

Data sheet

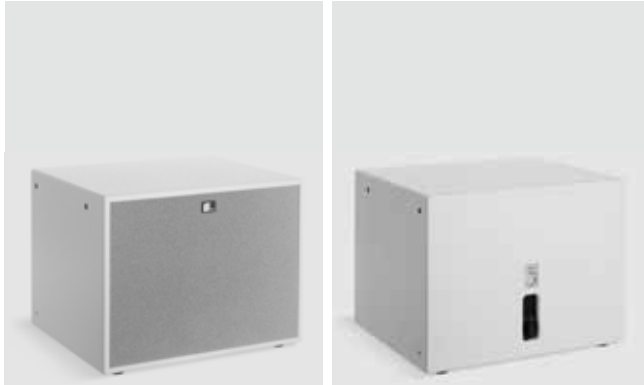
AS-22



# Arc-Series

Architectural Sound Design.





**Fohhn® AS-22 Highly precise, 12" subwoofer with powerful performance capability and extremely compact dimensions.**

### Overview

The AS-22 is a perfect partner for Arc-Series full / mid-high range loudspeakers. High-quality components with a coated 12" long excursion speaker; 500 W; bass reflex; no crossover for 2-way active operation; standard colour, black; weight 21 kg.

Fohhn® subwoofer systems are renowned for their precise, powerful reproduction of low frequencies. All models are equipped with top class, highly durable long excursion speakers. Their compact housings are made from high-quality multi-ply birch wood and can be painted to order in any RAL colour. 6 x M8 thread inserts ensure safe mounting of the sub on ceilings or walls, in accordance with current safety regulations.

### Optional versions

Optional special weatherproof plastic coating.  
Optional 100 volts version. All RAL colours

### Connections

8-pole Phoenix terminals

### Mounting brackets

VAS-14 set comprising 4 x mounting brackets for simple, flexible mounting of the subwoofer on ceilings or walls.



### Technical specifications

#### AS-22

#### electro-acoustical features

acoustic design	bass reflex, NTP (Non-Turbulent Port design)
components	1 x 12" long excursion speaker
power rating	500 W
SPL max.	127 dB
frequency range	38 Hz – 500 Hz
Impedance	4 Ohm

#### features

housing	multiplex birch plywood
protection grille	ball impact resistant steel, powder coated
rigging points	6 x M8 screw threads
connections	8-pole Phoenix connector
standard colour	black, textured paint
front design	acoustic foam in housing colour
dimensions (W x H x D)	52 x 42 x 43 cm
weight	21 kg

#### optional features

special colours	all RAL colours
weather protection	Scratch resistant plastic coating

The manufacturer reserves the right to make technical modifications according to legal regulations stipulating the continual improvement of product features.

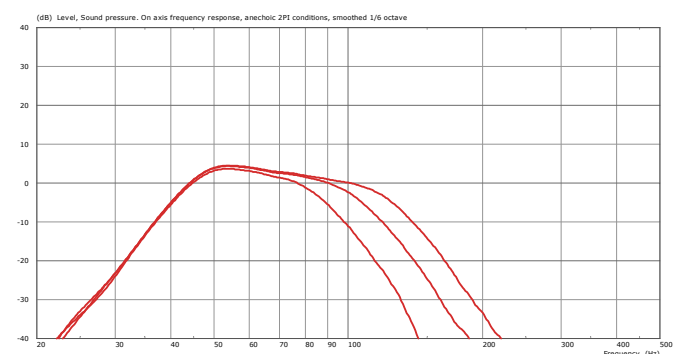


Fig. 6: Frequency response

## Controlling Arc-Series speakers

### 1. Fohhn System DSP Amplifiers

Fohhn offers a range of specially configured system amplifiers for controlling your Arc-Series loudspeakers. This guarantees the very best levels of sound performance and operating reliability from all your Fohhn products. As a manufacturer of loudspeaker-, amplifier- and DSP technology, we know all our systems inside out and are therefore able to recommend the most appropriate system combination for each user.

#### Fohhn System DSP amplifier are offering following advantages:

##### Integrated high performance DSP technology:

- making them quicker to put into operation - minimizing the amount of rack space needed
- minimizing the amount of cabling required - avoiding cabling faults - enabling the same software to be used for remotely controlling and monitoring controllers and amplifiers

##### Dual DSP technology

Our DSP amplifiers have 2 separate DSP engines. These work with amazing capacity and computing power, enabling the control of 5 freely available digital audio tools (DSP 1) as well as Fohhn's proprietary loudspeaker database (DSP 2).

