

STAGE ONE ^{XB}

Owner's Manual

XB



SKAA[®] Pro Subwoofer

designed in California
by rock & roll royalty;
engineered in Canada by rock & roll peasants



ELECTROTEC
AUDIO

introduction

Thank you for choosing Stage One XB by Electrotec Audio. XB is the world's apex predator battery-operated subwoofer for mobile PA with built in SKAA and SKAA Pro wireless.

- 2x fully-custom 10" bass drivers, optimized for max clarity and SPL in a battery subwoofer
- Feed XB from Electrotec Stage One, Dani transmitters, Soundboks 3, 4 & Mix speakers, other SKAA Hub speakers, as well as any SKAA / SKAA Pro transmitter.
- Pro-grade SKAA wireless audio. 100% Bluetooth-free. 100% WiFi free.
- Use up to 4 SKAA receivers (any combination of Stage One XB and any other SKAA receivers) at the same time with any one SKAA transmitter
- Remembers up to 10 of your favorite SKAA sources
- Low latency – great for live performance
- Take complete control over the high-pass filter via the Electrotec SKAA cmd app ... or turn it off
- Precisely control XB's crossover from the rear panel
- Configure XB's audio routing from the rear panel. Select from LEFT, RIGHT or MONO MIX audio. Set up two XBs as stereo subs if that's what you want.
- Use XB's crossover to create a high-passed XLR line out; ideal for an XLR-connected top speaker
- Choose L, R or mono audio for XLR line out
- Use the phase flip function to dial in the best possible bass for your specific location
- Internal stereo busses deliver stereo line out
- XB remembers your filter and audio routing setups – they'll be active until you change them again
- Two low-ESR capacitor banks provide amps with instant access to energy, boosting impulse response
- A fully-custom tuned port extends freq response
- Most steel grilles are heavy and block 30% of airflow with metal grating. They're a ball & chain on driver cone dynamics while concurrently sapping battery life. In contrast, XB's steel grilles are specially designed to be >96% open by area. Still road-ready tough, they're light weight and don't impede XB's acoustic performance.
- Compatible with both Electrotec SKAA cmd and stock SKAA cmd apps

For the intrepid few who always wondered what this meant but were too busy kicking butt to ask ...



The SKAA® standard for wireless audio guarantees compatibility between all products bearing the SKAA Compatible Badge. It also guarantees product antenna performance by verifying reliable operating distance minimums have been met. SKAA transmitters work with iOS & Android mobile devices, Mac & Windows computers, televisions and any product having a line output, S/PDIF output or a headphone jack.

SKAA semiconductor components enable SKAA to be embedded in consumer audio and pro audio products. Not based on Bluetooth or WiFi, SKAA is a global standard built from the ground up specifically for audio. Learn more at www.SKAA.com

- XB runs for 15 hours at Full Volume from two fully charged batteries. A Battery charges in 3 hours (from empty); Charger Brick included.
- Charge a battery and play XB at full volume at the same time (with Charger Brick included)
- A fuel gauge LED stack (one on each battery) displays battery life remaining
- A system with two XBs and two Stage Ones (or two Soundboks 4s) pole mounted atop the XBs is an ideal setup for the gigging mobile DJ
- XB is not just for Stage One and Soundboks. Use XB to complement virtually any full-range PA speaker. Also, any powered speaker (QSC, JBL, EV, Mackie, etc.) can be easily driven by XB's XLR line output (effectively making it wireless). Alternatively they can be made wireless by adding a Streethart SKAA Pro receiver.
- Tuned by legendary engineer, Don North

To fully unleash the potency of your brand new apex predator, we vehemently advise you to read this Owner's Manual. Its pages are brimming with juicy morsels of invaluable insights, irreverent commentary, and other assorted nuggets of paradigm-altering revelation. We really hope you love your Electrotec Stage One XB subwoofer as much as we loved building it for you!

