



ER-A
ER-AK NFC
ER-AH NFC
ER-AB NFC



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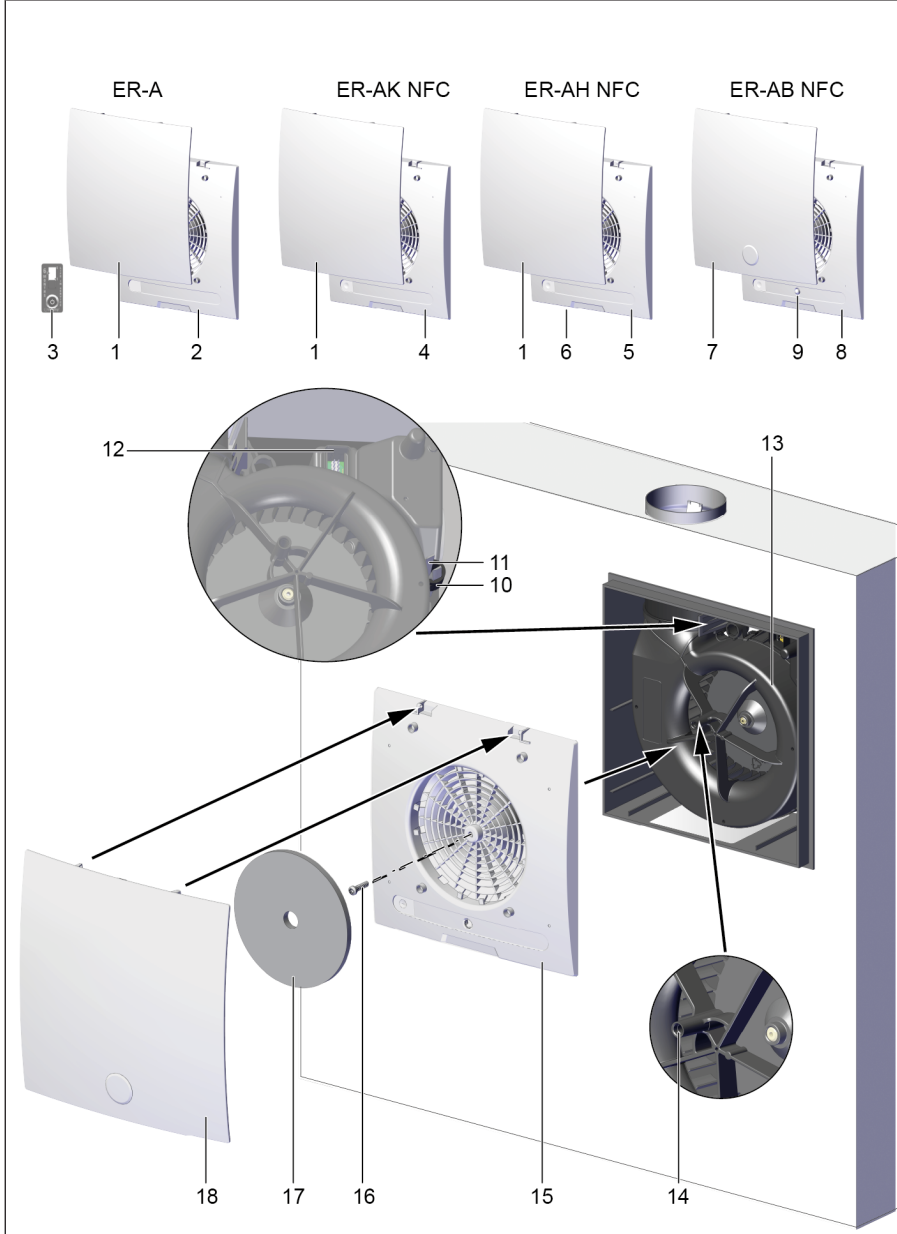


Covers for ER EC flush-/surface-mounted exhaust air systems
(according DIN 18017-3)

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System overview



ER-A standard cover:

1	Cover – upper part	2	Cover – lower part
3	Timestrip (→ Title page)		

ER-AK NFC comfort cover

1	Cover – upper part	4	Cover – lower part with NFC interface
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ER-AH NFC cover with humidity control

1	Cover – upper part	5	Cover – lower part with NFC interface
6	Humidity sensor (rear side cover)		

Cover with ER-AB NFC motion detector

7	Cover – upper part	8	Cover – lower part with NFC interface
9	Motion sensor		

Overview figure

10	Accommodation mounts (3 pieces)	11	Locking hook (3 pieces)
12	Sealing plugs – motor board interface (ER-AK NFC, ER-AH NFC, ER-AB NFC)	13	Fan insert with rating plate
14	Hole for central screw	15	Lower part of cover (2, 4, 5, or 8)
16	Central screw, self-tapping	17	Air filter
18	Upper part of cover (1 or 7)		

Preface

Please read the instructions carefully before installing and using for the first time. Follow the instructions. Pass these instructions on to the owner for safekeeping.

1 Scope of delivery

- Central screw
- Air filter
- Installation and operating instructions

ER-A

Article no. **0084.0361**

- Standard cover: Lower and upper part of cover
- Time strip on title page of these instructions

ER-AK NFC

Article no. **0084.0460**

- Comfort cover: Lower and upper part of cover

ER-AH NFC

Article no. **0084.0461**

- Cover with humidity control
- Lower and upper part of cover

ER-AB NFC

Article no. **0084.0462**

- Cover with motion detector
- Lower and upper part of cover

i For accessory components with more detailed information and order numbers: System and accessory components [► 21]

2 Specialist installer qualifications

Installation may only be carried out by **trained specialists** who have the necessary knowledge and experience in **ventilation engineering**. The unit must be connected in accordance with the national technical approval.

Only a **qualified electrician** is permitted to work on the electrics. You are deemed a qualified electrician if you are familiar with the relevant standards and guidelines, can competently and safely connect units to an electrical power supply in line with the Wiring diagrams and are able to recognise and avoid risks and dangers associated with electricity on the basis of your technical training and experience.

3 Intended use

ER EC/ER EC 2.1 fans are used to extract air from interior bathrooms and toilet rooms, storage rooms or open-plan kitchens (with outside windows), for example in multi-storey residential buildings, retirement homes or hotel complexes. Installation in a ventilation shaft, in the wall, front wall or a suspended ceiling is permissible.

The fans can be used as standalone units or for toilet seat air extraction (according to DIN 18017-3).

The fans are only intended for domestic use and similar purposes.

4 Safety instructions and warnings

⚠ DANGER

Indicates a possibly hazardous situation which will result in death or serious injuries if not avoided.

WARNING

Indicates a possibly hazardous situation which could result in death or serious injuries if not avoided.

CAUTION

Indicates a possibly hazardous situation, which could result in minor to moderate injuries.

