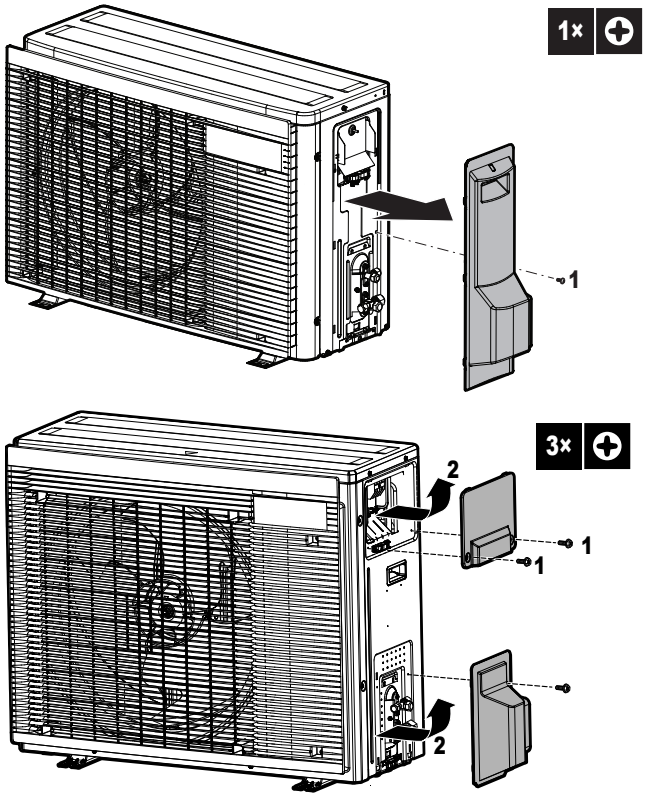
4.1 Plate work

4.1.1 Outdoor unit

To remove the refrigerant connection cover

DANGER: RISK OF ELECTROCUTION

DANGER: RISK OF BURNING/SCALDING



To remove the top plate

INFORMATION

This procedure is just an example and may differ on some details for your actual unit.

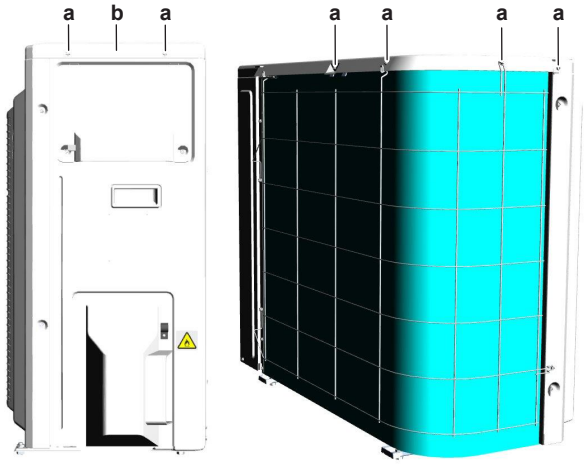
Prerequisite: Stop the unit operation via the user interface.

1 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.

2 Loosen and remove the screws that fix the top plate.



a Screw
b Top plate

3 Remove the top plate.

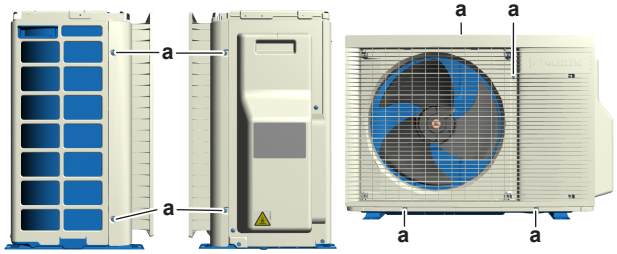
To remove the front plate

INFORMATION

This procedure is just an example and may differ on some details for your actual unit.

Prerequisite: Remove the top plate, see "4.1 Plate work" [▸ 48].

1 Loosen and remove the screws that fix the front plate.



a Screw
b Front plate

2 Remove the front plate.

To remove the switch box

INFORMATION

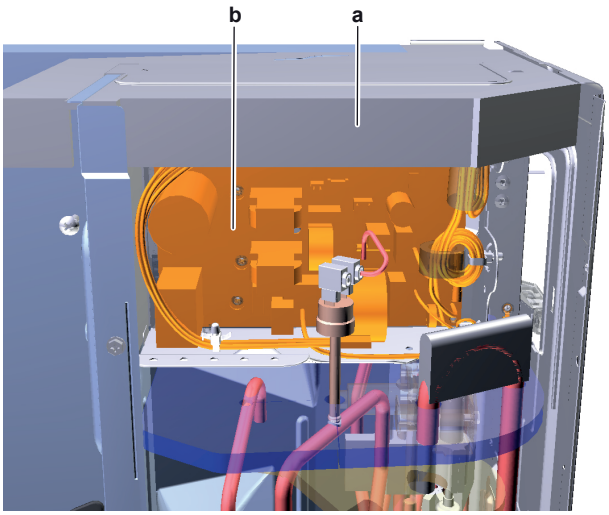
This procedure is just an example and may differ on some details for your actual unit.

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.1 Plate work" [▸ 48].

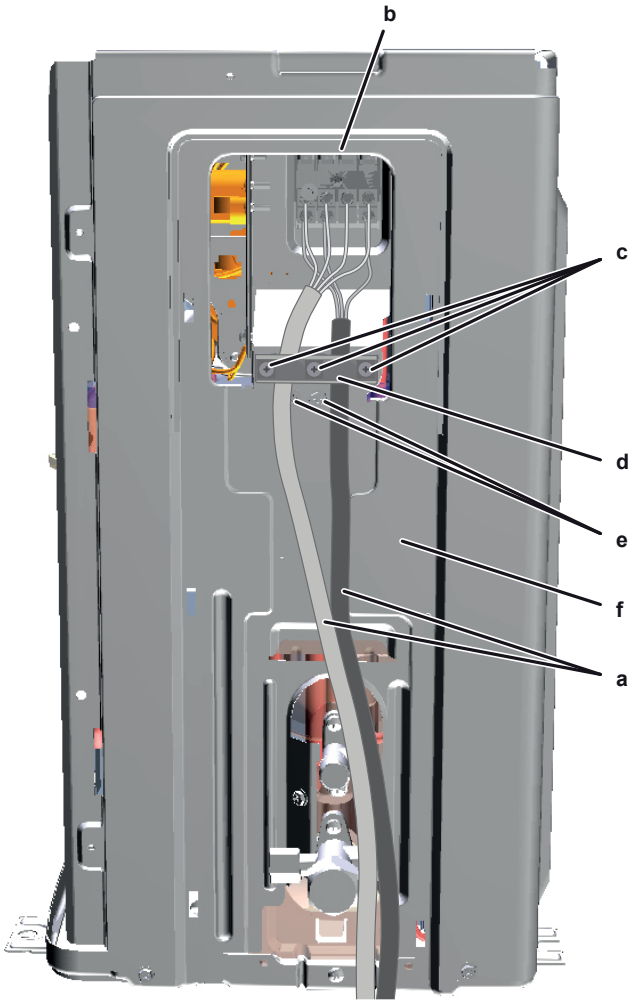
1 Remove the insulation on the upper side of the switch box.



a Insulation
b Main PCB

2 Disconnect all connectors from the main PCB.

3 Disconnect the electrical power supply wiring from the wire terminals.



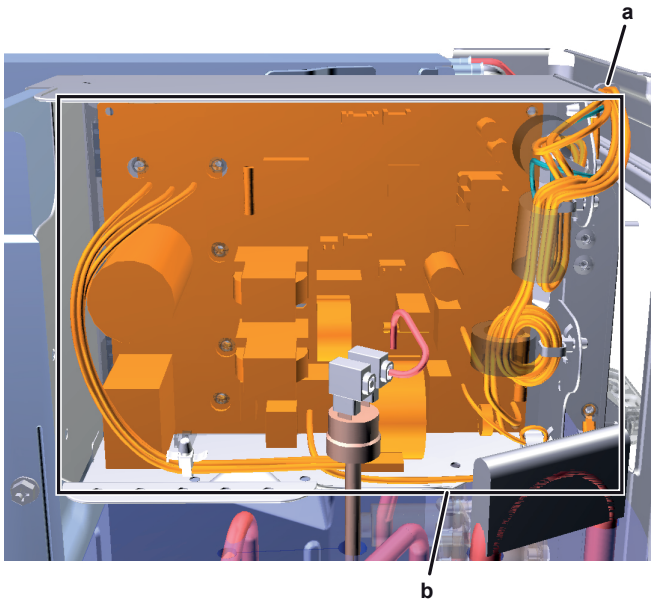
a Electrical power supply wiring
b Wire terminals
c Screws
d Wire clamp
e Screws
f Right side plate assembly

4 Remove the screws that fix the wire clamp.

5 Remove the wire clamp.

6 Remove the screws that fix the right side plate assembly.

7 Cut the cable tie.



a Cable tie
b Switch box

8 Lift and remove the switch box from the outdoor unit.

9 To install the switch box, see "4.1 Plate work" [▸ 48].

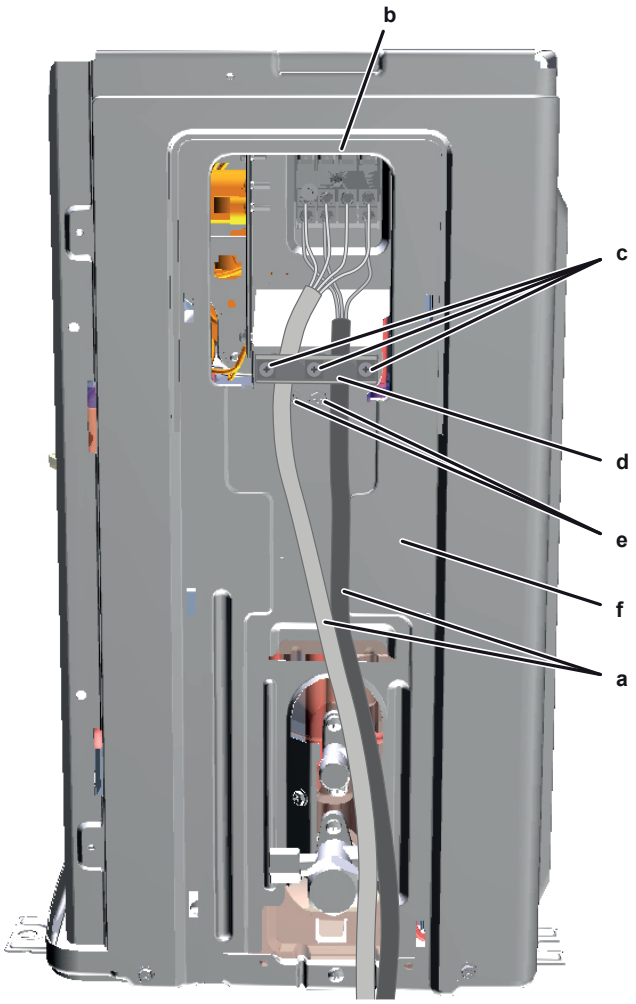
To install the switch box

INFORMATION

This procedure is just an example and may differ on some details for your actual unit.