XB Packing List

- Stage One XB Speaker
- Batteries (hot swappable)
- Charger Brick
- Quick Start Guide
- Protective Carry Bag



Quick Start Guide

Start Here

1. XB's batteries ship from the factory upside down. Flip them so that the button, fuel gauge and jack are at the bottom. You'll need to depress the metal retainer clip to release each battery.
2. Make sure at least one battery is installed in your XB. Click the fuel gauge button on the battery and make sure it has at least 2 bars. If needed, connect the included charger brick to the battery's jack and connect the charger brick to AC power.
3. Hold down the Power/Gear button a few seconds to power ON your XB
4. Turn down XB by twisting the volume knob until the display reads 7
5. Continue down either the LEFT or RIGHT instruction block below (depending on your source)

SKAA wireless source

6. Select SKAA mode. Click the Power/Gear button once to change modes. Repeat if needed.
7. Power ON your SKAA source. It can be an **Electrotec Stage One** speaker set to either of the Relay  modes, or any other SKAA source such as a Dani or Cassandra+phone.
- 8* Play music on your SKAA source device. If you don't hear your music playing through your XB, click the Bond Button twice, fast. The indicator will glow bright once Bonded.
9. Turn up XB's volume. Turn up GLOBAL VOLUME on the SKAA source too, if needed.

3.5 mm or XLR/TRS source

6. Select either 3.5 mm or XLR/TRS mode. Click the Power/Gear button once to change modes. Repeat if needed.
- 7† Connect your audio source device to the desired LINE IN jack (3.5 mm or XLR or TRS) using an appropriate cable
8. Play music on your source device. If you hear distortion, turn down your source.