NOTICE

Indicates a possible situation, which could cause damage to the product or its surroundings.

4.1 General safety instructions

The unit must not be used in the following situations under any circumstances:

DANGER Risk of combustion/fire from flammable materials, liquids or gases in the vicinity of the unit.

Do not place any flammable materials, liquids or gases near the unit, which may ignite in the event of heat or sparks and catch fire.

DANGER Explosion hazard due to gases and dust.

Explosive gases and dust may ignite and cause serious explosions or fire.

Never use unit in an explosive atmosphere (risk of explosion).

DANGER Explosion hazard due to explosive substances in the lab extraction units.

Explosive substances in lab extraction units may ignite and cause serious explosions or fire.

Aggressive substances may damage the unit.

Never use unit in combination with a lab extraction unit.

WARNING Risk to health from chemicals or aggressive gases/vapours.

Chemicals or aggressive gases/vapours may harm health, especially if they are distributed throughout the rooms by the unit.

Never use unit to distribute chemicals or aggressive gases/vapours.

NOTICE Damage to unit due to steam-saturated or greasy air or adhering solid particles.

Steam-saturated or greasy air or solid particles which may adhere to the unit, can soil the unit and reduce the efficiency.

Never use unit to convey these substances.

NOTICE Damage to unit due to grease and oil vapours from range hoods.

Grease and oil vapours from range hoods may contaminate the unit and air ducts and reduce efficiency.

Never use unit to convey these substances.

NOTICE Damage to the unit when continuously conveying steam-saturated air.

Never use unit to convey steam-saturated air

NOTICE Damage to the unit due to imbalance of the impeller when conveying solid particles.

Never use unit to convey solid particles that could adhere to the unit.

NOTICE Unit damage during the construction phase, caused by soiling of the unit and air ducts.

Unit operation is not permitted during the construction phase.

Do not operate unit during the construction phase.

NOTICE Damage to unit in the event of moisture ingress.

IP X5 (protection against water jets).

Never use unit outdoors.

4.2 Safety instructions regarding installation, operation, cleaning and maintenance

The ventilation unit may only be installed, set up, retrofitted, commissioned, cleaned, maintained or repaired by **installers specialised in ventilation technology**. Electrical connection, commissioning, maintenance and repairs may only be carried out by a **qualified electrician** in accordance with DGUV regulation 3, Section 2 (3) and in compliance with the relevant standards (e.g. DIN EN 50110-1) and technical rules. Further provisions of other national laws must be taken into account.

DANGER Risks for children and people with reduced physical, sensory or mental capabilities or a lack of knowledge.

Unit may only be installed, commissioned, cleaned and maintained by persons who can safely recognise and avoid the risks associated with this work.

⚠ DANGER Risk from inadequate load-bearing capacity of the surface/ceiling construction.

Only install ventilation unit on a surface/ceiling construction with an installation/attachment surface with an adequate load-bearing capacity (at least 300 kg/m²).

⚠ DANGER Danger of electric shock from operating the unit when not fully mounted.

Electric components are a potential source of electric shock.

If the unit is open, all off the supply circuits must be switched off (mains fuse off), secured against being accidentally switched back on and a visible warning sign must be attached.

Only operate the unit when it is completely installed.

⚠ DANGER Danger if the relevant regulations for electrical installations are not observed.

Before removing the housing cover or removing the fan insert and before installing the electrics, switch off all supply circuits, switch of mains fuse and secure it against being accidentally switched back on again. Attach a warning sign in a clearly visible place.

Be sure to observe the relevant regulations for electrical installation; e.g. DIN EN 50110-1. In Germany, particularly observe VDE 0100, with the corresponding sections.

Unit may be energized even when at a standstill and may switch on automatically due to sensors (time delay, humidity etc.). Maintenance and fault finding only permissible when carried out by qualified electricians.

The degree of protection stated on the rating plate is only guaranteed if installation is undertaken correctly and if the connecting cable is correctly guided through the stepped grommet (The grommet must completely enclose the cable sheathing). The fan insert must also be engaged and the housing cover installed.

⚠ CAUTION Risk of injury due to sharp edges on sheet metal/break-outs in the housing or in the electronics compartment.

Wear protective gloves. Carefully guide connecting cables into unit. Do not damage cables.

⚠ WARNING Risk of injury and health risk in the event of changes or modifications or if components which are not permitted are used.

The unit may only be operated with original components. Modifications and alterations to units are not permitted and release the manufacturer from any guarantee obligations and liability.

⚠ WARNING Risk to health if filters are not replaced or if there are no air filters.

Heavily soiled or moist air filters can accumulate harmful substances (mould, germs, etc.). This may also happen if the unit is shut down for an extended period. If the air filter is missing, the unit and air ducts become soiled.

Never operate the unit without air filters.

Only use original filters.

Regularly change air filter when a filter change is indicated (LED or TimeStrip).

If the unit has not been used for a long time, always replace the air filters.

⚠ CAUTION Risk to health if unit is not correctly cleaned.

Clean the unit regularly, at least every 2 years.

This is the only way of ensuring that the unit is running hygienically.

⚠ WARNING Risk to health from chemicals or aggressive gases/vapours.

Chemicals or aggressive gases/vapours may harm health, especially if they are distributed throughout the rooms by the unit.

Never use unit to distribute chemicals or aggressive gases/vapours.

⚠ WARNING Risk of injury when working at heights.

Use appropriate climbing aids (ladders).

Stability should be ensured, if necessary have the ladders steadied by a 2nd person.

Ensure that you are standing securely and cannot lose your balance and that there is no one under the unit.

⚠ WARNING Risk of injury and risk to health from parts which may affect the ventilation system which are added or modified at a later date.

Parts (range hood, air-ventilated fireplace etc.) which are added or modified at a later date may result in health risks and operation which is not permitted. Parts may only be added or modified at a later date if system compatibility is established/ensured by a planning office. If using an exhaust air range hood or air-ventilated fireplace, this must be accepted by a regional master chimney sweep.

⚠ WARNING Risk of injury and health risk in the event of changes or modifications or if components which are not permitted are used.

The unit may only be operated with original components. Changes and modifications to the units are not permitted and release the manufacturer from any guarantee obligations and liability, e. g. if the housing is drilled at a point which is not permitted.

⚠ CAUTION Exercise caution when handling packaging materials.

Observe applicable safety and accident prevention requirements.
Store packaging material out of the reach of children (risk of suffocation).

5 System and product information

5.1 Certificates of approval

Certificates of approval on request.

5.2 Covers

i For components of the ER EC-Abdeckungen: System overview.

All covers with exhaust air filter. Trouble-free filter change without tools.

- It is possible to rotate the cover by $\pm 5^\circ$ to compensate for housings which have been fitted at an angle.
- **ER-AH NFC** and **ER-AB NFC** are barrier-free products. In automatic mode, they switch the fan automatically on and off.

