Fohhn
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Arc-Series
Architectural Sound Design.

AT-08 loudspeaker

Fohhn® AT-08 is the reliable formula for an stylish two-way speaker system with an equally elegant rounded wooden housing. The AT-08 is designed for short to medium distances and near-field at larger venues

Description

Phase-optimized with two 6" cone peakers and 1" spherical horn in d'Apollito arrangement guarantees even sound dispersion. A precision-made crossover with electronic high-frequency protection circuit is also included. The rounded multiply birch wood housing is reinforced on the inside with steel brackets. 10 M6 threaded inserts guarantee safe speaker installation in accordance with all current regulations. The AT-08 is ideal both as a fullrange and mid-high system in combination with subwoofer systems AS-10/ASP-10 and AS-20/ASP-20.

Optional versions

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

Applications

Conference and training rooms, hotels, clubs, theatres, churches, multimedia presentations, horizontal assembly under balconies and galleries, surround sound applications, airports.

Connections

Dual connector panel - Speakon and internal 4-way terminal connector with cable outlet. You can either use the Speakon socket or connect the stripped cable ends to the terminal and insert the cable through the outlet.

Speakon configuration

1- = In- LowZ (Common 100 Volt)
1+ = In+ LowZ od. 25% (100 Volt)
2- = Input 50% (100 Volt Option)
2+ = Input 100% (100 Volt Option)
Optional 100 volts version.

Technical specifications

electro-acoustical features

acoustic design	passive loudspeaker, 2-way, symmetrical design, bass reflex
components	2x 6" / 1" calotte horn, with self-resetting Polyswitch-HF protection
power rating (nominal)[1]	150 W
power rating (program)[2]	300 W
power rating (peak)[3]	600 W
sensitivity[4]	91 dB
maximum SPL[3]	118 dB
frequency range[5]	50 Hz – 20 kHz
nominal dispersion (h x v)[6]	90° x 40°
nominal impedance	8 ohms

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

[1] according to IEC-60268-5 long term
[2] according to IEC-60268-5 short term
[3] Peak, 20 ms with bandpass filtered pink noise signal according to IEC 60268-2 at one octave above the lower limit of the frequency range
[4] 2,83 V at 8 ohms (2 V at 4 ohms, 4 V at 16 ohms) at a distance of 1 meter under anechoic fullspace conditions

features

enclosure	birch plywood designer cabinet, metal strengthened
protection grille	ball impact resistant metal, powder coated finish
rigging points	10x M6 thread
connections	1x Neutrik NL4 Speakon and 4-pole connector inside
standard colours	textured finish black or white
frontal design	acoustic foam, same colour as enclosure
dimensions (W x H x D)	195 x 510 x 230 mm
weight[7]	7 kg
optional features	
integrated 100 V-transformer	60/30/15 W or 120/60/30 W
optional colours	all RAL-colours
weather protection	scratch-proof plastic coating, impregnated speaker membranes
CAAD simulation data	ULYSSES, EASE

[5] -10 dB under anechoic halfspace-conditions
[6] horizontal x vertical at -6 dB
[7] net weight without optional equipment
[*] Intelligent Protection Circuit. Voltage-controlled semiconductor circuit protecting the HF-driver against overload highly effective and with very short attack time.

1. Fohhn system DSP amplifiers

Fohhn offers a range of specially adapted system DSP amplifiers for controlling Arc speaker systems, which guarantee maximum sound performance and operational reliability for your Fohhn products. As manufacturers of speaker, amplifier and DSP technology, we know our systems inside and out right down to the smallest detail and are therefore in a perfect position to provide our users with the best overall system.

Fohhn System DSP amplifier are offering following advantages:

Integrated high-performance DSP technology:
- quick set-up,
- minimal space requirements in electronics cabinet,
- minimal cable requirements,
- fewer cable faults,
- controller and amplifier can be controlled and monitored using the same software.

Dual DSP technology
The DSP amplifiers contain 2 separate DSP engines with enormous capacity and processing power for 5 digital audio devices (DSP-1) and Fohhn specific speaker databases (DSP-2).

Remote monitoring and control
Integrated temperature and operating time monitor, status indicator / protection, remote control capability / network compatibility using a laptop, wall installation modules or media control systems.

