Fohhn | Linea | Live
Mini Line array Systems
Basic & Power Systems I – II – III
Fohhn®
hybrid Line array technology

SOUNDS PERFECT. IS PERFECT.
LINEA LIVE
Mini Line Array Systems
Basic & Power Systems I – II – III

FOHNN®
HYBRID LINE ARRAY TECHNOLOGY
WWW.FOHNN.COM
I am really impressed with the full, natural sound and elegant design of Linea Live.

Susanne Courtin

Susanne Courtin studied jazz, popular music, classic violin and piano at the college for music and presentational art in Frankfurt am Main. She currently works as a composer and arranger and trains singers and pianists. Susanne performs live with her vocal ensemble “Some Voices”.

www.some-voices.de
Dear Customers,

as sound system designers, audio engineers and musicians, sound plays a vital role in our everyday lives. Striving to achieve sound perfection has made us what we are today: A manufacturer of innovative sound reinforcement systems. Every day we focus on improving complex sound reinforcement technology and making it more accessible.

For many years we have carried out research and development in the field of high powered Mini Line Array Systems. Our original aim was to take the benefits associated with large modular line array systems such as directionality, even coverage, long throw and transport them into more compact, easy to install systems. We successfully achieved our aim in 2006 with the release of our Linea-Series. By 2007 our Linea LX systems had set new standards for line source column speakers. Our engineering team developed the unique Fohhn Hybrid Line Array principle by combining, for the first time ever, high performance bass-mid speakers and 1” compression drivers with a Waveguide system. The result – a new generation of high powered Mini Line Array Systems. The Fohhn Hybrid principle has led to the achievement of outstanding sound quality in speech and music, superb dynamics and even coverage of audience areas.

2008 saw the evolution of our Linea Live-Series incorporating Fohhn active subwoofers. Five different Linea Live systems are currently available. This brochure includes information about three of them.

In 2009 our Linea Live III system won a “Tastenwelt” Readers’ Award. Since then, both press and end users have referred to us as the “innovative Mini Line Array System specialists”. To what extent have we earned this accolade? Why don’t you listen and decide for yourself? Please feel free to ask for a live demonstration today by sending an email to info@fohhn.com. Our staff and business partners look forward to meeting you.

Jochen Schwarz, Dipl.-Ing. (FH)
Chief Executive Fohhn Audio AG

Uli Haug, Dipl.-Medien-P. (FH)
Fohhn Audio AG Board of Directors
AN UNBEATABLE SYSTEM.

A perfect combination: Linea LX Mini Line Array Systems and DSP-controlled active subs

Linea Live is a perfect combination of Linea LX-100 or LX-150 mini line array speakers and active subwoofers manufactured by Fohhn. The DSP-controlled active subs from the established Xperience-Series / X-Series incorporate presets that are specially configured for the LX-100 and LX-150 speakers. Linea Live combines the outstanding directional characteristics and sound properties of a line array system with the warm, deep bass sound of an active subwoofer system.

✶ Excellent musical sound and outstanding dynamics
  Dynamic sound in all frequency ranges.

✶ Extremely even sound – perfect from front to back
  Pleasant volume in the direct vicinity, crystal clear speech intelligibility at a distance. A warm sound that fills the room. Also ideal for dinner and gala events.

✶ Attractive in appearance, elegant design
  Linea Live fits perfectly into any architectural environment.

✶ Plug & Play
  Integrated amplifiers and DSPs with specially configured presets. An active sub can operate up to 4 Linea LX systems.

✶ Enjoy sound without interference
  Amazing feedback rejection. Complex microphone configurations pose no problem.

✶ Easy to transport and quick to set up
  Extremely compact dimensions and low weight. All LX systems and active subs are equipped with state-of-the-art, lightweight neodymium speaker technology.
Great sound. My vocals filled the entire room with great clarity.

B.J. Huguet

The soul singer B.J. Huguet, who originates from Philadelphia/USA, has already impressed many German and international artists with her unique character and groovy black soul voice. She is currently touring with Soulex, fifenmo, Acoustic Power Band and many more bands.
“I have been a huge fan of Fohhn for many years and am really impressed by the sound quality and range of the Linea Live systems.”

