DAIKIN
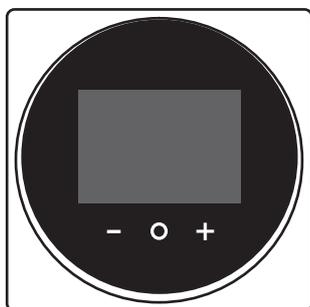
Installation and operation manual

Madoka wired remote controller

Installation and operation manual
Madoka wired remote controller

English

Table of contents

1 General safety precautions

Please read these general safety precautions carefully before installing air conditioning equipment, and be sure to install the equipment correctly.

Failure to follow these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.

Meaning of warnings and symbols

These safety messages are used to attract your attention. The meaning of each safety message is described below:

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

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

⚠️	**DANGER**
	Indicates a situation that results in death or serious injury.

⚠️	**DANGER: RISK OF EXPLOSION**
	Indicates a situation that could result in explosion.

ℹ️	**INFORMATION**
	Indicates useful tips or additional information.

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

1.1 For the user

⚠️	**WARNING**
	To clean the controller, do NOT use organic solvents, such as paint thinner.

⚠️	**WARNING**
	Do NOT use flammable materials (e.g. hairspray or insecticide) near the controller.

⚠️	**WARNING**
	To prevent electric shocks or fire:

- Do NOT operate the controller with wet hands.
- Do NOT disassemble the controller and touch interior parts. Contact your dealer.
- Do NOT modify or repair the controller. Contact your dealer.
- Do NOT relocate or reinstall the controller by yourself. Contact your dealer.

⚠️ **WARNING**

Do NOT play with the unit or its remote controller. Accidental operation by a child may result in impairment of bodily functions and harm health.

1.2 For the installer

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

ℹ️ **INFORMATION**

This controller is an option and cannot be used standalone. Also see the installation and operation manual of the indoor and outdoor units.

⚠️ **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**

All field wiring and components MUST be installed by a licensed electrician and MUST comply with the applicable legislation.

🛇 **NOTICE**

The remote controller MUST be mounted indoors.

🛇 **NOTICE**

When the controller is used as room thermostat, select an installation location where the average temperature in the room can be detected.

Do NOT install the controller in the following places:

- In places where it is exposed to direct sunlight.
- In places where it is near a heat source.
- In places that are affected by outside air or air draught due to e.g. door opening/closing.
- In places where the display can easily get dirty.
- In places where there is NO easy access to the controls.
- In places with temperatures <–10°C and >50°C.
- In places where the relative humidity is >95%.
- In places where there is machinery that emits electromagnetic waves. Electromagnetic waves may disturb the control system, and cause malfunction of the equipment.
- In places where it may be exposed to water, or in generally moist areas.

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

After finishing installation:

- Conduct a trial operation to check for faults.
- Explain the user how to operate the controller.
- Ask the user to store the manual for future reference.

ℹ️ **INFORMATION**

Consult your dealer regarding the relocation and reinstallation of the controller.

2 About this document

Target audience

Authorised installers + end users

Documentation set

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

- **Installation and operation manual:**
  - Installation instructions
  - Basic operation instructions
- **Installer and user reference guide:**
  - Extended installation and operation information
- **Declaration of conformity:**

ℹ️ **INFORMATION: Declaration of conformity**

Hereby, Daikin Europe N.V. declares that the radio equipment type BRC1H is in compliance with the Directive 2014/53/EU. The original declaration of conformity is available from the BRC1H product pages.

The documentation set is available from the BRC1H product pages:

- BRC1H52W: https://qr.daikin.eu/?N=BRC1H52W

- BRC1H52K: https://qr.daikin.eu/?N=BRC1H52K

- BRC1H52S: https://qr.daikin.eu/?N=BRC1H52S

ℹ️ **INFORMATION: Madoka Assistant in-app documentation**

The controller only allows for basic settings and operation. Advanced settings and operation are performed via the Madoka Assistant app. For more information, see the app and its in-app documentation. The Madoka Assistant app is available from Google Play and the Apple Store.