ER-A cover

- Standard model
- Air volume 30 m³/h, 60 m³/h

- Filter change indicator via Timestrip (→ title page).

i The Timestrip for the standard cover is visibly attached to a location of your choice (e.g. next to the unit) after the filter change interval has elapsed, it can be disposed of in the domestic waste. Do not affix the Timestrip under the cover. New Timestrips are included in the scope of delivery of the exchange air filter.

ER-AK NFC cover

- Comfort version with time module.
- With operating parameters that can be set. Setting via MAICO@NFC-APP and the NFC interface.
- Airflow volume 30 m³/h, 60 m³/h according to factory setting. Further adjustable airflow: Base load 15-100 m³/h.
- Start delay, run-on time and interval mode can be set.
- Filter change is indicated by LED.

ER-AH NFC cover

- Model with humidity control and time module (like **ER-AK NFC**).
- Barrier-free product. In automatic mode the units switch on automatically when the humidity value limit is exceeded and switch off again after the humidity has been reduced.
- Selectable automatic or manual humidity control.
- Filter change is indicated by LED.

ER-AB NFC cover

- Model with motion detector and time module (like **ER-AK NFC**).
- Barrier-free product. In automatic mode the units switch on automatically without a start delay if motion is detected. If no further motion is detected, the units switch off after 2 minutes plus the overrun time.
- Filter change is indicated by LED.

5.3 Covers: Functions

	ER-A	ER-AK NFC	ER-AH NFC	ER-AB NFC
Parameterisable via Maico@NFC APP		•	•	•
Filter change indicator (6 months) with TimeStrip	•			

	ER-A	ER-AK NFC	ER-AH NFC	ER-AB NFC
Filter change indicator (6 months) with LED		•	•	•
Control with time module		•	•	•
Control with fully automatic humidity control: Air extraction takes place automatically if the switch-on humidity is exceeded.			•	
Control with manual humidity control: Air extraction takes place when humidity switch-on points 1 and 2 are exceeded.			•	
Control with motion detector. Full load level after motion is detected (range motion sensor is 5 m)				•
Barrier-free product, as it switches itself on and off automatically			•	•
Not speed-controllable	•	•	•	•
Electrical plug-in connection for quick connection of the ER EC with ER GH housing and ER-AK NFC , ER-AH NFC or ER-AB NFC with the ER EC/ER EC 2.1 fan insert.		•	•	•
Airflow volume of base load 30 m ³ /h for continuous operation	•*	•*	•*	•*
Airflow volume of the base load and full load levels can be set		•	•	•
Additional airflow volumes that can be set in base load: 15-100 m ³ /h and full load 15-100 m ³ /h		•	•***	•
Full load level on/off via light switch or separate switch. During manual operation (e.g. using light switch), the start delay and run-on time apply.	•	•	•	•

	ER-A	ER-AK NFC	ER-AH NFC	ER-AB NFC
Full load operation (60 m ³ /h) with start delay of 60 seconds and run-on time of 15 minutes, non-adjustable	•*			
Full load operation (60 m ³ /h), start delay can be set with 0–120 seconds in 5-second increments		•	•	•**
Run-on time of the full load level adjustable 0–30 minutes in 1-minute increments		•	•	•
Adjustable interval control for ventilating rooms that are not regularly used. Time interval adjustable 0–24 hours in 1 hour increments, operating time adjustable at intervals.		•	•	•
Operating time adjustable at intervals of 10–60 minutes in 10-minute increments		•	•	•
Interval control can be switched off.		•	•	•
Switching option: The base load can be switched on or off by an additional switch (Electrically connecting the unit).	•	•	•	•

* Factory setting: Tolerance of time details max. ± 5 %

** For the **ER-AB NFC**, the start delay only affects the light switch operation.

*** For **ER-AH NFC** humidity control, 15–40 m³/h can be set for base load and 40–100 m³/h for full load.

6 Technical data

6.1 Environmental conditions and operating limits

- Permissible maximum temperature of air medium + 40 °C.
- The air supply to the home must be set up so that virtually no air can flow into the living areas from the kitchen, bathroom or WC.

6 Technical data

- A room from which the air is to be extracted must be fitted with a non-closable, free supply air cross section of at least 150 cm², e.g. with **MLK** door ventilation grille.
- **ER EC/ER EC 2.1** units have resistance to interference in line with EN 55014-2 (depending on pulse type and an energy component of 1000 to 4000 V). These values can be exceeded when operating with fluorescent tubes. In this case, additional interference suppression measures (L, C or RC modules, protection diodes, varistors) are required.

6.2 Regulations for operation with fireplaces

Sufficient supply air intake must be ensured during operation with **air-ventilated fireplaces**. The maximum permitted pressure difference per residential unit is 4 Pa.

The unit may only be installed in residential units with air-ventilated fireplaces under the following conditions:

- the evaluation criteria drawn up by the responsible, regional master chimney sweep are met;
- Parallel operation of air-ventilated fireplaces for liquid or gaseous fuels and air-extracting equipment can be prevented using safety devices or
- the extraction of exhaust gas from the air-ventilated fireplaces is monitored by special safety devices. The ventilation system or the fireplaces must be switched off if the equipment is triggered.

6.3 Technical data table

Rated voltage	230 V
Power frequency	50 Hz
Power consumption	

ER EC/ER EC 2.1 and ER-A	3/5 W*
ER-AH NFC	2/2.5/3/5/17W*
ER-AK NFC	
ER-AB NFC	
Degree of protection	IP X5
Sound pressure level Lp	17 to 48 dB(A)
Sound power level LWA7	21 to 52 dB(A)
Mains cable to ER EC/ER EC 2.1 , depending on switching variant for:	
ER-A	3 x 1.5 mm ²
ER-AH NFC	or
ER-AK NFC	5 x 1.5 mm ²
ER-AB NFC	
Weight	
Housing	0.6 kg
Fan insert	0.72 kg
Cover	0.6 kg

* Specification according to DIN 18017-3 with an equivalent absorption area of $A_L = 10 \text{ m}^2$

For more technical data → rating plate.