1 Install the switch box on the correct location in the outdoor unit.

2 Install the right side plate assembly on the outdoor unit and fix it using the screws.



a Electrical power supply wiring
b Wire terminals
c Screws
d Wire clamp
e Screws
f Right side plate assembly

3 Connect the electrical power supply wiring to the wire terminals.

4 Install the wire clamp and fix it using the screws.

5 Connect all connectors to the main PCB.

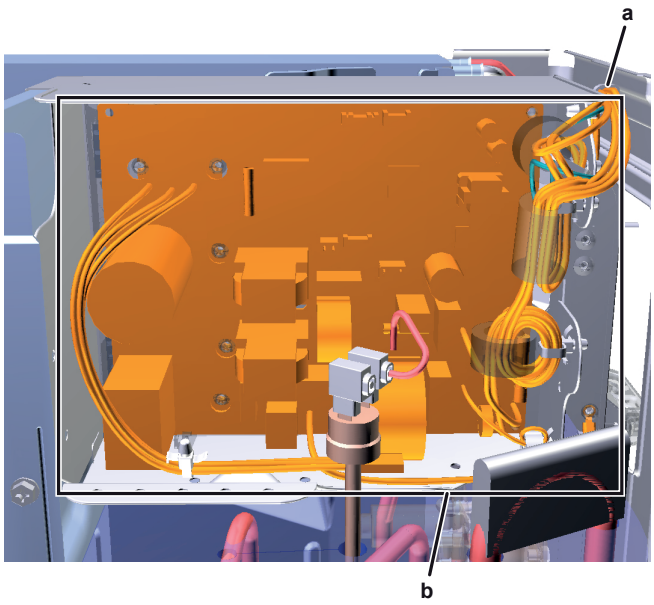
INFORMATION

Use the wiring diagram and connection diagram for correct installation of the connectors, see "7.2 Wiring diagram" [▸ 78].

WARNING

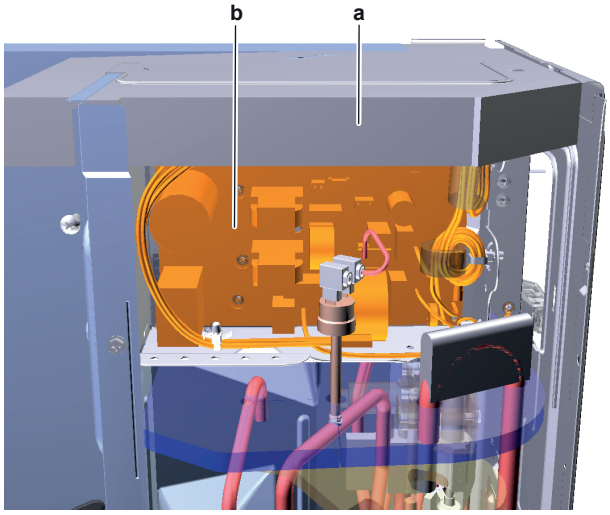
When reconnecting a connector to the PCB, make sure to connect it on the correct location and do NOT apply force, as this may damage the connector or connector pins of the PCB.

6 Fix the wiring to the switch box using a new cable tie.



a Cable tie
b Switch box

7 Install the insulation on the upper side of the switch box.



a Insulation
b Main PCB

4.1.2 Indoor unit

To open the front panel

1 Stop operation by .

Result: The front panel closes automatically.

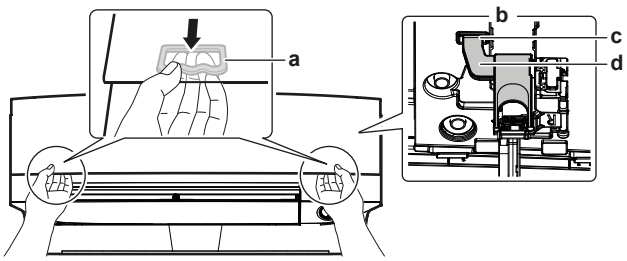
2 Open the front panel using the wireless remote control.

Result: The front panel opens.

3 Turn the power supply OFF.

4 Pull down both locks on the back of the front panel.

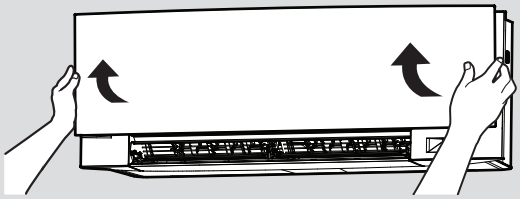
5 Open the front panel until the support fits into the fixing tab.



a Lock (1 on each side)
b Backside of the front panel
c Fixing tab
d Support

INFORMATION

If you CANNOT find the wireless remote control or you use another optional controller. Pull the front panel carefully up by hand as shown in the following figure.



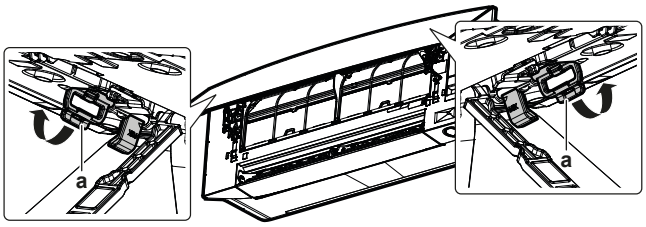
To remove the front panel

INFORMATION

Remove the front panel only in case it MUST be replaced.

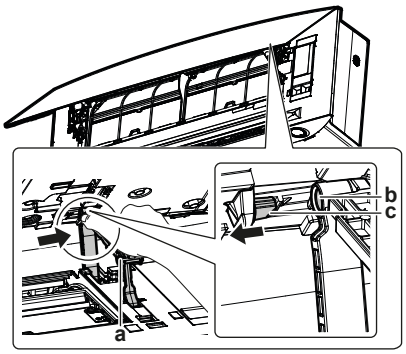
1 Open the front panel. See "4.1 Plate work" [▸ 48].

2 Open the panel locks on the back side of the panel (1 on each side).



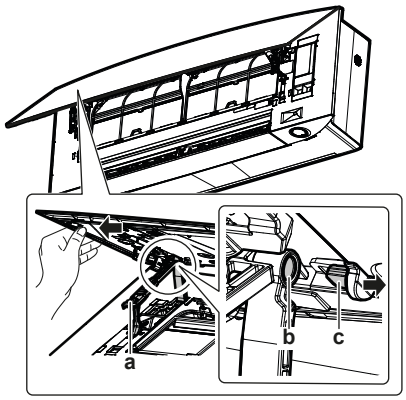
a Panel lock

3 Push the right arm lightly to the right to disconnect the shaft from the shaft slot on the right side.



a Arm
b Shaft slot
c Shaft

4 Disconnect the front panel shaft from the shaft slot on the left side.



a Arm
b Shaft slot
c Shaft

5 Remove the front panel.

6 To re-install the front panel, perform the steps in the opposite order.

To remove the front grille

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

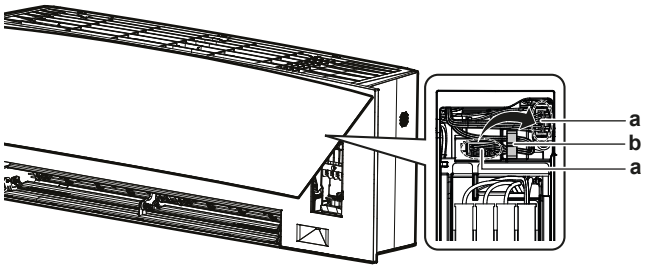
1 Open the front panel. See "4.1 Plate work" [▸ 48].

2 Remove the service cover. See "4.1 Plate work" [▸ 48].

3 Remove the wire harness from the wire clamp, disconnect the connector and place it in the connector holder.

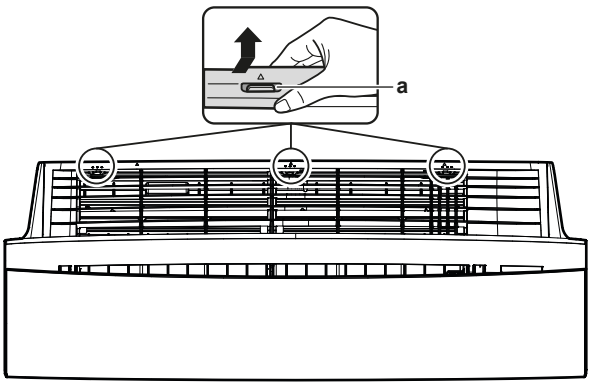
4 Position the flap carefully by hand, so it does not to get caught during front grille removal.

5 If already installed, remove the 2 screw covers using a long flat plate such as a ruler wrapped in a cloth and remove 2 screws.



a Connector
b Wire clamp

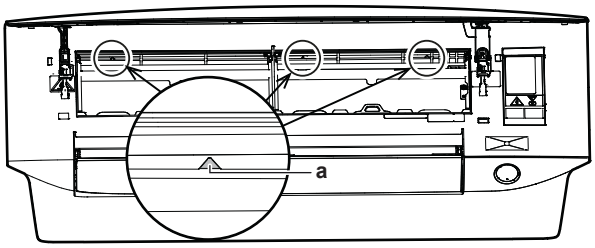
6 Push the front grille up and then towards the mounting plate to remove the front grille from the 3 hooks.



a Hook

Prerequisite: If working space is limited.

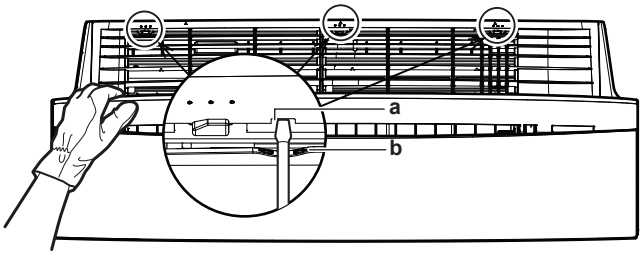
7 Slide the flat screwdriver in the direction of triangle on the rib into the half-moon shaped dent on the grille.



a Triangle symbol

8 Slightly press down the front grille and insert the screwdriver in slot next to the hooks.

9 Pull the front grille up using the flat screwdriver and pull towards the front side.



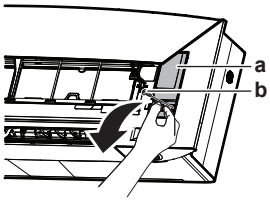
a Slot
b Half-moon shaped dent

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.



a Service cover
b Service cover screw

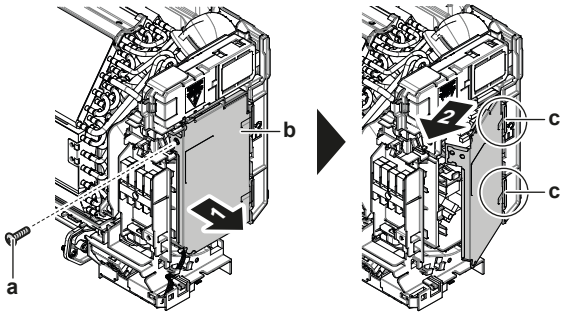
NOTICE

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 1 screw from the electrical wiring box.
2. Open the electrical wiring box cover by pulling it to the front.
3. Remove the electrical wiring box cover from the 2 rear hooks.



a Screw
b Electrical wiring box
c Rear hook

4. To re-install the cover, first attach the electrical wiring box to the hooks, close the electrical wiring box, and re-install the screw.