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, 2x 750 W / 4 ohms, 2x 390 W / 8 ohms
Fohhn Audio DSP, display, remote control

D-4.750

4+2 channel operation, 4x 750 W / 4 ohms, 4x 390 W / 8 ohms
2x DSP line out channels for controlling a conventional amplifier
Fohhn Audio DSP, display, remote control

	Arc-Tops													Linea	Arc-Subs							
	AT-05	AT-06	AT-07	AT-08	AT-09	AT-10	AT-20	AT-22w	AT-30	AT-35	AT-40	AT-50	AT-66	AL-10-150	AS-10	ASP-10	AS-20	ASP-20	AS-30	ASP-30	AS-40	ASP-40
D-2.750	x	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	x				
D-2.1500									x	x	x	x	x						x	x	x	x
D-4.1200									x	x	x	x	x						x	x	x	x
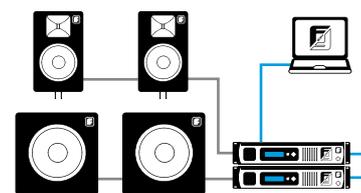
2x Sub *passive* **/ 2x Top** *passive*
2x DSP amplifier

2. Standard amplifiers combined with Fohhn controllers

Standard amplifiers / 100V amplifiers / multichannel amplifiers combined with Fohhn FC-9 DSP system controllers

All of the speaker systems in the Fohhn Arc-Series can be operated in combination with standard amplifiers (e.g. Bittner amplifiers). Each Fohhn speaker model has a linear design, neutral sound adaptation function and is fitted with an integrated crossover with electronic tweeter protection.

We recommend integrating the FC-9 Fohhn DSP system controller for applications involving standard multichannel amplifiers, 100V amplifiers or monitored amplifiers according to EN 60849.

The FC-9 guarantees maximum sound quality, operational reliability and performance features that no other standard controller can offer in combination with our Fohhn speakers.

Sound quality. Reliability. Intelligent control.

* Fohhn DSPs guarantee maximum sound performance
* 5 premium audio tools such as Parametric EQ are integrated
* Integral speaker and amplifier database for maximum operating reliability
* Remote monitoring/operation, network-compatible
* Automatic amplifier calibration function CAS
* 8 input switching contacts for easy system integration
* Perfect adaptation to all standard amplifiers

FC-9 DSP system controller

DIN **EN 60849** (VDE **0828**)

Advantages of the FC-9 controller:

Perfect adaptation to all standard amplifiers

Automatic amplifier calibration function and integrated amplifier database for perfect adaptation.

Dual DSP technology

The FC-9 contains 2 separate DSP engines with enormous capacity and processing power for Fohhn specific speaker databases and 5 digital audio devices.

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.

Remote monitoring and control

Remote control capability / network compatibility using a laptop, wall installation modules or media control systems.

8 input switching contacts

The FC-9 has 8 input contacts. The inputs can be utilized to switch between the different presets of the FC-9, as well as other Fohhn-Net devices. With two inputs and two pushbuttons (shutters) connected to them, a volume control can be realized as well.

4 inputs / 6 outputs (24 nodes)

A programmable 10-band parametric EQ, compressor/ limiter/noise gate, delay, X-over function, top-quality pink noise and sweeptone generator are available at each output, allowing you to conveniently adapt the Fohhn system to the room acoustics or your own personal requirements.

Bittner amplifiers

In addition to our special Fohhn® DSP amplifiers, we also offer the complete range of **amplifiers manufactured by Bittner Audio** for low-ohm or 100 volt applications. Bittner Audio offers solutions such as multichannel amplifiers with eight standard channels and **important features for integration in electroacoustic emergency warning systems according to DIN EN 60849 (VDE 0828)**. Contact us for more information!

2x Sub *passive* **/ 2x Top** *passive*
2x standard amplifiers
1x DSP system controller FC-8

FR-10

remote control wall panel designed for the remote operation of Fohhn devices with integrated DSP.
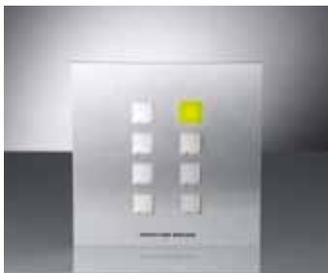
Description

The FR-10 is a wall mount remote control module designed for the remote operation of Fohhn DSP amplifiers, DSP controllers and active Fohhn speakers systems. The FR-10 is extremely easy to operate because the controls are so well arranged. It is virtually impossible for the end customer to make operating errors because the only operating elements are the 8 labelled buttons.

Easy handling

Control up to 32 Fohhn devices individually with this stylish FR-10 wall panel. 8 programmable buttons can be configured to control the overall volume of a system, the volume in different zones or presets for different room effects, for example. The system also has a special function that confirms whether all commands have been executed successfully. The buttons indicate this by changing red or green shortly after they are pressed. For example, if a device is not switched on, the button changes red to indicate that a command could not be executed. This additional monitoring function ultimately contributes to the overall operating reliability of your system. The wall panel is easy to configure using a standard computer with intuitive Fohhn-Net Remote software installed.

Connections

Two terminal strips (paralelled). Alternative connection via standard 4-wire telephone cable.

Applications

The FR-10 is ideal for training rooms, hotels, churches, halls, restaurants or any venue where a simple, efficient system is required to control your audio equipment from a central location.
The FR-10 is also ideal for projects where complex media control systems are not viable or inappropriate, but the user wishes to control the speaker system centrally.

FR-20

19" remote control unit can be controlled via conventional external buttons or switches.