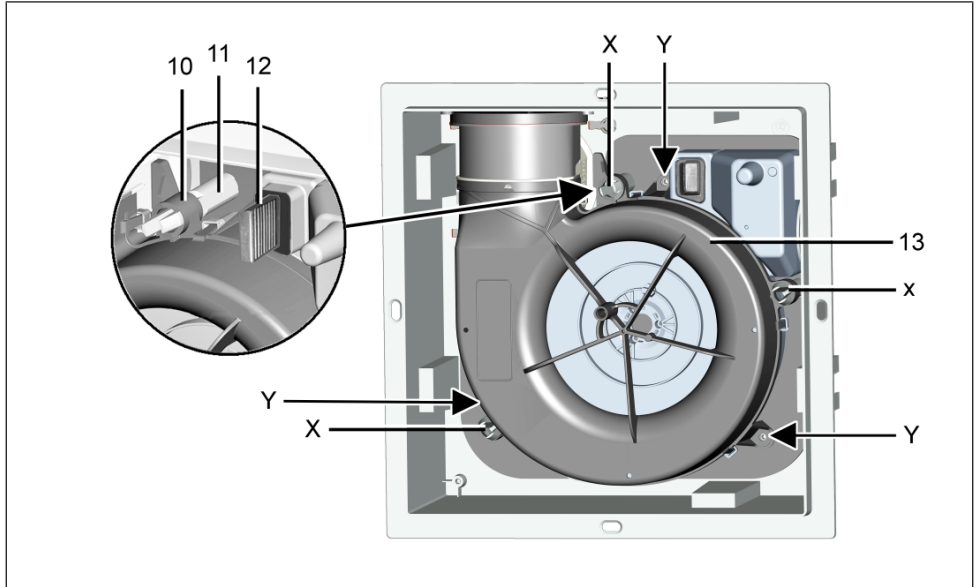
For characteristic curves → www.maico-ventilatoren.com

6.4 Storage

Only store unit horizontally in a suitable, dry room. Ambient temperature – 10 °C to + 60 °C.

Maico Elektroapparate-Fabrik GmbH accepts no liability for corrosion damage caused by improper storage, e.g. storage in a damp environment.

7 Fan insert



10	Accommodation mount
11	Stud with locking hook
12	Sealing plug
13	Fan insert
X	Locking hook
Y	Fixing holes for alternative screw fixings

The fan insert is delivered separately. Installation takes place in the completion stage. **1** **Operation of the unit, during the shell construction phase, is not permissible.**

7.1 Installation of fan insert

1. Before accessing the connection terminals, shut down all supply circuits (switch off mains fuse), secure against being accidentally switched back on and position a visible warning sign.
2. Remove plaster protective cover and clean housing of construction soiling if necessary.
3. Check wiring diagram sticker for correctness of the ticked fan type.
4. Check ease of movement of shutter. When installed, it must close automatically.

5. Check that connection data matches the technical data on the unit (→ rating plate).
6. Slide fan insert/exhaust air element evenly and in parallel onto both studs. Ensure that both locking tabs of the studs and the locking lever engage audibly.
7. Check for firm seating of the fan insert. To do this, gently pull/press on the fan insert. It must not move.

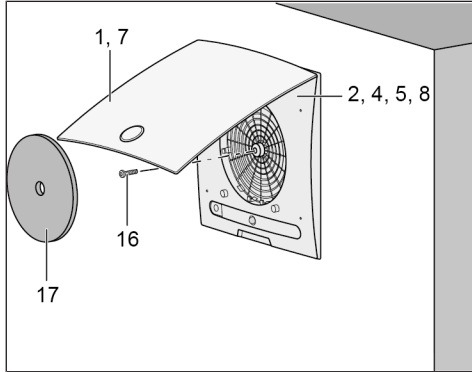
NOTICE Function will be impaired if fan insert is not inserted correctly.

Ensure proper insertion in the locking hooks. If the fan insert is not firmly seated, screw it to the housing at the 3 positions shown in the figure above. Suitable mounting material is to be provided by the customer.

7.2 Commissioning

1. Switch on mains fuse and remove warning sign.
2. Run function test.
3. Check that the unit is running smoothly.
4. During the shell phase, switch off mains fuse, secure against being accidentally switched back on and position a visible warning sign.

7.3 Removing fan insert



1, 7	Cover – upper part
2, 4, 5, 8	Cover – lower part
16	Central screw
17	Air filter

1. Before removing the fan insert, switch off all supply circuits (switch off mains fuse), secure against being accidentally switched back on and position a visible warning sign.
2. Remove the cover. To do so, swivel the upper part of the cover upwards, remove air filter, unscrew the central screw and carefully remove the entire upper part.
3. Press the 3 locking hooks of the stud together and evenly pull the fan insert out of the housing in parallel.

i The degree of protection, according to the rating plate, is only ensured if properly installed (fan insert correctly engaged).

8 Installing the covers

i It is possible to rotate the cover by $\pm 5^\circ$ to compensate for housings which have been fitted at an angle.

1. **ER-AK NFC, ER-AH NFC, ER-AB NFC:** Pull off the sealing plugs from the motor board interface (Fan insert [► 10]).
2. Plug cover's flat cable with plug into interface connector. Ensure correct connection.
3. **ER-A, ER-AK NFC, ER-AH NFC, ER-AB NFC:** Screw cover to the fan insert with the central screw. If installing on a wall, ensure that the **Maico** signature is on the bottom right.

4. Insert air filter and fold down the upper part of the cover (upper part must audibly engage).
5. Run function test: Test all unit functions (run-on time, interval, humidity control etc.).

i For ER-A no setting function. For ER-AH NFC, ER-AK NFC, ER-AB NFC the operating parameters can be changed.

9 Operating the unit

i The factory settings correspond to DIN 18017-3. If the setting parameters are changed during operation with the ER.. NFC cover, standard-compliant operation in accordance with DIN 18017-3 cannot always be guaranteed. The planer/installer is responsible for operation in accordance with standards.

i In the event of overload (blocking), the fan switches off automatically.

ER EC/ER EC 2.1 fans run at 30 m³/h in base load operation (factory setting).

A light switch or separate switch can be used to switch to **full load operation with 60 m³/h**.

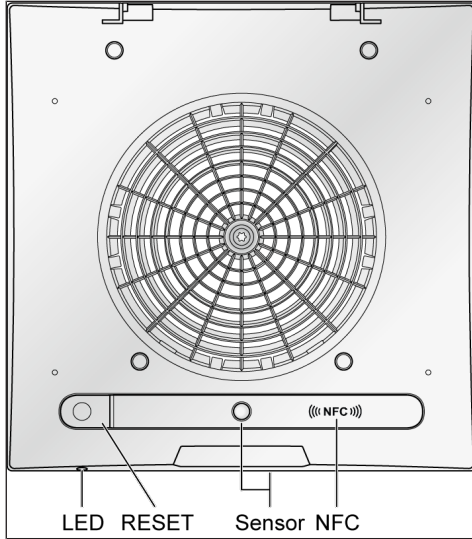
The unit control is located in the cover: **ER-AK NFC, ER-AH NFC** and **ER-AB NFC** have automatic functions with adjustable device parameters: Covers: Functions.

- **ER-A:** Standard model
- **ER-AK NFC:** Comfort model
- **ER-AH NFC:** Model with humidity control, barrier-free
- **ER-AB NFC:** Model with motion sensor, barrier-free

For full load operation, a **start delay** of 60 seconds and a **run-on time** of 15 minutes are specified at the factory.

i Ensure sufficient supply air during operation.