NOTICE

When closing the electrical wiring box cover, make sure that the tightening torque does NOT exceed 2.0 (±0.2) N•m.

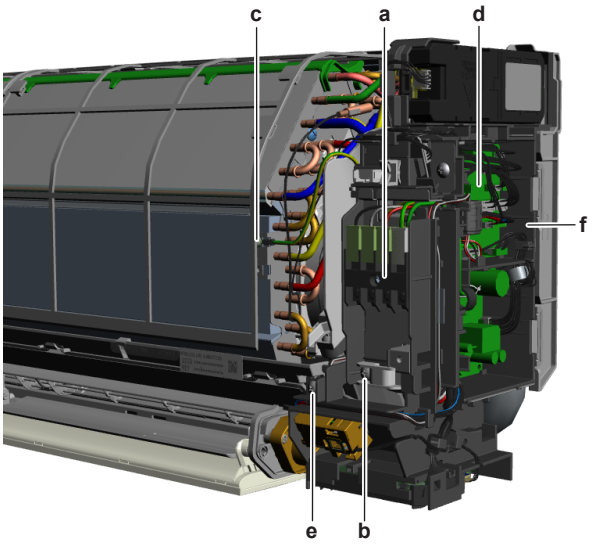
To remove the switch box

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.1 Plate work" [▸ 48].

1. Disconnect the power supply wiring from the power supply terminal X1M.
2. Remove the screw and power supply wiring bracket.
3. Pull the clip and remove the heat exchanger thermistor from its holder.
4. Remove the screw to disconnect the grounding wire from the heat exchanger



a Power supply terminal X1M
b Power supply wiring bracket
c Screw (ground wire)
d Indoor unit main PCB
e Switch box screw
f Switch box

5 Disconnect the connectors of the indoor unit fan motor and the swing flap motors from the indoor unit PCB.

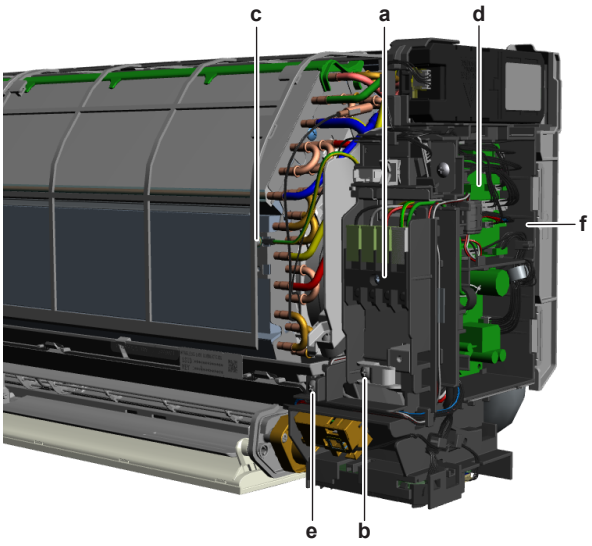
6 Detach these wiring harnesses from the switch box.

7 Remove the screw and remove the switch box from the indoor unit.

8 To install the switch box, see "4.1 Plate work" [▸ 48].

To install the switch box

1 install the switch box in the correct location on the indoor unit.



a Power supply terminal X1M
b Power supply wiring bracket
c Screw (ground wire)
d Indoor unit main PCB
e Switch box screw
f Switch box

2 Route the connectors of the indoor unit fan motor and swing flap motors inside the switch box and connect them to the indoor unit PCB.

3 Install and tighten the screw to secure the switch box.

4 Install the heat exchanger thermistor in its holder.
5 Attach the wiring harnesses to the switch box as needed.
6 Connect the grounding wire to the heat exchanger using the screw.
7 Connect the power supply wiring to the power supply terminal X1M.
8 Install the power supply wiring bracket. Install and tighten the screw.

To re-install the front grille

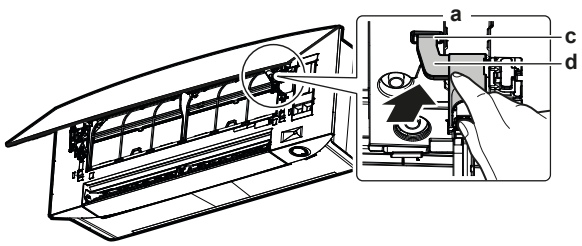
1 Install the front grille and firmly engage the 3 upper hooks.
2 Tighten the 2 screws and put the 2 screw covers back.
3 Re-install the flap.
4 Insert the wire harness back into the connector and secure it with the wire clamp.
5 Close the front panel, see "4.1 Plate work" [▸ 48].

To re-install the front panel

1 Attach the front panel.
2 Align the shaft on right side with the shaft slot and insert it all the way in.
3 Push lightly the front panel to the right side, align the shaft on the left side with slot and insert it all the way in.
4 Close the locks on both sides.

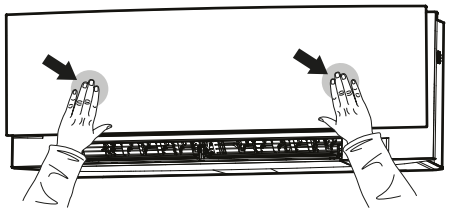
To close the front panel

1 Set the filters as they were.
2 Lift the front panel slightly and remove the support from the fixing tab.



a Backside of the front panel
b Fixing tab
c Support

3 Close the front panel.



4 Gently press the front panel down until it clicks.

5 Third party components

5.1 Electrical circuit

5.1.1 Checking procedures

To check the power supply of the unit

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.1 Plate work" [▸ 48].

1. Check that the power supply cables and earth connection are firmly fixed to the power supply terminal X1M.
2. Measure the insulation resistance between each power supply terminal and the ground using a megger device of 500 V DC. All measurements MUST be >1MΩ. If insulation resistance is <1MΩ, earth leakage is present.
3. Turn ON the power of the unit.
4. Measure the voltage between L and N on the power supply terminal X1M.

   Result: The voltage MUST be 230 V AC ± 10%.
5. Unbalance between the phases MUST NOT exceed 2%.

Is the measured voltage (power supply) correct?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Adjust the power supply, see "5.1.2 Repair procedures" [▸ 61].

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 "4.1 Plate work" [▸ 48].
2. Check that the power supply cables and earth connection are firmly fixed to the indoor unit power supply terminal X1M.
3. Turn ON the power using the respective circuit breaker.
4. Measure the voltage between L and N on the indoor unit power supply terminal X1M.

   Result: The voltage MUST be 230 V AC ± 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.

5. Check the power supply to the unit, see "5.1.1 Checking procedures" [▸ 60].

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" [▸ 61].
No	Adjust the power supply to the unit, see "5.1.2 Repair procedures" [▸ 61].

To check if the power supply is compliant with the regulations

1 Check that the power source is in line with the requirements described in the databook.

Is the power supply compliant with the regulations?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Adjust the power supply, see "5.1.2 Repair procedures" [▸ 61].

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" [▸ 78].

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 adjust the power supply

1 Make sure that the power source is in line with the requirements described in the databook.

2 Adjust the power supply within 50 Hz ± 3%.

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 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 "4.1 Plate work" [▸ 48].

1 Make sure that all wires are firmly and correctly connected, see "7.2 Wiring diagram" [▸ 78].

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.

To correct the wiring between PCB's

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

Prerequisite: Remove the required plate work, see "4.1 Plate work" [▸ 48].

1 Make sure that all wires are firmly and correctly connected, see "7.2 Wiring diagram" [▸ 78].

2 Check the continuity of all wires.

3 Replace any damaged or broken wires.

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

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

To check if the stop valves are open

Prerequisite: Remove the required plate work, see "4.1 Plate work" [▸ 48].

1 Remove the caps.

a Liquid stop valve
b Gas stop valve

2 Check if the stop valves are completely open.

The refrigerant circuit stop valves are open?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Open the stop valves of the refrigerant circuit, see "5.2.2 Repair procedures" [▸ 67].

To check if the refrigerant circuit is clogged

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

1 Wait for the refrigerant to reach the outdoor temperature.

2 Check that all field piping is done according to the refrigeration practice and installer reference guide:

- Correct piping diameters
- Piping distance limits are followed
- NO pipes are squeezed
- NO short radius bends

3 Connect a manometer to the service port.

4 Turn ON the power of the unit.

5 Activate `Heating` operation via the user interface.

6 Read the pressure on the pressure gauge. If, at the start of the unit operation, the pressure is high or very low, the refrigerant circuit might be clogged.

7 On the refrigerant liquid piping (between the indoor unit heat exchanger and the outdoor unit heat exchanger (coil)), using a contact thermometer, measure the temperature before and after every restricting device. If a big temperature difference is measured (>2.5~4K), an internal pipe obstruction may be present at this location.

INFORMATION

Focus on positions with a potential risk for clogging such as:

- Filters
- Valves
- Brazing points
- ...

INFORMATION

A bigger temperature drop before and after the expansion valve can be normal, however excessive ice is indicating a malfunction of the expansion valve or internal obstruction of the valve (dirt or ice build up in case of humidity in the system).

Temperature drop found?	Action
Yes	Replace the clogged part, see "5.2.2 Repair procedures" [▸ 67].
No	Return to the troubleshooting of the specific error and continue with the next procedure.