Description

The FR-20 can be controlled via conventional external buttons or switches (e.g. Jung, Vitra, etc.) or switching contacts (e.g. media control system). Buttons and switches may come in the form of a wall installation module or an individually manufactured control panel, for example.
Presets stored in the connected Fohhn DSP devices are activated simultaneously and settings for different scenarios such as speech, music, empty room, full room, etc are loaded when the buttons/switches are pressed. You can also adjust the volume quickly and easily in 1 dB increments using the FR-20. A maximum of 31 Fohhn devices connected to the network can be activated simultaneously at the press of a single button.

Integration in a media control system

The FR-20 allows the convenient integration of all DSP-controlled Fohhn devices into media control systems (e.g. AMX, Crestron) by means of 8 switching contacts or RS-485 interface.

Integration in a EIB bus technology

One building, one concept, one system.
Fohhn systems equipped with a FR-20 distribution switch comply with the „European installation bus technology" standard, including all operating comforts.

Applications

The FR-20 is ideal for training rooms, hotels, churches, halls, restaurants, clubs, bars and many other venues.
For simple, reliable remote operation of your audio system without having to install complex, expensive media control systems.

WAT-08k

Wall bracket short, universal adjustment 360° for
AT-05/061/07/08/09/10/201, AL-50/100/150
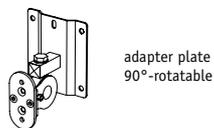
adapter plate
90°-rotatable

WAT-08

Wall bracket, universal adjustment 360° for
AT-05/061/07/08/09/10/201, AL-50/100/150

adapter plate
90°-rotatable
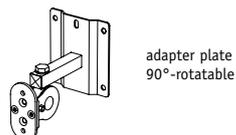
WAT-12

Wall bracket, universal adjustment 360° for AT-30/35/40 and
heavy duty also for AT-08/09/10/201

adapter plate
90°-rotatable
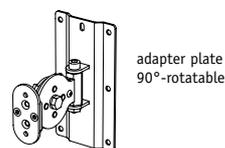
QAT-09

Horizontal bracket for AT-08/09
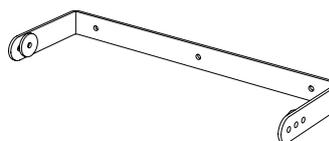
VAT-08

Special bracket for traverse mounting e.g. with Clamp-1 with M10
female thread, extendable with VL-89.
Clamp+bolt: Clamp-1 with threat bolt M10 for traverse mounting
up to 15 kg
VL-89: Extension for VAT-08 and VAT-09 l=180mm, M10 thread

Clamp-1

VAT-08

adapter plate
90°-rotatable

Extension
VL-89
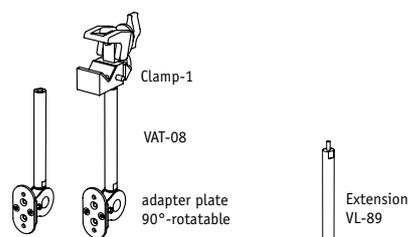
VAT-09

Bracket for ceiling mounting for AT-05/06/07/08/09 l=180mm
M10 thread, extendable with VL-89

Extension
VL-89

adapter plate
90°-rotatable
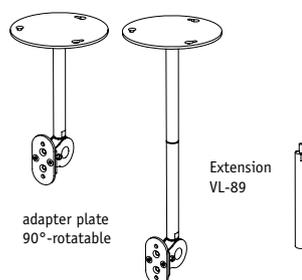
EB-06

Ring stud DIN 580, zinc, for safety M6 thread for
AT-05/061/07/08/09/10

Front view

195

510

Stahlgitter
Front grille, steel

Akustikschaum, anthrazit
Front foam, black

Side view

238,5

12

486

12

Top View

238,5

55

60

123,5

195

M6 Gewinde
M6 thread

Rear view

66

45

60

60

60

60

225

Anschlußfeld Speakon / Kabelklemme
Speakon connector and terminals
for external wiring

