



Airea

AM-4.4



Before using the device, please read the operation manual carefully and keep it at hand.

Content

- 1. Introduction and information 4
 - 1.1 Important safety requirements 4
 - 1.1.1 Definition of terms 4
 - 1.1.2 General safety information 4
 - 1.1.3 Electrical safety instructions 5
 - 1.1.4 Acoustic safety instructions 6
 - 1.1.5 Connections and cables 6
 - 1.2 Operating conditions 7
 - 1.2.1 Information about irregular operation 7
 - 1.3 Storage and transport 7
- 2. The product 8
 - 2.1 Product description 8
 - 2.2 Scope of delivery 9
 - 2.3 Unpacking 9
- 3. Installation 10
 - 3.1 Professional rack assembly 10
 - 3.2 Connections and control elements 11
 - 3.2.1 Standard connections 11
 - 3.2.2 Optional connection versions 12
 - 3.2.3 Status displays 12
 - 3.2.4 USB-C configuration port 13
 - 3.2.5 Analogue inputs 14
 - 3.2.6 Airea-Net outputs 14
 - 3.2.7 Airea-Net input 15
 - 3.3 Start-up 15
 - 3.3.1 System requirements 15
 - 3.3.2 Download and installation of Fohhn Audio Soft 16
 - 3.3.3 Fohhn-Net wiring and ID allocation 16
 - 3.3.4 Updating the firmware 18
 - 3.3.5 Setting up and connecting an Airea system 19
 - 3.3.6 Signal processing 20
 - 3.3.7 Integration in a Dante™ network 20
 - 3.3.8 Renaming a device and output channels 22

3.4 Additional functions.....	23
3.4.1 Switch contact	23
3.4.2 Password lock	24
4. Technical data.....	25
4.1 Power supply	27
5. Troubleshooting.....	28
6. Service and repair	29
6.1 Maintenance measures.....	29
7. Connection configuration	29
7.1 Airea-Net	29
7.2 Fohhn-Net	30
7.3 Airea-Net cabling permanent installation.....	30
8. Appendix.....	31
8.1 Environmental notice	31
8.2 CE marking and declaration of conformity	31
8.3 Trademark.....	31
8.4 Protection classes and protection types.....	31
8.5 Disclaimer and copyright.....	32
8.6 Contact address	32

1. Introduction and information

Congratulations on the purchase of your **Fohhn Airea** system. These days, customers demand sound quality and versatility more than ever. In response to the growing trend towards compact, lighter and higher performance active systems, we developed and then realised the **Fohhn Airea System**. This should make working at your events and starting up fixed installations as easy as possible. The new versatile options for integrated **Fohhn Audio DSPs** provide you with many convenient advantages in day-to-day operation.

All the DSP functions in the Airea Master **AM-4.4** can be controlled via one single software, **Fohhn Audio Soft**.

To make the most of all the benefits of your Airea Master and ensure error-free operation, please read the operation manual provided carefully before operation and always keep it at hand!

1.1 Important safety requirements

Read through all of the following safety requirements before operating the device. Keep these instructions near the device at all times. Reading the operation manual is **no** substitute for knowledge of and adherence to all local safety requirements and guidelines valid at the time and observance of the safe working methods on site.

All the information and technical specifications published here are based on data available at the time of publication. We expressly reserve the right to make changes to this information.

1.1.1 Definition of terms

Danger

This signal word describes a hazardous situation with a high level of risk, which will result in death or serious injury if not heeded.

Warning

This signal word describes a hazardous situation with a medium level of risk, which will result in death or serious injury if not heeded.

Caution

This signal word describes a hazardous situation with a low level of risk, which will result in minor or moderate injury if not heeded.

1.1.2 General safety information

Danger:

To avoid danger to life, ensure that all persons involved in the set-up, operation and dismantling of a system like this have read and understood the operating instructions.

At the same time, the information presented here is to be regarded as accompanying advice and does **not** affect the user's responsibility to ensure safe operation of the **Fohhn** system on site.

Warning:

To avoid injury,

- ⚠ the device must be stored, installed and operated in a manner that prevents access to children.

To avoid injury, this device must be decommissioned, labelled and secured against accidental use, if

- ⚠ there is visible damage,
- ⚠ it is assumed that there are loose parts,
- ⚠ it no longer works correctly,
- ⚠ it has been subject to unfavourable conditions over a long period of time (e.g. wet conditions)
- ⚠ it has been exposed to poor transport conditions (e.g. in unsuitable packing or wet conditions).

If required, please contact your Fohhn dealer and the carrier immediately. Contact details can be found in the appendix to this operation manual.

1.1.3 Electrical safety instructions

Fohhn Airea Master are devices of protection class 1. They are constructed and tested in accordance with VDE protection measures for electronic devices and leave our factory in safe, perfect condition. The devices meet all current valid standards in the EMC Act. The CE marking on the device is confirmation of this.

The relevant standards can be found in the appendix of this operation manual!

Warning:

To minimise the risk of electric shock,

- ⚠ the protective earthing conductor on the mains plug should never be separated and under no circumstances should the plug be taped.
- ⚠ the device is **only** to be connected to a mains plug checked by a specialist.
- ⚠ the device casing is never to be opened. The device does not contain any components that can be repaired by the user. In the unlikely event of a defect, please contact qualified servicing personnel and/or the dealer from whom the system was purchased!

Ensure that the local voltage corresponds to the power supply voltage stated on the device.

To minimise the risk of electric shock or fire,

- ⚠ the device should not be exposed to moisture.
- ⚠ no objects filled with liquid (e.g. drinks containers) should be placed on the device.
- ⚠ ventilation openings are not to be covered with objects (e.g. rain protection film).

- ⚠ the device should not be exposed to excessive heat, direct sunlight, fire or similar.
- ⚠ the device should not be placed near sources of fire (e.g. pyrotechnics).

Caution:

To avoid damage to the device,

- ⚠ the mains cable should not be plugged in if the device is not used for a long period of time. (Pull out the plug to completely cut off the device from the mains)

1.1.4 Acoustic safety instructions

Fohhn speaker systems can generate very high acoustic pressure levels, which may cause irreparable hearing damage.

Warning:

To avoid hearing damage,

- ⚠ never stand in the immediate area (1 metre or less) of a device that is ready for operation.

To avoid hearing damage and damage to the device while in operation, avoid:

- ⚠ acoustic feedback
- ⚠ high-power, sustained distorted signals
- ⚠ Momentary noises that arise when the device is switched on or off, connected or detached from the system

1.1.5 Connections and cables

Please note the following instructions for your system's cabling:

- ⚠ Ensure that your cables are working perfectly and only use cables with a sufficiently large diameter.
- ⚠ Only use cables and plugs which correspond to professional standards.
- ⚠ Only use properly shielded cables and plugs for audio and data connections.
- ⚠ Only use mains cables that have intact earth contact connections and ensure that the mains plug for the device is accessible at all times, so the device can be quickly disconnected from the network in the event of malfunction.
- ⚠ Lay and affix the cable in such a way that it will not be damaged by tools or jammed by the device or a wall bracket.
- ⚠ Protect all laid cables from mechanical damage or tensile forces.
- ⚠ Avoid tightening torques that are too high when screwing connection terminals!

Loudspeakers should only be wired by expert personnel!

Important: For communication between a Windows PC with the installed control software **Fohhn Audio Soft** and the Airea Master, a **Fohhn** network adapter (e.g. **NA-11 Fohhn-Net USB Adapter** or **NA-4 Fohhn-Net Ethernet Adapter**) is recommended.

For safe control, using an NA-4 is recommended for each Airea Master. Further information on this can be found in Chapter 3 of this operation manual!