To check if the refrigerant circuit is correctly charged

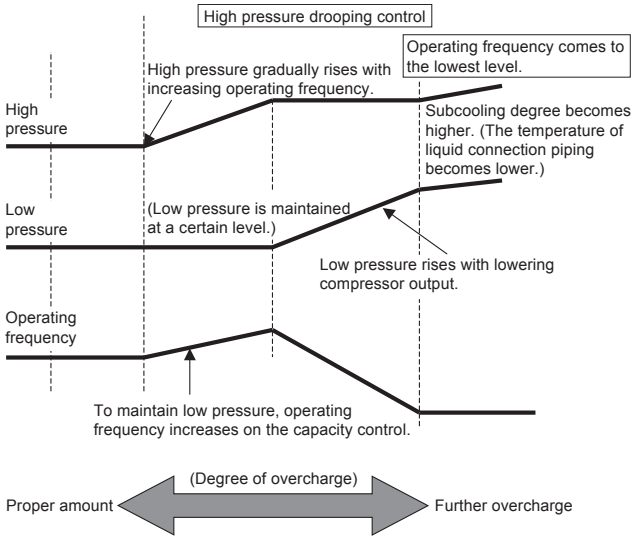
Due to the relationship to pressure control and electronic expansion valve control, the amount of refrigerant needs to be examined according to operating conditions.

Refer to the procedures shown below for correct examination.

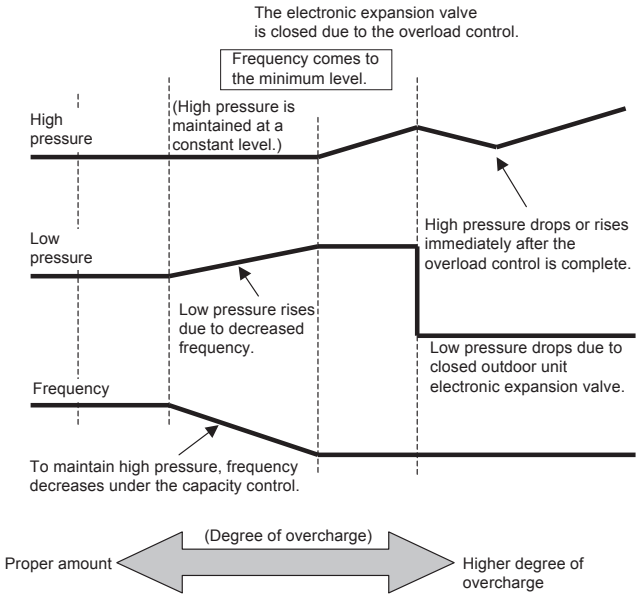
Refrigerant overcharge diagnosis

1. High pressure rises. Consequently, overload control is conducted to cause insufficient cooling capacity.
2. The superheated degree of suction gas lowers (or the wet operation is performed). Consequently, the compressor consumes more power and is noisy (before over-current relay trips).
3. The subcooling degree of refrigerant in liquid form rises (values >4~5K are NOT normal).

Cooling



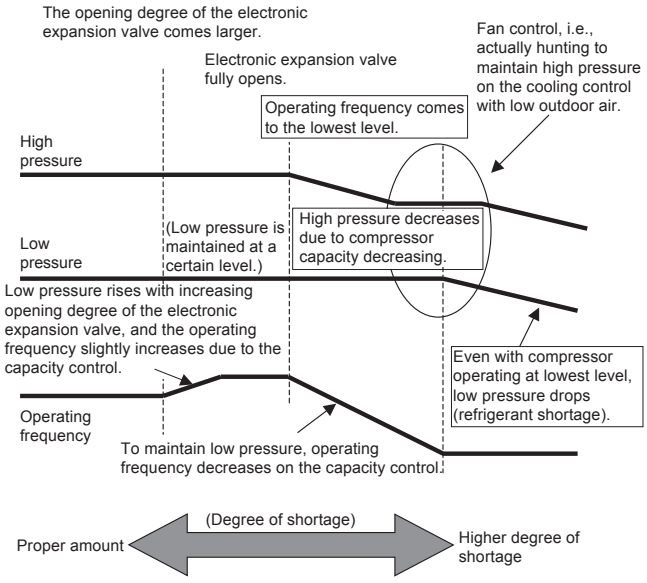
Heating



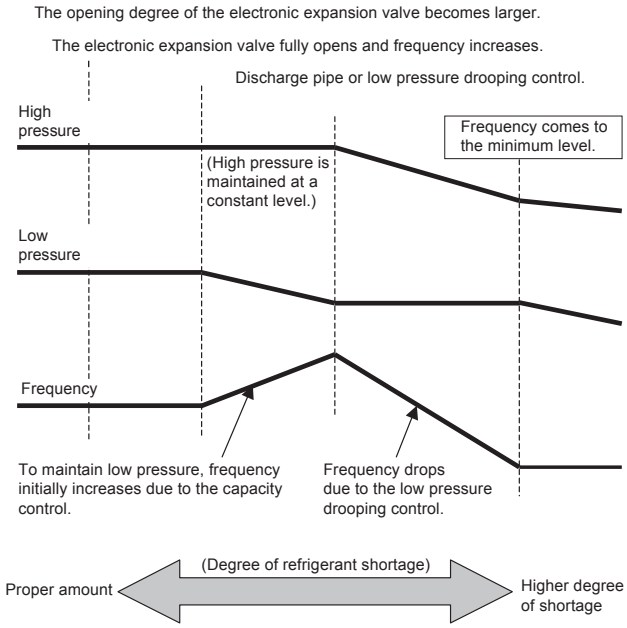
Refrigerant shortage diagnosis

1. The superheated degree of suction gas rises. Consequently, the compressor discharge gas temperature becomes higher than normal.
2. The superheated degree of suction gas rises. Consequently, the electronic expansion valve turns open more than normal or completely open for average output.
3. Low pressure drops to cause the unit not to reach cooling capacity (or heating capacity).

Cooling



Heating



Is the refrigerant circuit charged correctly?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Add or recuperate refrigerant until correctly charged, see "5.2.2 Repair procedures" [▸ 67].

To check for non-condensables in the refrigerant circuit

Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

1. Wait for the refrigerant to reach the outdoor temperature.
2. Connect a manometer to the service port.
3. Measure the pressure of the refrigerant. The measured pressure converted into saturated temperature MUST be in line with the expected pressure / saturated temperature at current ambient temperature.
4. If the measured pressure is significantly higher (>5K), non-condensables gasses are most likely present in the refrigerant.

Any non-condensables found in the refrigerant circuit?	Action
Yes	To replace the refrigerant, see "5.2.2 Repair procedures" [▸ 67].
No	Return to the troubleshooting of the specific error and continue with the next procedure.

To perform a pressure test of the refrigerant circuit

1. Perform a pressure test in line with local legislation.

Is the pressure in the refrigerant circuit correct?	Action
Yes	Return to the troubleshooting of the specific error and continue with the next procedure.
No	Replace the leaking part of the refrigerant circuit, see "5.2.2 Repair procedures" [▸ 67].

To check if the refrigerant field piping is compliant with the regulations

1 Check if the refrigerant field piping is compliant with the regulations. Adjust as needed. See installation manual for field piping specifications.

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.

5.2.2 Repair procedures

To open the stop valves of the refrigerant circuit

Prerequisite: Remove the required plate work, see "4.1 Plate work" [▸ 48].

1 Remove the caps.

a Liquid stop valve
b Gas stop valve

2 Completely open the stop valves by screwing the stop valve screw counterclockwise.

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 replace the clogged/leaking part of the refrigerant circuit

1 See the correct procedure for the component that needs to be repaired. See also "Repair information" [▸ 69] for more details.

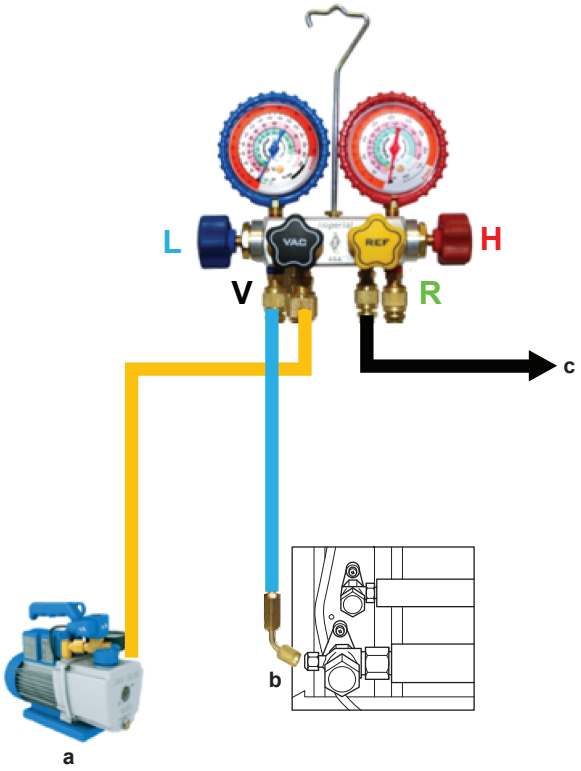
Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

To recuperate the refrigerant

Prerequisite: Stop the unit operation via the user interface.

1 Manually open all expansion valves.

2 Connect the vacuum pump, manifold, recovery unit, and refrigerant bottle to the service port of the refrigerant circuit as shown below.



a Vacuum pump
b Connect flexible hose to service port
c To recovery pump
L Low pressure
H High pressure
V Vacuum
R Refrigerant

3 To add refrigerant, see "5.2.2 Repair procedures" [▸ 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.

To add refrigerant

1 See the installer reference guide for the correct procedure.

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

Repair information

Refrigerant piping handling

- Make sure that the applied pressure is never higher than the unit design pressure indicated on the nameplate (PS).
- Work according to the F-gas regulation and/or local regulations.
- Make sure the correct amount of refrigerant is charged after repair according to the F-gas regulation label on the unit (factory + additional where required).
- Make sure to use the appropriate equipment and tools according to the refrigerant and unit type.
- R32 can be charged in gas phase.
- Make sure to use a digital scale (no charging cylinder).
- Execute correct vacuum drying procedure after repair:
  - –0.1 MPa / –760 mm Hg / –750 Torr / –1 bar for at least 1 hour.
  - Connect the unit according to the available service ports.
  - Use related field setting where necessary to open expansion valve / solenoid valve.

To perform refrigerant pump down operation

The unit is equipped with an automatic pump down operation which will collect all refrigerant from the field piping and indoor unit in the outdoor unit. To protect the environment, make sure to perform the following pump down operation when relocating the unit.

DANGER: RISK OF EXPLOSION

Pump down – Refrigerant leakage. If you want to pump down the system, and there is a leak in the refrigerant circuit:

- Do NOT use the unit's automatic pump down function, with which you can collect all refrigerant from the system into the outdoor unit. **Possible consequence:** Self-combustion and explosion of the compressor because of air going into the operating compressor.
- Use a separate recovery system so that the unit's compressor does NOT have to operate.

CAUTION

Some outdoor units are equipped with a low pressure switch to protect the compressor by switching it off. NEVER short-circuit the low pressure switch during pump down operation.