M6 Gewinde
M6 thread

Bottom view

75

40

40

83,5

97,5

97,5

M6 Gewinde
M6 thread
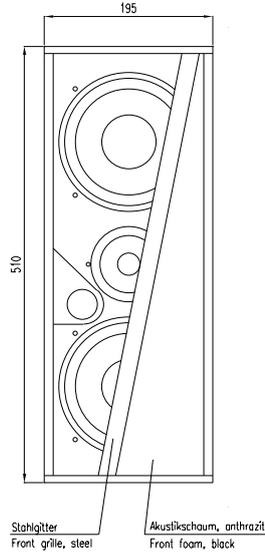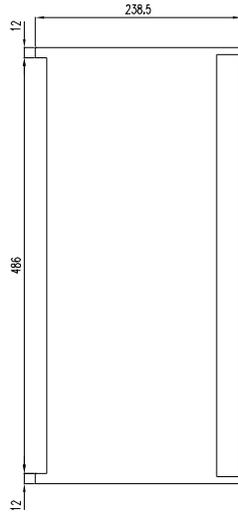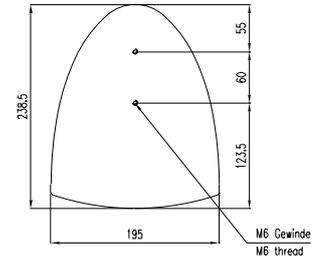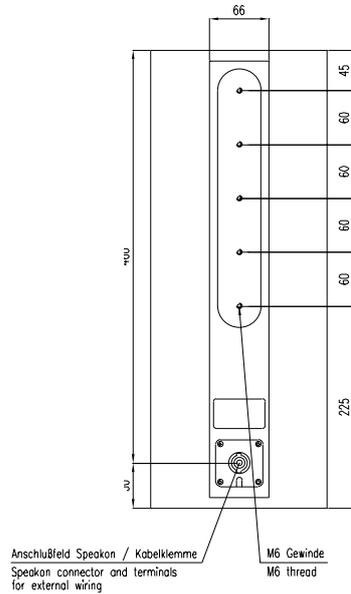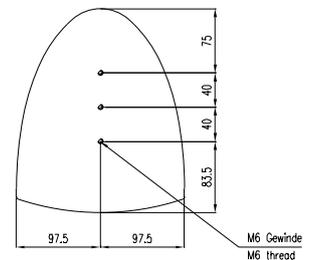
WAT-08k

Wall mount

Side view

Rear view

Top view

Feststellschraube (2x)
Setscrew (2x)

WAT-08 Bestellnr. 830 383
WAT-08 Order number 830 383

WAT-08

Wall mount

Side view

Rear view

Top view

Feststellschraube (2x)
Setscrew (2x)

WAT-08 Bestellnr. 830 383
WAT-08 Order number 830 383

WAT-12
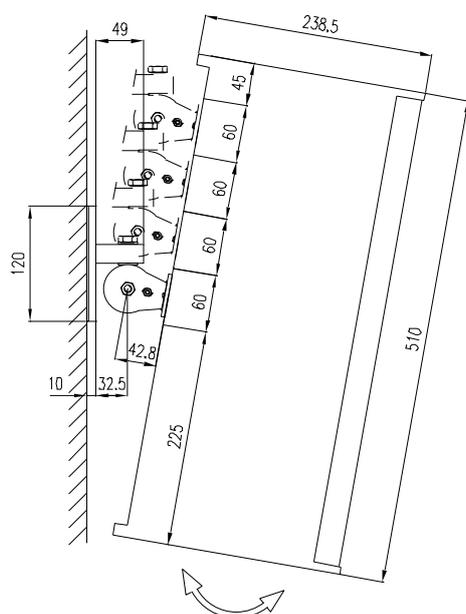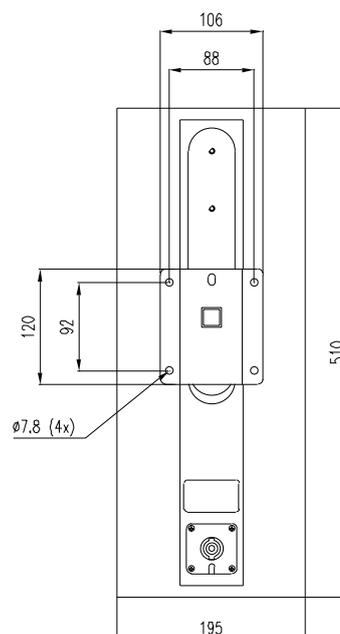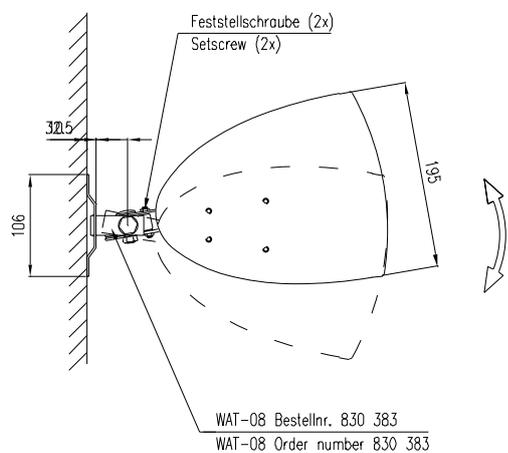
Wall mount
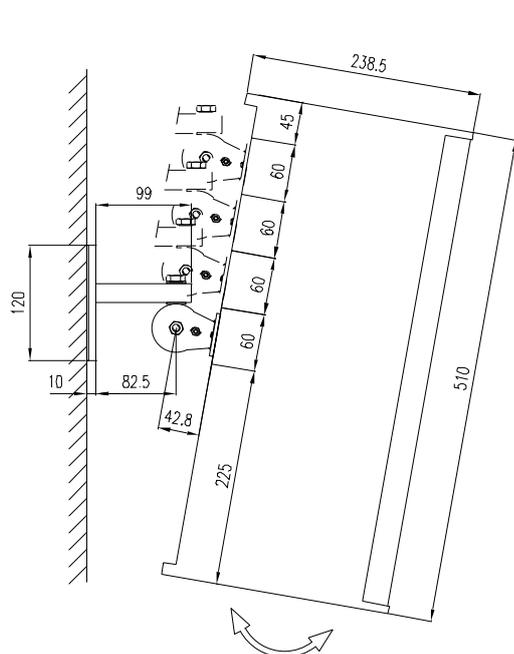
Side view