**Robbie Keller**

Robbie Keller is an exceptionally gifted singer, trumpeter and keyboard player. During his career he has worked with artists such as Phil Collins, Anastacia and Peter Maffay. In 2002 he won the award “Voice of Germany” from the German TV-channel ZDF. He studied jazz singing at Nuremberg Musical College and classic trumpet at the Johannes-Gutenberg University, Mainz, Germany. [www.robert-keller.de](http://www.robert-keller.de)
Fohhn’s specially developed Hybrid Line Array Technology integrates high performance, vertically aligned loudspeakers and powerful high frequency drivers with Waveguide in a compact housing.

1. Powerful long excursion speakers guarantee outstanding dynamics.
   Extremely powerful 4” long excursion speakers manufactured by using state-of-the-art neodymium technology guarantee resonant, dynamic reproduction of vocals and instruments. The coated weatherproof membranes are exceptionally resilient and capable of reproducing sound without distortion. The speaker chassis are arranged at close proximity in a perfect line and generate a cylindrical wave in the mid range.

2. High-frequency driver with a Waveguide System guarantees crystal clear high notes and excellent sound dispersion characteristics.
   A powerful 1” neodymium high-frequency driver with upstream Fohhn Waveguide system produces crystal clear high tones and defined sound dispersion characteristics. The Waveguide extends the cylindrical wave from the mid range to the highest frequencies. Conventional column speakers operate entirely without high frequency systems.

3. A sophisticated crossover adapts the speakers perfectly.
   A sophisticated crossover with selected components and electronic Fohhn IPC speaker protection is the perfect interface between the 4” chassis and the high-frequency driver. Conventional column speakers usually operate without a crossover.

4. The high-quality aluminium housing is ideal for mobile sound applications, fixed installations and weatherproof applications.
   Linea LX system housings are manufactured from high-quality profiled cast aluminium, are extremely robust and provide a maximum protection for all internal components. The elegant housing is available in anodised black as standard as well as all RAL colours on request.
1. Powerful long excursion speakers

2. High-frequency driver with Fohhn® Waveguide System

3. Sophisticated crossover

4. High-quality aluminium housing
"The record company I record for in Germany, Stockfisch Records, has the best reputation for sound quality. Therefore when I perform live in concert I have to have the best PA system possible, and over the last two years I have used active Fohhn sound systems with unequalled success. The Fohhn system amplifies pure acoustic sound to sound purely acoustic. There is nothing better.

Allan Taylor

For 40 years he has been considered as the consummate performer, a writer of literary gracefulness whose troubadour chronicles encapsulate the realism of otherwise unsung heroes, otherwise uncharted lives. His songs are faultlessly constructed and flawlessly performed, with his instantly recognisable voice, attractively dark and mellow, and his intricately detailed yet full and warm sound of his guitar-playing. His album "The Traveller" won the Grand Prix du Disque de Montreaux for the best European album. www.allantaylor.com
PERFECT DIRECTIONALITY. PERFECT SOUND.
An incredible listening experience, from the front row to the very back row.

PA systems with conventional speakers
In comparison with line array systems, conventional loudspeakers offer a less directional coverage, particularly in the vertical plane. Levels at the front are often too loud, while at the back, the sound may be too quiet or lacking in clarity due to insufficient reach.

Linea Live systems for sound
The cylindrical dispersion characteristics of Fohhn’s Linea Live Mini Line Array Systems give a more targeted sound transmission to audience areas. The speakers also provide a more even room coverage, from the front row right to the very back. Potential reflections from the ceiling, floor or walls can be avoided, making the sound clearer and more pleasant for the audience, with dramatically improved speech intelligibility. The effect is also better for musicians or public speakers, with less sound from the room reflecting back onto the stage.
In the Nürtingen factory premises, Fohhn’s new Sound Lab offers the great opportunity to carry out fundamental audio research and to develop, measure and test leading-edge technology. Engineers from a range of different backgrounds work closely together to push the boundaries of audio technology. The Sound Lab also provides customers with an excellent venue for thorough testing of the capabilities of Fohhn audio systems.

New paths to tread better solutions to develop and the highest technical levels to aim for – that’s the mantra of Fohhn’s R&D division. The same goal-driven, scientific approach is applied in all areas of development from electronics and software to acoustics and mechanics. Creative concepts for new loudspeakers are quickly translated into theory, based on extensive calculations. Numerous computer simulations and prototyping phases follow, in which each parameter – frequency response, dispersion characteristics, dynamics, distortion, large signal response – is recorded, adjusted and optimized.