1 Remove the refrigerant connection cover, see "4.1 Plate work" [▸ 48].

2 Remove the cap from the stop valves.

3 Perform pump down operation, see installer reference guide for the correct procedure.

4 After 5~10 minutes (after only 1~2 minutes in case temperature <–10°C), close the liquid stop valve using a hexagonal wrench.

5 Check the manifold if vacuum is reached. Close the gas stop valve and stop forced cooling operation.

Refrigerant piping repair

- Make sure to cover open pipe ends during repair so no dust or moisture can enter.
- Make sure to re-apply insulation removed during repair.
- Pipe expansion / flare making:
  - Remove any burrs on the cut surface using the correct tool such as reamer or scraper (note that excessive deburring can thin the pipe walls and cause cracking of the pipe).
  - Make sure the flare has the correct size (use a flare gauge).
  - Make sure no particles remain in the piping.
  - Apply just a drop of refrigerant oil on the inner surface of the flare.
  - Make sure the flare connection is tightened with the correct torque (torque values refer to installation manual).
- Brazing:
  - Use the correct brazing tool.
  - Use a phosphor copper filler metal (silver composition of 0 to 2%). Do not use flux material.
  - Flush the piping before brazing with nitrogen to avoid oxidation of the inside of the copper tubes (nitrogen purity ≥99.99%).

5.3 External factors

5.3.1 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.

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.

To check the required space around the outdoor unit heat exchanger

1 Check if the space around the outdoor unit heat exchanger is sufficient. See the installation manual for the required space specifications. Adjust 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

NOTICE

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

The general maintenance/inspection checklist is complementary to the instructions in this chapter and can be used as a guideline and reporting template during maintenance.

6.1 To clean the outdoor unit heat exchanger

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

CAUTION

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

Do NOT use a high-pressure washer.

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.

6.2 To clean the indoor unit heat exchanger

1. Straighten the hair fins.
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.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

6.3 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.

6.4 To clean the indoor unit and wireless remote control

WARNING

Improper detergents or cleaning procedure may cause damage on plastic components or water leakage. Splashed detergent on electric components, such as motors, may cause failure, smoke or ignition.

NOTICE

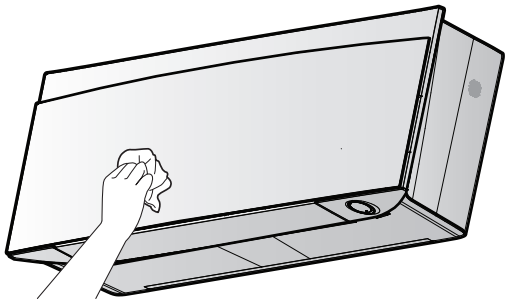
- Do NOT use gasoline, benzene, thinner, polishing powder or liquid insecticide. **Possible consequence:** Discoloration and deformation.
- Do NOT use water or air of 40°C or higher. **Possible consequence:** Discoloration and deformation.
- Do NOT use polishing compounds.
- Do NOT use a scrubbing brush. **Possible consequence:** The surface finishing peels off.
- As an end user, you may NEVER clean inside parts of the unit by yourself; this work must be performed by a qualified service person. Contact your dealer.

DANGER: RISK OF ELECTROCUTION

Before cleaning, be sure to stop the operation, turn the breaker OFF or pull out the supply cord. Otherwise, an electrical shock and injury may result.

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

6.5 To clean the front panel

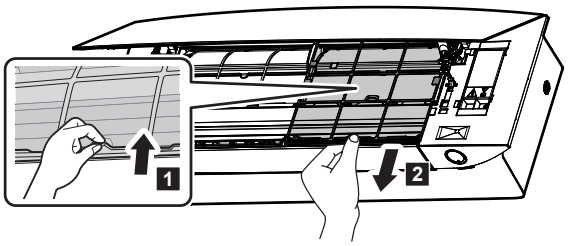


1 Clean the front panel with a soft cloth. If it is difficult to remove stains, use water or a neutral detergent.

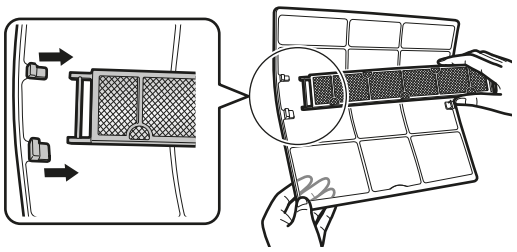
6.6 To clean the air filters

1 Push the tab at the centre of each air filter, then pull it down.

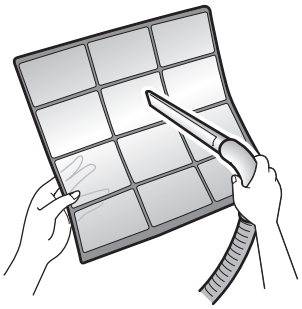
2 Pull out the air filters.



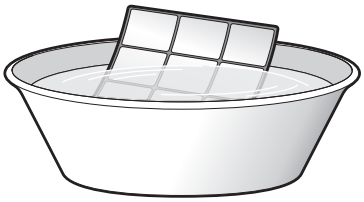
3 Remove the titanium apatite deodorising filter and silver particle filter from the tabs.



4 Wash the air filters with water or clean them with a vacuum cleaner.



5 Soak in lukewarm water for about 10 to 15 minutes.



INFORMATION

- If the dust does NOT come off easily, wash the air filters with a neutral detergent diluted in lukewarm water. Dry the air filters in the shade.
- Be sure to remove the titanium apatite deodorising and silver particle filters.
- It is recommended to clean the air filters every 2 weeks.

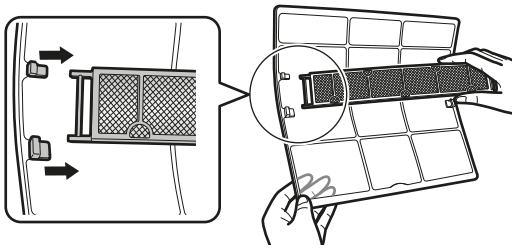
Is the problem solved?	Action
Yes	No further actions required.
No	Return to the troubleshooting of the specific error and continue with the next procedure.

6.7 To clean the titanium apatite deodorising filter and the silver particle filter (Ag-ion filter)

INFORMATION

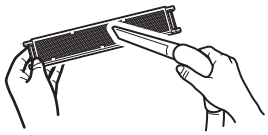
Clean the filter with water every 6 months.

1 Remove titanium apatite deodorising filter and the silver allergen removal air purifying filter from all 4 claws.



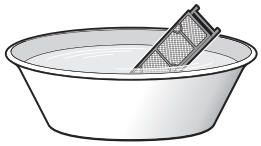
a Claw

2 Remove the dust from the filter with a vacuum cleaner.



3 Soak the filter for 10 to 15 minutes in warm water.

Note: Do NOT remove the filter from the frame.



4 After washing, shake off remaining water and dry the filter in the shade. Do NOT wring out the filter when removing water.

6.8 To replace the titanium apatite deodorising filter and the silver particle filter (Ag-ion filter)

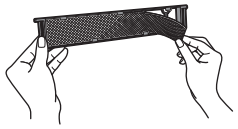
INFORMATION

Replace the filter every 3 years.

To order titanium apatite deodorising filter or silver particle filters, contact your dealer.

Item	Part number
Titanium deodorising filter	KAF970A46
Silver particle filter	KAF057A41

1 Remove the filer from the tabs of the filter frame and replace the filter with a new one.



INFORMATION

- Do NOT throw away the filter frame, but use it again.
- Dispose of the old filter as non-flammable waste.

7 Technical data

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: Outdoor unit

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

7.1.3 Detailed information setting mode: Remote controller

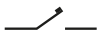
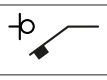
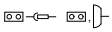
See the installer reference guide on business portal for more information.

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		Protective earth
	Connection		Protective earth (screw)
	Connector		Rectifier
	Earth		Relay connector
	Field wiring		Short-circuit connector
	Fuse		Terminal
	Indoor unit		Terminal strip
	Outdoor unit		Wire clamp
	Residual current device		

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

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

Symbol	Meaning
E*H	Heater
FU*, F*U, (for characteristics, refer to PCB inside your unit)	Fuse
FG*	Connector (frame ground)
H*	Harness
H*P, LED*, V*L	Pilot lamp, light emitting diode
HAP	Light emitting diode (service monitor green)
HIGH VOLTAGE	High voltage
IES	Intelligent eye sensor
IPM*	Intelligent power module
K*R, KCR, KFR, KHuR, K*M	Magnetic relay
L	Live
L*	Coil
L*R	Reactor
M*	Stepper motor
M*C	Compressor motor
M*F	Fan motor
M*P	Drain pump motor
M*S	Swing motor
MR*, MRCW*, MRM*, MRN*	Magnetic relay
N	Neutral
n=*, N=*	Number of passes through ferrite core
PAM	Pulse-amplitude modulation
PCB*	Printed circuit board
PM*	Power module
PS	Switching power supply
PTC*	PTC thermistor
Q*	Insulated gate bipolar transistor (IGBT)
Q*C	Circuit breaker
Q*DI, KLM	Earth leak circuit breaker
Q*L	Overload protector
Q*M	Thermo switch
Q*R	Residual current device
R*	Resistor
R*T	Thermistor
RC	Receiver
S*C	Limit switch

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
X*	Terminal
X*M	Terminal strip (block)
Y*E	Electronic expansion valve coil
Y*R, Y*S	Reversing solenoid valve coil
Z*C	Ferrite core
ZF, Z*F	Noise filter