Rear view

Top view

WAT-12 Bestellnr. 830 393
WAT-12 Order number 830 393

VAT-08
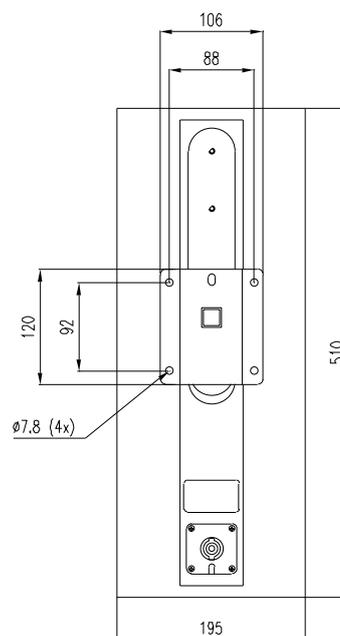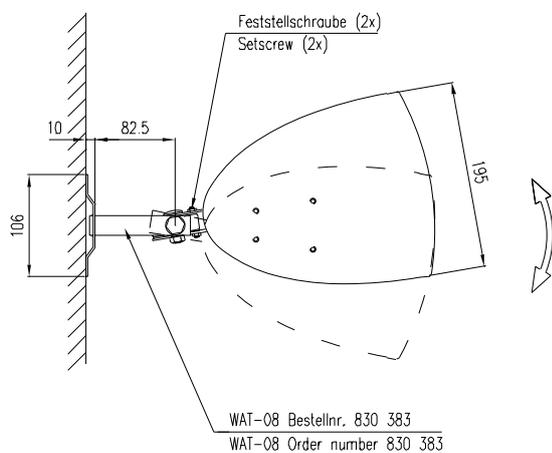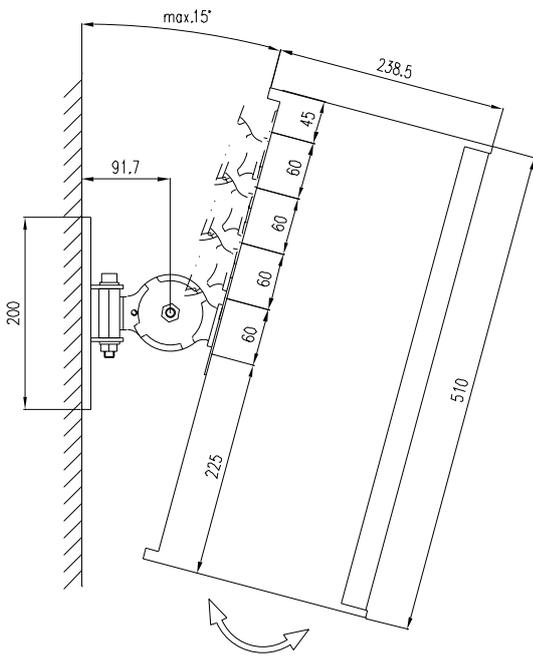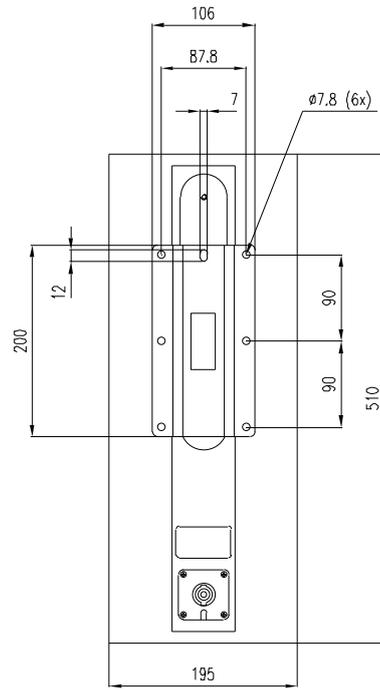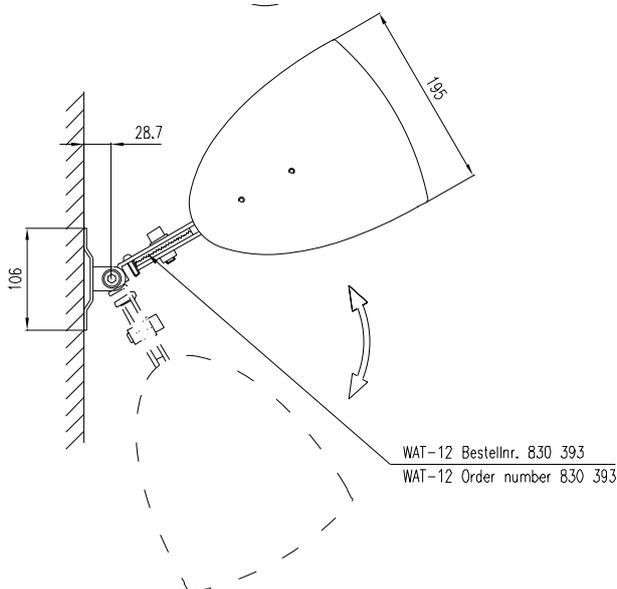
Traverse mount

