



THE SOUNDMAKERS

SONAR

THE MODERN ART OF SOUND >



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Powered speakers for entertainers, DJs, bands, clubs, gyms and parties

Groundbreaking tech, state-of-the-art development tools and advanced manufacturing methods – something very special can happen when assets like these meet decades of audio expertise. Witness the new line of SONAR speakers: It is the first series of cabinets to combine premium sound with a host professional-grade features at a price-point that is very much in the affordable category.

Featuring three multifunctional fullrange models and a powerful subwoofer, the elegant SONAR line of speakers provides a wide range of effective solutions for the most diverse applications. These enclosures can serve as a remarkably portable PA for speech reinforcement, as professional stage monitors and as an assertive sound system for bands. At the heart of every SONAR loudspeaker is a powerful 24-bit DSP. This highly efficient audio controller makes the most of these quality speaker components' potential, translating their performance into rich, clear sound that requires little tweaking. It also provides the computing power for a wealth of advanced features that enable you to achieve impressive sound, easily and elegantly. These features enable wireless remote control via a tablet or smartphone, stereo audio streaming via Bluetooth 5.0, and the SONAR subwoofer's easy-to-use yet extremely effective Cardioid mode.

Transporting and setting up SONAR speakers is an exercise in convenience. Our developers put three priorities at the top of their to-do list – great sound, ease of use in real-world situations and utmost operating safety. Clearly legible displays and user-friendly menus make for intuitive handling. Even less frequently used functions are easy to find and operate.

With its advanced features and high-quality plug & play sound, the SONAR series certainly lives up to HK Audio's performance promise: "The easiest way to the best sound" is now also available in the world's most popular price segment.

24bit Digital Signal Processor



Master



Push to edit



1

Mic <-> Line



2

Mic <-> Line



3

Aux In



Mix Out



Get the app!
 Remote control
 your SONAR with
 the free SONAR
 REMOTE app



SONAR

112 Xi



Caution: Risk of electric shock! Do not open!
 Refer servicing to qualified service personnel.



FK Audio is a brand of Stamer Musikanlagen GmbH
 Hagelburger Str. 8 • 66506 St. Wendel • Germany

Serial No.

Leave enough space for proper ventilation!



Power

On

Off

Mains
 220-240 V~ 50-60 Hz
 0.6 A @ 1/8 output power



Caution: To reduce the risk of electric shock, separation
 of the power plug of this plug must be maintained.

FULLRANGE MODELS

The SONAR Xi models are fullrange speakers designed for use as a stand-alone speaker, in front PAs, as stage monitors and as very powerful mid-high units in subwoofer-and-satellite systems. Their elegant yet robust polymer enclosures are tough enough to withstand years of hard wear on the road. A steel grille with acoustic foam backing protects the loudspeakers from knocks, dust and splashed water.

The speaker stand mount's ingeniously simple design features an adjustable tilt angle that can be changed at the push of a button to align the speaker to the audience for maximum effect. With the benefit of their slanted housings, SONAR Xi models can also be set sideways for use as wedge monitors. Flying these enclosures from the ceilings of clubs and pubs is so easy with the built-in M10 rigging points.

The SONAR Xi models' input section features two channels for line or microphone signals, plus a stereo AUX channel that can also receive audio signals wirelessly via Bluetooth 5.0. A large, easy-to-read color display affords easy access to the channels and all other settings. Wireless remote control via a paired smartphone or tablet is also an option. Free apps are available for both iOS and Android.



SONAR 110 Xi

The SONAR 110 Xi is the right solution for situations where every kilo and centimeter matters, but the sound just can't do without the support of well-rounded bass that is easy on the ears. The SONAR 110 Xi delivers the goods when deployed as a satellite in combination with the SONAR 115 Sub D, as a monitor on cramped stages, and as a highly portable sound reinforcement solution for schools and the like. And with 800 watts power output, the SONAR 110 Xi has plenty of headroom to pump up the volume when things need to get a little louder.