1.2 Operating conditions

Please note the following information when operating your system:

- ⚠ The permissible ambient temperature of the device during operation is from 0 °C to +40 °C.
- ⚠ The device is to be used in a dry area with normal dust and moisture levels in the air.
- ⚠ If condensation has built up during transport or storage of the device or its back panel, leave the device to acclimatise for around 2 hours before operating.
- ⚠ Never expose the device to aggressive chemical liquids or vapours.
- ⚠ Always ensure that heat dissipation is assured via the exterior surface of the casing.
- ⚠ Always ensure that the device is well ventilated. To ensure sufficient cooling, the device should not be covered by towels. Heating of the casing by sunlight or strong lamps is to be avoided.
- ⚠ Never expose the device to considerable vibrations.

1.2.1 Information about irregular operation

If the permissible operating temperature becomes too high (higher than 75 °C), the device switches off. As soon as the temperature returns to the normal operating range, the device automatically switches on again.

The temperature of the **Fohhn** system is shown in the **Fohhn Audio Soft**. The device switches off if it is exposed to direct sunlight or very high ambient temperatures. Reliable operation is only guaranteed when adhering to the permissible ambient temperatures.

The device is to be checked by a service provider approved by **Fohhn Audio AG** if

- ⚠ the network cable or mains socket are damaged,
- ⚠ a foreign body or liquid has got inside the device,
- ⚠ the device has been exposed to rain,
- ⚠ the device is not working normally or is exhibiting significant changes in performance,
- ⚠ the device is damaged (e.g. after a fall).

1.3 Storage and transport

Please observe the following information:

- ⚠ The device may only be transported in the original packaging.
- ⚠ Store the device in dry surroundings and at a consistent ambient temperature to avoid condensation.
- ⚠ The permissible ambient temperature for the device during storage is from -10 °C to +70 °C.
- ⚠ During transport and storage, water condensation can form due to temperature fluctuations and settle on the surface of the device. For that reason, inspect the surface for moisture before commissioning. If this is the case, let the unpacked device acclimatise to the ambient temperature for at least two hours.

2. The product

2.1 Product description

The **Airea System** is a freely configurable, active loudspeaker concept as well as a versatile, digital audio network system. **Airea** was designed to realise high-quality, flexible, future-proof sound reinforcement applications. The Airera system comprises state-of-the-art loudspeakers with integrated, digital power amplifiers and **Fohhn Audio DSP** as well as a master module with digital and analogue inputs and digital **Airea-Net** outputs, along with the integrated **Fohhn Audio DSP Matrix**.

Cabling is very straightforward with conventional network cables.

The signal path throughout the Airera System is completely digital. This means that there is no loss of quality through AD/DA conversion or loss of performance.

The Airera Master Module **AM-4.4** is the central unit of the Airera system. It provides the supply voltage, the digital audio signals and the control signals for the connected active Airera DSP speakers.

Up to 16 active DSP loudspeakers can be linked to one Airera Master AM-4.4.

With **Fohhn Audio Soft**, each of these DSP loudspeakers can be individually controlled and adapted in terms of routing, volume and sound. With only the **Fohhn Audio Soft** control software, you have access to all the DSP functions and presets. **(The latest version of the software is available for download free of charge at www.fohhn.com.)**

With wiring using just one cable, Airera is clearly superior to conventional active systems. In addition to the option to link several loudspeakers in a daisy-chain, even distances of up to 100 m can be effortlessly bridged – and each loudspeaker can be individually configured with regard to acoustics, run time (delay) and dynamics.

With digital Dante signal inputs **AM-4.4 DAN** and 4 analogue mic/line inputs **AM-4.4 ANA**, the Airera Masterextrem is versatile and ready for the future.

The fans in the Airera Masters **AM-4.4** are temperature-controlled and optimised to ensure very quiet operation. The fans do not operate when in standby.

An integrated inrush current limiter means it is possible for several linked Airera Masters to be switched on at the same time within one rack. For larger installations with several systems, this function eases handling significantly.

The Airera Master **AM-4.4** is also equipped with two programmable switch contacts (switch) for remote control and easy integration into the building technology.

Definitions of terms

Airea System

An Aira System comprises one or several Aira Masters along with one or several active Aira loudspeakers.

Airea Master

The Aira Master is the central unit of the Aira System

Airea end device

An Aira end device is linked to and powered by an Aira Master

AES/EBU

Protocol for transferring digital audio data

Airea-Net

Network for transferring power supply voltage, Digital Audio (AES/EBU) and Fohhn-Net control signals via a network cable.

Fohhn-Net

Network for transferring control signals for Fohhn Audio devices

2.2 Scope of delivery

Each product is inspected to the highest quality and safety standards before it ships out.

Please inspect your product carefully for any damage that may have occurred during transit. In the event of damage, inform your dealer and the carrier immediately. Please check whether the packaging contains all the components included with the device.

Included in the scope of delivery of your **Fohhn** system are:

- **1 x Aira Master AM-4.4**
- **all plugs for connections on the rear side (plugged in)**
- **1 x Network cable with cold-device connection socket**
- **1 x Quick start instructions**
- **2 x Rack brackets**

2.3 Unpacking

When unpacking the system, we recommend proceeding as follows:

1. Open the packaging and remove the product.
2. Check the product for any visible transport damage.
Should the product have any damage, please report this immediately to the carrier. Transport damage can only be claimed by the recipient (i.e. you). Keep the packaging for assessment by the carrier.
3. Generally speaking, the packaging should be kept. Send the product in suitable re-packaging or in a suitable carry bag.

3. Installation

3.1 Professional rack assembly

For correct assembly in mobile 19-inch racks or switching cabinets, the device is equipped with the relevant mounting brackets for the front and rear (optional). The casing is designed to be distortion-resistant. Please ensure that the Airea Master is sufficiently ventilated and cooled on all sides during operation. There must be a space of at least 1 RU at the top and bottom between rack-mounted amplifiers and Airea Masters.

Included in the scope of delivery for each device are two mounting brackets (mounting bracket set).



To install two Fohhn 9.5" devices next to one another in a 19" rack, an optional 19" rack connector is available, Item **8022-00000**.



To install an MA-Series amplifier in a 19" rack, a 19" installation angle with 6 holes for connectors in the Neutrik D Series is available as an option. Fohhn Item **8023-00000**.



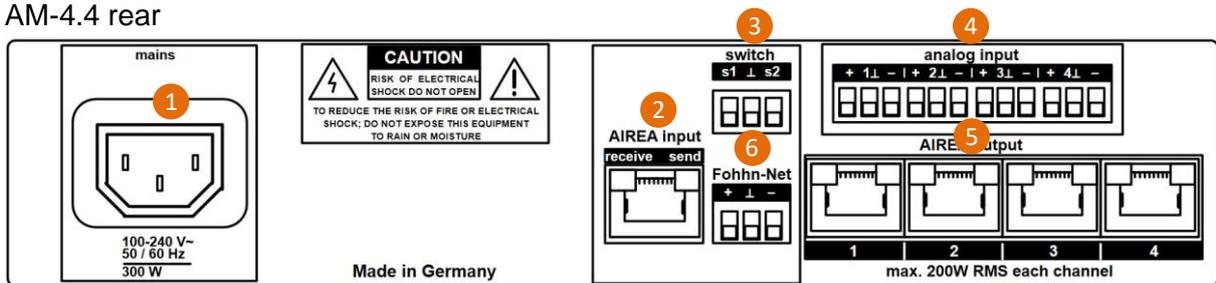
3.2 Connections and control elements

Cables should only be connected when the device is switched off. Before switching on the Airea Master, the mixing console should be switched on too. This will prevent any unpleasant, and often dangerous, power-on noise.

3.2.1 Standard connections

On the rear of the casing, the Airea Master AM-4.4 has the following connections as standard:

AM-4.4 rear



(1) Mains

The supplied IEC mains cable is connected to this socket.

The Airea Master is only completely separated from the network when the mains plug is pulled out!

(2) Airea input

A Fohhn Airea signal is fed to this network socket.

(3) Switch

These connecting terminals are switching contacts for switching presets. These can be configured in **Fohhn Audio Soft** (see section 3.4.1 'Switching contact').