9. Turn up XB's volume

get the XB Owner's Manual:

<https://www.electrotecaudio.com/support>



Overview

- XB's dual 10" woofers are NOT off-the-shelf drivers. They've been custom designed, specifically to get maximum efficiency, clarity and SPL from the XB cabinet.
- Likewise, XB's massive port tube is custom designed to optimize XB's sonic performance and is injection-moulded from tough ABS plastic



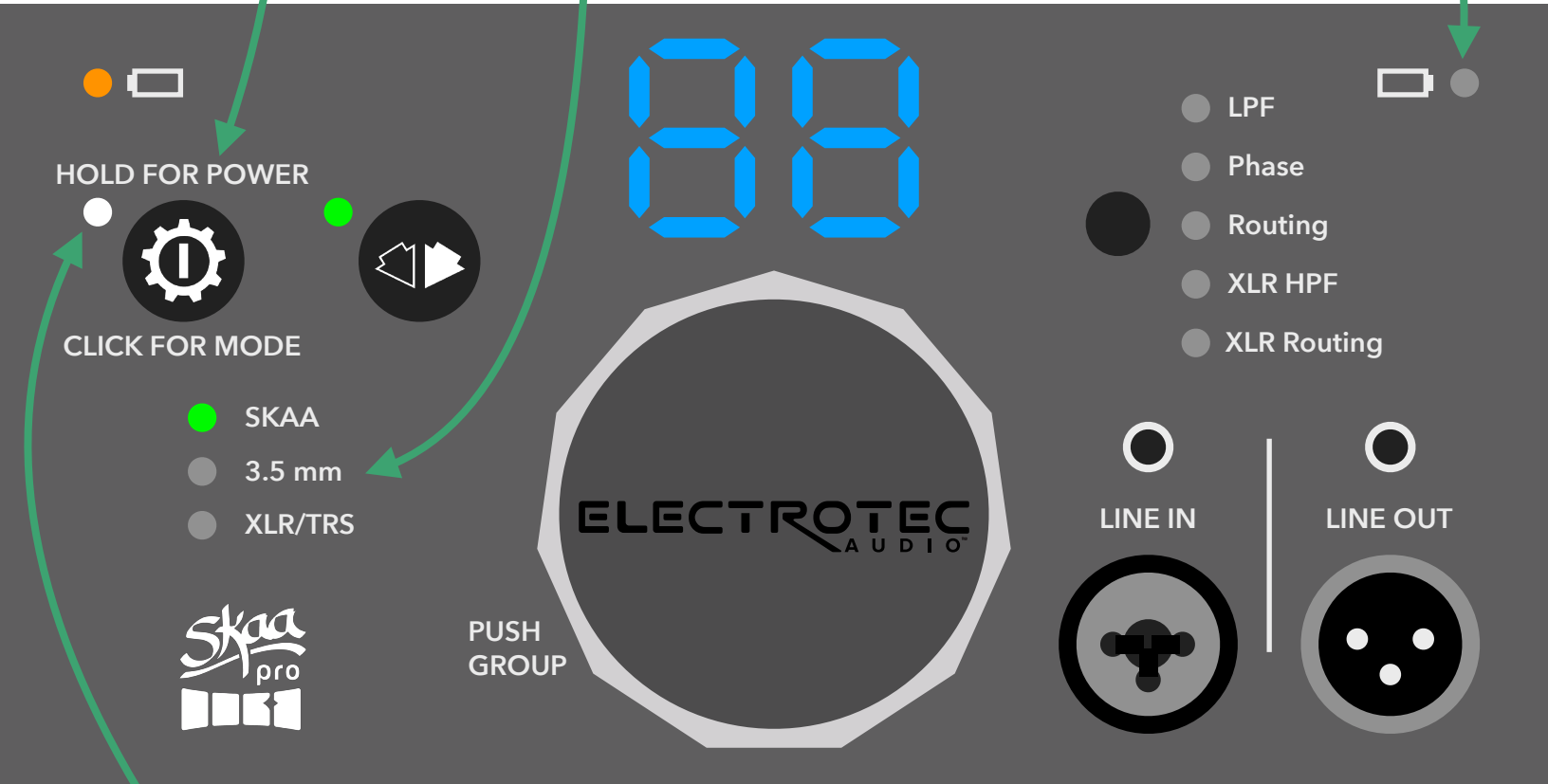
- XB's cabinet is built from high-grade 9mm birch plywood making it both tough and light weight. It has internal ribbing for extra strength and rigidity.
- The inside walls are covered in protective vinyl to both enhance sonic performance and enable XBs to withstand high humidity
- Gorgeous and strong, a fully-custom powder-coated steel grille with >97% open area percentage provides robust protection while not impeding air movement / efficiency / SPL
- XB's huge rubber bumpers compress on uneven surfaces to eliminate wobble, regardless of the surface you put XB on
- The drivers are optimized for battery operation – this means a custom voice coil, suspension and cone, all focused on delivering industry-best efficiency and clarity
- All the care taken in designing the custom drivers was well worth it as XB delivers 15 hours of run time at FULL VOLUME, all while being fantastically loud, and CLEAR
- Each driver has it's own dedicated 144 W amplifier and it's own dedicated low-ESR capacitor bank (for a total of 288 W).
- Every design choice is deliberate. 9 mm walls with internal ribbing enable XB to be light weight. A sonically transparent grille enables efficiency and SPL. Edge protectors made from ASA rather than aluminum enable maximum SKAA wireless range.