Wiring diagram

INFORMATION

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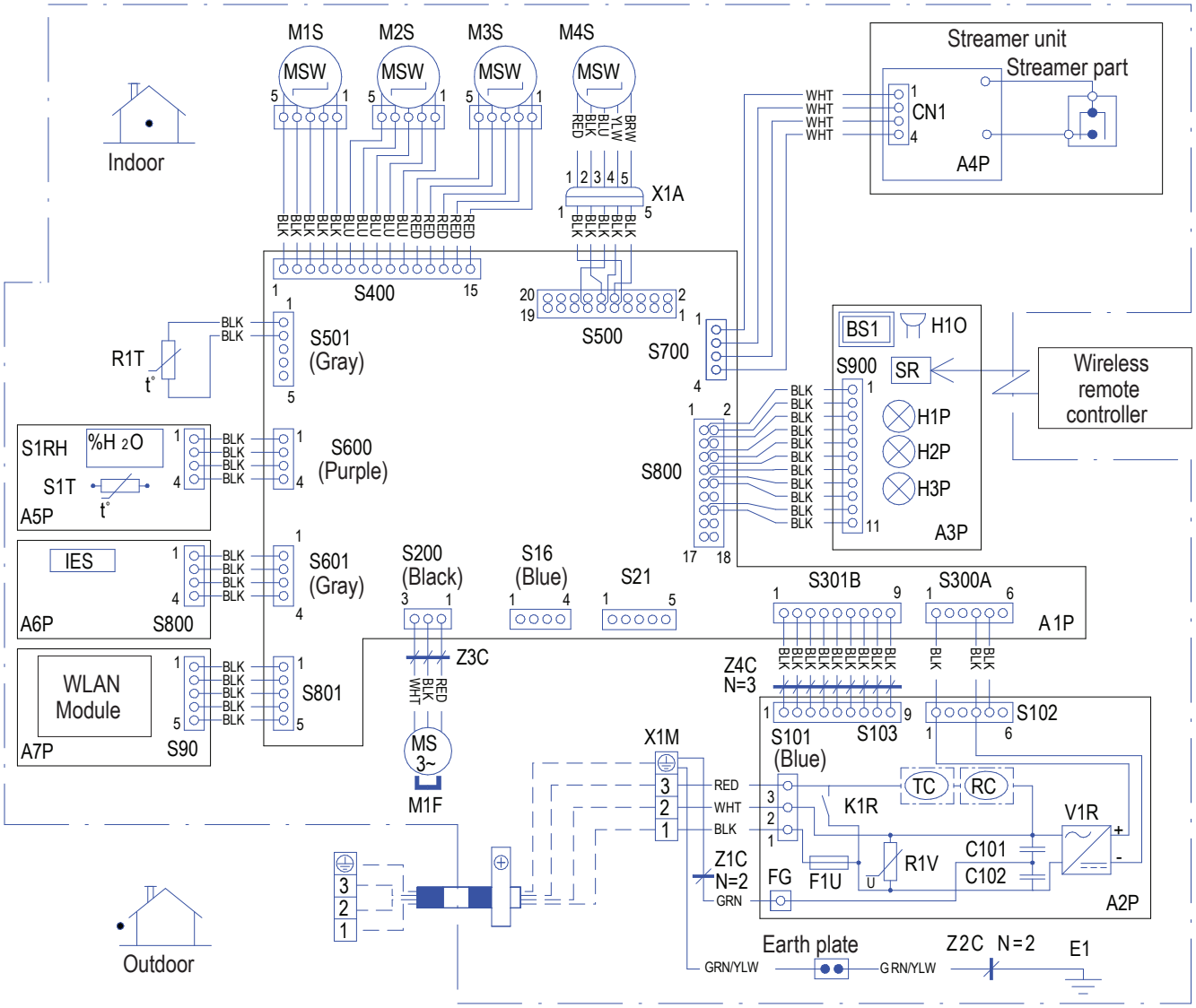
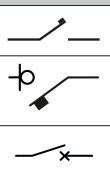
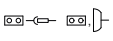


7.2.2 Wiring diagram: Outdoor unit

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		Protective earth
			
	Connection		Protective earth (screw)
	Connector		Rectifier
	Earth		Relay connector
	Field wiring		Short-circuit connector
	Fuse		Terminal
	Indoor unit		Terminal strip
	Outdoor unit		Wire clamp
	Residual current device		

Symbol	Colour	Symbol	Colour
BLK	Black	ORG	Orange
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BRN	Brown	PRP, PPL	Purple
GRN	Green	RED	Red
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Symbol	Meaning
A*P	Printed circuit board
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BZ, H*O	Buzzer
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D*, V*D	Diode
DB*	Diode bridge
DS*	DIP switch
E*H	Heater

Symbol	Meaning
FU*, F*U, (for characteristics, refer to PCB inside your unit)	Fuse
FG*	Connector (frame ground)
H*	Harness
H*P, LED*, V*L	Pilot lamp, light emitting diode
HAP	Light emitting diode (service monitor green)
HIGH VOLTAGE	High voltage
IES	Intelligent eye sensor
IPM*	Intelligent power module
K*R, KCR, KFR, KHuR, K*M	Magnetic relay
L	Live
L*	Coil
L*R	Reactor
M*	Stepper motor
M*C	Compressor motor
M*F	Fan motor
M*P	Drain pump motor
M*S	Swing motor
MR*, MRCW*, MRM*, MRN*	Magnetic relay
N	Neutral
n=*, N=*	Number of passes through ferrite core
PAM	Pulse-amplitude modulation
PCB*	Printed circuit board
PM*	Power module
PS	Switching power supply
PTC*	PTC thermistor
Q*	Insulated gate bipolar transistor (IGBT)
Q*C	Circuit breaker
Q*DI, KLM	Earth leak circuit breaker
Q*L	Overload protector
Q*M	Thermo switch
Q*R	Residual current device
R*	Resistor
R*T	Thermistor
RC	Receiver
S*C	Limit switch
S*L	Float switch

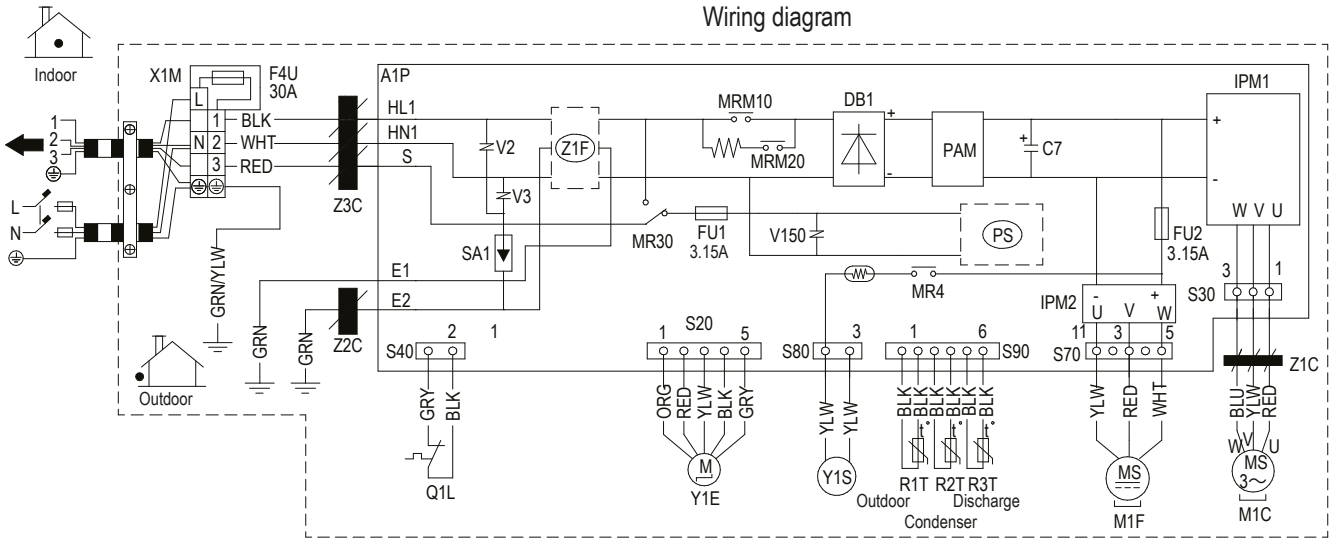
Symbol	Meaning
S*NG	Refrigerant leak detector
S*NPH	Pressure sensor (high)
S*NPL	Pressure sensor (low)
S*PH, HPS*	Pressure switch (high)
S*PL	Pressure switch (low)
S*T	Thermostat
S*RH	Humidity sensor
S*W, SW*	Operation switch
SA*, F1S	Surge arrester
SR*, WLU	Signal receiver
SS*	Selector switch
SHEET 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
X*	Terminal
X*M	Terminal strip (block)
Y*E	Electronic expansion valve coil
Y*R, Y*S	Reversing solenoid valve coil
Z*C	Ferrite core
ZF, Z*F	Noise filter

RXJ20~35A

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.

Wiring diagram



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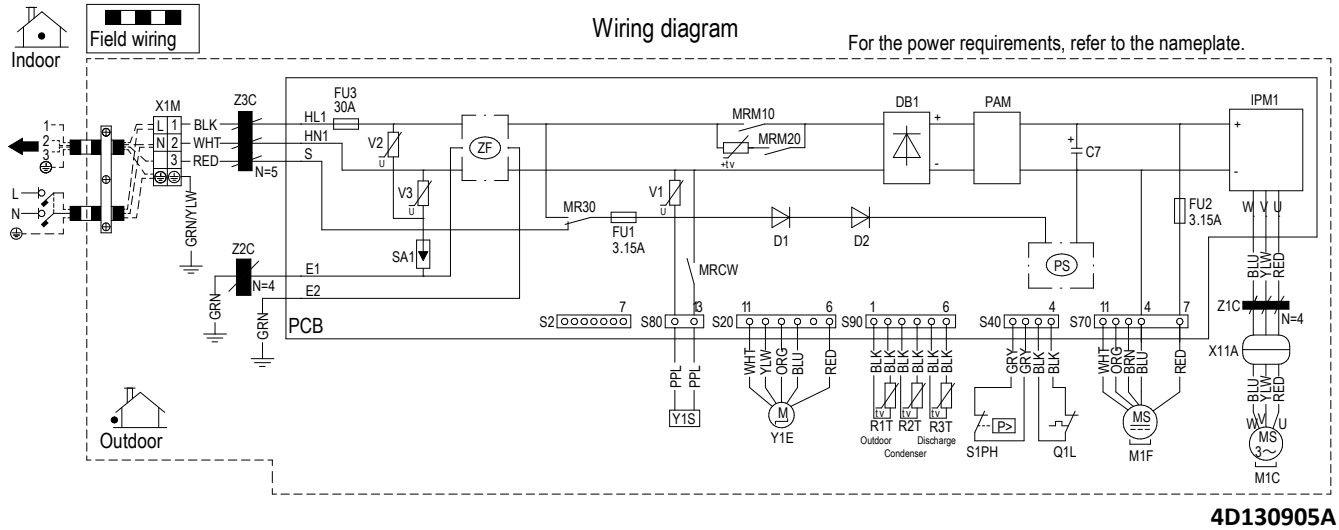
RXJ42+50A

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.

Wiring diagram

For the power requirements, refer to the nameplate.