SONAR 112 Xi

Grown-up sound from a compact enclosure that is not too heavy for comfort – this is the formula that made the 12"/1" format the world's number one speaker configuration. The SONAR 112 Xi comes with all the benefits of this format packed into a sleek, stylish enclosure. The very powerful speakers and beefy 1200 watt power amp provide crystal-clear, undistorted sound with an astonishingly assertive low end. SONAR speakers' ready-for-everything feature set is unrivaled – no other speaker in this class offers anything like it.



SONAR 115 Xi

Sizable but still comfortably transportable, the SONAR 115 Xi converts all the extra volume and power of the large 15" woofer into higher SPL and – above all – into powerful low-end punch that really is all about the bass. All this makes the SONAR 115 Xi the go-to solution for DJs, fitness studios, entertainers with keyboards or playback devices and everyone else who wants to roll without an added subwoofer. Its remarkable efficiency also makes the SONAR 115 Xi the perfect complement for subwoofers in bands that want their PA to speak with authority and project with assertiveness.

The built-in digital mixer offers two input channels for microphone or line signals and an AUX channel for analog and Bluetooth 5.0 signals. It even accepts both types of signal at the same time! The Mix Out forwards signals to added speakers or furnishes the signal for live recording.

Each of the three channels features a dedicated Volume control and a richly appointed 3-band EQ. These speakers also come with three sound modes (Live, DJ, Monitor) and a preset for setups with a subwoofer.

A dual-purpose Master control adjusts the mixer's overall volume and affords access to the DSP menu.



Bluetooth TWS (True Wireless Stereo) is on board to link two simultaneously controlled Xi models for audio streaming in a twinned setup that delivers true stereo sound. In a linked setup, two SONAR Xi speakers can be controlled simultaneously with the remote app.





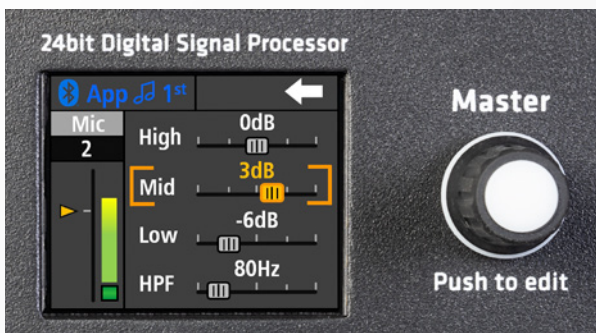
SONAR REMOTE APP



The SONAR REMOTE app for tablets and smartphones running iOS and Android operating systems offers much more than just a remote control option for the built-in digital mixing console. It also lets you control all settings and functions of the Xi models, including the parameters of the 3-band EQ for each channel. You can save scenes to put frequently used presets at your fingertips whenever you need them. These could be settings for your favorite microphones, varying SONAR Xi setups and basic configurations for different venues.



The SONAR Xi cabinet's display shows all settings as they are adjusted in the app, and vice versa. The two displays sync up in real time.



SONAR SUBWOOFER



A compact powerhouse that packs a phenomenal low-frequency foundation into an enclosure with a surprisingly small footprint, this high-performance 15" woofer delivers impressive 1500 watts of power. And its efficient 24-bit controller turns all that muscle into a demonstration of low-end might one would only expect from large 18" subwoofers. That's how the der SONAR 115 Sub D transforms a good song into a gripping rock hymn and reserved wallflowers into dancing queens and kings.

No sophisticated subwoofer has ever been simpler to set up: Just select the appropriate preset on the easy-to-read display and enjoy the perfect plug & play sound.

And if you like the idea of a space-saving 2.1 subwoofer/satellite system, then you're sure to love the SONAR 115 Sub D's stereo inputs and outputs.

This bass bin also comes with a very special feature called Cardioid mode that drastically reduces the volume behind the speaker when you're running two der SONAR 115 Sub D. With this professional feature, cardioid setups require no further adjustments - anyone can configure them without having to fuss with complicated calculations.