Latest revisions of the supplied documentation may be available on the regional Daikin website or via your dealer.

The original documentation is written in English. All other languages are translations.

For the user
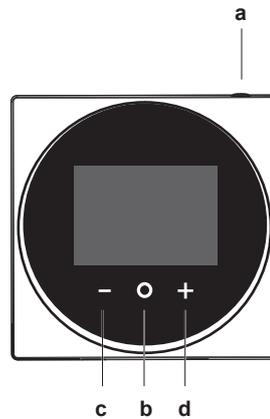
3 Remote controller: Overview

3.1 About the controller

Depending on configuration, the controller is operable in either one of three modes. Each mode offers different controller functionality.

Mode	Functionality
Normal	The controller is fully functional.
	All functionality described under "4 Operation" [▶ 5] is available.
	The controller can be a master or a slave controller.
Alarm only	The controller only acts as leak detection alarm for a single indoor unit.
	No functionality described under "4 Operation" [▶ 5] is available.
	For information on the leak detection alarm, see "6.2 Refrigerant leak detection" [▶ 8].
	The controller can be a master or a slave controller.
Supervisor	The controller only acts as leak detection alarm for the whole system, i.e. multiple indoor units and their respective controllers. This mode is intended for a controller that is to be used in a supervision location, e.g. the reception desk of a hotel.
	No functionality described under "4 Operation" [▶ 5] is available.
	For information on the leak detection alarm, see "6.2 Refrigerant leak detection" [▶ 8].
	The controller can only be a slave controller.

3.2 Buttons

a

c   b   d

a ⏻ ON/OFF
- When OFF, press to turn ON the system.
- When ON, press to turn OFF the system.

b ⊙ ENTER/ACTIVATE /SET
- From the home screen, enter the main menu.
- From the main menu, enter one of the submenus.
- From their respective submenu, activate an operation/ ventilation mode.
- In one of the submenus, confirm a setting.

c ⊟ CYCLE/ADJUST
- Cycle left.
- Adjust a setting (default: decrease).

d ⊞ CYCLE/ADJUST
- Cycle right.
- Adjust a setting (default: increase).

3.3 Status icons

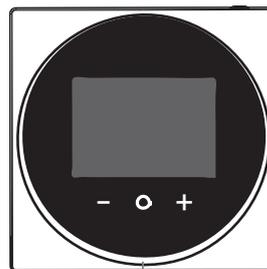| Icon	Description
ON	**System operation ON.** Indicates that the system is in operation.
OFF	**System operation OFF.** Indicates that the system is NOT in operation.
✴	**Bluetooth.**[1] Indicates that the controller is communicating with a mobile device, for use with the Madoka Assistant app.
🔒	**Lock.** Indicates that a function or operation mode is locked and therefore cannot be used or selected.
⤓	**Centralised control.** Indicates that the system is controlled by central control equipment (optional accessory) and that control of the system by the controller is limited.
	Changeover under centralised control. Indicates that the cooling/heating changeover is under centralised control by another indoor unit, or by an optional cool/ heat selector that is connected to the outdoor unit.
	Defrost/Hot start. Indicates that the defrost/hot start mode is active.

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[1] The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and use of such marks by Daikin Europe N.V. is under license. Other trademarks and trade names are those of their respective owners.