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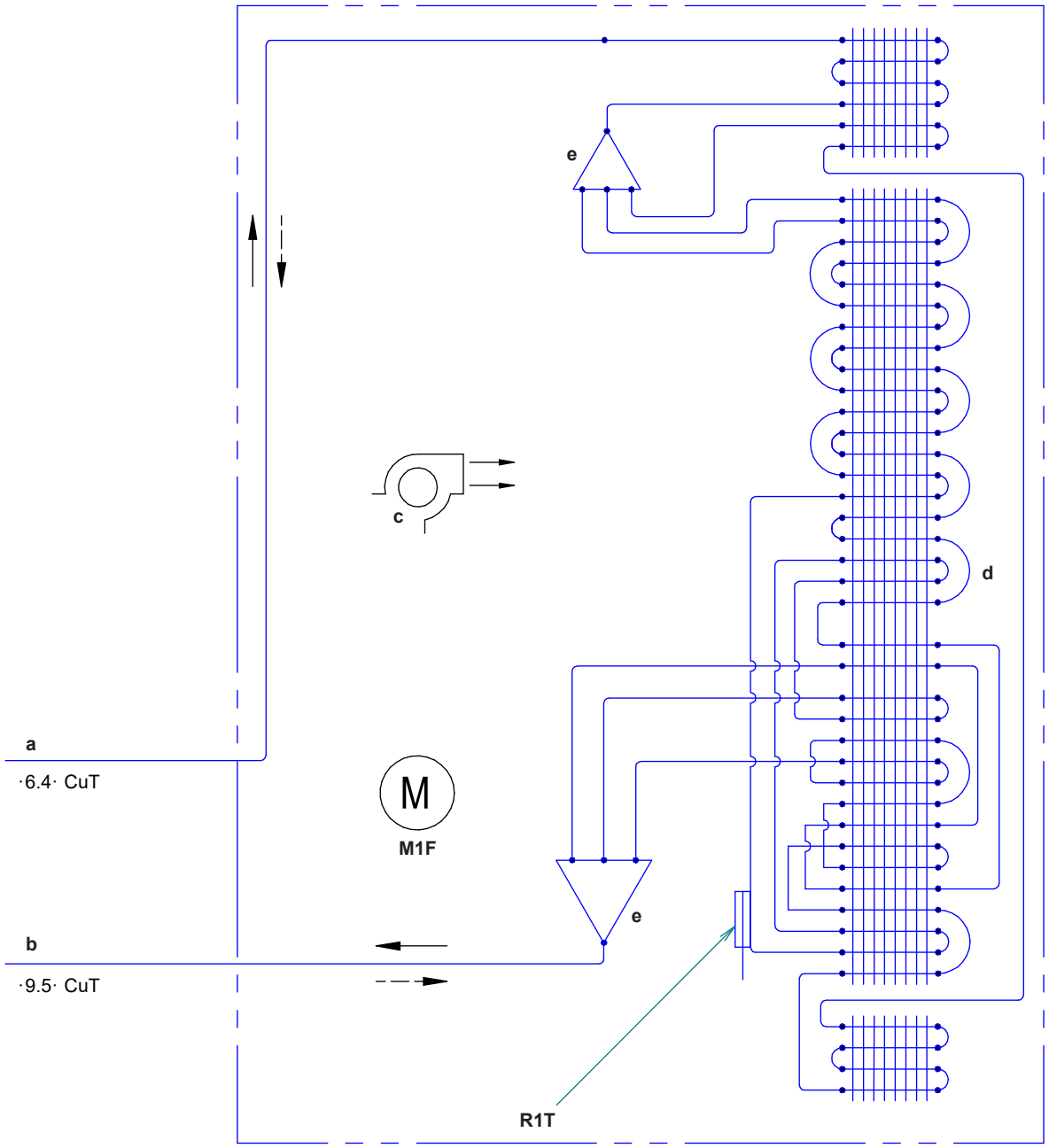
7.3 Piping diagram

7.3.1 Piping diagram: Indoor unit

FTXJ20~35A

> **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.

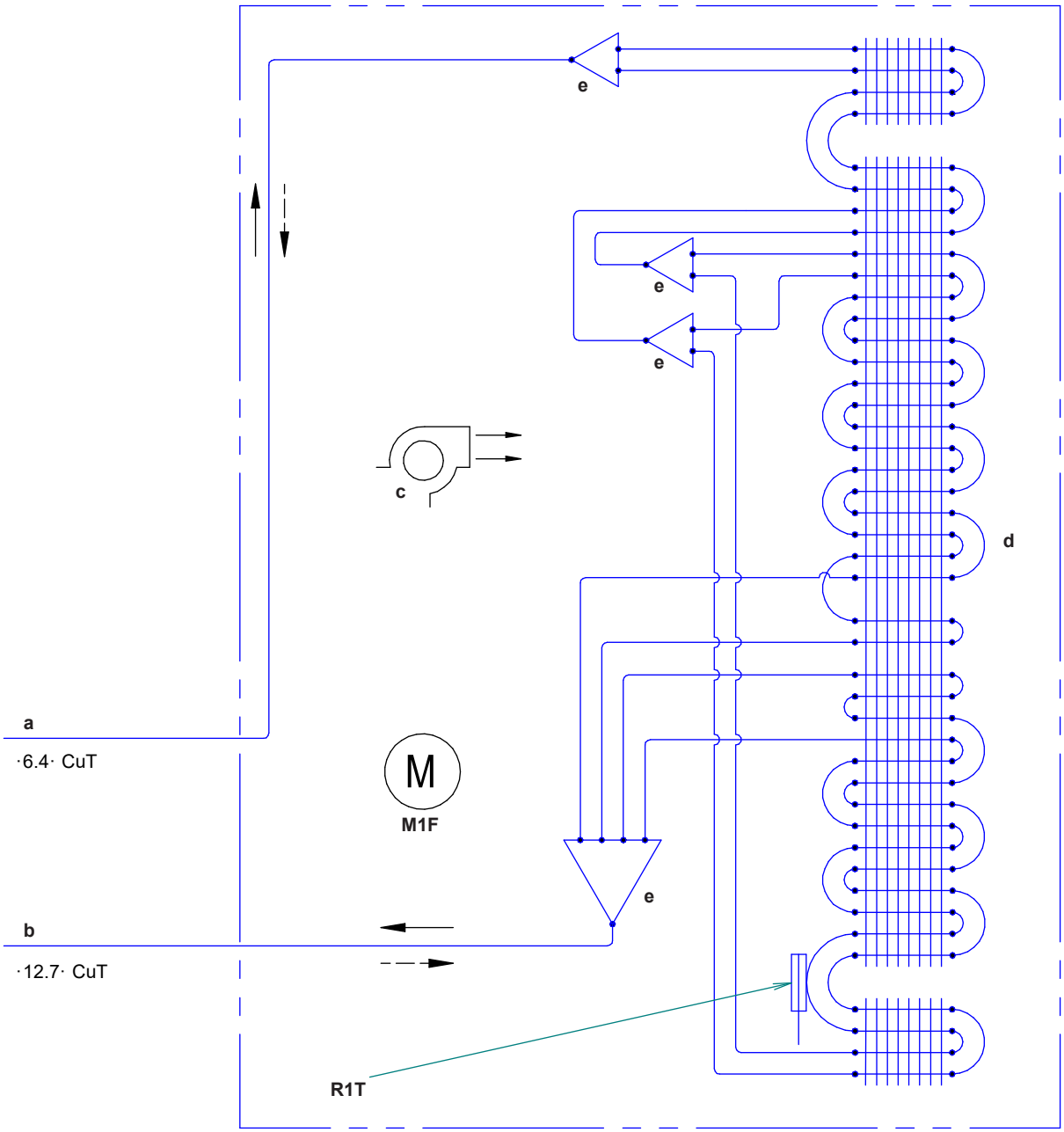


a Field piping (liquid: Ø6.4 mm flare connection)
b Field piping (gas: Ø9.5 mm flare connection)
c Crossflow fan
d Heat exchanger
e Distributor
M1F Fan motor
R1T Thermistor (heat exchanger)
--► Heating
—► Cooling

FTXJ42+50A

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.

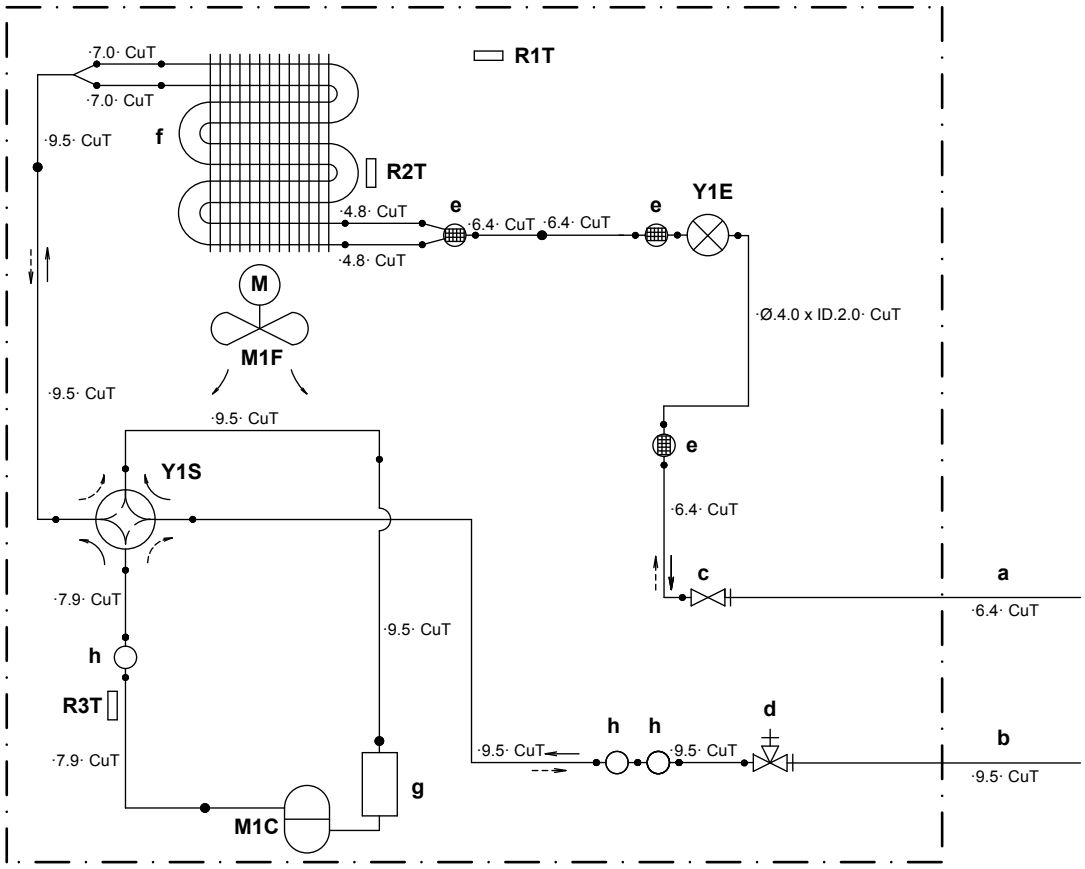


a Field piping (liquid: Ø6.4 mm flare connection)
b Field piping (gas: Ø9.5 mm flare connection)
c Crossflow fan
d Heat exchanger
e Distributor
M1F Fan motor
R1T Thermistor (heat exchanger)
--► Heating
—► Cooling

7.3.2 Piping diagram: Outdoor unit

RXJ20~35A

> **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.