9.1 Settings with MAICO@NFC-APP



RESET	Reset filter change interval
LED	Filter change display
Sensor	Motion sensor ER-AB NFC or humidity sensor ER-AH NFC on the back of the cover
MAICO (((NFC)))	MAICO@NFC app for configuring the setting parameters
(((NFC)))	Position of the NFC antenna

9.1.1 Filter change function

The filter change duration can be set between 3-12 months.

i After filter change time has expired, the filter change LED blinks (red) every 5 sec.

Before resetting the filter change interval, push the <RESET> button for 2 seconds. As a confirmation, the filter change LED flashes 1x briefly. A new RESET is not possible for the next 6 months.

Change setting parameters

	Values	Step width	Factory settings
Airflow V1	15-100 m ³ /h 15-40 m ³ /h	5 m ³ /h	30 m ³ /h
Airflow V2	15-100 m ³ /h 40-100 m ³ /h	5 m ³ /h	60 m ³ /h
Base load airflow	ON / OFF		OFF
Dehumidification mode	Auto- matic / MANUAL		Automatic
Switch-on point 1 rel. humidity	40–100 % r.h.	1 %	40 %
Switch-on point 2 rel. humidity	40–100 % r.h.	1 %	70 %
Airflow switch-on point 1	15-100 m ³ /h	5 m ³ /h	30 m ³ /h
Max. airflow humidity	15-100 m ³ /h	5 m ³ /h	60 m ³ /h
Start delay	0–20 sec.	5 sec.	60 sec.
Run-on time	0–30 min	1 min	15 min
Interval time	0–24 h	1 h	1 h
Interval operating time	10–60 min	10 min	15 min
Airflow during the interval	15-100 m ³ /h	5 m ³ /h	60 m ³ /h
Filter runtime	3–12 months	3 months	6 months