(4) Analogue input CH 1/2/3/4

Analogue audio signals can be fed in via these connecting terminals.

(5) Airea output CH 1/2/3/4

The Airea loudspeaker system is connected to this RJ-45 connector via network cables.

(6) Fohhn-Net input

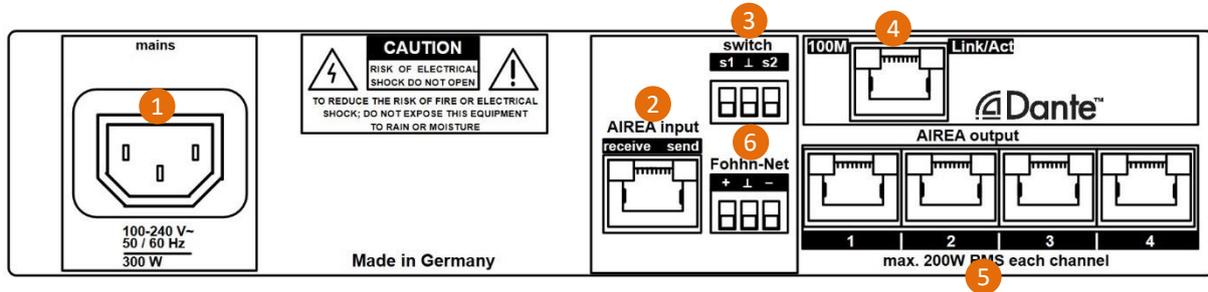
The Airea Master can be connected to the remote network **Fohhn-Net** via these connecting terminals.

Only use Fohhn network adapters (NA-11 Fohhn-Net USB Adapter or NA-4 Fohhn-Net Ethernet Adapter) for this.

3.2.2 Optional connection versions

The Airea Master AM-4.4 is available with input interfaces for the digital audio network Dante™ or for 4 x analogue audio signals.

Input option Dante interface

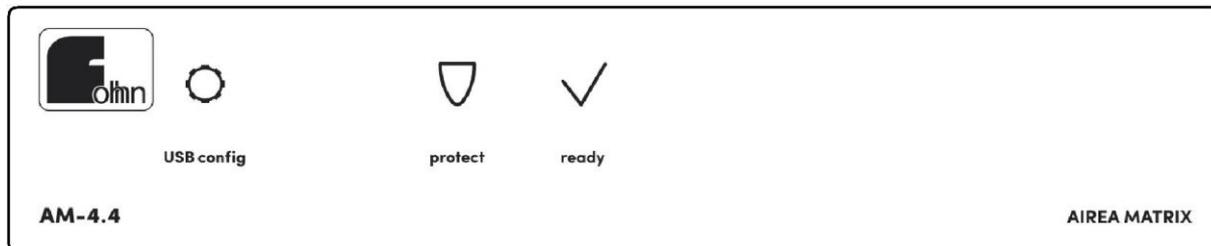


(4) Dante

Via this RJ-45 input, signals are fed in using the **Dante** digital audio interface.

3.2.3 Status displays

On the Airea Master AM-4.4, the status displays are shown via the illuminated symbols on the front of the casing:



Status LEDs for the Airea Master on the front side

USB config (gear wheel symbol)

This symbol lights up when the Airea Master is connected via a USB-C connector to the control computer.

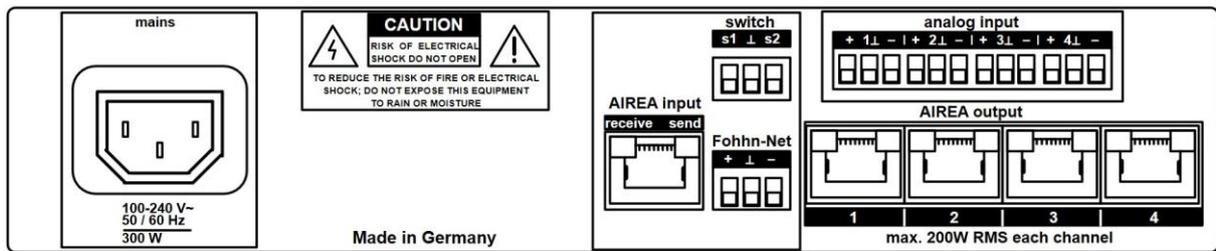
protect

This symbol lights up if there is an error during operation.

ready

This symbol lights up when the Airea Master is ready to use.

The Airea Master also has two LEDs on the rear of the casing:



Status LEDs Airea Master AM-4.4 on the rear side

receive

This symbol lights up when the Airea Master receives control signals from **Fohhn-Net**.

send

This symbol lights up when control signals from **Fohhn-Net** are displayed.

The 4 Airea-Net connectors each have a green and a yellow status LED. Green shows that the Airea-Net output is switched on. The yellow LED flashes when the output is being checked and a solid yellow LED denotes a short circuit in the output.

3.2.4 USB-C configuration port

The **Airea Master AM-4.4** is equipped with a USB-C connector on the front of the casing. This enables optional, direct configuration of the AM-4.4 via a PC and the control software **Fohhn Audio Soft**, without the use of a **Fohhn** network adapter.

In order to connect a network consisting of several devices, a **Fohhn** network adapter must be used (e.g. an **NA-11 Fohhn-Net USB Adapter** or **NA-4 Fohhn-Net Ethernet Adapter**).

More information on the configuration can be found in section 3.3 'Start-up' in this operation manual!



USB-C connector (bottom left) on the front of the casing

3.2.5 Analogue inputs

The AM-4.4 ANA has 4 symmetrical analogue inputs. These inputs can be used as line inputs or as microphone inputs. In **Fohhn Audio Soft**, amplification and optional phantom power for condenser microphones can be set individually for each analogue input. These settings will be stored in presets.

3.2.6 Airea-Net outputs

Airea end devices are connected to **Airea-Net** outputs, e.g. active Airea loudspeakers, breakout boxes and Airea amplifiers. The connections are provided with **48V supply voltage**, a **digital audio signal** and the **Fohhn-Net** control signal. As a result, only one cable is necessary to operate the Airea loudspeaker.

Active Airea loudspeakers have an **Airea-Net input** and an **Airea-Net output**, so several Airea loudspeakers can be connected serially (daisy-chain) to an Airea-Net output.

Since the AES/EBU digital audio data is refreshed in each receiver, it is imperative that an Airea-Net output is only connected to one Airea-Net input, otherwise the audio data will not be received and will not be transmitted.

Devices with a total of 200W RMS can be connected to each Airea Net output. The required connected load is printed on each Airea end device.

The sum of all connected loads should not exceed 200W per Airea-Net output.

When the Airea Master is switched on, all Airea-Net outputs are disconnected. There is no supply voltage. This is shown by the yellow LED (16).

Before an Airea-Net output is switched on, an internal logic checks to see if the end device is connected, if there is a short circuit, or whether there are too many Airea end devices connected. The 48 V phantom power is only switched on if a suitable connection is detected. This measurement process can take up to 2 seconds.

During operation, the Airea-Net output is continually monitored for overload and short circuit. If an error occurs, the Airea-Net output will be switched off.

An active Airea-Net output is shown by a green LED (17).

If an Airea-Net output is switched off or if there is an error, the yellow LED will be illuminated (16). Permanent illumination of the yellow LED indicates short circuit.

If nothing is connected to an Airea-Net output, it will also not be switched on and the yellow LED (16) will flash.

Since large currents flow to the Airea-Net outputs, the wiring should only be changed when the Airea Master is switched off.

Connecting Airea end devices to an active Airea-Net output can cause damage to connectors and cables due to high currents.

The connection assignments for the Airea-Net connectors are outlined in the appendix.