##### Remote monitoring and control

Integrated temperature and operating time monitoring, operating status indicator / protect, remotely controllable / networkable using a laptop, wall panel or media control system.

### Fohhn® dual DSP technology

#### DSP-1: Integrated digital audio devices

Each amplifier channel has a:

- programmable 10 band parametric EQ,
- compressor/limiter/noise gate,
- delay,
- X-over function,
- top-quality pink noise and sweeptone generator

#### DSP-2: Speaker management

An integrated speaker database guarantees excellent sound quality and protection for all Fohhn speaker types. A sophisticated algorithm developed by Fohhn engineers and adapted to each speaker allows the individual monitoring and adjustment of bass, mid and high ranges.

### 1.1 Amplifier recommendations for the Arc-Series



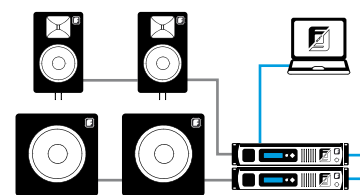
#### D-2.750

**2 channel operation** 2 x 750 W / 4 Ohm, 2 x 390 W / 8 Ohm Fohhn Audio DSP, Display, Remotely Controllable

#### D-4.750

**4+2 channel operation** 4 x 750 W / 4 Ohm, 4 x 390 W / 8 Ohm 2 x DSP-controlled Line Out channels for controlling a conventional amplifier, Fohhn Audio DSP, Display, Remotely Controllable

	Arc-Tops										Linea				Arc-Subs							
	AT-05	AT-061	AT-07	AT-08	AT-09	AT-10	AT-22	AT-221w	AT-35	AT-40	AT-50	AT-661w	AL-10-150	LX-10/11	LX-100/150	LX-500/501	LX-600/601	AS-10	AS-22	AS-31	AS-40	
D-2.750	x	x	x	x	x	x	x	x					x	x	x			x	x			
D-4.750	x	x	x	x	x	x	x	x					x	x	x			x	x			
D-2.1500									x	x	x	x			x	x	x			x	x	
D-4.1200									x	x	x	x			x	x				x	x	



2x Subs passive / 2x Tops passive  
2x DSP amplifier (D-Series)

## Controlling Arc-Series speakers

### 2. Standard amplifiers combined with Fohhn controllers

#### Commercially available amplifiers / 100 V amplifiers / Multi-Channel amplifiers in combination with a Fohhn FC-9 DSP system controller

Fohhn Arc-Series loudspeakers can be used with practically any commercially available amplifier (e.g. Bittner). Each Fohhn loudspeaker is linear, sound neutral and is equipped with an integrated crossover that has multiple electronic Integrated Protection Circuits (IPC). When working with standard multi-channel amplifiers, 100 V amplifiers, or amplifiers with EN 60849 accreditation that have monitoring capability, we recommend using the Fohhn FC-9 DSP system controller. The FC-9 has been specially developed for fixed installation applications, guaranteeing optimum sound quality and maximum operating reliability. Used in conjunction with Fohhn loudspeakers, it offers performance features that are not currently found in any other commercially available controllers.

#### Sound quality. Reliability. Intelligent control.

- \* Fohhn DSPs guarantee optimum sound performance
- \* 5 top class integrated audio tools, e.g. Parametric EQ
- \* integrated loudspeaker- and amplifier database for maximum operating reliability
- \* remote control, remote monitoring, networkable
- \* CAS amplifier measuring function
- \* 8 switching contacts for easy system integration
- \* perfectly compatible with commercially available amplifiers

#### FC-9 DSP system controller



DIN EN 60849 (VDE 0828)

#### Bittner amplifiers



**BITTNER**  
AUDIO

In addition to our own Fohhn DSP amplifiers, we can also offer the entire Bittner Audio amplifier range for low-resistance or 100 V applications. Solutions such as multi-channel amplifiers with 8 standard channels, as well as important features that allow integration into electro-acoustic emergency evacuation systems in accordance with DIN EN 60849 (VDE 0828), are all within the scope of Bittner Audio. Contact us for more information.

#### Advantages of the FC-9 controller:

**Fully compatible with all commercially available amplifiers thanks to an automatic measurement function and integral amplifier database**

#### Dual DSP technology

The FC-9 has two separate DSP engines that work with amazing capacity and computing power to control Fohhn's proprietary loudspeaker management system and 5 freely available digital audio tools.

#### Integral loudspeaker management system

guarantees excellent sound quality and maximum protection for all Fohhn loudspeaker models. This enables low-, mid- and high-frequency ranges of loudspeakers to be selectively monitored and adjusted. At the heart of the management system is a complex algorithm, specially developed by Fohhn engineers, which has been tailored to work with each individual loudspeaker.