Side view

Super clamp

Zapfen für Super Clamp 16mm
Stud for Super Clamp 16mm

ø16

34

238,5

ø20

45

60

180

60

SW17

60

60

510

60

Feststellschraube (2x)
Setscrew (2x)

225

Rear view

Super clamp

VAT-08 Bestellnr. 830 382
VAT-08 Order number 830 382

268

510

195

Top view

195
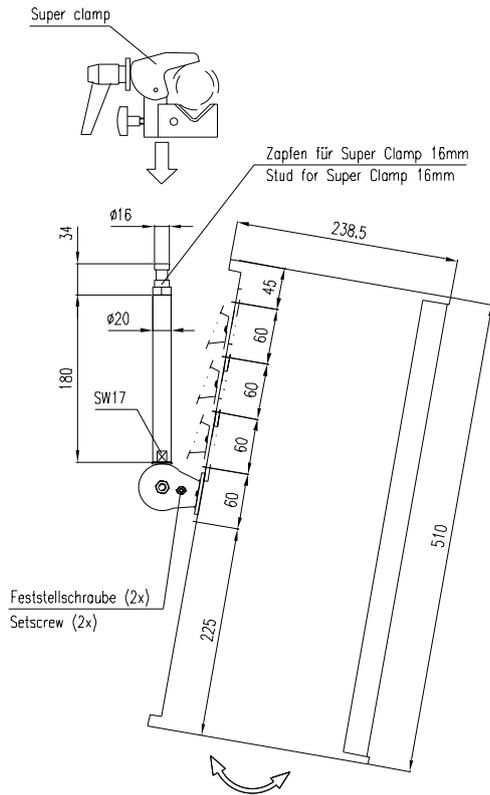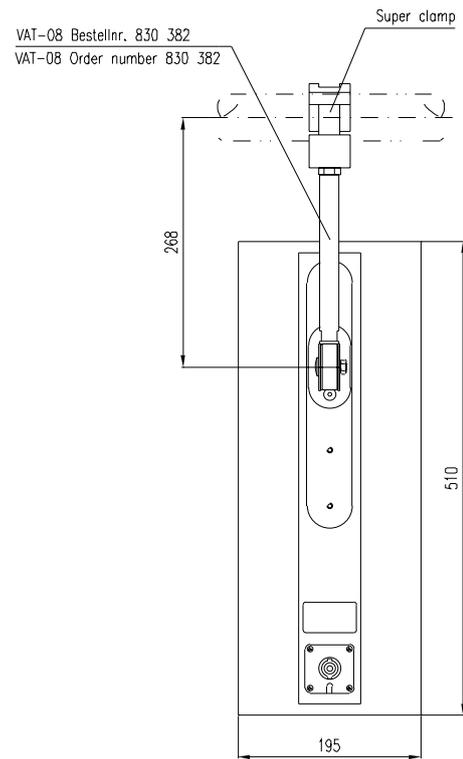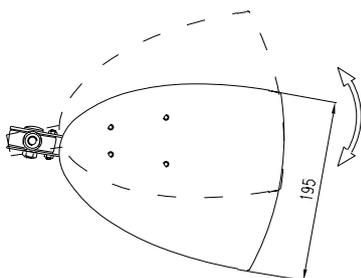
VAT-09

Ceiling mount

Side view

VAT-09
Bestellnr. 830 391
VAT-09
Order number 830 391

ø160
10
4
180
ø20
SW17
45
60
60
60
60
510
225
238.5

Feststellschraube (2x)
Setscrew (2x)