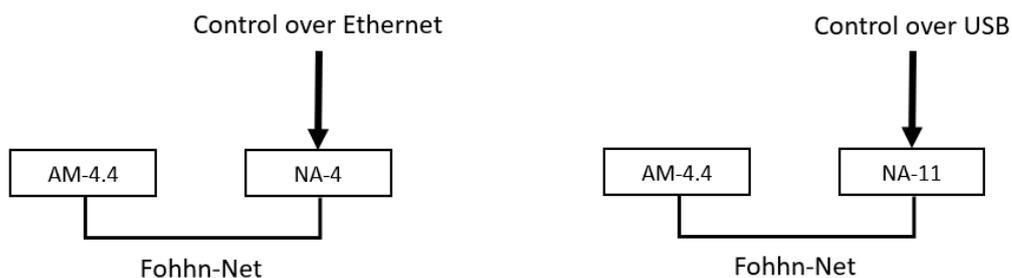
3.2.7 Airea-Net input

The Airea Master AM-4.4 is equipped with an Airea-Net input connector. This provides the option of connecting the external Airea Adapter ABX-2, ABX-4 or ABX-6 to your Airea Master. The **Airea** system has its own network for transferring supply voltage, digital audio signals (AES/EBU) and **Fohhn-Net** control signals – **Airea-Net**. The AES/EBU signals are allocated to input channels 3 and 4.

3.3 Start-up

You can remotely control and monitor the functions of the digital signal processors (DSP) integrated in your Airea Master via the **Fohhn-Net** network. To do this, a Windows PC with the control software **Fohhn Audio Soft** (Version 5.6.0 or later) installed is required.

To configure the devices connected to the **AM-4.4**, an **NA-11 Fohhn-Net USB adapter** or **NA-4 Fohhn-Net Ethernet adapter** must be connected to the **Fohhn-Net terminal**.



- An external Fohhn-Net adapter is required to configure the entire Airea System!
- Use a separate Fohhn-Net adapter for each AM-4.4!
- Only the AM-4.4 can be configured via the USB connector for the AM-4.4!
- The Ethernet connector for the AM-4.4 DAN is only for Dante Audio!

3.3.1 System requirements

A standard Windows PC is required to operate **Fohhn Audio Soft**.

More information can be found in the separate operation manual for Fohhn Audio Soft. These can be downloaded from the Fohhn website: www.fohhn.com

3.3.2 Download and installation of Fohhn Audio Soft

Fohhn Audio Soft is directly compatible with all active DSP systems for **Fohhn**. Therefore, you do not need a version of the software specifically designed for the Airea Master, but always work with the same software and in the same user interface, regardless of the connected devices.

You can download the latest version of **Fohhn Audio Soft** from www.fohhn.com free of charge.

Proceed as follows to install **Fohhn Audio Soft** on your computer:

1. Download the latest version of **Fohhn Audio Soft** to your computer.
2. Find the file *Fohhn_Audio_Soft_X.X.X_Setup.exe* on your computer (X.X.X is the respective version number).
3. Execute the installation programme by double-clicking on the file, then follow the instructions on screen.
4. Click on *Install* to install the programme on your computer. Confirm the dialogue for *User account control*, if this is displayed.
5. To complete the installation, click on *Finish*.

The software is ready to use right after installation and can be activated either via the programme symbol on the desktop or via the path, *Start > All programmes > Fohhn Audio AG > Fohhn Audio Soft*.

3.3.3 Fohhn-Net wiring and ID allocation

To control several units, each unit in the **Fohhn-Net** must be provided with its own, specific ID. Via this ID, each individual **Fohhn** device can be clearly identified and controlled in **Fohhn Audio Soft**.

- ⚠ **From factory, all devices have ID 1.**
- ⚠ **Duplicate IDs will result in an ID conflict. In this case, control of the devices in question will no longer be possible.**

Allocating IDs for individual devices:

For an ID to be assigned, each Airea Master AM-4.4 must be connected to **Fohhn Audio Soft**.

Proceed as follows:

1. Connect **Airea Master** to the power supply.
2. Connect **Airea Master** via a USB-C connector to a PC.
3. As an alternative to step 2, you can also use an **NA-4** or **NA-11 Fohhn-Net** adapter.
4. Connect the USB connector or adapter via a suitable cable to the **Airea Master**.

5. Switch on the **Airea Master** or connect the network cable to the power supply.
6. Start **Fohhn Audio Soft**. The **Fohhn-Net** adapter used will automatically be recognised.
7. When **Fohhn Audio Soft** is opened, an automatic search starts which lists the correctly connected **Fohhn** devices. Active Airea DSP loudspeakers that are connected to the Airea Master via Airea-Net are listed automatically. **All these loudspeakers must have different, unique IDs too.**

If no device is displayed, check all connections and start the search again. Pay attention to the ID search range.

Proceed as follows:

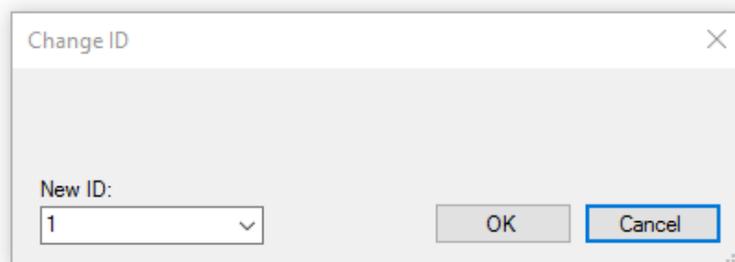
1. In the menu point *Devices*, click in the dialogue *Search for devices in the network*.
2. If there is still no device shown, check the power supply and/or the network cabling for your Airea Master. Then repeat step 1.

If an Airea Master is detected, this will appear with ID 1 (factory setting).

To change the ID in the dialogue *Search for devices in the network*, proceed as follows:

1. Right-click with your mouse on the device in the list display in the dialogue.
2. In the context menu, select the command *Change Fohhn-Net ID*.
3. In the dialogue of the same name, enter a new ID for the device. Ensure that this ID has not been used before.

Confirm by entering *OK*: **Airea Master** will now have this newly assigned ID.



You can change the ID of a **Fohhn** device at any time during operation. This must also be located in the **Fohhn-Net** system. Proceed as follows:

1. Open the *Device list* via the button of the same name in the tool bar or via the menu *View*.
2. Right-click with your mouse on a device in the list.
3. In the context menu, select the command *Change Fohhn-Net ID*.
4. In the dialogue of the same name, enter a new ID for the device.
5. Confirm by entering *OK*: the **Fohhn** device will now have this newly assigned ID.

More information on setting up a Fohhn-NetS and about the Fohhn-Net ID assignment can be found in section 4.1 'Setting up Fohhn-Net' in the operation manual for Fohhn Audio Soft.

