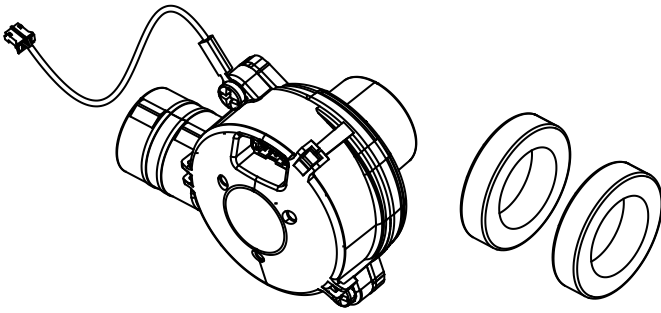


SIEMENS



Aspirator (FDA241/FDA221)

FDAZ291

Mounting

Legal notice

Technical specifications and availability subject to change without notice.

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1 About this document



- Specialist electrical engineering knowledge is required for installation.
- Only an expert is permitted to carry out installation work.

Incorrect installation can take safety devices out of operation unbeknown to a layperson.

Goal and purpose

This document contains all the information needed to replace an aspirator (FDA241/221) FDAZ291 in an aspirating smoke detector FDA241 or FDA221.

Following the instructions consistently will ensure that the replacement is achieved safely.



This document also applies to the FDA241-CN and FDA221-CN variants.

Description

The aspirator (FDA241/221) FDAZ291 is used in the aspirating smoke detectors FDA241 and FDA221. The aspirator continuously sucks air out of the pipe system into the aspirating smoke detector.



The aspirator (FDA241/221) FDAZ291 will be referred to in the following simply as the 'aspirator'.

Target groups

The information in this document is intended for the following target groups:

Target group	Activity	Qualification
Product Manager	<ul style="list-style-type: none"> ● Is responsible for information passing between the manufacturer and regional company. ● Coordinates the flow of information between the individual groups of people involved in a project. 	<ul style="list-style-type: none"> ● Has obtained suitable specialist training for the function and for the products. ● Has attended the training courses for Product Managers.
Maintenance personnel	<ul style="list-style-type: none"> ● Carries out all maintenance work. ● Checks that the products are in perfect working order. ● Searches for and corrects malfunctions. 	<ul style="list-style-type: none"> ● Has obtained suitable specialist training for the function and for the products.

Source language and reference document

- The source/original language of this document is German (de).
- The reference version of this document is the international version in English. The international version is not localized.

Document identification

The document ID is structured as follows:

A6Vxxxxxxxx_aaAA_vv

A6Vxxxxxxxx_--AA_vv

A6Vxxxxxxxx_aa--_vv

A6Vxxxxxxxx_----_vv

ID code ¹	Description
A6Vxxxxxxxx	STEP-ID generated by the STEP system
_	Separator
aa	Language abbreviation in accordance with ISO 639-1
AA	Country abbreviation in accordance with ISO-3166-1
--	Multilingual or international
vv	Document version, single or double digit: a, b, ...z; aa, ab, ...az; ba, bb, ...bz; etc.

¹ Some documents have different ID codes that are generated by an earlier system. There are also documents with up-to-date ID codes along with additional features in the designation.

ID code	Examples
ID_languageCOUNTRY_version -- = multilingual or international	A6V10215123_deDE_a A6V10215123_en--_a A6V10315123_----_a

Date format

The date format in the document corresponds to the recommendation of international standard ISO 8601 (format YYYY-MM-DD).

Conventions for text marking

Markups

Special markups are shown in this document as follows:

▷	Requirement for a behavior instruction
1. 2.	Behavior instruction with at least two operation sequences
–	Version, option, or detailed information for a behavior instruction
⇒	Intermediate result of a behavior instruction
⇨	End result of a behavior instruction
●	Numbered lists and behavior instructions with an operation sequence
[→ X]	Reference to a page number
'Text'	Quotation, reproduced identically
<Key>	Identification of keys
>	Relation sign and for identification between steps in a sequence, e.g., 'Menu bar' > 'Help' > 'Help topics'
↑ Text	Identification of a glossary entry

Supplementary information and tips



The 'i' symbol identifies supplementary information and tips for an easier way of working.

1.1 Applicable documents

Document ID	Title
A6V10334410	Technical manual Aspirating smoke detector FDA241, FDA221
A6V10728226	User Manual 'ASD Asyst Tool V2 FXS2056'

1.2 Revision history

The reference document's version applies to all languages into which the reference document is translated.



The first edition of a language version or a country variant may, for example, be version 'd' instead of 'a' if the reference document is already this version.