Rear view

Verlängerung Bestellnr. 830 401
Extension Order number 830 401

Kontermutter M10
Locknut M10

510
195

### Top view

3x120°=360°
10°
ø6.5
ø12
ø160
Tkr. ø130
195
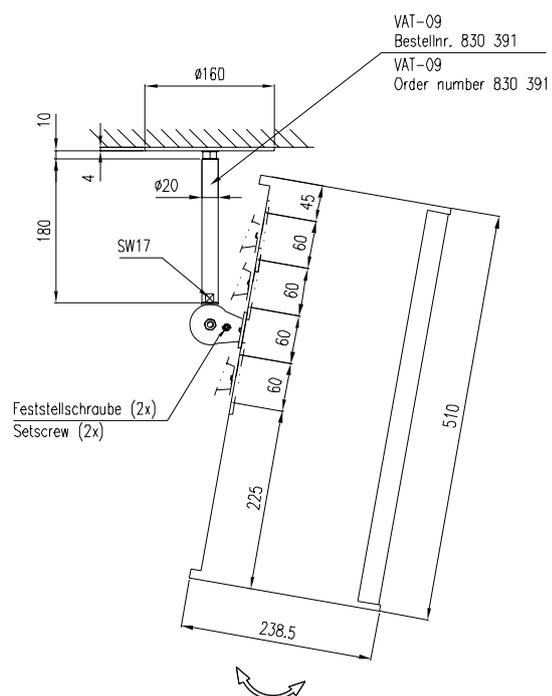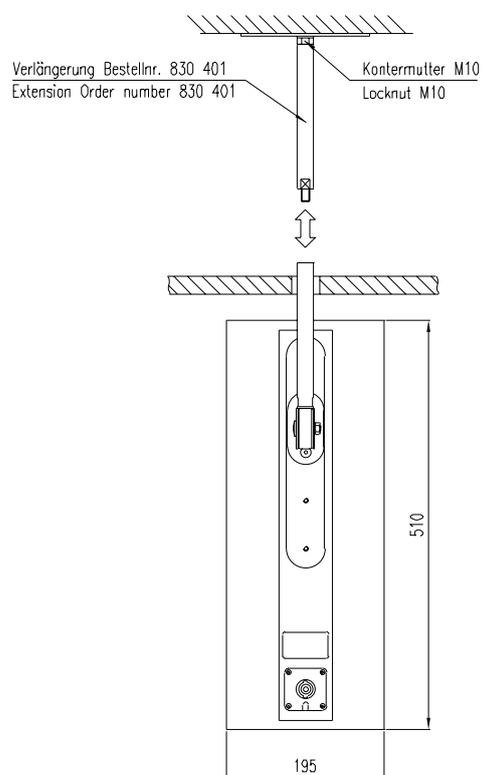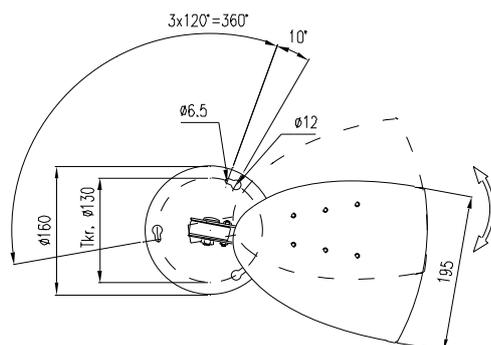
VL-89 Extension

Ceiling mount

Seitenansicht / Side view

Verlängerung Bestellnr. 830 401
Extension Order number 830 401

M10
20
196
180
SW17
M10
16
ø20

Top view

3x120°=360°
10°
ø6.5
ø12
ø160
Tkr. ø130
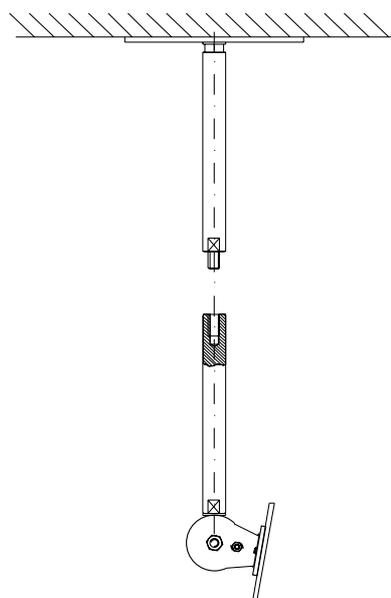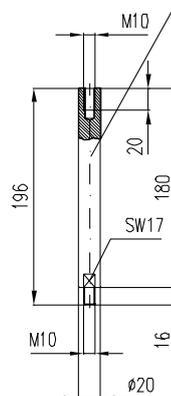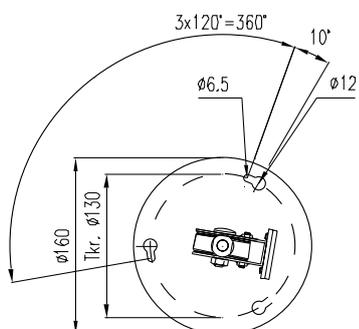
QAT-09

Horizontal mount

Side view
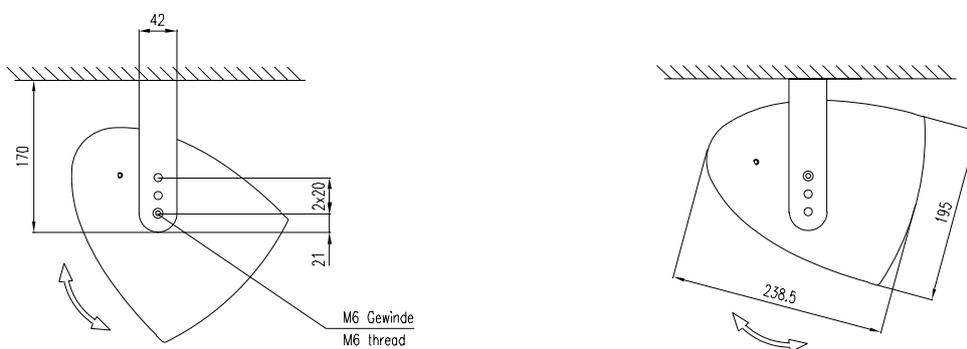
42

170

2x20

21

M6 Gewinde
M6 thread

238.5

195

Front view

530

170

QAT-09 Bestellnr. 830 395
QAT-09 Order number 830

510

Top view

ø9 (3x)