Icon	Description
(clock icon)	**Schedule/Timer.** Indicates that the system operates according to a schedule, or that the OFF timer is enabled.
(crossed clock icon)	**Time not set**. Indicates that controller's time is not set.
(filter icon)	**Self-cleaning filter operation.** Indicates that self-cleaning filter operation is active.
(arrow icon)	**Quick Start.** Indicates that Quick Start mode is active (Sky Air only).
(T icon)	**Test operation.** Indicates that Test Operation mode is active (Sky Air only).
(eye icon)	**Inspection**. Indicates that the indoor or outdoor unit is being inspected.
(clock eye icon)	**Periodic inspection.** Indicates that the indoor or outdoor unit is being inspected.
(cross icon)	**Backup.** Indicates that in the system an indoor unit is set as backup indoor unit.
(airflow icon)	**Individual airflow direction**. Indicates that the individual airflow direction setting is enabled.
(i icon)	**Information.** Indicates that the system has a message to convey. To see the message, go to the information screen.
(warning icon)	**Warning.** Indicates that an error occurred, or that an indoor unit component needs to be maintained.
(S icon)	**Power consumption limit.** Indicates that the system's power consumption is being limited, and that it is running with restricted capacity.
(crossed S icon)	**End of power consumption limit.** Indicates that the system's power consumption is no longer being limited, and that it is no longer running with restricted capacity.
(rotation icon)	**Rotation.** Indicates that Rotation mode is active.
(setback icon)	**Setback**. Indicates that the indoor unit is operating under setback conditions.
(ventilation icon)	**Ventilation**. Indicates that a heat reclaim ventilation unit is connected.

INFORMATION

- For information on the operation mode and ventilation mode icons, see "4.2 Operation mode" [▸ 6] and "4.6.1 Ventilation mode" [▸ 7] respectively.

- Most icons are related to things set in the Madoka Assistant app. For more information, see the app, and the installer and user reference guide.

3.4 Status indicator

a Status indicator

INFORMATION

For a full description of the behaviour of the status indicator, see the installer and user reference guide.

4 Operation

4.1 Basic usage

4.1.1 Home screen

Depending on configuration, the controller either has a standard or a detailed home screen. In most cases, the standard home screen gives you only the active operation mode, messages (if any), and the setpoint temperature (in case of Cooling, Heating, or Auto operation mode).The detailed home screen gives you all kinds of information through status icons.

Standard	Detailed

a Messages
b Active operation mode
c Setpoint temperature

When the Home screen mode is Detailed, it is possible to either visualise the indoor temperature or the CO_2 concentration value as measured by a unit equipped with a CO_2 sensor. For more information, see the installer and user reference guide.

Indoor temperature	CO_2 concentration value

INFORMATION

The controller is equipped with a power saving function that causes the screen to go blank after a period of inactivity. To make the screen light up again, press any button.

4.1.2 Main menu

From the home screen, press ⊙ to enter the main menu. Use ▬ and ✚ to cycle through the menus. Press ⊙ again to enter one of the menus.

ℹ️ **INFORMATION**

▪ Depending on the type of indoor unit you are operating, more or less menus may be available.

▪ In the main menu, the icon for each menu reflects the current active setting or mode. When operating the controller, the menu you navigate through can look different from that represented in this manual.

▪ The controller only allows for basic operation of the system. For advanced operation (setback, schedule timer, …), see the Madoka Assistant app.

4.2 Operation mode

The indoor unit can operate in various operation modes.

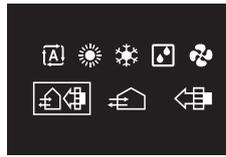| Icon	Operation mode
❄️	**Cooling.** In this mode, cooling will be activated as required by the setpoint, or by Setback operation.
☀️	**Heating**. In this mode, heating will be activated as required by the setpoint, or by Setback operation.
✿	**Fan Only**. In this mode, air circulates without heating or cooling.
💧	**Dry**. In this mode, the air humidity will be lowered with a minimal temperature decrease. The temperature and fan speed are controlled automatically and cannot be controlled by the controller. Dry operation will not function if the room temperature is too low.
🏠	**Ventilation.**In this mode, the space gets ventilated, but not cooled or heated.
⬅	**Air Clean**. In this mode, the optional air cleaning unit operates.
🏠⬅	**Ventilation + Air Clean.** Combination of ventilation and air clean operation.
A☀️ A❄️	**Auto.** In Auto mode, the indoor unit automatically switches between heating and cooling mode, as required by the setpoint.

ℹ️ **INFORMATION**

Depending on the indoor unit, more or less operation modes are available.