#### Remote monitoring and control

remotely controllable / networkable using a laptop, wall panel or media control system

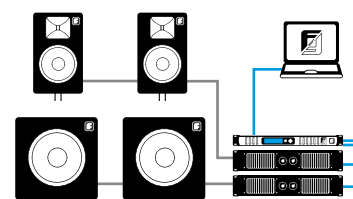
#### 8 contact inputs

These can be used to switch between different presets, or function as a volume control (raising the volume level for example).

#### 4 inputs / 6 outputs (24 nodes)

Each output is equipped with a top-quality programmable 10-band EQ, Compressor / Limiter / Noise Gate, Delay, X-Over function, Pink Noise and Sweep Tone generator.

This enables the Fohhn system to be easily adapted to suit room acoustics, or other preferences.

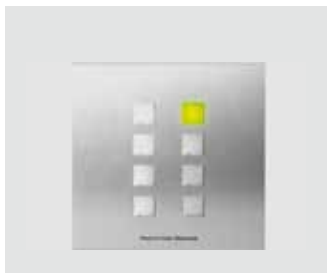


2x Subs passive / 2x Tops passive  
2x standard amplifiers  
1x DSP system controller FC-8

## Remote control and network ability of Fohhn devices with integrated DSP

### FR-10

wall-mounted panel for remotely controlling Fohhn devices with integral DSPs



#### Overview

The FR-10 is a remote control module, designed as an elegant wall panel, which can be used for remotely controlling Fohhn DSP amplifiers, controllers or active Fohhn loudspeaker systems. Operating the FR-10 has been made as simple as possible, involving just 8 illuminated buttons.

#### Straightforward operation

Operating the FR-10 is extremely straightforward. It is based on the use of 8 illuminated buttons. Pressing a button enables presets in connected Fohhn devices to be simultaneously changed and settings for various scenarios such as speech, music, empty room, full room etc. to be recalled.

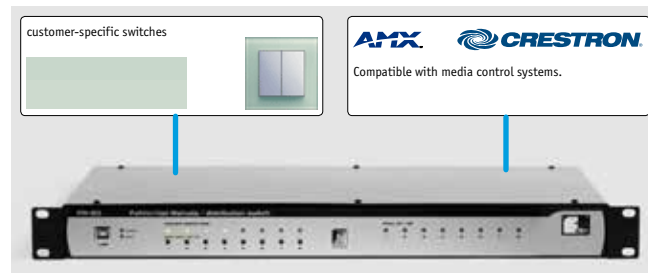
The overall volume level of a system, for example loudspeakers that are sited in different zones, can also be quickly and easily adjusted using the FR-10. No additional control elements are involved, other than the 8 buttons. This rules out the chance of any operating errors occurring at the hands of an end user. By pressing a single button, up to 31 networked Fohhn devices can be simultaneously addressed.

#### Applications

The FR-10 is ideal for training rooms, hotels, churches, halls, restaurants, clubs and a range of other venues. It enables simple, secure, central control of your audio system, without the need to install complex or expensive media control systems.

### FR-20

19-inch controller for use with standard switching, or for integration into media control systems



#### Description

The FR-20 is triggered via external push buttons/switches (from Jung, Vitra etc.) or arbitrary switching contacts (e.g. as in a media control system). The switches can therefore be integrated into a wall-mounted module or into a specially manufactured control panel, for example. Use of these switching contacts enables presets in connected Fohhn DSP devices to be simultaneously changed, and settings recalled for various scenarios such as speech, music, empty room, full room etc. The FR-20 also enables volume levels to be quickly and easily adjusted. A single switch press enables presets, or other parameters, on up to 31 networked Fohhn devices to be simultaneously changed.

#### Integration into media control systems

Using the FR-20, all DSP-controlled Fohhn devices can be easily integrated into a media control system (e.g. AMX, Crestron) via 8 make contacts or RS-485.

#### Integration in a EIB bus technology

##### One building, one concept, one system.

Using the FR-20 Fohhn-Net-Remote with its 8 make contacts, Fohhn systems can also be integrated into the European Installation Bus (EIB) system, still retaining the same ease of use.