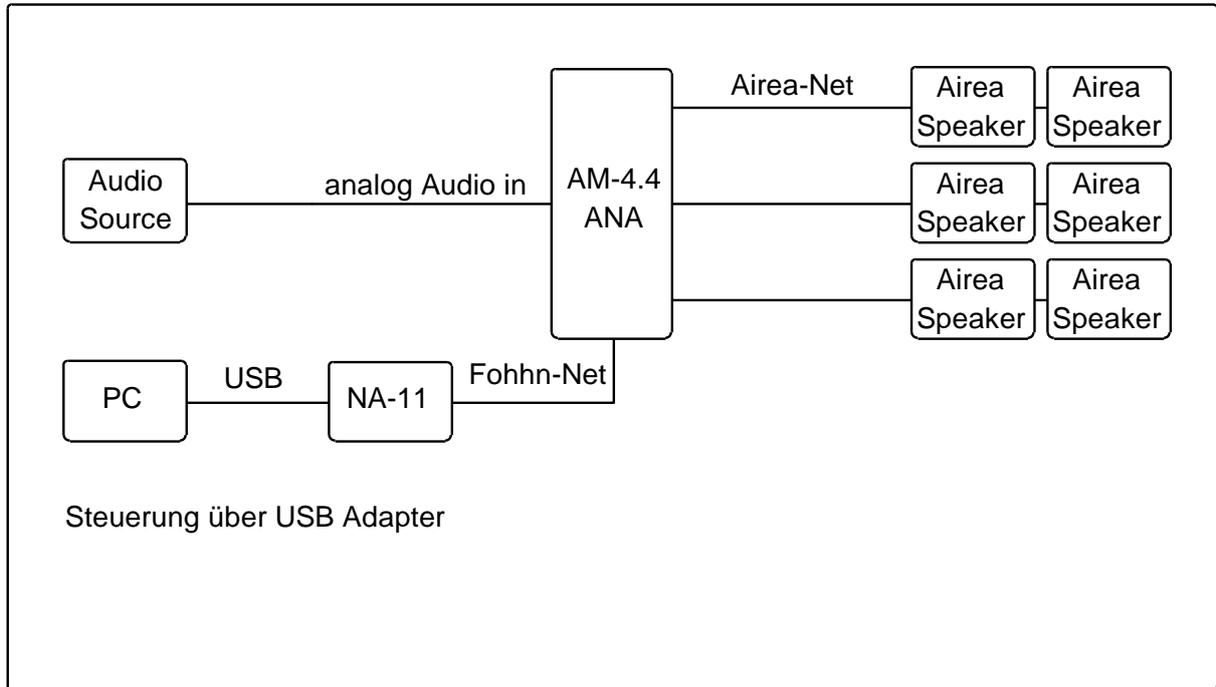
3.3.4 Updating the firmware

In addition to **Fohhn Audio Soft**, the firmware on your devices determines the functional scope of your **Fohhn** system. From time to time there will be updates for these data sets which can be loaded within **Fohhn Audio Soft** (Internet connection required!).

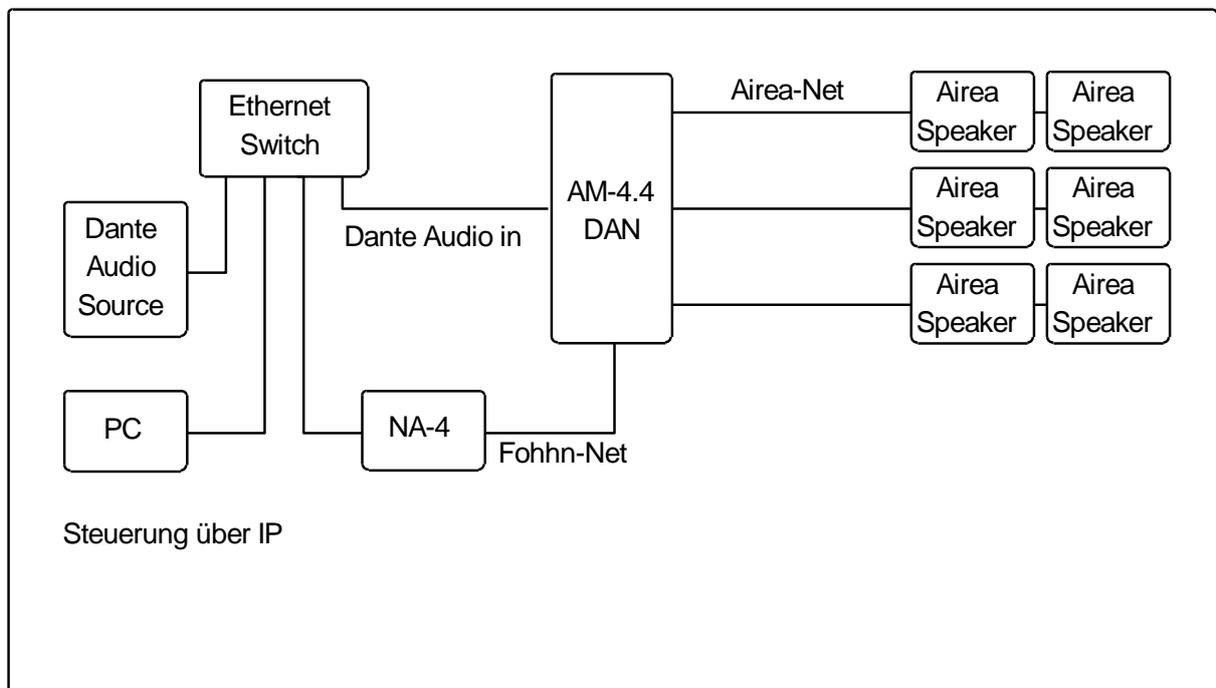
More information about this can be found in section 6.1 'Firmware updates' in the Fohhn Audio Soft operation manual.

3.3.5 Setting up and connecting an Aire system

Connect your Aire Master via the respective inputs and outputs (**see section 3.2 ‘Connections and Controls’**) with the audio source and loudspeaker systems.