4.2.1 To set the operation mode

1 Navigate to the operation mode menu.

2 Use ▬ and ✚ to select an operation mode.

3 Press ⊙ to activate.

Result: The indoor unit changes its operation mode and the controller returns to the home screen.

4.3 Setpoint

The setpoint is the target temperature for the Cooling, Heating, and Auto operation modes.

4.3.1 To set the setpoint

Prerequisite: The active operation mode is either 'Cooling', 'Heating', or 'Auto'.

1 In the home screen, use ▬ and ✚ to adjust the setpoint.

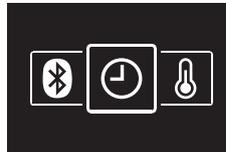
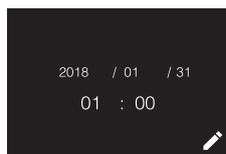**Result:** The indoor unit changes its temperature setpoint.

4.4 Date and time

Set the date and time for the indoor units connected to the controller.

4.4.1 To set date and time

1 Navigate to the date and time menu.

2 Press ✚ to activate 🖉.

Result: The fields become editable.

3 Set the date and time. Set with ▬ and ✚. Confirm with ⊙. Cycle through the menu until all fields are set correctly.

Result: You set the date and the time.

ℹ️ **INFORMATION**

Confirming the value in a field will automatically bring you to the next field. To finish making settings and leave the menu, navigate to and confirm the value in the last field.

4.5 Airflow

4.5.1 Airflow direction

The airflow direction is the direction in which the indoor unit blows its air.

> **ℹ️ INFORMATION**
>
> For more information, see the installer and user reference guide.

To set the airflow direction

1 Navigate to the airflow direction menu.

2 Use ▬ and ➕ to adjust the airflow direction.

3 Press ⭕ to confirm.

Result: The indoor unit changes its airflow direction and the controller returns to the home screen.

4.5.2 Fan speed

The fan speed is the strength of the airflow coming out of the indoor unit.

> **ℹ️ INFORMATION**
>
> For more information, see the installer and user reference guide.

To set the fan speed

1 Navigate to the fan speed menu.

2 Use ▬ and ➕ to adjust the fan speed.

3 Press ⭕ to confirm.

Result: The indoor unit changes its fan speed and the controller returns to the home screen.

4.6 Ventilation

> **ℹ️ INFORMATION**
>
> Ventilation settings can ONLY be made for heat reclaim ventilation units.

4.6.1 Ventilation mode

The heat reclaim ventilation unit can operate in various operation modes.

Icon	Ventilation mode
	Energy Reclaim Ventilation. The outdoor air is supplied to the room after passing through a heat exchanger.
	Bypass. The outdoor air is supplied to the room without passing through a heat exchanger.
	Auto. To ventilate the room in the most efficient way, the heat reclaim ventilation unit automatically switches between "Bypass" and "Energy Reclaim Ventilation" mode (based on internal calculations).

> **ℹ️ INFORMATION**
>
> Depending on the heat reclaim ventilation unit, more or less ventilation modes are available.

To set the ventilation mode

1 Navigate to the ventilation mode menu.

2 Use ▬ and ➕ to select a ventilation mode.

3 Press ⭕ to activate.

Result: The heat reclaim ventilation unit changes its operation mode and the controller returns to the home screen.
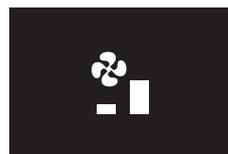
4.6.2 Ventilation rate

The ventilation rate is the fan speed during ventilation operation.

To set the ventilation rate

1 Navigate to the ventilation rate menu.

2 Use ▬ and ➕ to adjust the ventilation rate.

3 Press ⭕ to confirm.

Result: The heat reclaim ventilation unit changes its ventilation rate and the controller returns to the home screen.

4.7 Advanced usage

The controller only allows for basic operation. For advanced operation, use the Madoka Assistant app.