Parameterisation via MAICO@NFC-APP

1. Download and install the APP on your smartphone.



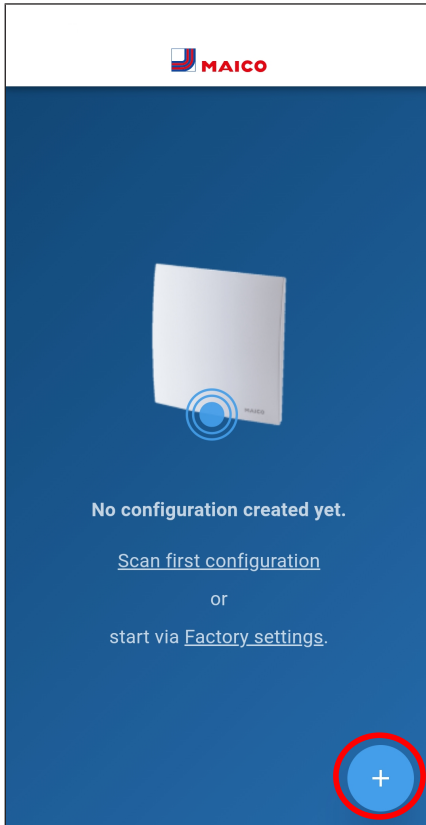
iOS



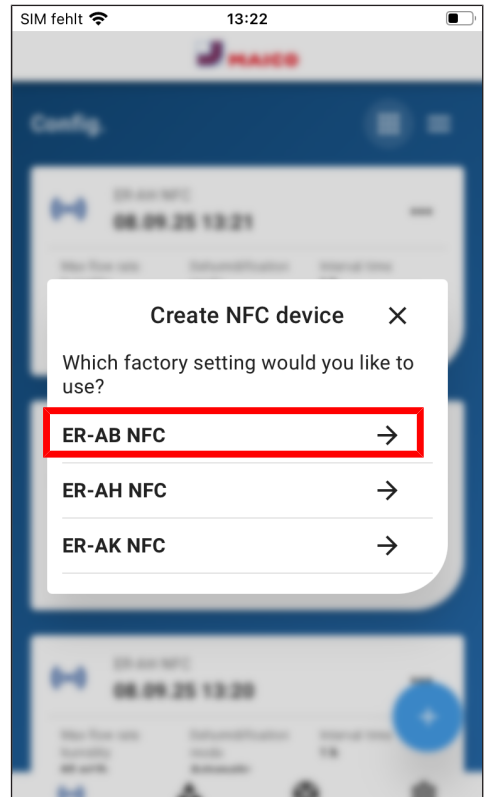
Android

9 Operating the unit

2. Press the "+" button and select "+ CREATE CONFIG".

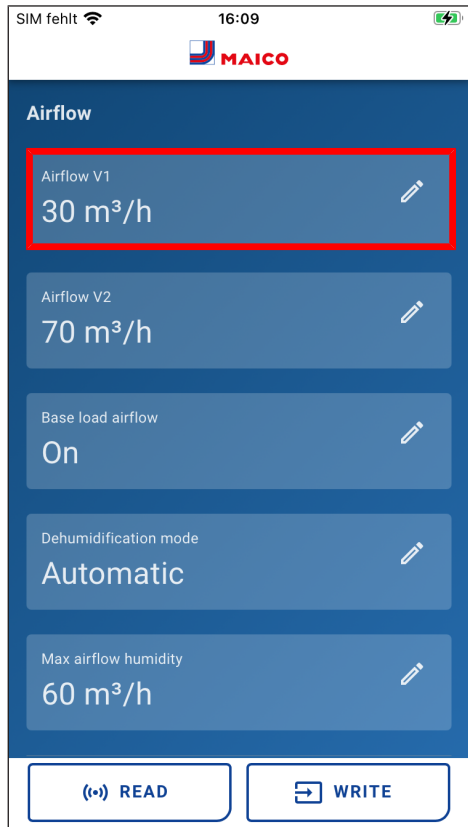


3. Select cover version.

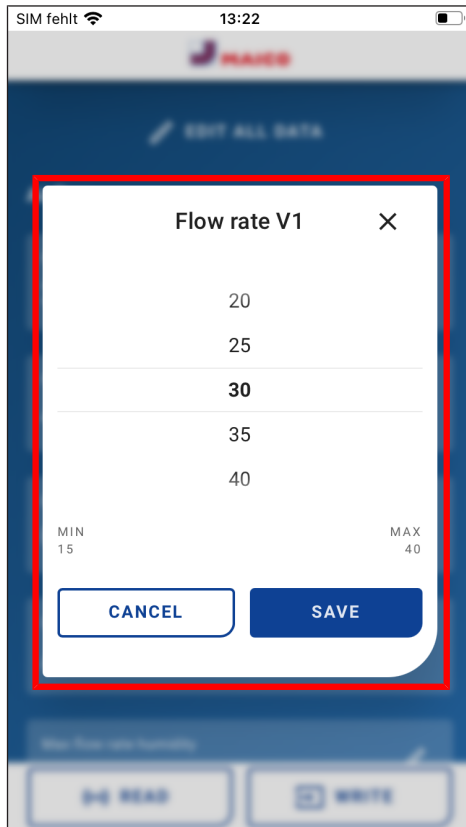


9 Operating the unit

4. Select "Edit all data" or select individual parameters.

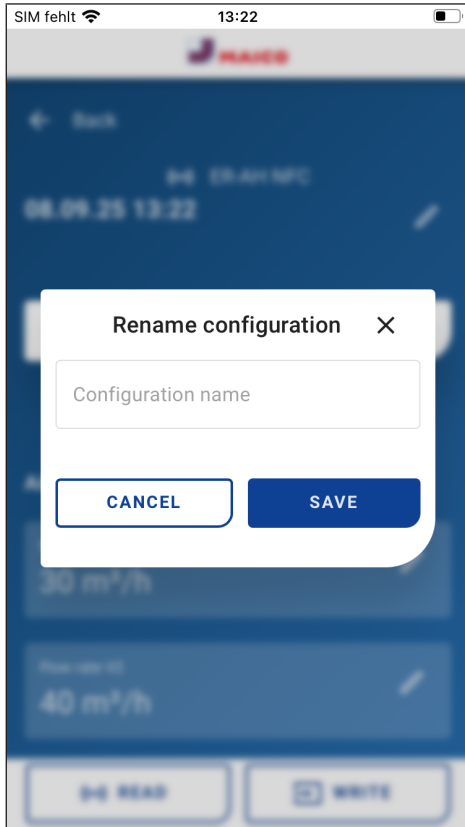


5. Use the selection dial to select and save the desired value.



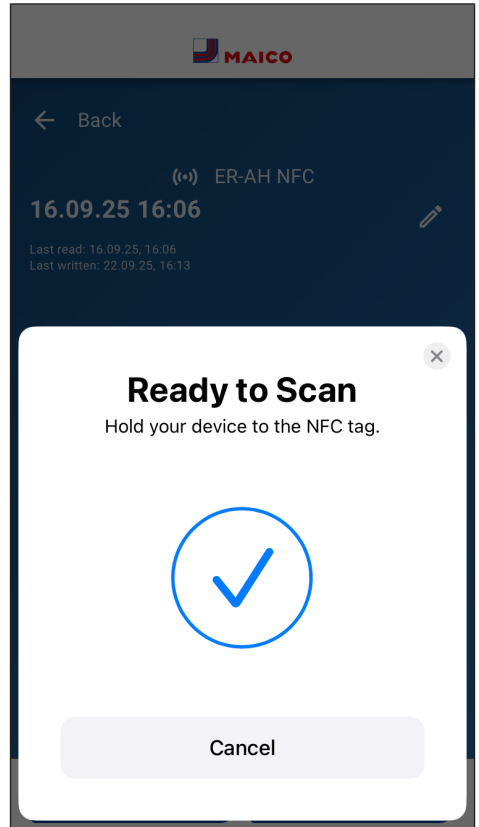
9 Operating the unit

6. The configuration can be renamed using the pen.



7. The configuration is automatically saved by pressing the "Save" button.
8. Press the "Write" button in the configuration.

9. Hold the smartphone over the NFC logo on the cover.



- ⇒ If the data transfer is correct, this is signalled in the APP.

Adjustment hints

- **Ti interval operation:** The unit is switched off during the interval time. The unit then runs for the selected operating time in the interval (10–60 min) at the selected airflow (15–100 m³/h).

9.1.2 Automatic humidity function

Automatic dehumidification mode is selected (factory setting).

- i** The control continuously checks the humidity during permanent base load. If the unit is operated without permanent base load, the unit starts at reduced speed (base load 20 m³/h) every 2 minutes for 30 seconds and measures the relative humidity.

i The start delay is deactivated with the automatic humidity control turned on.

Once the unit is installed, it adjusts to the room humidity prevailing at that time (relative humidity). This humidity value is saved as the first reference value. The reference value does not have to be specified manually.

If the relative humidity falls below the reference value during operation, the newly established reference value is saved. The lowest possible reference value is 45 % relative humidity.

If the room humidity rises quickly, the unit is adjusted upwards in a continuously variable manner (depending on the humidity) to match the humidity. The maximum flow rate at 100 % r. h. is 40–100 m³/h, depending on the setting of max. airflow humidity.

If the humidity falls below the reference value, run-on operation mode starts with the set run-on time. The current reference value is then saved.

If the humidity does not fall below the reference value within 60 minutes, the unit switches to the set run-on operation and then switches off. In the case of **Light on**, the unit starts up. If the light is switched off, the unit continues to run until the remaining run-on time has passed. The automatic humidity control is then assigned maximum priority again and controls the unit as described above.

Information

- **ER EC/ER EC 2.1** units can also be operated using a light switch during operation with automatic humidity control.
- The interval operation is deactivated during the humidity operating mode.
- Run-on time:
 - A set run-on time of 0 minutes is only valid for manual function with a light switch.
 - For operation with automatic humidity control, the minimum run-on time is 3 minutes.
 - For settings > 0 minutes, the run-on time is the same for manual (light switch) and humidity operating modes.
- Volumetric flows that can be set
V1: 15–40 m³/h
V2: 40–100 m³/h
see Changing setting parameters
- Manual humidity control

9.1.3 Manual humidity control

i Dehumidification mode selected manually.

The control regulates the unit according to the configured switch-on points 1 & switch-on point 2 as well as the selected airflow switch-on point 1 and the max. airflow humidity.

Once the unit is installed, it adjusts to the room humidity prevailing at that time (relative humidity). This rel. humidity is permanently measured and compared with the selectable switch-on point 1. If the relative humidity exceeds switch-on point 1, the unit is set to the selected "Airflow switch-on point 1".

Once switch-on point 1 has been exceeded, the relative humidity continues to be measured and compared with the selectable switch-on point 2. If the relative humidity exceeds switch-on point 2, the unit is set to the selected "max. airflow humidity".

If switch-on point 2 is undershot, the unit is set to "Airflow switch-on point 1".

If switch-on point 1 is not reached, the unit is set to the initially operated level.