The next stage involves specifically optimizing the amplifier electronics, digital signal processors (DSP) and remote control / networking technology for the loudspeaker. Each development phase, from the mechanics through to the software, is carried out at Fohhn.

At the end of the development process, all newly created products undergo lengthy and rigorous practical tests; both at Fohhn and in live situations. “Practical testing” at Fohhn includes everyone involved in the development process. Fohhn engineers, marketing and distribution personnel, who all have experience as live sound engineers, musicians or DJs. This way, each new product can also be carefully scrutinized from a user’s viewpoint. The result is a perfect loudspeaker system that combines optimum sound characteristics with total operating reliability. A system that is simple and safe to use, ready to give maximum performance and real listening pleasure.
With a floor area of 24 meters x 14 meters and a height of 6.5 meters, the Fohhn Sound Lab is one of Germany’s largest and best equipped audio measurement facilities. It enables developers to measure each loudspeaker parameter very precisely and to assess the relevance of the captured data while listening. Only under such special conditions can a loudspeaker’s performance be optimized to the highest level. A combination of room size and highly developed FFT measuring systems enable to obtain reflection free measurements down to 100 Hz – something that is usually difficult to achieve.

The amount of wall clearance means that dampening the room to achieve an “anechoic chamber” effect has not been necessary. Instead, at great expense, absorbers and diffusers have been used to convert the former warehouse into a dedicated listening space with superb acoustics. With a natural room reverb of approx 0.4 seconds, Fohhn’s new Sound Lab offers top testing conditions.

Optimum Research and Test Conditions

Another technical highlight of the Fohhn Sound Lab! This impressive device gives us the opportunity to measure very large loudspeaker systems. The robot has been specifically developed by Fohhn for this purpose and is able to pan through both, speaker axes at 360° and with a positioning accuracy of 0.3°. The device enables the speaker’s directional characteristics to be assessed and optimized during each development stage – from the speaker chassis to the finished prototype.

The polar pattern data obtained by running Fohhn loudspeakers through room simulation programs such as EASE or ULYSSES can also be analyzed and optimized. This is achieved by making several hundred individual measurements, with the robot positioning itself at a different angle each time. A series of measurements for a single system can take 12 hours or more to complete.
THE SYSTEMS

From more precise speech delivery to full-on live music, Fohhn® Linea Live guarantees the very best sound quality.

Fohhn® Linea Live Basic and Power Systems
The Basic System comprises two Linea LX tops combined with a DSP-controlled active sub. Power Systems also include a passive sub, which can easily be connected to the active one. Active subs are fitted with the latest Class D digital amplifiers. Fohhn’s integrated 2-stage DSP technology allows an optimal adjustment between sub and tops, guaranteeing a balanced sound at any speaker volume level. Fohhn’s own specially developed factory presets are designed to save time in the most diverse sound reinforcement situations. Using the integrated audio tools (EQ, compressor, etc.), individual settings can also be created and saved as presets.

Visit www.fohhn.com for more detailed information on Linea Live.

* Fohhn® Hybrid Line Array Technology
Ensures excellent sound reproduction in every part of the venue: Superb speech intelligibility and a balanced, homogenous image, even in more difficult acoustic conditions with long reverberation times.

* Fohhn® Audio DSP / Active Subwoofers
Two separate stereo DSP processors in each of our active subs’ high-powered amplifiers ensure maximum reliability and superb performance as well as offering remote control options.

* Fohhn® Audio Soft
Perfect control of all connected audio devices via laptop with Fohhn’s easy-to-use, intuitively usable software.
LINEA LIVE I

Basic System

- **2x LX-100 Mini Line Array Speakers**
  8x 4”/ 1” driver with Waveguide, full neodymium, 400 W, aluminium housing, only 7 kg

- **1x active Sub XS-10**
  2x 500 W / 1000 W, integral DSP, 2x 6” long excursion, only 12 kg

Power System

- **2x LX-100 Mini Line Array Speakers**
  8x 4”/ 1” driver with Waveguide, full neodymium, 400 W, aluminium housing, only 7 kg

- **1x active Sub XS-10**
  2x 500 W / 1000 W, integral DSP, 2x 6” long excursion, only 12 kg