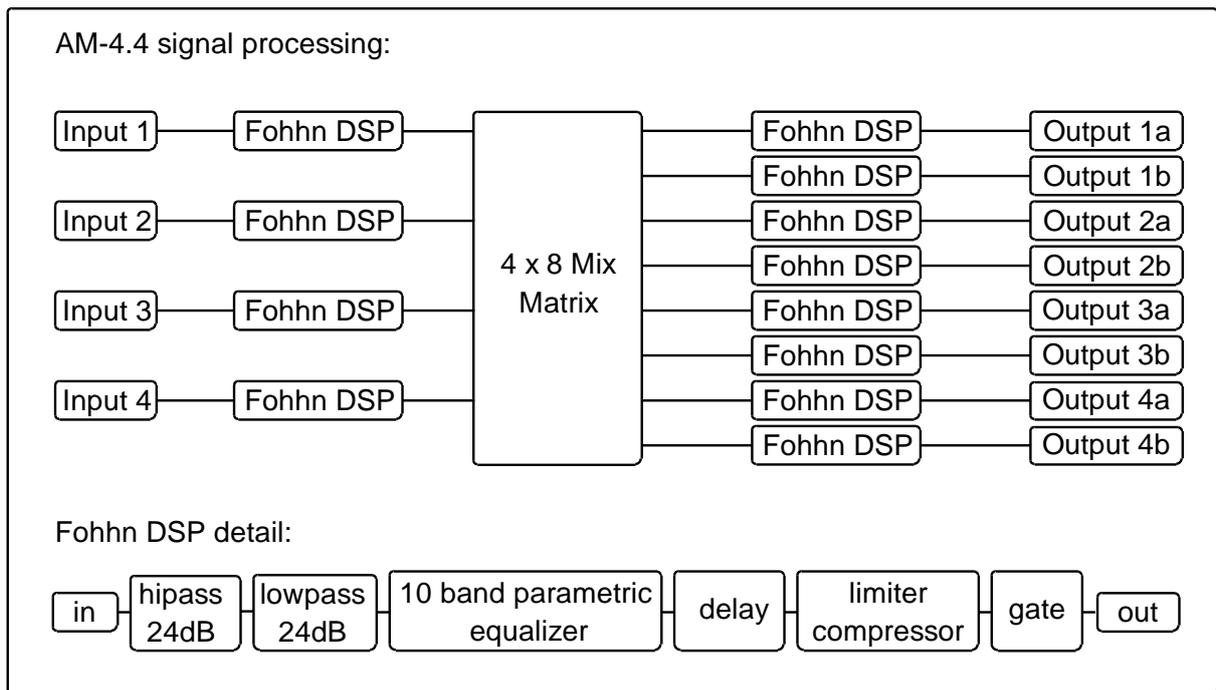


Connecting an Aire Master AM-4.4 with analogue input



Connecting an Aire Master AM-4.4 with Dante input

3.3.6 Signal processing



Overview of the signalling chain in the Airea Master AM-4.4

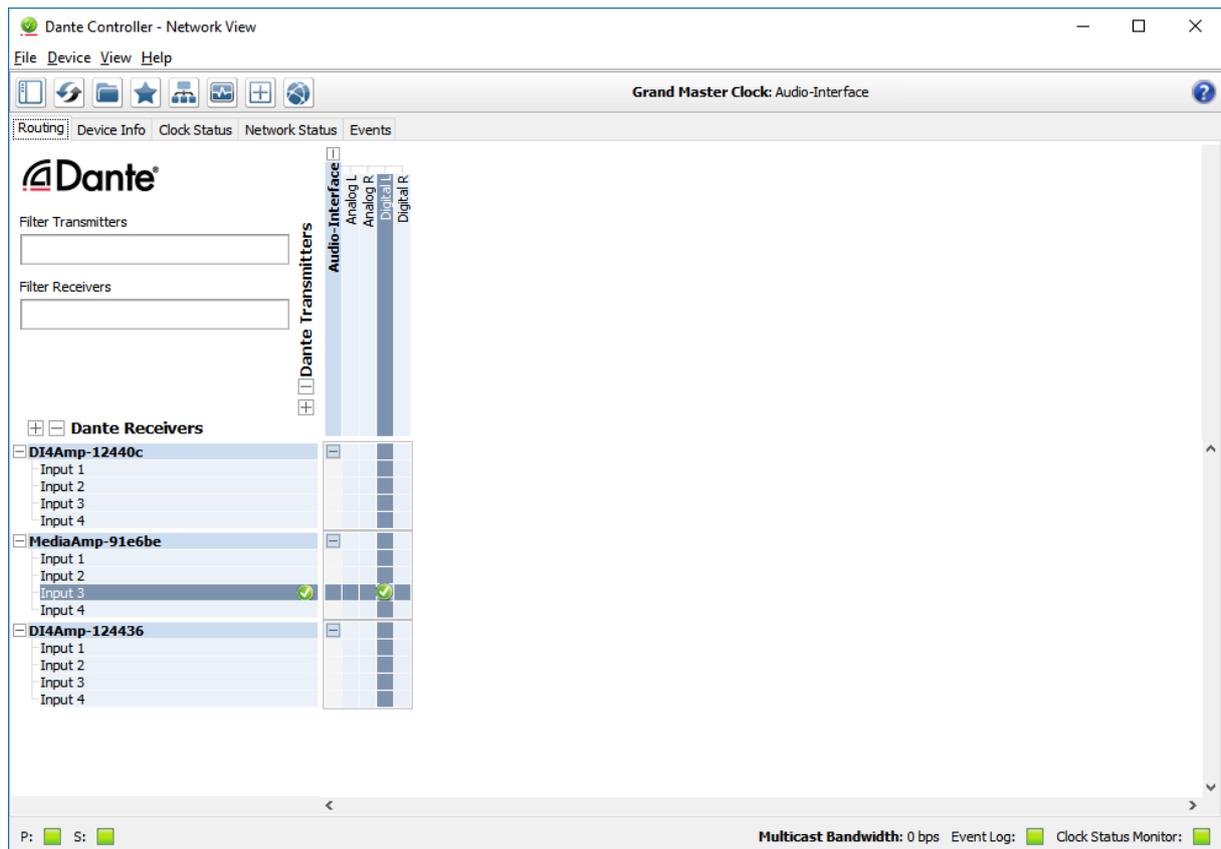
The AM-4.4 has a 4 x 8 mix matrix, with which a separate mix of the 4 input channels can be created for each of the 8 output channels. All input and output channels contain a **Fohhn DSP**, which enables individual and universal signal processing.

More information can be found in the separate operation manual for Fohhn Audio Soft. It can be downloaded from the Fohhn website: www.fohhn.com

3.3.7 Integration in a Dante™ network

Devices with a Dante™ interface are connected to the Dante™ audio network via an Ethernet switch. Control of the **Airea Master AM-4.4** takes place via the **Fohhn-Net**, i.e., via the USB connector, or the **Fohhn-Net** connector. For control on a PC as well as **Fohhn Audio Soft**, the **Dante Controller** software from Audinate is required (see section 3.3.3 'Fohhn-Net cabling and ID input').

The Dante Controller software can be downloaded here free of charge: <https://www.audinate.com/products/software/dante-controller>



All parameters of the Dante™ input interface (e.g. the audio routing within a Dante network) must be configured with the Dante Controller software.

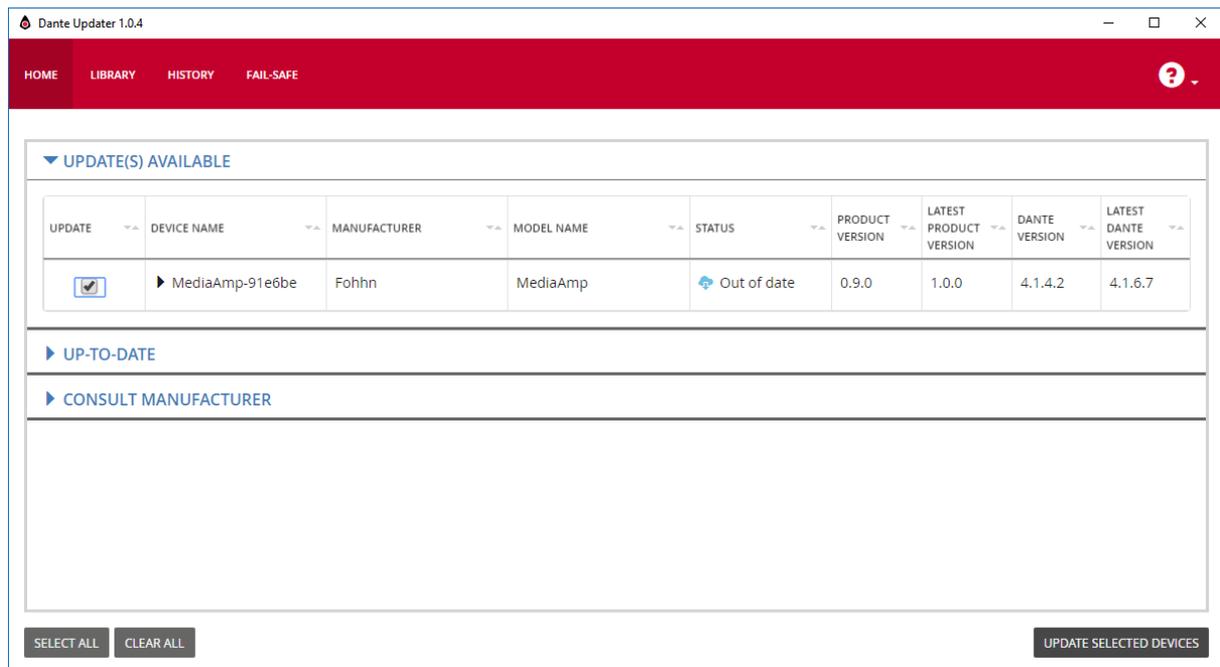
Firmware update for the Dante™ interface

To update the Dante firmware for the interface, the **Dante Controller 4.2** software or later is required.

This software can be downloaded from the Audinate website:
<https://www.audinate.com/products/software/dante-controller>

Update as follows:

1. Start the **Dante Controller**.
2. Select *View -> Dante Updater*.
3. Select the Dante devices found that are to be updated; click on **UPDATE SELECTED DEVICES**.



In the **LIBRARY** area, you have the option of saving the Fohhn Dante firmware locally on your PC, so that updating is also possible without an Internet connection.

The Dante Updater only updates the firmware of the integrated Dante module – the firmware of the Fohhn device is independent of this and may have to be updated separately!

All the instructions for use for Dante™ by Audinate can be found here:

<https://www.audinate.com/resources/technical-documentation>

A helpful guide to locating the Dante device when the IP address is not known can be found here:

<https://www.audinate.com/faq/how-can-i-locate-dante-device-static-ip-address-unknown-subnet>

3.3.8 Renaming a device and output channels

For improved identification within **Fohhn Audio Soft**, when installing several **Airea** products it is recommended that individual devices and input and/or output channels be provided with individual names. Proceed as follows:

1. Open the *Device List* or *Devices* view via the entries of the same name in the View menu or the buttons in the toolbar.
2. Right-click on the desired device in the list (*Device list*) or in the working area (*Devices*).
3. In the context menu, select *Rename device*.
4. Now in the dialogue *Rename*, enter a new name for the device and finish the entry with *OK*.