9.1.4 Motion detector function

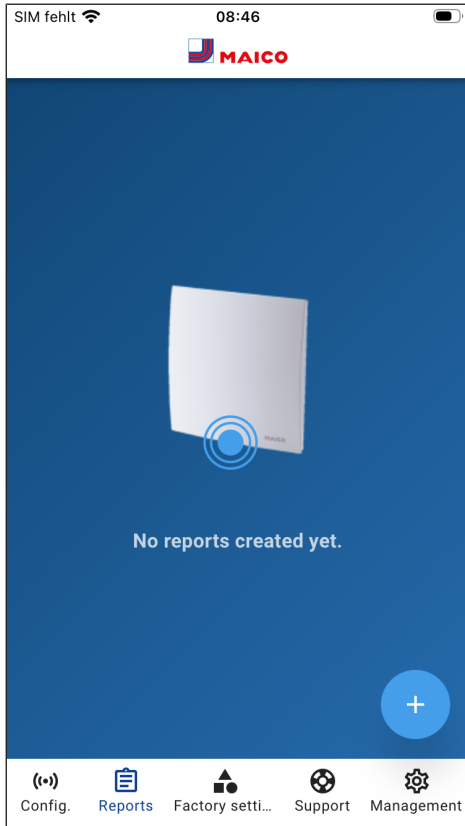
If a movement is detected/recognised, the unit automatically switches to full load level V2 without any start delay.

If no movement is registered, the overrun delay starts. Then, the unit switches off.

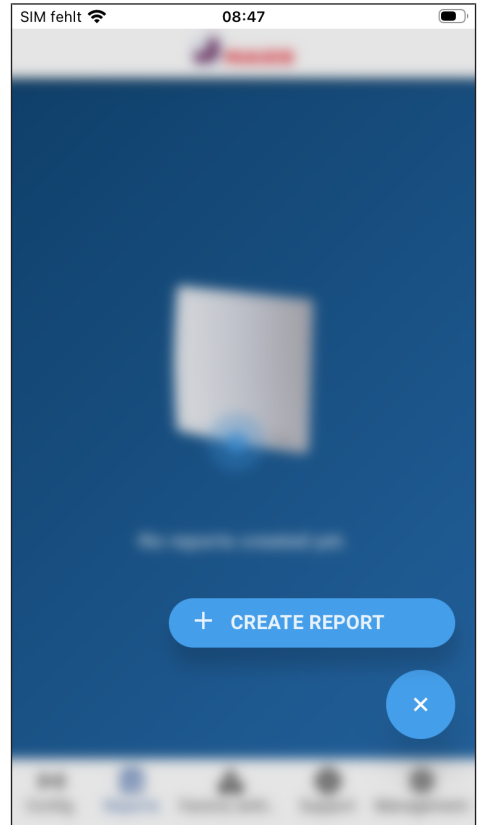
9.1.5 Creating an acceptance report using NFC@MAICO-APP

The “Reports” function can be used to create an acceptance report for the cover configurations. This report can document the configurations and device functions, as well as notes and images of several devices.

1. Select “Reports” in the menu bar.

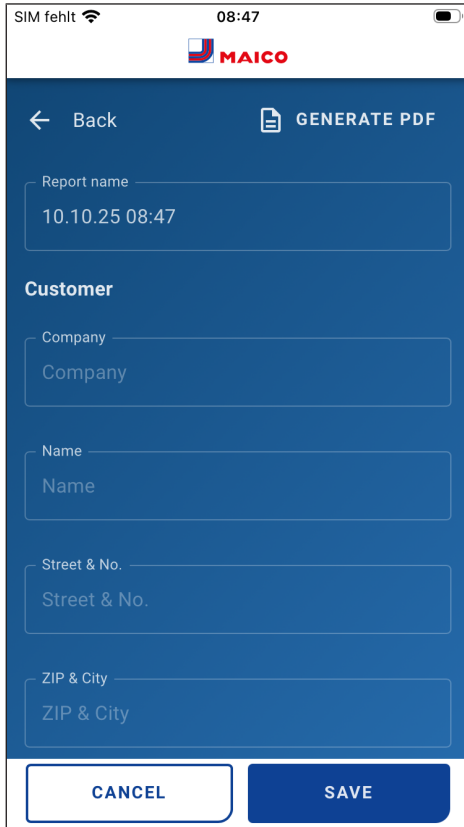


2. Press the “+” button and select “+ CREATE REPORT.”



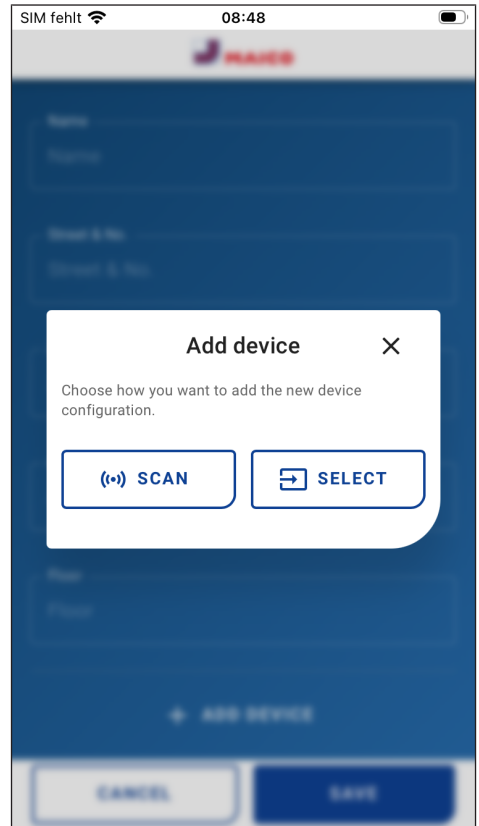
9 Operating the unit

3. Enter the report name, customer data, and object data.



The screenshot shows the MAICO app interface. At the top, the status bar indicates 'SIM fehlt' and the time is 08:47. The MAICO logo is visible. Below the logo, there is a 'Back' arrow and a 'GENERATE PDF' button. The form contains several input fields: 'Report name' with the value '10.10.25 08:47', 'Customer' section with 'Company', 'Name', 'Street & No.', and 'ZIP & City' fields. At the bottom, there are 'CANCEL' and 'SAVE' buttons.

4. Select "Add device" and read the data from the cover using 'READ' or select configurations already saved in the app using "SELECT."



The screenshot shows the MAICO app interface with an 'Add device' dialog box open. The status bar indicates 'SIM fehlt' and the time is 08:48. The dialog box has a title 'Add device' and a close button (X). Below the title, it says 'Choose how you want to add the new device configuration.' There are two buttons: 'SCAN' with a camera icon and 'SELECT' with a document icon. Below the dialog box, the 'ADD DEVICE' button is visible, along with 'CANCEL' and 'SAVE' buttons at the bottom.

5. Fill in the device assignment (name/room) and any notes and images.
6. Add further devices and save the log by clicking on the "SAVE" button.