- **1x passive Sub XSP-10**
  For connecting to an active sub. Passive crossover integrated
LINEA LIVE II

Basic System

* 2x LX-100 Mini Line Array Speakers
  8x 4”/1” driver with Waveguide, full neodymium, 400 W, aluminium housing, only 7 kg

* 1x active Sub XS-20
  2x 500 W/1000 W, integral DSP, 1x12” long excursion, only 19 kg

Power System

* 2x LX-100 Mini Line Array Speakers
  8x 4”/1” driver with Waveguide, full neodymium, 400 W, aluminium housing, only 7 kg

* 1x active Sub XS-20
  2x 500 W/1000 W, integral DSP, 1x12” long excursion, only 19 kg

* 1x passive Sub XSP-2
  For connecting to an active sub. Passive crossover integrated
LINEA LIVE III

**Basic System**

- **2x LX-150 Mini Line Array Speakers**
  12x 4”/1” driver with Waveguide, full neodymium, 600 W, aluminium housing, only 9.5 kg

- **1x active Sub XS-30**
  2x 750 W / 1500 W, integral DSP, 1x15” long excursion, only 29 kg

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**Power System**

- **2x LX-150 Mini Line Array Speakers**
  12x 4”/1” driver with Waveguide, full neodymium, 600 W, aluminium housing, only 9.5 kg

- **1x active Sub XS-30**
  2x 750 W / 1500 W, integral DSP, 1x15” long excursion, only 29 kg

- **1x passive Sub XSP-3**
  For connecting to an active sub. Passive crossover integrated.

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**PRODUCT AWARD 2009**

Great customer feedback! “Tastenwelt” readers vote for the Linea Live III Basic System as best active PA in the “Up to 50 kg” category. A big “thank you” from us!
“I think that Linea Live is the best sound system for achieving a powerful, balanced sound and perfect speech intelligibility, especially in locations with complex acoustics.”

Faris Al-Rubaiie
Faris Al-Rubaiie runs a professional media technology company in Stuttgart that provides complex sound solutions for all kinds of live, club and industry events as well as outstanding audio technology for all the most trendy clubs in Stuttgart. www.f-concept.de
**LIVE APPLICATIONS**

Perfect performance at both large and small events: dinner, gala, party, concert and many more

Choosing the right system for the right event.
Selecting the best Linea Live system for an event essentially depends on the conditions at the venue, the layout of the room and the floor noise level coming from the audience. The specifications in the table are only an approximation and may deviate from the actual values.

<table>
<thead>
<tr>
<th>System</th>
<th>Event</th>
<th>Linea Live I</th>
<th>Linea Live II</th>
<th>Linea Live III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2x LX-100 1x XS-10 active</td>
<td>2x LX-100 1x XS-20 active</td>
<td>2x LX-150 1x XS-30 active</td>
</tr>
<tr>
<td>DJ / Entertainer</td>
<td>Dinner</td>
<td>400</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>Lounge</td>
<td>200</td>
<td>300</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>Party*</td>
<td>50</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Acoustic set</td>
<td>Dinner</td>
<td>400</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>Lounge</td>
<td>200</td>
<td>300</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>Party*</td>
<td>50</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Jazz set</td>
<td>Dinner</td>
<td>300</td>
<td>400</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>Lounge</td>
<td>100</td>
<td>200</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>Party*</td>
<td>50</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Pop and rock band</td>
<td>Dinner</td>
<td></td>
<td>500</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Party*</td>
<td></td>
<td>150</td>
<td></td>
</tr>
</tbody>
</table>

*Additional subwoofer required

**Scenario: Live music in a gourmet restaurant**
7-course menu with live music. 100 invited guests will be dining late into the night. A duo with keyboard/electric piano will sing and play background music. The event organizer explains which volume level and type of sound he desires: the sound level must be low but fill the room. Pleasant and even dispersion across the whole room. Create a warm atmosphere for the guests. The musicians must position the sound system directly beside the instruments. There is no scope for other speakers inside the room. The sound equipment should be discreet, elegant and well-maintained if possible.