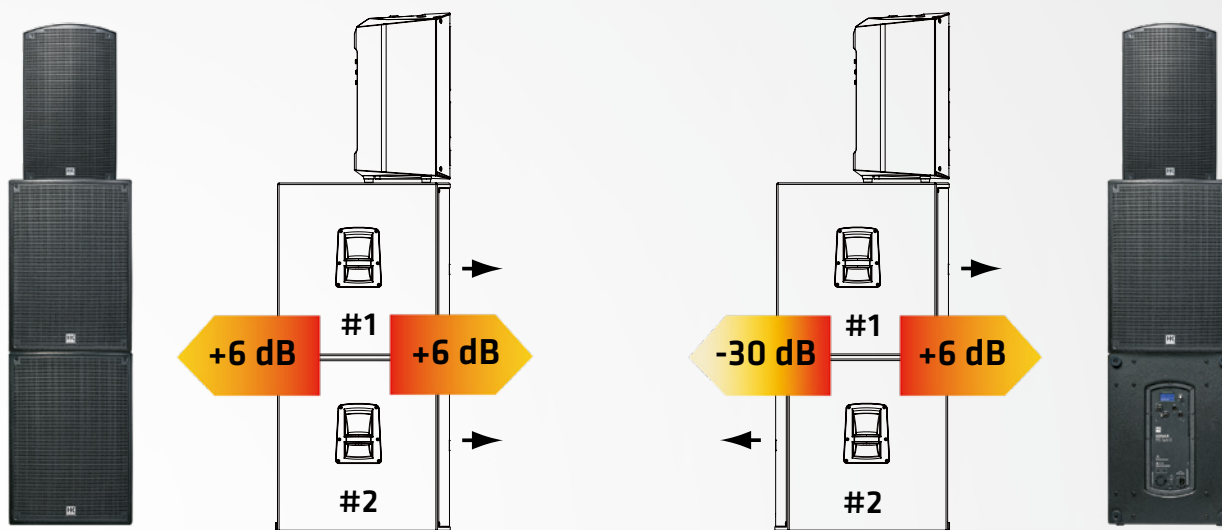
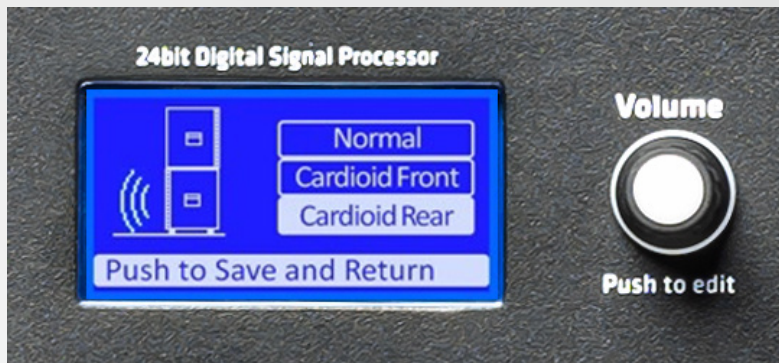


THE CARDIOID PRINCIPLE

Adding a second SONAR 115 Sub D increases the low-frequency sound pressure level. The classic full-stack configuration on the left with two subs projecting forward boosts the SPL by 3 dB in all directions.

But there is a better way of boosting bass SPL – with the SONAR 115 Sub D's cardioid capabilities. It features two presets that let you set up a cardioid bass rig as shown on the right with the bottom sub projecting rearward – no complicated math or delay time compensation required.

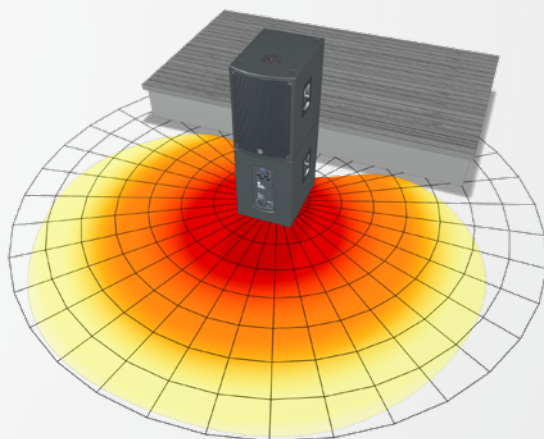
Simply select the Cardioid Rear preset for the bottom bass bin and the Cardioid Front preset for top subwoofer that projects forward. Now the two are tuned to operate properly without requiring any further adjustments.