The table below shows this document's revision history:

Modification index	Edition date	Brief description
a	2017-02-23	First edition



The language versions and country variants produced by a local company have the same modification index as the corresponding reference document. They are not however included in the table below.

The table below shows the published language versions and country variants with the corresponding modification index:

Modification index	en_--	de_--	fr_--	it_--	es_--
a	X	X	X	X	X

X = published

- = no publication with this modification index

2 Details for ordering

Intended use

The aspirator (FDA241/221) FDAZ291 may only be installed in the aspirating smoke detectors FDA241 and FDA221 as a spare part.

Type	Order number	Designation
FDAZ291	S54333-G1-A1	Aspirator (FDA241/221)

Scope of delivery

- Aspirator (FDA241/221)
- 2 profile rings

3 Mounting

3.1 Preparatory work



- Specialist electrical engineering knowledge is required for installation.
 - Only an expert is permitted to carry out installation work.
- Incorrect installation can take safety devices out of operation unbeknown to a layperson.

3.1.1 Open housing



NOTICE

Electrostatic discharge

Damage to electronic components in the aspirating smoke detector

- When working on the open aspirating smoke detector, use anti-static floor mats and anti-static work surfaces.
- Ground yourself immediately before opening the housing, e.g. by touching a ground point or wearing an anti-static belt.




NOTICE

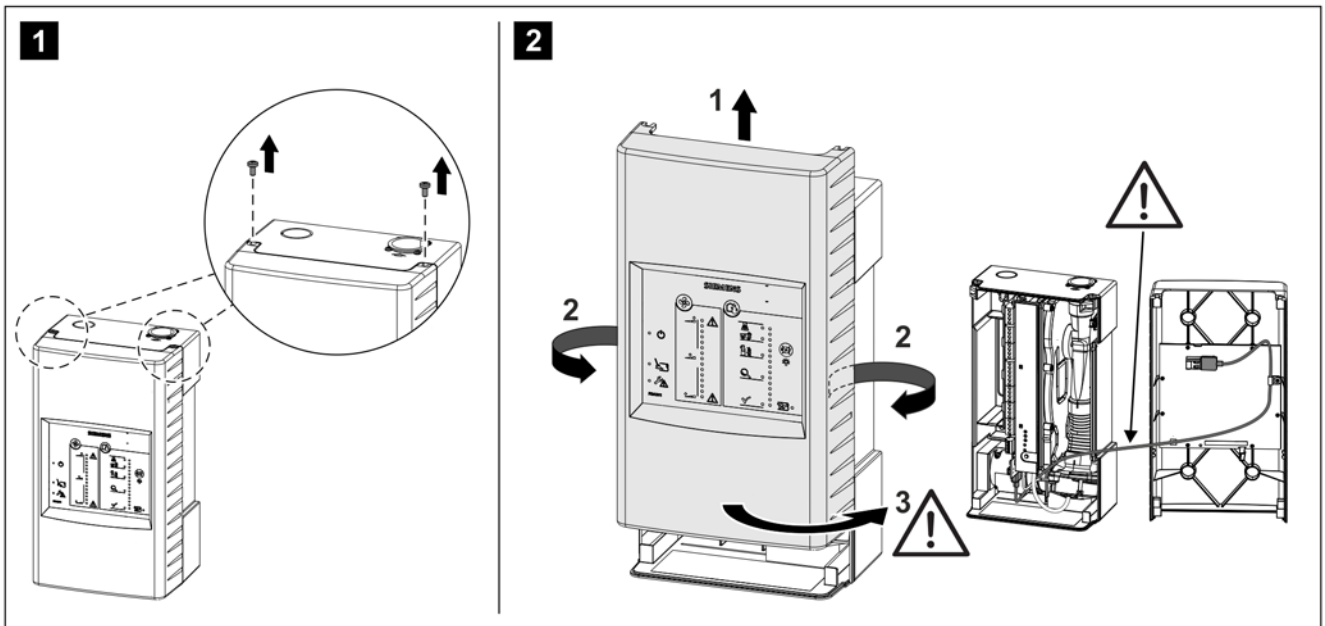
Device fault

Flashing fault indicator


- When the housing cover is opened, the buzzer sounds. The relay outputs remain active and the 4...20 mA analog output has been switched to fault (0.5 mA).



- If the  button is pressed, the buzzer switches off and the relay outputs are deactivated. The 4...20 mA analog output remains on fault.
- Closing the housing cover automatically reactivates the relay outputs and the 4...20 mA analog output switches to normal operation.