**Solution: Linea Live I – Basic System**

**Scenario: Modern church service with live music**
The fixed speaker system in the historical church is not suitable for transmitting live music with keyboard, acoustic guitars, electronic drums and singing. The band struggles with a borrowed compact system, which is also unsuitable for sound production in a church. The sound is obtrusive and bothersome at the front, unintelligible and washy at the back.

**Solution: Linea Live II or III produces a balanced sound and outstanding speech intelligibility to every seat.**
Intuitively usable operating panel for Fohhn® Audio DSP settings
Quick, intuitive input of the following parameters:
- Stereo/Mono
- Bass level
- Input sensitivity (gain) for adapting to mixing desks
- Speaker preset selection
- Selection of preconfigured room presets
- Selection of custom presets
- Selection and configuration of audio tools: EQ, delay, limiter, compressor, noise gate
- Keylock function (protection against unauthorised modifications)
- Temperature and operating time monitoring

State-of-the-art CLASS D digital amplifiers
 guarantee an excellent sound quality and are extremely lightweight.

Clearly laid out 4-line LCD display
 Settings highly visible, even in sunlight and darkness.

Speakon output sockets
 Connection for Fohhn LX-100 or LX-150 top units as well as all other Fohhn Tops from the X-Series and Arc-Series.

Input sockets
 Connections for mixers. Neutrik sockets for XLR connectors and jacks.
Fohhn® Mains Control
The integrated mains supply monitoring system

USB adapter NA-1 *

Network control via connection to a laptop/PC
Remote control of an entire system from a central mixing location using multicore, microphone cable or WLAN. Connect up to 255 devices in a single network. Optional USB adaptor or WLAN adapter required.

Mini laptop / Netbook *
Perfect remote control and operation using a laptop or a new mini notebook (Netbook, EEEC-PC)

Fohhn Audio Soft
Download free operating software and updates at www.fohhn.com

PLUG & PLAY
Simple set-up, convenient control options, total performance reliability

100% RELIABILITY

* not included in delivery
Fohhn® Audio Soft

All Fohhn audio DSP functions on one screen.
Signal processing in real time!

Preset module
Select sound presets and speaker presets. Sub level adjustment.

Dynamic module
System compressor, limiter and noise gate with all necessary setting options.

Delay module
For delaying the speaker system. Settings in milliseconds or meters.

Xover module
Programmable crossover

Test signals
Sinus tone and pink noise generator.

Parametric equaliser module with graph
10 band parametric EQ, frequency and Q factor selected as required. Excellent graphic view of your work on the EQ.

Status module
Displays the temperature and operating time. Protection. Lock function. Signal function – display flashes indicating that the device is detected. Sinus tone and pink noise generator.

Main module
Individual audio devices or presets are selected with one mouse click. Adjustment of volume level, channel on/off and stereo/mono mode.
Mobile applications
Stand adapter, speaker stands, distance piece. Attaching the Linea LX system to a speaker stand or distance piece using the optional SA-6 stand adapter requires only a few moves. The sound is directed straight onto the audience. The angle of the Linea LX system can be adjusted in increments of 3.8° and locked. For maximum sound quality and speech intelligibility. We also offer robust padded carrier bags for transporting the Linea LX system (with stand adapter attached). These bags provide adequate protection for your equipment.

Flown applications
The SA-7 adapter is perfect for setting up safe flown applications. Linea LX systems can be secured to vertical or horizontal supporting members. The adapter SA-7 consists of an articulated fixture with TV spigot that can be locked at 3.8° increments. You can set up safe, flown applications by attaching the Linea LX system to the supporting member using an optional clamp, half coupler or similar item.
Linea LX-100 and LX-150 are compact Mini Line Array Systems, specially designed to give top quality reproduction of both, speech and music. The elegant, lightweight speakers can be installed and set up in minutes. Both systems have proved popular with sound engineers, musicians and DJs on account of their excellent sound quality, even coverage and lack of feedback. The speakers’ slim, unobtrusive design integrates seamlessly into stage areas and room architecture, appealing to event organizers, agencies and audiences.