Power / Gear button

*Hold down the Power/
Gear Button for a few
seconds to power XB ON
or OFF*

*Click the Power/Gear button
once to select the type of
audio source (MODE) from
this list. Repeat if necessary.*

*Double Click the Power/Gear
button to select which Battery
is active (left or right). If a
Battery is absent or empty, XB
won't let you select it. If you
want to pull out a Battery while
XB is turned on, remember to
switch over to the other Battery
first.*



*The Power Indicator is
normally WHITE when XB
is powered ON*

*If the Power Indicator is RED it
means XB is Bonded to a SKAA Pro
transmitter (wireless audio source)*

- If the Power Indicator is ON but dim, it means XB has entered a power-saving Sleep state
- When XB is being operated solely from Battery power, that is, with the Charger Brick NOT connected, XB will power itself OFF following an extended period of inactivity. When this happens, the Power Indicator will extinguish and XB will need to be powered back ON via a manual press & hold of its Power/Gear button

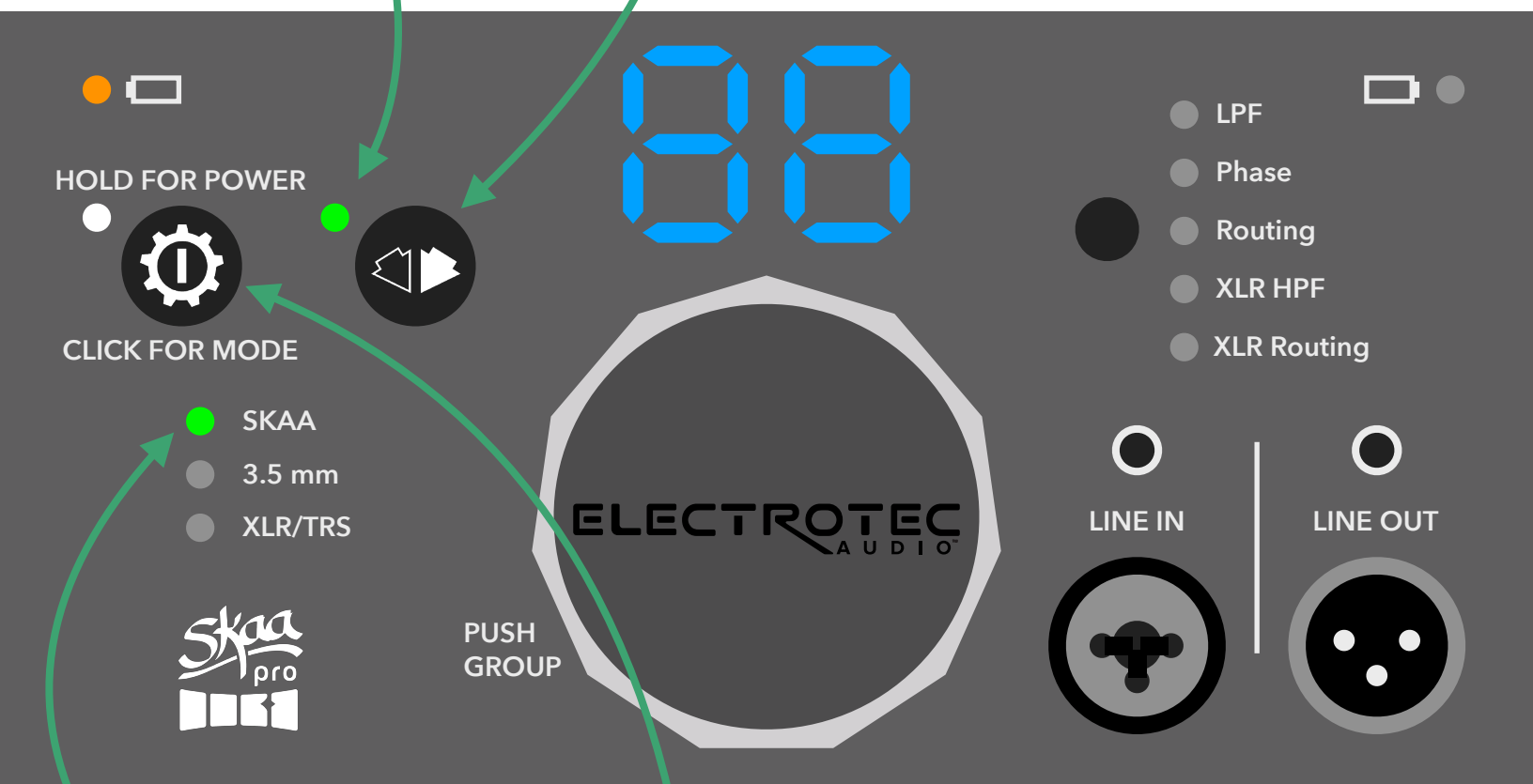
The Bond Button

SKAA mode

Use the Bond Button to wirelessly connect your XB to any SKAA or SKAA Pro wireless audio source

Mute / Unmute function:
Triple Click the Bond Button to Mute or Unmute your XB – the Bond Indicator will FLASH SLOWLY when XB is muted. Mute/Unmute works regardless of what input MODE your XB is currently in.

- Single Click the Bond Button to rotate through your GREEN LIST (your list of favorite SKAA transmitters). The indicator is GREEN.
- Double Click the Bond Button to explore for a new SKAA transmitter (one NOT currently on your GREEN list). The indicator is AMBER.
- Hold down the Bond Button for a few seconds to add or remove the currently-Bonded SKAA transmitter to/from your GREEN List.
- A bright Bond Indicator means your XB is Bonded to a SKAA transmitter – a dim Indicator means it's not Bonded; rather it's hunting for a transmitter



Aside from Mute, all other Bond Button features work ONLY when XB is in SKAA mode

Click the Power/Gear button ONCE to change the selected input (MODE). Repeat until you activate SKAA mode.

- TIP: if you have a bunch of transmitters saved on your GREEN LIST but just one is active right now, use the 4-click command to quickly Bond XB to it. Then single click to change to a GREEN Bond.

The Bond Button has MANY additional features. The following 2 pages go through them in detail.

The Bond Button (cont.)

SKAA® RECEIVER USER'S GUIDE

Each SKAA receiver uses a *Green List* to remember your *favourite* audio sources (SKAA transmitters). A Green glowing Indicator on your receiver means you are listening to a favourite, or hunting for one. You can also *explore* to find new transmitters—an Amber Indicator means you are *exploring* for transmitters which are not on your Green List. The  Bond Button on your receiver lets you select which audio source (SKAA transmitter) you're listening to.