3.1.2 Disconnecting the detector from the power supply

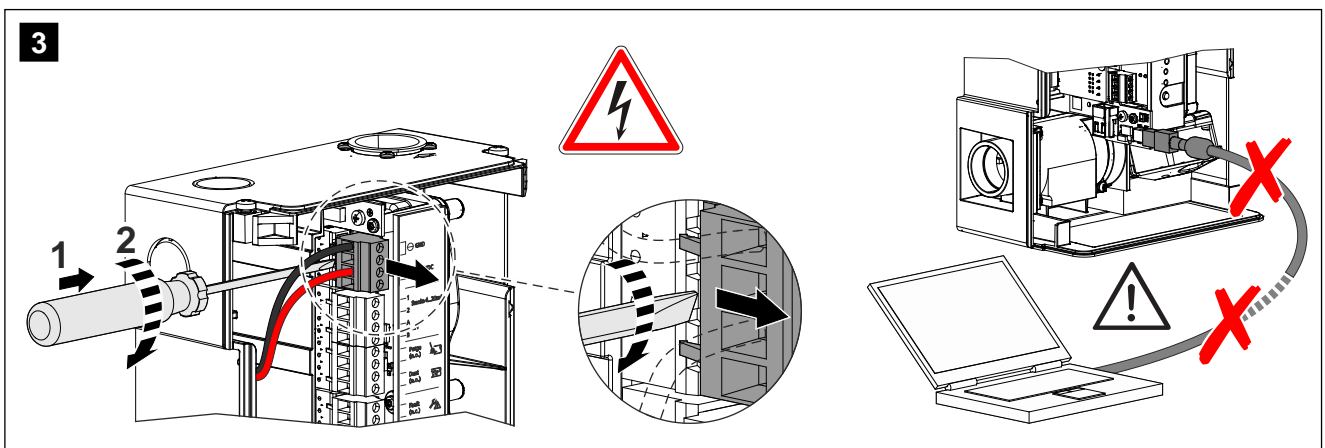
	<p>⚠ CAUTION</p> <p>Electrical voltage on lines Risk of injury due to electric shock</p> <ul style="list-style-type: none"> • During mounting and installation work, electrical voltage must not be applied to the lines.
---	--

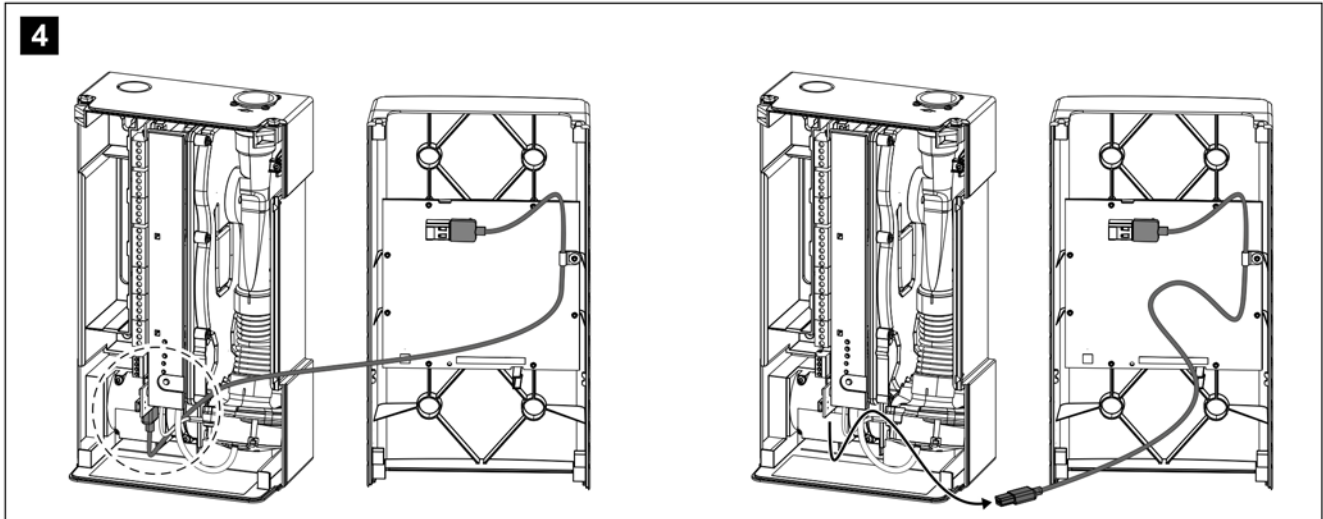


The aspirator can also be replaced if the aspirating smoke detector is connected to the line via the FDCC221S communication interface.