In the LX-100 eight 4” neodymium drivers produce sound with accurate cylindrical dispersion characteristics in the mid-low range; the LX-150 uses twelve. At the top end an 1” compression driver with Fohhn Waveguide ensures the cylindrical wave’s continuation up to the highest audible frequencies. Speaker adjustment is done by an integrated crossover with Intelligent Protection Circuit (IPC) to guard against overload.
<table>
<thead>
<tr>
<th>Model</th>
<th>Linea LX-100</th>
<th>Linea LX-150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electro-acoustical features</td>
<td>passive line source speaker system, 2-way</td>
<td>passive line source speaker system, 2-way</td>
</tr>
<tr>
<td>Components [*]</td>
<td>8x 4” and 1x 1” on Waveguide (fully neodymium)</td>
<td>12x 4” and 1x 1” on Waveguide (fully neodymium)</td>
</tr>
<tr>
<td>Power rating</td>
<td>nominal [1]: 400 W / program [2]: 800 W / peak [3]: 1.600 W</td>
<td>nominal [1]: 600 W / program [2]: 1.200 W / peak [3]: 2.400 W</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>94 dB</td>
<td>96 dB</td>
</tr>
<tr>
<td>Maximum SPL</td>
<td>126 dB</td>
<td>130 dB</td>
</tr>
<tr>
<td>Frequency range [5]</td>
<td>65 Hz – 20 kHz</td>
<td>65 Hz – 20 kHz</td>
</tr>
<tr>
<td>Nominal dispersion (h x v) [6]</td>
<td>140° x 25°</td>
<td>140° x 25°</td>
</tr>
<tr>
<td>Nominal impedance</td>
<td>8 Ohm</td>
<td>8 Ohm</td>
</tr>
<tr>
<td>Features</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosure</td>
<td>Aluminium design</td>
<td></td>
</tr>
<tr>
<td>Protection grille</td>
<td>ball impact resistant metal, powder coating</td>
<td></td>
</tr>
<tr>
<td>Suspension points</td>
<td>8x M6 thread</td>
<td></td>
</tr>
<tr>
<td>Connectors</td>
<td>2x Neutrik NL4 Speakon, 8-pin Phoenix terminal</td>
<td></td>
</tr>
<tr>
<td>Standard colours</td>
<td>black anodizes or matt white painted</td>
<td></td>
</tr>
<tr>
<td>Front design</td>
<td>metal grille in enclosure colour</td>
<td></td>
</tr>
<tr>
<td>Dimensions (W x H x D)</td>
<td>130 x 990 x 120 mm</td>
<td>130 x 1460 x 120 mm</td>
</tr>
<tr>
<td>Weight [*]</td>
<td>7 kg</td>
<td>9,5 kg</td>
</tr>
<tr>
<td>Optional features</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional colours</td>
<td>all RAL-colours</td>
<td>all RAL-colours</td>
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<tr>
<td>CAAD simulation data</td>
<td>ULYSSES, EASE</td>
<td>ULYSSES, EASE</td>
</tr>
<tr>
<td>Optional accessories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brackets</td>
<td>WAT-08, WAT-08k, WAT-12, WAL-1</td>
<td>Pivot reducing flange for mobile application: SA-6</td>
</tr>
<tr>
<td>Special bracket for traverse mounting: SA-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stand</td>
<td>K&amp;M, 36 mm</td>
<td></td>
</tr>
<tr>
<td>Carrying bags</td>
<td>carrying bag for Linea LX-100, carrying bag for stand</td>
<td>carrying bag für Linea LX-150, carrying bag for stand</td>
</tr>
</tbody>
</table>

[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 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
[4] -10 dB under anechoic halfspace-conditions
[5] horizontal x vertical at -6 dB
[6] 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.
## FOHNN® ACTIVE SUBS