- To rename individual output channels, right-click with your mouse on the preferred device in the display, *Devices*, and select point *Rename channels*. Re-naming individual output channels is possible in the same manner in the *Output channels* view.

The new name is now adopted in the *Device list*, *Devices* and *Channels* views.

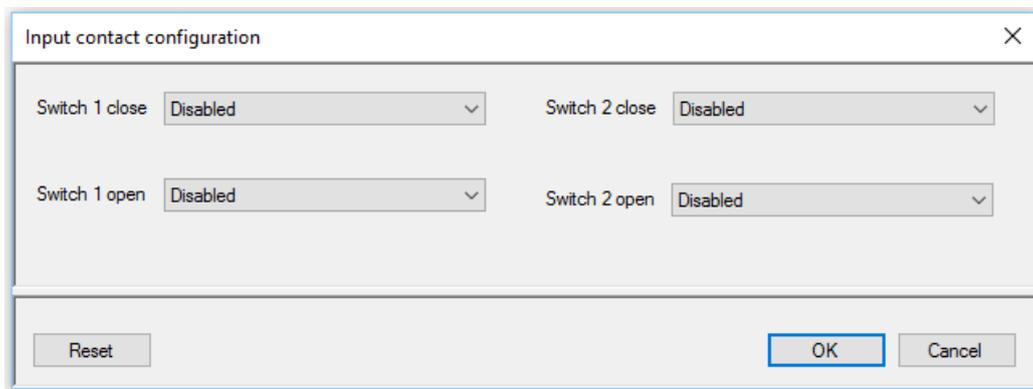
3.4 Additional functions

3.4.1 Switch contact

The **Airea Master AM-4.4** has two contact inputs (see Section 3.2 ‘**Connection information and controls**’), which can be activated by switching presets.

This switch contact can be configured in **Fohhn Audio Soft** as a switch:

- In the *Device list* view, select one or more Aira Masters and right-click to open the context menu.
- Choose the entry *Settings*. The *Advanced device settings configuration dialogue* opens.
- Select one or more Aira Masters here and right-click to call up another context menu.
- Select the entry *Set switch config*. The window *Input contact configuration* opens.



- Via the drop-down lists for the statuses ‘Close’ (*Switch 1/2 close*) and ‘Open’ (*Switch 1/2 open*) choose the respective setting: you can, for instance, deactivate the respective status (*Disabled*) or load one of up to 100 presets (*Load Preset*).
- Confirm your selection with *OK*.

When an Aira Master is switched on, the selected presets will also be loaded in accordance with the switching contact status (‘closed’ or ‘open’).

We recommend saving all the user presets first before configuring the switch contacts!

Further information about storing user presets can be found in the separate operation manual for Fohhn Audio Soft. These can be downloaded from the Fohhn website: www.fohn.com

3.4.2 Password lock

The Area Master and its settings can be secured against subsequent changes with a password. This password lock can be set via **Fohhn Audio Soft**.

Additional information about the password lock can be found in Section 6.6 'Password lock' in the separate operation manual for Fohhn Audio Soft. It can be downloaded from the Fohhn website: www.fohn.com

4. Technical data

	AM-4.4 DAN	AM-4.4 ANA
Output power / net load	4 x 200 W Airea	
Input channels	4	
Airea outputs	4	
Output channels	8	
DSP routing (matrix)	4 x 8	
Frequency response	5 Hz – 20 kHz	
Signal-to-noise ratio	>140 dB/A	
THD+N Airea-Net	0.00005%	
Dynamic range	>140 dB	
Remote control	Fohhn-Net over RS-485, USB-C, Fohhn Audio Soft	
Remote monitoring	Temperature, Protect, Power Supply, Fohhn-Net, Fohhn Audio Soft	
Switching contact	Load presets, standby On/Off	
Password protection	Yes	
Auto Power Save	-	
Protective circuit	Surge protector, over current protection, over temperature protection, short circuit protection, DC protection, start delay, soft start and inrush current limitation	
Power supply	100–240 V AC 50/60 Hz, Universal power supply with power factor correction (PFC)	
Power consumption:		
- Maximum (RMS)	500 W	
- when in standby	5 W	
- Auto Power Save	5 W	
- Standby	5 W	
Thermal output	Maximum 15 W, 51 BTU/hr, 13 kcal/hr (Pink Noise, 6 dB crest, 1/4 Pmax)	
Temperature range	0–40 °C	
Cooling	Temperature-controlled fans	
Weight	2.05 kg	
Dimensions (W x H x D)	1 RU / 1/2 19", 211 x 45 x 330 mm	
Controller		
Digital signal processors	1	
Independent limiters	12	
Filter technology	80-bit double precision	
Input	1 x DANTE	4 x analogue
Input DSP processing	Yes	

FIR filter	Yes
Input gain	-80 dB – +12 dB
Routing gain	-80 dB – +12 dB
Output gain	-80 dB – +12 dB
EQ	12 x for every 10 fully parametric filters Gain +/-12 dB, frequency 10 Hz – 20 kHz, Q 0.1–100
Limiter, compressor	12
Noise gate	12
X-over	12 x Linkwitz/Riley 4th order, 24 dB/octave High-pass 10 Hz – 20 kHz, low-pass 10 Hz – 20 kHz
Delay	8 x 0–72 ms , (0–25 m) outputs 4 x 0–30 ms , (0–10 m) inputs
User presets	100
System latency	1.2 ms
Connections and control elements	
USB config	1 x USB-C connector
Network connection	1 x C14 cold-device plug
Switch contact 1 & 2	1 x Phoenix 3-pole
Airea_Net	1 x RJ45
Input interface (analogue)	
Inputs	4 x analogue
Signal inputs	Analogue, max. Gauge +21 dBu
Frequency response	20 Hz – 20 kHz
THD	< 0.005% typically < 0.003% 1 kHz 0 dBu
Signal/noise ratio	>108 dB/A
Input impedance	10 kOhm
Latency	1.0 ms
Input Interface (Dante)	
Inputs	1 x RJ-45 100BASE-T Ethernet, Dante, 4 x 48 kHz
Latency	Dante +0.6 ms
Outputs	
Outputs	4x RJ45 Airea-Net
Display (front side)	
Ready LED	blue = Power on, blue flashing = sign
Protect LED	red = error / protect / standby
USB config LED	blue = host, setting via USB
Display (rear side)	
Receive/send LED	Remote control, Fohhn-Net
Airea-Net	On/off

4.1 Power supply

AM-4.4				
U=230 VAC	Conditions	Power (A)	Output (Watt) ohmic	Output (VA)
Idle without external devices		0.26	6.0⁽⁴⁾	60
maximum mean output		1.5	350⁽⁴⁾	370
Peak output		2.5	500	550
Inrush current (start)		< 5A		

Design and specifications are subject to change without prior notice.

^[4] Recommended values for calculating UPS

5. Troubleshooting

The following table outlines how errors can be detected and which corrective measures are recommended.