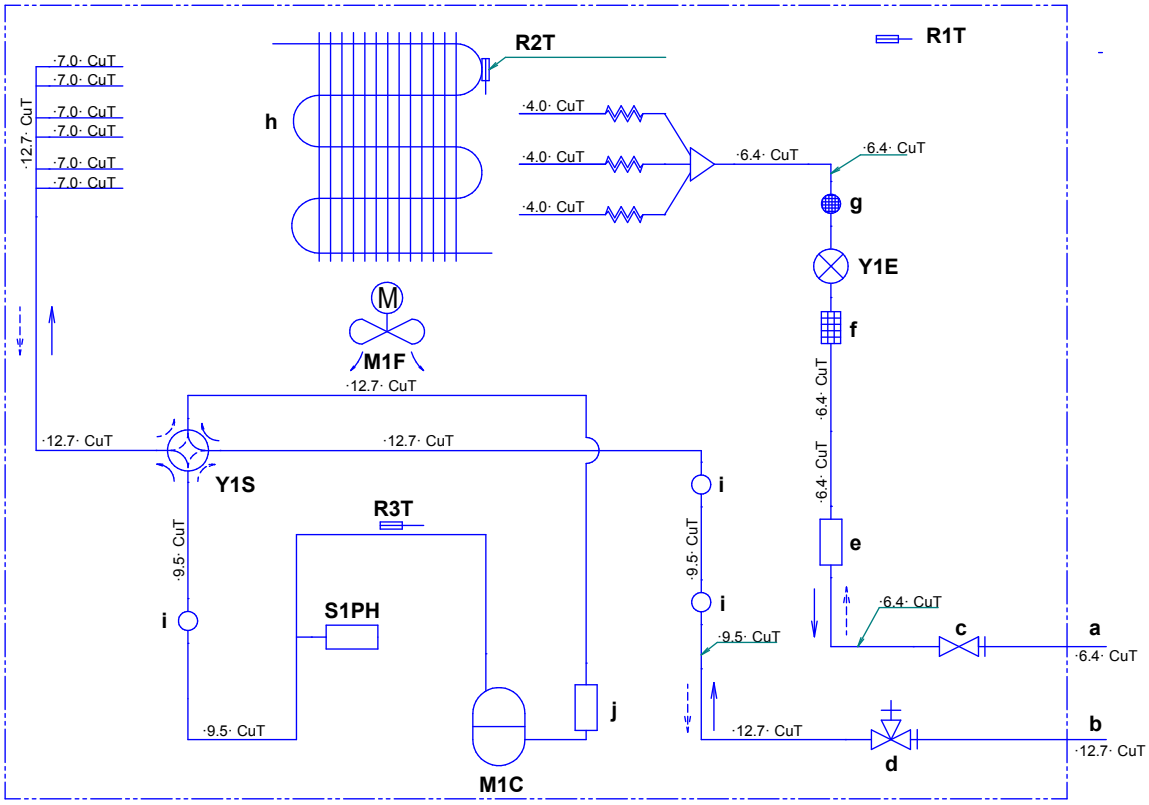
a Field piping (liquid: Ø6.4 mm flare connection)
b Field piping (gas: Ø9.5 mm flare connection)
c Liquid stop valve
d Gas stop valve
e Muffler with filter
f Heat exchanger
g Accumulator
h Muffler

M1C Compressor
M1F Fan
R1T Thermistor (outdoor air)
R2T Thermistor (heat exchanger)
R3T Thermistor (discharge pipe)
Y1E Electronic expansion valve
Y1S 4-way valve (ON: heating)
——→ Refrigerant flow: cooling
- - -→ Refrigerant flow: heating

RXJ42+50A

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: Ø6.4 mm flare connection)
b	Field piping (gas: Ø12.7 mm flare connection)
c	Liquid stop valve
d	Gas stop valve
e	Liquid receiver
f	Filter
g	Muffler with filter
h	Heat exchanger
i	Muffler
j	Accumulator

M1C	Compressor
M1F	Fan
R1T	Thermistor (outdoor air)
R2T	Thermistor (heat exchanger)
R3T	Thermistor (discharge pipe)
S1PH	High pressure switch
Y1E	Electronic expansion valve
Y1S	4-way valve (ON: heating)
——→	Refrigerant flow: cooling
- - -→	Refrigerant flow: heating

7.4 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):

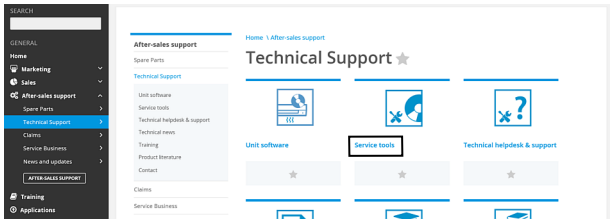
Unit / Installation information	
Model name:	Serial number:
Installation / commissioning date:	Software version hydro PCB A1P
	Software version hydro PCB A5P
Software version user interface:	Software version outdoor PCB:
Minimum water volume:	Maximum water volume:
Brine composition and mixture:	
Brine 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).

7.5 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.



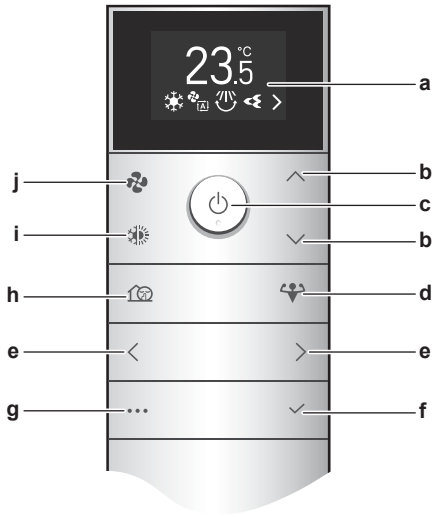
3 Click the button Service tools. An overview of the available service tools for the different products is shown. Also additional information on the service tools (instruction, latest software) can be found here.

7.6 Field settings

7.6.1 Field settings: Indoor unit

To retrieve the field settings

Via the wireless remote controller ARC488A1



a LCD display
b Temperature up/down and menu navigation up/down buttons
c ON/OFF button
d Powerful operation button
e Menu navigation left/right buttons
f Confirm button
g Main menu button
h Outdoor unit silent operation
i Mode selection button (automatic, cooling, heating, dry, fan only)
j Airflow rate setting button

1 Press ··· button.

Result: Main menu is entered.

2 Navigate to the wireless remote control setting menu using < and >.

Wireless remote control setting menu

3 Press ✓ to confirm.

Result: Setting menu is entered.

4 Navigate to the software and version menu using < and >.

Software and version menu

5 Keep ✓ pressed for at least 5 seconds.

Result: Software and version menu is entered.

6 Navigate to the self-diagnosis menu using < and >.

Self-diagnosis menu

7 Keep ✓ pressed for at least 5 seconds.

Result: Self-diagnosis menu is entered.

8 Enter password 5902 using <, >, ^ and ˅.

9 Press ✓ to confirm password.

10 Navigate to the Service menu using < and >.

Service menu

11 Press ✓ to confirm.

Result: Service menu is entered.

12 Navigate to the desired setting mode (indicated by the upper number) using < and >.

Service menu setting

13 Set the setting (indicated by the lower number) as desired using ^ and ˅.

14 Keep ✓ pressed for at least 3 seconds.

Result: Updated settings are saved.

Overview of field settings for indoor units

The overview lists all possible settings for the indoor units. **Bold content is default setting**.

Mode	Description function	Setting	Description selection
3	Suspend (Reduce the standby power consumption)	**0**	**Suspend ON**
		1	Suspend OFF
5	Preheating (pre-heating of compressor by motor)	**0**	**OFF**
		1	ON
6	Cooling room temperature correction	0	Low 2
		1	Low 1
		2	**Standard**
		3	High 1
		4	High 2
7	Heating room temperature correction	0	Low 2
		1	Low 1
		2	**Standard**
		3	High 1
		4	High 2
10	Auto restart after power resume (after shutdown)	0	OFF
		1	**ON**
14	Wind direction towards people during heating (Intelligent Eye)	**0**	**Avoid Human**
		1	Towards Human (heating only)
15	Ceiling airflow setting for Cooling	0	OFF
		1	**ON**
16	Reduce vertical flow (in case of furniture or obstacle)	**0**	**Auto**
		1	Fixed
1E	Room temperature sensor selection	**0**	**Unit**
		1	Wired remote controller
		2	WLAN
21	Cooling or Heating mode lock	**0**	**OFF (heating & cooling)**
		1	Cooling only
		2	Heating only

7.6.2 Field settings: Outdoor unit

To reduce maximum sound levels

If the sound level CANNOT meet the local regulation (e.g. Netherlands), the maximum sound level can be reduced by cutting J5 jumper on the main PCB of the outdoor unit.

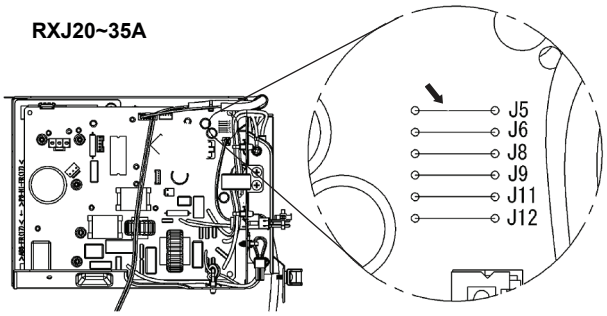
Prerequisite: Stop the unit operation via the user interface.

Prerequisite: Turn OFF the respective circuit breaker.

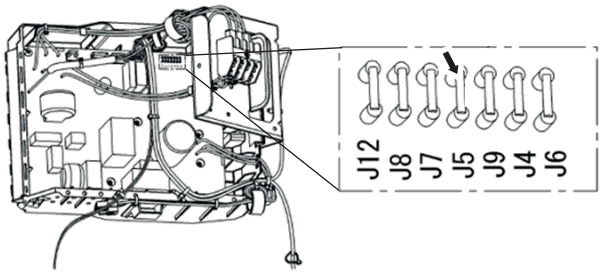
Prerequisite: Remove the required plate work, see "4.1 Plate work" [▸ 48].

1 Cut the J5 jumper on the main PCB of the outdoor unit.

RXJ20~35A



RXJ42+50A



Field setting	Sound level reduction	To be used at …
Cut J5 jumper	1 dB	Day
J5 jumper + ECONO mode activated via remote controller	2 dB[(a)]	Night

[(a)] If this field setting is done, the maximum sound level will be 2 dB lower than the maximum sound level during normal night operation (unit without this field setting and with outdoor unit quiet operation activated). So when this field setting is done on the unit, it is NOT needed to activate the outdoor unit quiet operation to meet the local regulation.

INFORMATION

New setting may affect the performance of the unit.

DAIKIN EUROPE N.V.

Zandvoordestraat 300, B-8400 Oostende, Belgium

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draft – 22/04/2022 08:50