ℹ INFORMATION

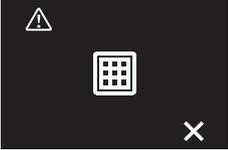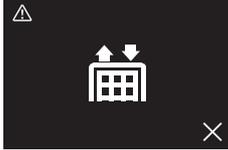For more information, see the installer and user reference guide.

5 Maintenance and service

5.1 Overview: Maintenance and service

When a system components needs maintenance or service, consult your dealer. To indicate that maintenance is due, the controller displays ⚠ on the home screen, and/or displays a warning screen as soon as you press ⬤ to enter the main menu from the home screen.
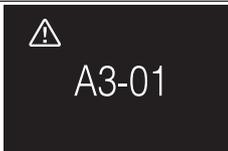
The following warning screens are related to indoor unit maintenance:

Clean the indoor unit filter	Replace the indoor unit filter
⚠ ▦ ✕	⚠ ▥ ✕
Empty the indoor unit dustbox	—
⚠ 🗑 ✕	

6 Troubleshooting

6.1 Overview: Troubleshooting

When the system is in error, consult your dealer. To indicate system error, the controller displays ⚠ on the home screen, and/or displays an error screen as soon as you press ⬤ to enter the main menu from the home screen.

Error screen (example)
⚠ A3-01

ℹ INFORMATION

If the controller is set to be operable in "Supervisor" mode, then the controller adds the "supervised room address" of the faulty indoor unit to the error screen. In "Supervisor" mode, it is mandatory to set a unique "supervised room address" for every indoor unit. The "supervised room address" can be set in the Madoka Assistant app. Note that in case of multiple leakages, only the address of the first faulty unit rising the error is displayed.

⚠ 1234 CH-02

For more information about the modes the controller can be set to be operable in, see .

6.2 Refrigerant leak detection

When the system detects a refrigerant leak, an alarm goes off. Stop the alarm and consult your dealer.

ℹ INFORMATION

▪ It is possible to stop the leak detection alarm from the controller and from the app. For more information about the app, see the installer and user reference guide.

▪ Depending on the mode the controller is set to be operable in, the refrigerant leak detection screen can have more or less information. For more information, see the installer and user reference guide.

6.2.1 To stop the leak detection alarm

A0-11
Unit 00
⚠ 🗏 3s

1 Press ➕ for 3 seconds to stop the alarm.

Result: The alarm stops.

A0-11
Unit 00
⚠ 🗏 3s

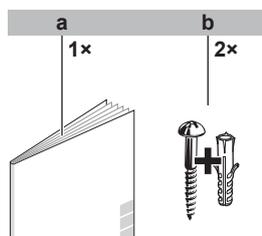2 Consult your dealer.

ℹ INFORMATION

In case the controller is set to be operable in 'Supervisor' mode, the controller will indicate the supervised room address of the indoor unit for which the leak detection alarm occurs. However, it is not possible to stop the alarm of the indoor unit controller (set to be operable in either "Normal" or "Alarm only" mode) from the controller in "Supervisor" mode. The alarm of the controller connected to the indoor unit with the leak has to be stopped individually.
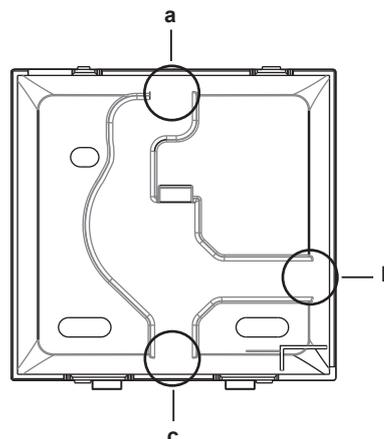
For the installer

7 About the box

7.1 To unpack the controller

1 Open the box.

2 Separate the accessories.

a Installation and operation manual
b Wood screws + wall plugs (Ø4.0×30)

8 Preparation

8.1 Wiring requirements

All wiring must comply with the following requirements:

Wire specification	Value
Type	Sheathed vinyl cord or cable (2 wires)
Section	0.75~1.25 mm^2
Maximum length	500 m

9 Installation

NOTICE

During the installation of the controller, keep the installation environment dust-free in order to avoid any particles entering the PCB side of the controller.
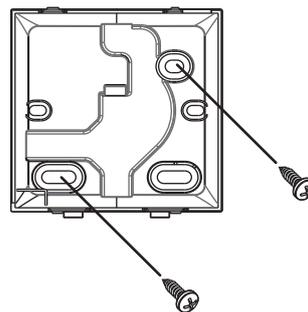
9.1 Mounting the controller

Before you can mount the controller, you have to determine the wiring routing, and accordingly, remove a piece of the controller's rear casing.

The wiring can be routed from the top, the rear, the left, or the bottom. Remove a piece of the rear casing according to the illustration:
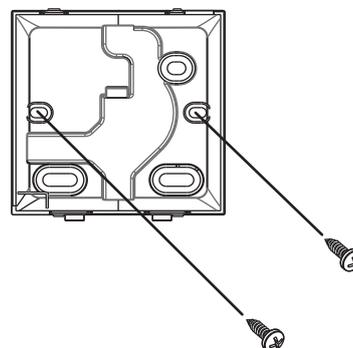

a Wiring from the top
b Wiring from the left
c Wiring from the bottom

In case you are routing the wiring from the rear, you do not have to remove anything.

9.1.1 To mount the controller

1 Take the screws and plugs from the accessory bag.

2 Mount the rear casing to a flat surface.

INFORMATION

If required (e.g. when mounting to a flush-mounted electrical installation box), mount the rear casing by way of the knockout holes.

NOTICE

When mounting the rear casing to a flush-mounted electrical installation box inside a wall, make sure that that wall is completely flat.

> **NOTICE**
>
> Be careful not to distort the rear casing by overtightening the mounting screws.

9.2 Connecting the electrical wiring

> **NOTICE**
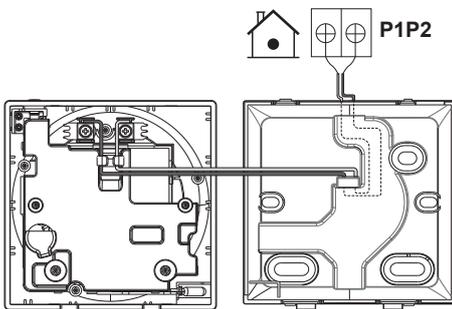>
> The wiring for connection is NOT included.

> **NOTICE**
>
> When wiring, run the wiring away from the power supply wiring in order to avoid receiving electric noise (external noise).
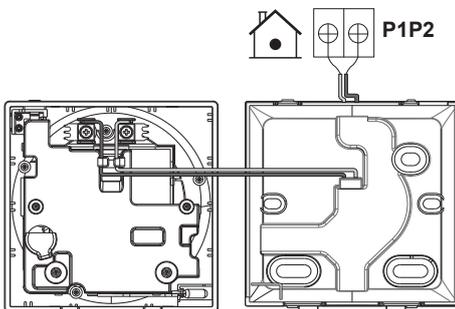
9.2.1 To connect the electrical wiring

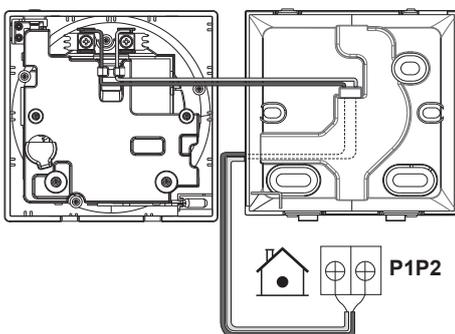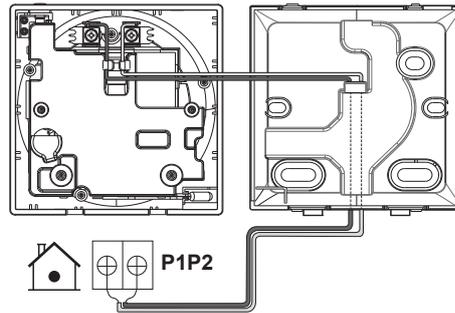Connect controller terminals P1/P2 to indoor unit terminals P1/P2.