21

42

50   215   215   50

530
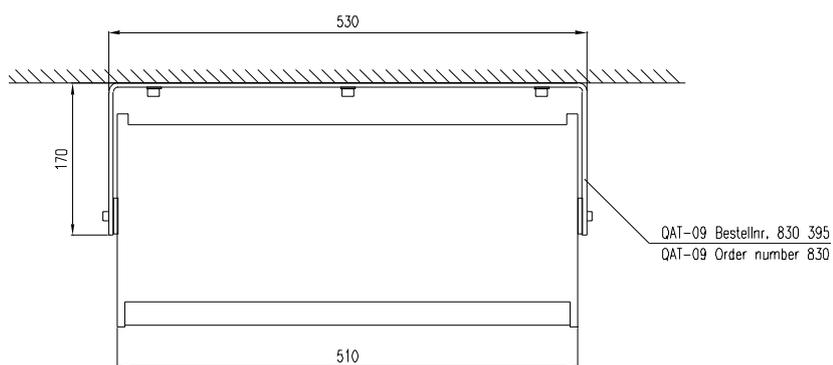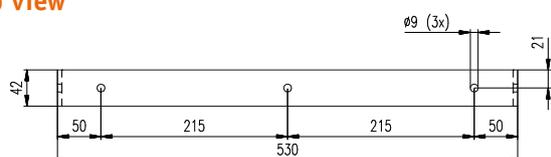
Premium 2-way passive speaker in design enclosure

Premium 2-way passive speaker in design enclosure, equipped with two long stroke 6" sub-mid speakers and one 1"-calotte- HF-driver with integrated short horn in time-aligned and symmetrical speaker arrangement. The speaker is temporary able to work under 600 W and generates acoustic pressure of maximal 118 dB. In a wide frequency range of 50 Hz to 20 kHz, the speaker has a defined dispersion of 90° x 40° (h x v). High-tensile multiplex birch wood enclosure with rounded sides, strutted with internal metal brackets to maintain safety instructions. Durable textured finish, available in black or white. Optional available in all RAL-colours or in weatherproof polyurethane-coating with impregnated speaker membranes. For the protection of the speaker chassis and the electronics, the enclosure is equipped with a ball impact resistant, extremely sound-permeable front grille, which is made of powder-coated steel and equipped with a moisture- and dust repellent acoustic foam in enclosure colour. Ten pieces M6 thread applications in ground, back and upper side are integrated to the admission of ring studs and system brackets. The loudspeaker system is optionally available with 100V technology in different performance classes up to 120 W. Connections: 1x Neutrik NL4 Speakon and internal fourfold terminal. Specific brackets to assemble the system on ceilings, walls and traverses are available. Simulation data CAAD for ULYSSES and EASE are available.

electro-acoustical features

acoustic design	passive loudspeaker, 2-way, symmetrical design, bass reflex
components	2x 6" / 1" calotte horn, with self-resetting Polyswitch-HF protection
power rating (nominal)	200 W
power rating (program)	400 W
power rating (peak)	800 W
sensitivity	97 dB
maximum SPL	125 dB
frequency range	50 Hz – 20 kHz
nominal dispersion (h x v)	90° x 40°
nominal impedance	8 ohms

features

enclosure	birch plywood designer cabinet, metal strengthened
protection grille	ball impact resistant metal, powder coating
rigging points	10x M6 thread
connections	1x Neutrik NL4 Speakon and 4-pole connector inside
standard colours	textured finish black or white
frontal design	acoustic foam, same colour as enclosure
dimensions (W x H x D)	195 x 510 x 230 mm
weight[7]	7 kg

optional features

integrated 100 V-transformer	60/30/15 W or 120/60/30 W
optional colours	all RAL-colours
weather protection	scratch-proof plastic coating, impregnated speaker membranes

CAAD simulation data	**ULYSSES, EASE**

Make	**Fohhn Audio AG**
Type	**AT-08**

SOUNDS PERFECT. IS PERFECT.

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

WWW.FOHHN.COM

■ **German quality**
■ **engineered and made**
■ **by Fohhn®**

Fohhn Audio AG
Hohes Gestade 3-7
72622 Nürtingen
Germany
Tel. +49 7022 93323-0
Fax +49 7022 93324-0
www.fohhn.com
info@fohhn.com