Problem	Possible causes	Possible corrective measure
No sound can be heard. But there is an audio signal.	The input and output routing in the User DSP is not correct.	Check the DSP settings in Fohhn Audio Soft .
	The cable connection between the Aireas Master and the loudspeaker is defective or not plugged in.	Check the cable and connect the loudspeaker to Aireas Master.
Aireas Master is not recognised by Fohhn Audio Soft .	Several products have the same Fohhn-Net ID. (An ID conflict is shown in Fohhn Audio Soft .)	Change the ID – it is not allowed to have duplicate IDs (see 3.3.3 ‘Fohhn-Net cabling and ID input’).
	The ID search range is limited.	Expand the search range from ID 1 to 254.
	The Fohhn-Net plug (see 3.3 ‘Set-up’) is not inserted.	Depending on the product variant, connect the system to the respective adapter.
The “Ready” LED and symbols on the front of the casing are not illuminated.	No power supply voltage is available	Measure the network voltage on the plug, check the fuse.
	230 V not available, mains fuse tripped	Measure the network voltage on the plug, check the fuse.
The two symbols <i>send</i> and <i>receive</i> are not illuminated.	The cable in the Fohhn-Net connection is defective or is not plugged in.	Check the cable and connect the loudspeaker to the corresponding Fohhn-Net adapter.
The symbol <i>protect</i> lights up.	There is an operating failure.	Contact Fohhn Audio AG service immediately.
Distortion can be heard (clipping).	Input or output overloaded	Check the input and output level in Fohhn Audio Soft . The red Clip LEDs should not light up
	Output impedance is too low. Short circuit.	Check the loudspeaker impedance (all outputs). Check all outputs for a short circuit.
	Signal source distorted	Check with another device whether the input signal is undistorted.

If your problem is not in the table above or if the problems cannot be solved with the suggested solutions, please contact the following address:

Fohhn Audio AG, Großer Forst 15, 72622 Nürtingen, Germany, Tel. +49 7022 93323-0

6. Service and repair

Servicing and repairs should only be carried out by qualified **Fohhn** personnel.

Do not carry out any service or repairs on the device that go beyond the information given in the sections '**Maintenance measures**' and '**Cleaning the fan and filter foam without tools**'.

For addresses of a **Fohhn** Service providers in your area, please contact the address on the previous page.

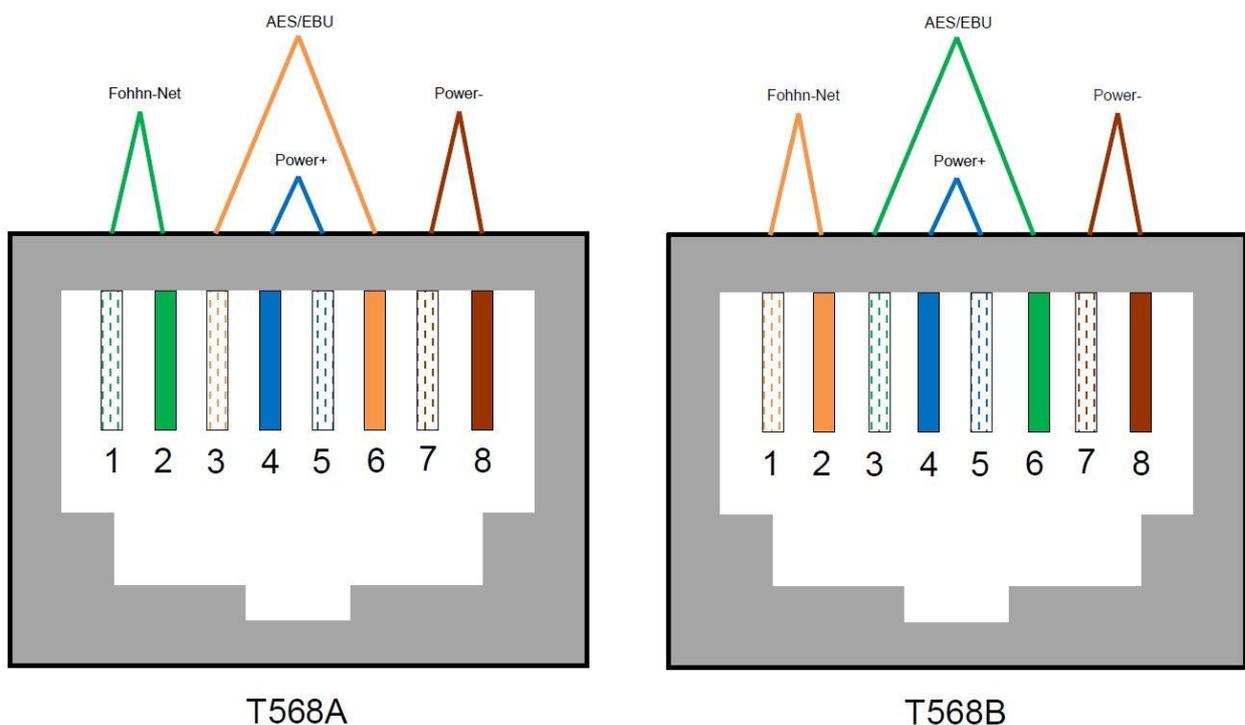
Keep the packaging for the device so it can be returned in its original packaging in the event of damage. This also minimises the risk of damage during transport.

6.1 Maintenance measures

- Use a dry or slightly damp, well wrung-out cloth to clean your **Airea Master AM-4.4**.
- Do not use any aggressive cleaners, waxes or solvents (including cleaning alcohol or paint thinners), since these can get into the display of your device and/or corrode the casing finish.
- The device does not contain any parts that can be maintained by the user.
- The device is to be repaired by qualified, specialist personnel only.

7. Connection configuration

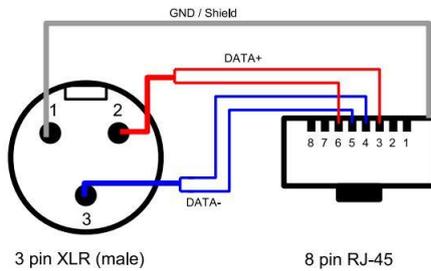
7.1 Airea-Net



RJ-45 pin	Signal
1	Fohhn-Net +
2	Fohhn-Net -
3	AES/EBU +
4	Power +
5	Power +
6	AES/EBU -
7	Power -
8	Power -

RJ-45 pin	568A colour	568B colour
1	white/green	white/orange
2	green	orange
3	white/orange	white/green
4	blue	blue
5	white/blue	white/blue
6	orange	green
7	white/brown	white/brown
8	brown	brown

7.2 Fohhn-Net



Typ	3-pin XLR (male)	8-pin RJ-45
GND / Shield	Pin 1	Shield
DATA+	Pin 2	Pin 3 + Pin 6
DATA-	Pin 3	Pin 4 + Pin 5

RJ-45 pin	Signal
1	nc
2	nc
3	Data+
4	Data-
5	Data-
6	Data+
7	nc
8	nc

RJ-45 pin	568A colour	568B colour
1	white/green	white/orange
2	green	orange
3	white/orange	white/green
4	blue	blue
5	white/blue	white/blue
6	orange	green
7	white/brown	white/brown
8	brown	brown

7.3 Airea-Net cabling permanent installation

Minimum requirement: CAT5, AWG23, DC resistance < 75 Ohm/km, shielding S/UTP

Optimal: CAT7, AWG22, DC resistance < 60 Ohm/km, shielding S/FTP

8. Appendix

8.1 Environmental notice

Note that this product must not be disposed of with household waste, but must be taken to a collection point for electrical/electronic waste. Please observe all national and local statutory guidelines. Further information can be obtained from your city administration, the waste transfer station responsible for you and your local sales partner.

8.2 CE marking and declaration of conformity

This device meets the current standards for the CE guidelines and therefore bears the CE label.

The relevant conformity declarations are available from

Fohhn Audio AG, 72622 Nürtingen

on request.



8.3 Trademark

All brand names and trademarks mentioned in the operation manual and possibly protected by third parties are subject without restriction to the provisions of the applicable trademark law and the ownership rights of the respective registered owners. All trademarks, trade names, or company names referenced herein are or may be trademarks or registered trademarks of their respective owners. All rights, which are not expressly stated here, are reserved.

If there is no explicit identification of the trademarks used in this manual, it cannot be assumed that a name is free from the rights of third parties.

8.4 Protection classes and protection types



Protection class I: All electrically conductive casing components in the equipment have a low-resistance connection with the protective conductor system in the fixed installation.

IP21

Device protection type (protection from solid foreign objects ≥ 12.5 mm in diameter, protection from access by fingers and protection against dripping water)

8.5 Disclaimer and copyright

Disclaimer

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8.6 Contact address

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