When is it a good idea to go with a cardioid setup?

A cardioid setup is all about canceling out rearward radiating frequencies. While speakers are able to throw midrange and high frequencies in directional patterns, low frequencies tend to radiate in all directions. Excessive bass levels can often be a problem on and behind the stage. And promoters are increasingly making demands to limit sound systems' low-end reach, for example, in festival tents at urban venues.

The SONAR 115 Sub D has all the hardware and audio features needed to quickly and easily configure effective cardioid setups that attenuate rearward bass frequencies by as much as 34 dB. This makes performing life a lot easier for the artists on the stage and vastly improves the sound because microphones no longer pick up stray low-frequency signals.



EXAMPLE SETUPS



A fullrange setup with a single SONAR 112 Xi for small venues, acoustic performances and speech applications



A 2.1 setup with two SONAR Xi in fullrange mode and one SONAR 115 Sub D as the center sub



Two SONAR 112 Xi units in external sub mode with two SONAR 115 Sub Ds and speaker poles (using the sub's pole mount)



Two SONAR 112 Xi units in external sub mode with four SONAR 115 Sub Ds in cardioid mode



SONAR Xi models offer another plug & play option – simply set them sideways to serve as wedge monitors.



All Xi models can be flown with chains or steel cables attached to the built-in M10 rigging points.

ACCESSORIES

Protective covers

Made of extremely tear-resistant nylon, these thickly padded covers afford excellent protection during transport to and from gigs. Openings put the grips within easy reach.



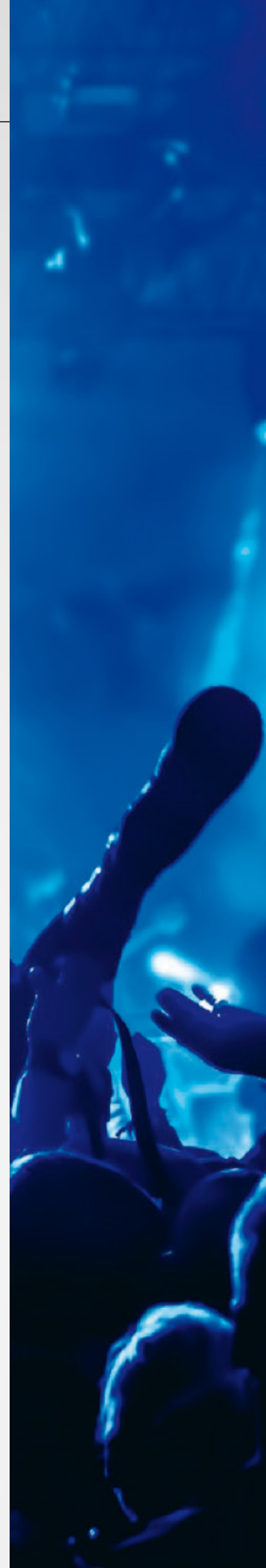
Satellite Add-On M20 XLR

The Satellite Add-On package comes with two steel speaker poles and two XLR cables all in one nylon gig bag.



Speaker Stand Add-On

The Speaker Stand Add-On package comes with two aluminum speaker poles and two speaker cables equipped with XLR connectors, all in one nylon gig bag.