**Equipped with the latest digital technology**

<table>
<thead>
<tr>
<th></th>
<th>Sub XS-10 active</th>
<th>Sub XS-20 active</th>
<th>Sub XS-30 active</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>electro-acoustical features</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>acoustic design</td>
<td>vented design</td>
<td>vented design</td>
<td>vented design</td>
</tr>
<tr>
<td>components</td>
<td>2x 6” long excursion, neodymium</td>
<td>1x 12” long excursion, neodymium</td>
<td>1x 15” long excursion, neodymium</td>
</tr>
<tr>
<td>amplifier output</td>
<td>1.000 W</td>
<td>1.000 W</td>
<td>1.500 W</td>
</tr>
<tr>
<td>SPL max.</td>
<td>120 dB</td>
<td>125 dB</td>
<td>128 dB</td>
</tr>
<tr>
<td>frequency range</td>
<td>40 Hz – 130 Hz</td>
<td>38 Hz – 130 Hz</td>
<td>35 Hz – 130 Hz</td>
</tr>
<tr>
<td><strong>features</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>enclosure</td>
<td>multiply birch wood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>protection grille, front design</td>
<td>metal, powder coating, acoustic foam</td>
<td></td>
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<tr>
<td>colours</td>
<td>black, textured paint, all RAL-colours (optional), weather resistance: scratch-proof plasticcoating (optional)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dimensions (W x H x D)</td>
<td>43 x 25 x 44 cm</td>
<td>43 x 39 x 44 cm</td>
<td>43 x 59 x 52 cm</td>
</tr>
<tr>
<td>weight</td>
<td>12 kg</td>
<td>19 kg</td>
<td>29 kg</td>
</tr>
<tr>
<td>wheels</td>
<td>–</td>
<td>–</td>
<td>2 edge wheels</td>
</tr>
<tr>
<td>handles</td>
<td>1 side handle</td>
<td>2 edge handle</td>
<td>2 edge handle, 2 side handle</td>
</tr>
<tr>
<td>thread plate for distance piece</td>
<td>M20</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>connectors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inputs</td>
<td>2x XLR/jacks, multifunctional input jacks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signal</td>
<td>Input jack, 2x XLR Link jacks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>outputs</td>
<td>2x NL4 Neutrik Speakon for top speaker and slave sub from 130 Hz 2x 4 ohms (stereo)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mains</td>
<td>2x Powercon mains jacks in and thru</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fohhn® Mains Control** – the integrated mains supply monitoring system

During use, the supply to the amplifier is constantly monitored. If at any time it exceeds the maximum permitted range (180-255 VAC), the supply will be interrupted. During power up it also minimizes the input surge current by switching on at the mains voltage zero crossing.

**Integrated digital amplifier**

<table>
<thead>
<tr>
<th></th>
<th>Sub XS-10 / Sub XS-20</th>
<th>Sub XS-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>amplifier</td>
<td>Class D</td>
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</tr>
<tr>
<td>EIA amplifier power Tops</td>
<td>2x 500 W (***)</td>
<td>2x 750 W</td>
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<tr>
<td>Bridge mode</td>
<td>–</td>
<td>1.500 W</td>
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<tr>
<td>amplification</td>
<td>32 dB</td>
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<tr>
<td>input sensitivity</td>
<td>1 V</td>
<td>1.4 V</td>
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<tr>
<td>frequency response</td>
<td>20 Hz – 20 kHz</td>
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</tr>
<tr>
<td>S/N Ratio</td>
<td>&gt; 105 dB/A</td>
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</tr>
<tr>
<td>protective circuit</td>
<td>switch-on delay, soft start, impedance- and short-circuit protection, DC protect, temperature monitoring</td>
<td></td>
</tr>
<tr>
<td>remote control</td>
<td>Fohhn-Net, Fohhn Audio Soft</td>
<td></td>
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<tr>
<td>remote monitoring</td>
<td>temperature, protect, signals</td>
<td></td>
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<tr>
<td>power supply</td>
<td>195 V – 250 V AC, 50/60 Hz, max. 6 A</td>
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</tr>
<tr>
<td>temperature range</td>
<td>0 – 45°C</td>
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<tr>
<td>cooling</td>
<td>temperature-controlled fan</td>
<td></td>
</tr>
<tr>
<td>controller</td>
<td>2 independant digital stereo signal prozessors</td>
<td>DSP 1: 6 professional audio devices, operating status display, sound generator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select Regler</td>
</tr>
<tr>
<td>controls</td>
<td>4 buttons for DSP handling ground/lift switch</td>
<td>Power on/off switch</td>
</tr>
<tr>
<td>indicator LEDs</td>
<td>4 line display 2x Signal/Clip LED 2x run/protect LED receive / send remote LED</td>
<td></td>
</tr>
</tbody>
</table>
"Super dynamics!"

Alex Schaedler

Alex Schaedler studied jazz and popular music at the college for music and presentational art in Stuttgart, works as a studio musician and teaches classical and electric guitar as well as music theory, improvisation and technique. Alex is a sought-after guitarist, bassist and singer and tours live with various rock, jazz and pop bands.
Perfect sound from front to back. 