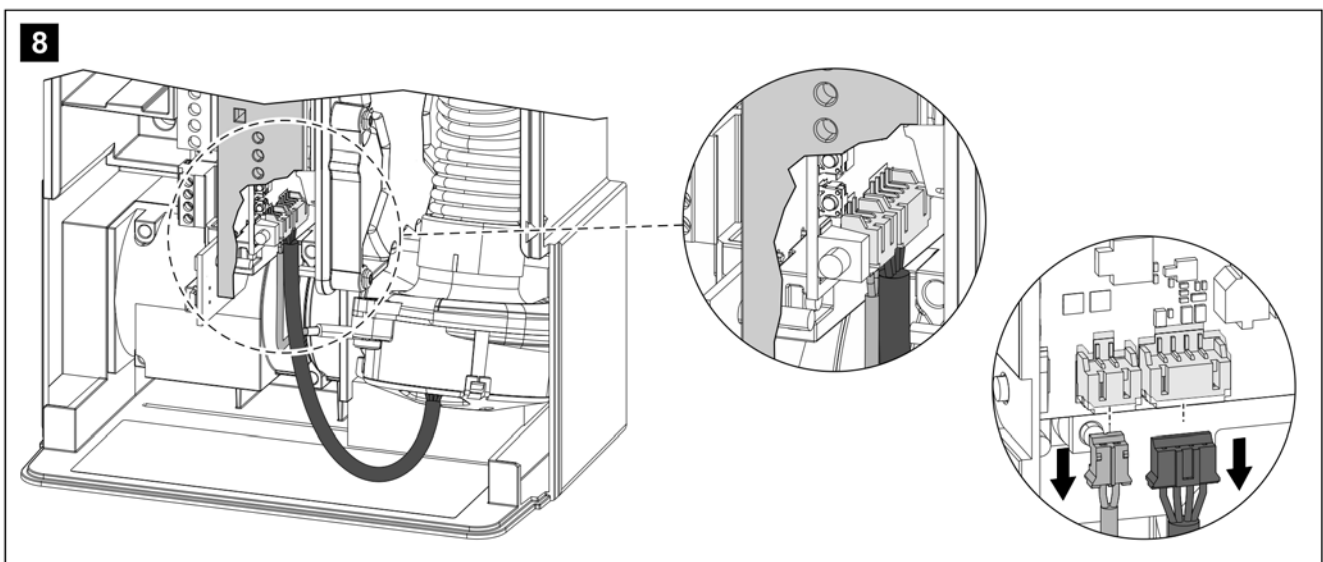
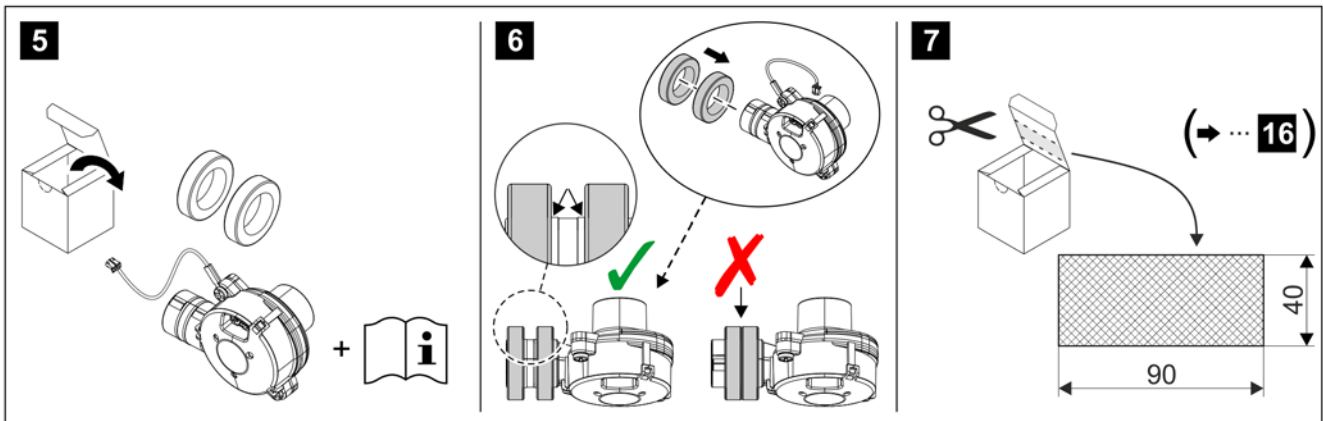