From the top

From the rear

From the left

From the bottom

9.3 Closing the controller

> **CAUTION**
>
> NEVER touch the internal parts of the controller.
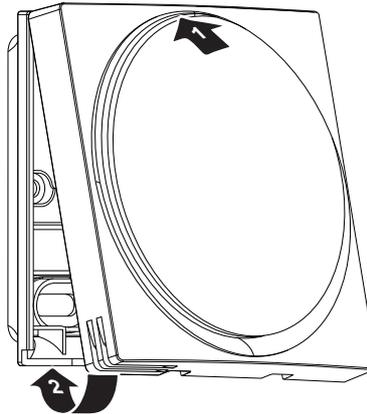
> **CAUTION**
>
> When closing the controller, be careful not to pinch the wiring.

> **NOTICE**
>
> To prevent damage, make sure the front of the controller is clicked into the rear casing securely.

9.3.1 To close the controller

1 Click the front of the controller into the rear casing.

10 Starting up the system

The controller gets its power from the indoor unit. It will start up as soon as it is connected. For the controller to be operable, make sure the indoor unit is powered on.

Once the controller is powered, it will automatically start up. If it is the first and only controller that is connected to the indoor unit, it will automatically get designated as a "Normal" master controller.

> **INFORMATION**
>
> For more information on how to designate the controller to be of a different type (i.e. operable in "Normal", "Alarm only", or "Supervisor" mode, as master controller or as slave controller), see the installer and user reference guide.

11 Maintenance

11.1 Maintenance safety precautions

⚠ **WARNING**

Before carrying out any maintenance or repair activities, stop system operation with the controller, and turn off the power supply circuit breaker. **Possible consequence:** electrical shock or injury.

🛈 **NOTICE**

To clean the controller, do NOT use organic solvents, such as paint thinner. **Possible consequence:** damage, electrical shock, or fire.

⚠ **WARNING**

Do NOT wash the remote controller. **Possible consequence:** electric leakage, electrical shock, or fire.

ℹ **INFORMATION**

When the dirt on the surface cannot be removed easily while cleaning the controller, soak the cloth in neutral detergent diluted with water, squeeze the cloth tightly, and clean the surface. Afterwards, wipe dry with a dry cloth.
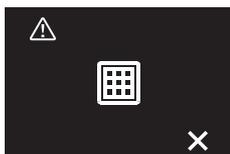
11.2 To clean the controller

1 Wipe the screen and other surface parts of the controller with a dry cloth.

11.3 Time to clean filter indication

When the indoor unit filter is dirty and needs to be cleaned, the controller will indicate this by displaying ⚠ in the top left corner of the home screen, and confronting you with the 'Time to clean filter' screen as soon as you try to enter the main menu from the home screen.

11.3.1 To remove the Time to clean filter indication

Prerequisite: On trying to enter the main menu from the home screen, you are confronted with the 'Time to clean filter' screen.

1 Clean the filter.

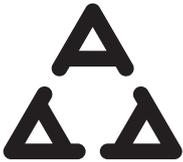2 Press ➕ to remove the 'Time to clean filter' indication.

ЕАС

UA. TR. 028

TA-2017/3281

I C A S A

APPROVED

И005 18

| Numéro d'agrément: | MR 15844 ANRT 2018 |
| Date d'agrément: | 16/02/2018 |

| Maximum Voltage: | DC 17.6 V |
| Power Consumption: | Max 1.94 VA |

OMAN - TRA
TRA-TA-R/5107/18
D100428

TRC/LPD/2018/60

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Zandvoordestraat 300, B-8400 Oostende, Belgium

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