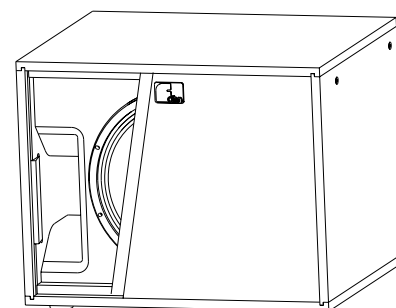
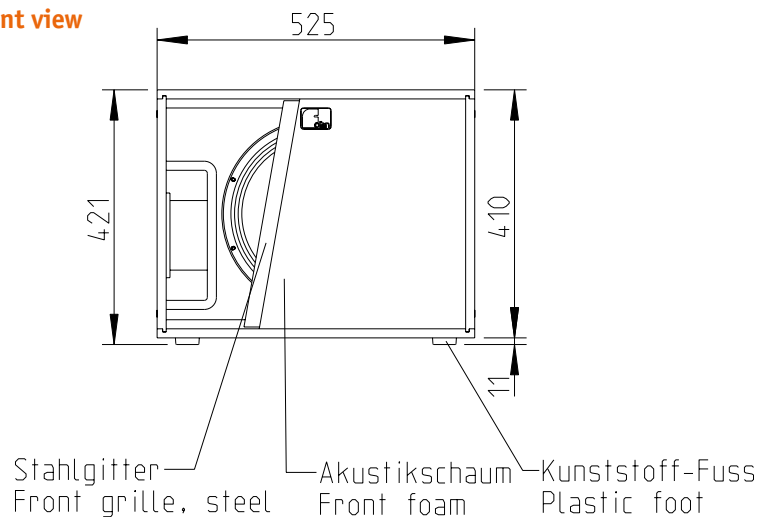
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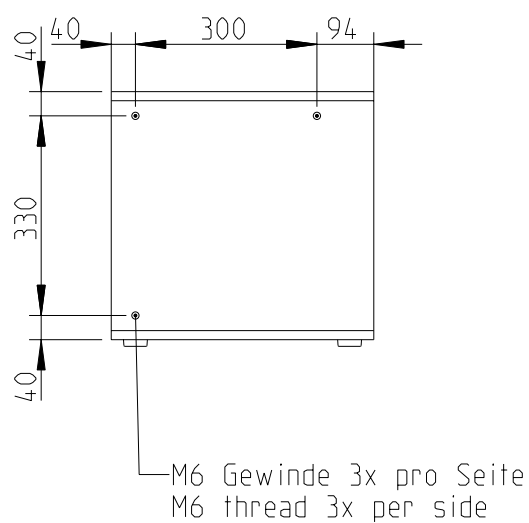


## Views of AS-22

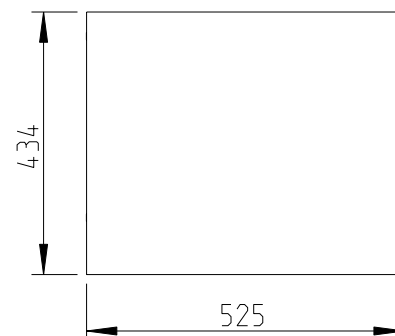
Front view



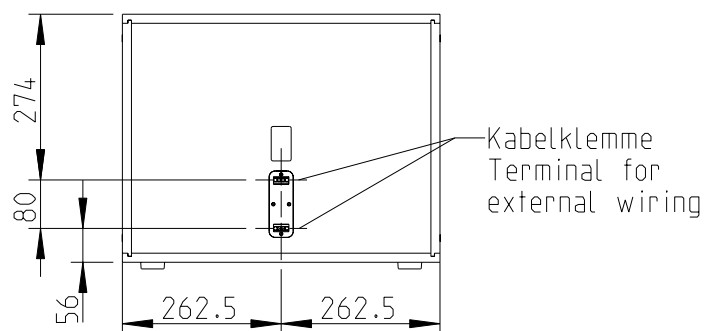
Side view



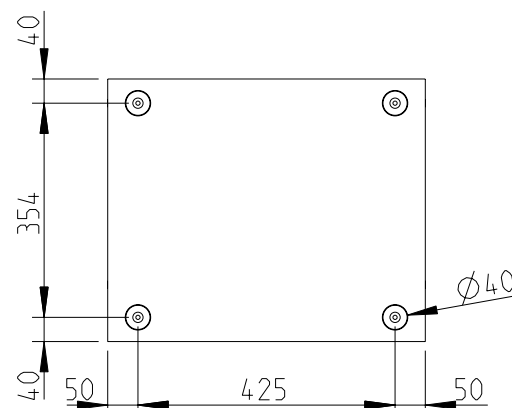
Top View



Rear view



Base view



# SOUNDS PERFECT. IS PERFECT.

Fohhn audio systems. The ultimate all-round audio experience.



■ German quality  
■ engineered and made  
■ by Fohhn®

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