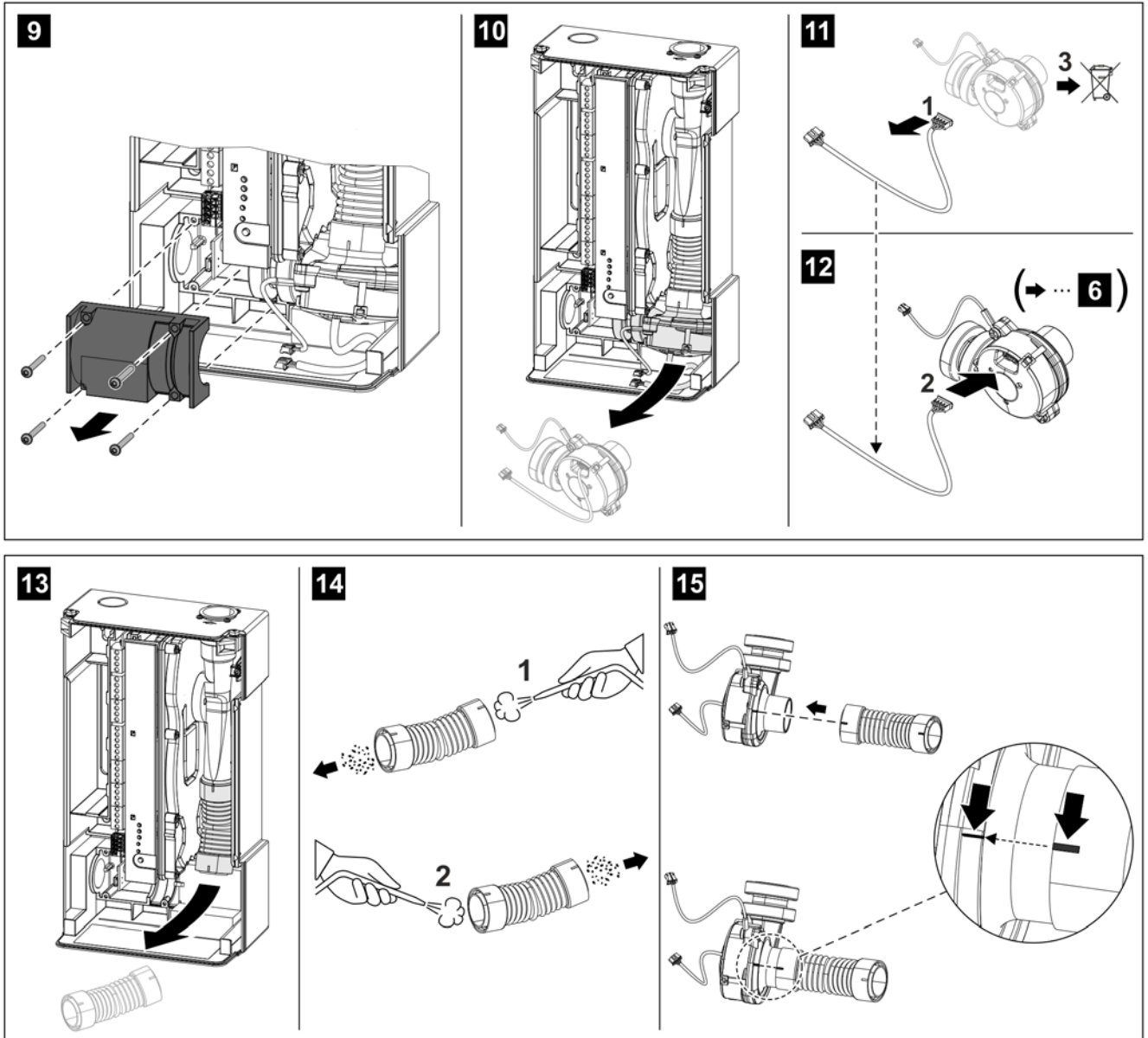
A fault is indicated on the fire control panel whenever the aspirating smoke detector is disconnected from the power. Alternatively, the line can also be unplugged in addition to the power and USB. This removes the device from the line.