TECHNICAL DATA

Model	SONAR 110 Xi	SONAR 112 Xi	SONAR 115 Xi	SONAR 115 SUB
Max. SPL peak @ 10 % THD	123 dB half space	127 dB half space	130 dB half space	125 dB half space
Max SPL calculated	126 dB half space	130 dB half space	133 dB half space	128 dB half space
Frequency response +/-3 dB	64 Hz – 18 kHz	58 Hz – 18 kHz	56 Hz – 18 kHz	40 Hz – X-Over
Frequency response -10 dB	59 Hz – 20 kHz	54 Hz – 20 kHz	50 Hz – 20 kHz	36 Hz – X-Over
Power amp output (peak power)	800 W	1.200 W	1.200 W	1.500 W
Amp type	Class AB + D	Class AB + D	Class AB + D	Class D
Active protective circuits	Thermo-Protection, Overload-Protection, Subsonic Filter, Peak- and RMS-Limiter	Thermo-Protection, Overload-Protection, Subsonic Filter, Peak- and RMS-Limiter	Thermo-Protection, Overload-Protection, Subsonic Filter, Peak- and RMS-Limiter	Thermo-Protection, Overload-Protection, Subsonic Filter, Peak- and RMS-Limiter
LF driver	-	-	-	1x 15", 3" voice coil
Low-/mid speaker	1x 10", 2" voice coil	1x 12", 2.5" voice coil	1x 15", 2.5" voice coil	-
HF driver	1", 1" voice coil	1", 1.35" voice coil	1", 1.35" voice coil	-
Horn directivity	90° x 60° CD horn	90° x 60° CD horn	90° x 60° CD horn	-
Active crossover frequency	-	-	-	60 - 150 Hz, adjustable
Display	1.83" color display	1.83" color display	1.83" color display	2.2" LCD
Analog inputs	2x XLR combo balanced, 1x 3.5 mm stereo jack	2x XLR combo balanced, 1x 3.5 mm stereo jack	2x XLR combo balanced, 1x 3.5 mm stereo jack	2x XLR combo balanced
Analog outputs	1x Mix Out XLR balanced	1x Mix Out XLR balanced	1x Mix Out XLR balanced	2x Thru XLR balanced
Sound modes	Live/DJ/Monitor	Live/DJ/Monitor	Live/DJ/Monitor	-
Setup modes	Ext. Sub	Ext. Sub	Ext. Sub	Cardioid Front, Cardioid Rear, SONAR
DSP functions	Master Volume, Level Metering, 3-band EQ, Low-Cut Filter, Front LED, Screensaver, BT Auto Pairing, Delay, Output Pre/Post Master	Master Volume, Level Metering, 3-band EQ, Low-Cut Filter, Front LED, Screensaver, BT Auto Pairing, Delay, Output Pre/Post Master	Master Volume, Level Metering, 3-band EQ, Low-Cut Filter, Front LED, Screensaver, BT Auto Pairing, Delay, Output Pre/Post Master	Bass Boost, Polarity, X-Over, Delay, Front LED, Display Dim, Reset
Bluetooth Audio Streaming	5.0	5.0	5.0	-
Bluetooth TWS	x	x	x	-
Remote App	iOS + Android	iOS + Android	iOS + Android	-
Delay	0-10 meters	0-10 meters	0-10 meters	0-10 meters
Current consumption pursuant to EN 62368-1	0.4 A / 220-240 V AC 0.8 A / 100-120 V AC	0.6 A / 220-240 V AC 1.2 A / 100-120 V AC	0.6 A / 220-240 V AC 1.2 A / 100-120 V AC	0.8 A / 220-240 V AC 1.6 A / 100-120 V AC
Angels up (Monitor angle)	35°	35°	35°	-
Pole mount	35mm, adjustable (0°/7,5°)	35mm, adjustable (0°/7,5°)	35mm, adjustable (0°/7,5°)	1x M20
Rigging points	3x M10	3x M10	3x M10	-
Carrying handles	1x SingleGrip	2x SingleGrip	2x SingleGrip	2x MultiGrip
Casters	-	-	-	optional
Housing	plastic	plastic	plastic	wood
Front grille	metal grille backed with black acoustic foam	metal grille backed with black acoustic foam	metal grille backed with black acoustic foam	metal grille backed with black acoustic foam
Dimensions (WxHxD)	31 x 53.5 x 30 cm	36.5 x 62.9 x 35.5 cm	42.5 x 72.9 x 41.5 cm	43 x 61.2 x 61.6 cm
Weight	11.5 kg / 25.4 lbs	15.9 kg / 35.1 lbs	19.5 kg / 43.0 lbs	28.4 kg / 62.6 lbs