7. A PDF of the log can be generated and saved by clicking on "GENERATE PDF".

10 Cleaning and maintenance

10.1 Maintaining the unit

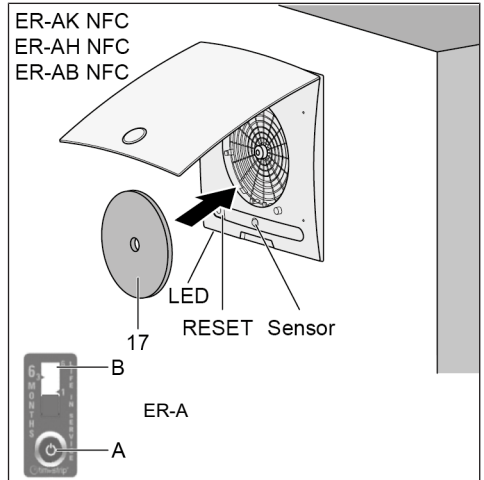
The unit is practically maintenance-free. Only the air filter needs replacing every 6 months at the latest, depending on the degree of soiling.

NOTICE The unit will be damaged if incorrect cleaning agent is used.

Do not use aggressive cleaning agents.

1. Clean cover with dry cloth only.
2. If the cover is very dirty, remove it and clean with water.

10.2 Filter change



A	Activation button
B	Bar indicator
17	Air filter

Change the air filter when the following condition applies:

- **ER-A**: Bar indicator is filled completely (red).
- **ER-AK NFC, ER-AH NFC, ER-AB NFC**: LED on the lower side of the housing flashes red.

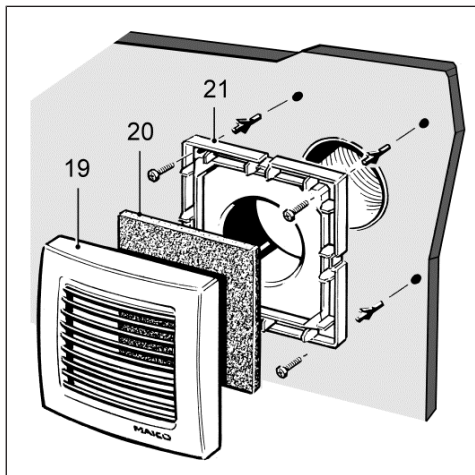
ER-A

1. Change air filter.
2. Remove used Timestrip.
3. Stick on a new Timestrip.
4. Press activation button.
 - ⇒ The red dye in the interior of the bar is released. The bar indicator first fills slightly. Within the next 6 months, the bar indicator will rise to the upper edge (indicator value 6).

ER-A, ER-AH NFC, ER-AB NFC

1. Change air filter.
2. Press <RESET> button for 2 seconds.
 - ⇒ The filter change interval is reset. The LED flashes briefly 1x.

10.3 Filter change, second room



19	Protective grille
20	Filter mat
21	Adapter

i Filter change interval every 6 months, depending on the degree of soiling.

1. Pull the protective grille forwards.
2. Take out filter mat and replace it.
3. Insert new filter mat into protective grille, then press protective grille into correct position on adapter until it audibly engages.

i Filter mats ZRF: Pack of 5, filter class G2 in accordance with EN 779, art. no. 0093.0923

11 Fault rectification

i Fault finding and repairs only permissible when carried out by qualified electricians.

Malfunction	Cause → Measure
Fan performance inadequate.	Dirty filter. → Replace filter. Locking hook not engaged. → Engage fan insert correctly. Incorrect duct diameter. → Check diameter of the main duct.

Malfunction	Cause → Measure
	Supply air cross section is too small. → Increase the supply air cross section.
No fan overrun.	Connect the fan as per the wiring diagram.
Fan doesn't start up.	Check whether the fan insert is correctly inserted.
Fan is too loud.	Dirty filter. → Replace filter. Fan insert incorrectly installed. → Fit fan insert correctly.
The main duct is dimensioned too small.	Re-calculate pressure losses.
Additional consumers connected to terminal 4.	Damage to the unit if connected incorrectly. Do not connect additional consumers to terminal 4. The unit may only be connected according to the wiring diagrams (Wiring diagrams).
No NFC contact possible.	Check on the smart-phone whether NFC is activated. If necessary, remove the protective cover and try again.

If the fault persists or reoccurs: Disconnect the unit completely from the power supply. Let a qualified electrician determine the cause of the fault and eliminate it. If you have any question relating to troubleshooting: Service: +49 7720 6940.

12 Spare parts

i Spare parts may only be sourced from and fitted by a specialist installer.

Designation	Article no.
ABSK ER GH exhaust socket	E059.2046.0000
VM shutter UP plastic	E093.0608.0000
Air outlet element on side AES ER EC	E059.2053.0000

Designation	Article no.
Air outlet element at rear AEH ER EC	E059.2054.0000
Air outlet element on side short AESK ER EC	E059.2055.0000
Cover upper part A/AK/AH	E059.2047.9100
Cover upper part AB	E059.2047.9000

In case of questions, please contact:

Maico Elektroapparate-Fabrik GmbH
 Steinbeisstraße 20
 78056 Villingen-Schwenningen, Deutschland
 Tel. +49 7720 694 445
 Fax +49 7720 694 175
 E-mail: ersatzteilservice@maico.de

i Spare parts can be ordered at www.shop.maico-ventilatoren.com.



13 System and accessory components

Air filter

ZF EC+ replacement air filter for ER-A

Article no. **0093.0610**

- 5x **ZF EC+** replacement air filters (filter class G2)
- 5x filter change indicator (TimeStrip)

Large pack of ZF EC+ replacement air filters for ER-A

Article no. 0093.0611

- 100x ZF EC+ replacement air filters (filter class G2)
- 100x filter change indicator (TimeStrip)

Replacement air filter ZF EC

Article no. **0093.0758**

- 5x replacement air filter **ZF EC** (filter class G2)

Large pack of replacement air filters ZF EC for , ,

Article no. 0093.0759

- 100x replacement air filters ZF EC (filter class G2)

ZRF replacement air filter for ER-ZR second room connection set

Article no. 0093.0923

- 5x replacement air filters for internal grille ER-ZR second room extraction (filter class G2)

Replacement permanent filter ZF ECD for , ,

Article no. 0093.1561

- 2x replacement permanent filters for covers of the fan unit ER EC (filter class G2)

ZF ECD+ replacement permanent filter for ER-A

Article no. 0093.1562

- 2x replacement permanent filters for covers of ER EC fan unit (filter class G2)
- 10x filter change indicator (TimeStrip)

14 Dismantling

i Dismantling may only be undertaken by a qualified electrician: Specialist installer qualifications [► 4].

15 Environmentally responsible disposal

i Waste equipment and electronic components may only be dismantled by specialists with electrical training.



Packaging and waste equipment contain valuable, recyclable materials. According to the **Electrical and Electronic Equipment Act** and the **WEEE Directive**, these must **not** be disposed of in the domestic waste. Dispose of them in an environmentally friendly manner, in compliance with the regulations valid in the country where you are.



For more information → <https://www.maico-ventilatoren.com/service/entsorgung>.





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