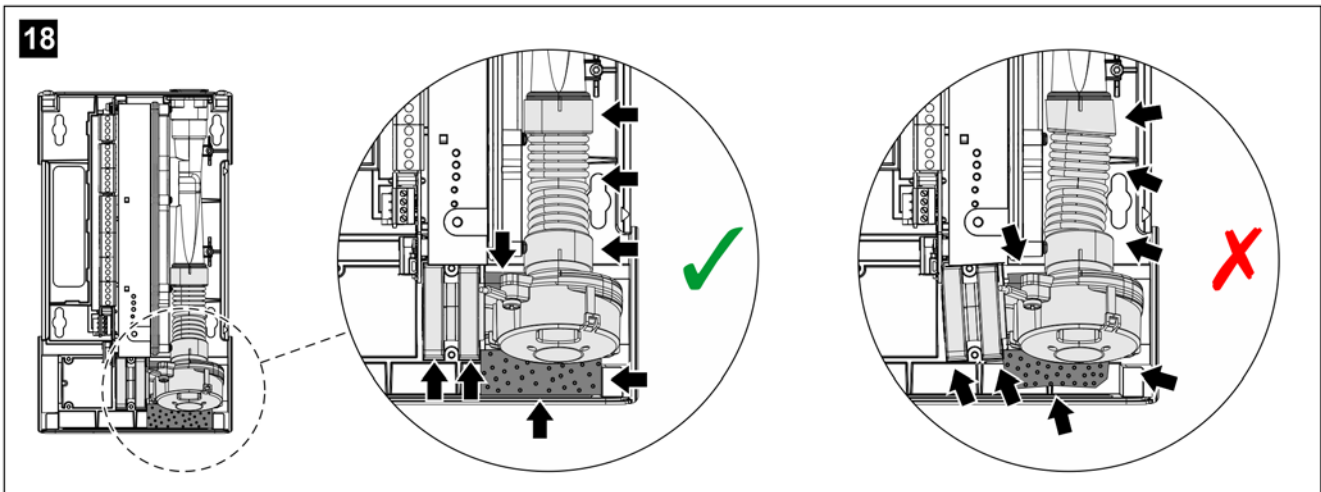
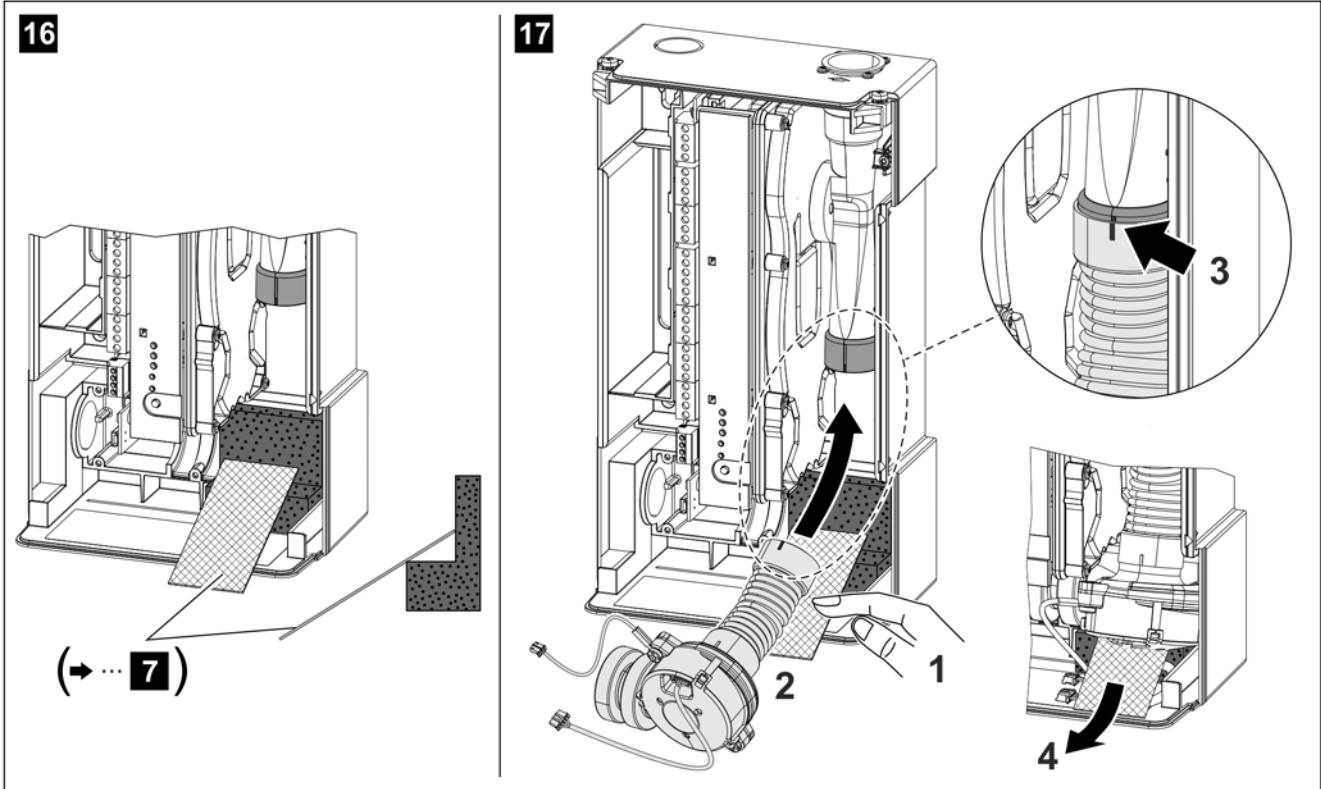


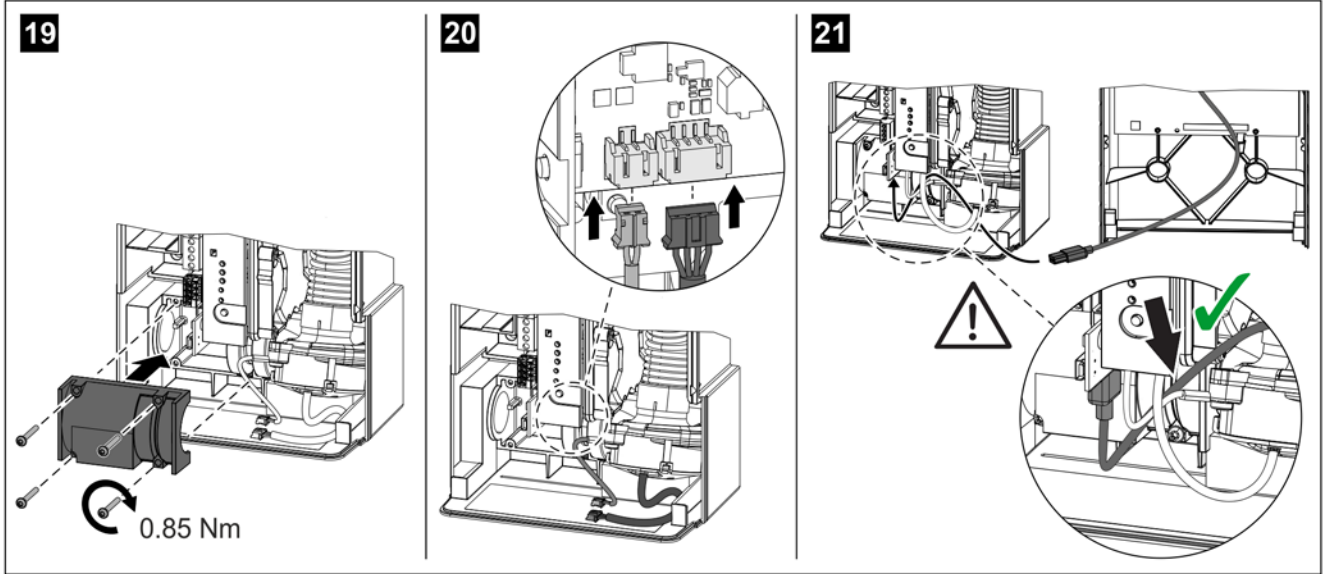


3.2 Replacement of the aspirator

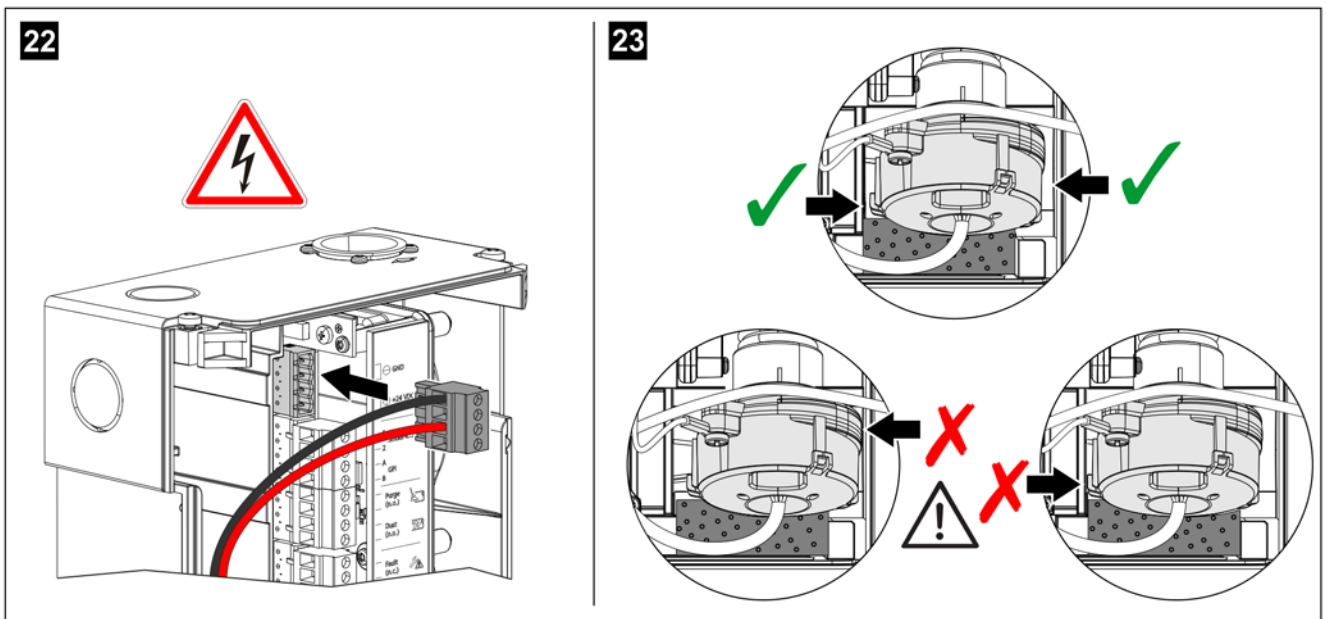


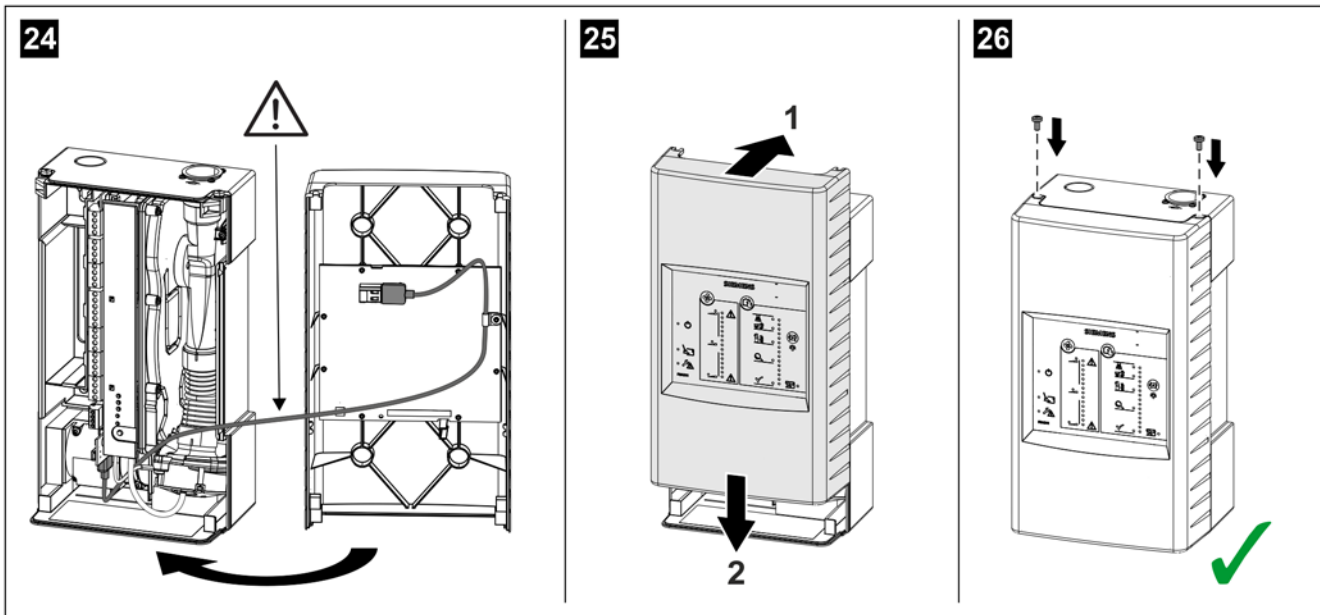






3.3 Follow-up





Aspirator function check

Check the following:

- Check the air flow and the transport time of the system from the installation log and/or the calculation with the 'FXS2056 ASD Asyst Tool V2' software. You will find more information on the software in document A6V10728226.



Due to fluctuating ambient conditions and contamination of the pipe system, the values may vary slightly in relation to each other, but should nonetheless remain within the configured air-flow limits.

If the values are outside of the configured air-flow limits, the installation of the aspirator must be checked again.

- Make sure that the values for the air flow and transport time are correct.
- Finally, perform an air-flow normalization of the device in order to compensate for any potential drifts in the system.

See also

📄 Applicable documents [→ 6]

4 Specifications

4.1 Technical data

Air humidity	5...95 % rel.
Operating temperature	-20...+60 °C
Storage temperature	-30...+70 °C
Weight [kg]	0.106

You will find further technical data in document A6V10334410.
See also 'Applicable documents [→ 6]'.

4.2 Environmental compatibility and disposal



This equipment is manufactured using materials and procedures which comply with current environmental protection standards as best as possible. More specifically, the following measures have been undertaken:

- Use of reusable materials
- Use of halogen-free plastics
- Electronic parts and synthetic materials can be separated

Larger plastic parts are labeled according to ISO 11469 and ISO 1043. The plastics can be separated and recycled on this basis.



Electronic parts and batteries must not be disposed of with domestic waste.

- Take electronic parts and batteries to local collection points or recycling centers.
- Contact local authorities for more information.
- Observe national requirements for disposing of electronic parts and batteries.



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