Essentials

 Button	Command	Indicator
Hold a few seconds	<u>Add / Delete</u> Manually add / delete the current transmitter to / from your Green List	 to  = Added  (flash) = Deleted
-	<u>Auto Add</u> SKAA will automatically add the current Amber transmitter to your Green List if you listen to it for 30 minutes	 to  = Added
1 Click	<u>Green Mode</u> Rotate through your list of <i>favourite</i> transmitters (Green List) — when a favourite transmitter is found, the search stops and audio plays from that transmitter	 (dim) = Hunting  (flash) = Next one  (bright) = Bonded
2 Clicks	<u>Amber Mode</u> <i>Explore</i> for new, unknown transmitters (ones which are not already on your Green List)	 (dim) = Hunting  (bright) = Bonded

More Commands

 Button	Command	Indicator
3 Clicks	<u>Mute</u> do again to Unmute; any Click command will first Unmute and then do its function	 ,  or  = Muted (slow flash)
4 Clicks	<u>Red Mode</u> If you have 2 or more transmitters on your Green List, power on just the one you want to hear and it plays automatically.	 (dim) = Hunting  (bright) = Bonded
6 Clicks	<u>Factory Reset</u> Clear Green List. Start Over!	 (flash) = Reset Done
Hold during power on	<u>Make a Cluster of Receivers:</u> - Power off all transmitters and receivers - Power on the Master receiver while holding down its Bond Button—hold the button down until the Indicator begins to flash Red - With the remaining receivers within 3 meters of the Master receiver, power on the first one, wait for its Indicator to flash Red and then power on the second one; continue until all of them are powered on - Once all of the Indicators stop flashing (turn solid Red), power off all of the receivers	 (flash) = Receiver has entered 'Cluster Up' mode  (bright) = The Cluster has been successfully made

QUESTIONS AND ANSWERS

Question	Answer
How does the Green List work?	You can store up to 10 SKAA transmitters on your Green List. These are your “favourite” audio sources. Every time you add a transmitter, it is assigned the first open spot on the Green List. When you single click the  Bond Button, the receiver hunts through the Green List much like a car radio hunts for radio stations when you press seek. If the Indicator is dim Green and flashes every few seconds, this tells you the receiver is hunting through the Green List. Say you have 5 transmitters on your Green List; your receiver will hunt through the list one by one: 1, 2, 3, 4, 5 and then back to 1 and so on. The dim Green Indicator flashes every time the receiver moves to the next spot on the list. This hunting goes on for up to 1 minute. If your receiver doesn't find any of your favourite transmitters, it stops hunting and just waits for the last bonded favourite. If your receiver does find one of your favourite transmitters, the hunting stops, the Indicator turns bright green, and your receiver starts playing audio from that favourite. A dim Green Indicator that is NOT flashing means the receiver is just sitting on one spot, waiting for a specific favourite transmitter to show up.
How do I bond with a specific Green transmitter?	Play audio from your source device and ensure it has a SKAA transmitter connected. Click the  Bond Button on your receiver. The receiver hunts through the Green List, flashing the Indicator as it goes. Once your receiver finds one of your favourite transmitters, it bonds to it and plays audio from that transmitter. If that isn't the transmitter you wanted, click the Bond Button once more. Repeat until your receiver bonds with the transmitter you want and you're hearing the correct audio playing.
How do I select transmitters if I can't reach my Bond Button?	Say you want to put your receiver on a high shelf where you can't reach the Bond Button easily. First, set up your Green List: add all of the transmitters you'll want to use. Then 4-click the  Bond Button to enter Red Mode. Now put the receiver up on the high shelf. Power on just one of your transmitters and power off all others. The receiver automatically bonds to the transmitter that's on.
How do I delete a transmitter from my Green List?	Factory Reset (6 Clicks of the Bond Button) clears the Green List and lets you start over from scratch. If however, you'd like to delete just one transmitter from your Green List, first bond your receiver to the transmitter you wish to delete. See the section above: How do I bond with a specific Green transmitter? . Once you are bonded to it, hold down the  Bond Button for a few seconds until you see the Indicator flash Red –this Red flash means the transmitter has been deleted.
What is a Cluster?	Clusters are an optional convenience for “power users”. A Cluster is several SKAA receivers behaving as one product. A left & right speaker pair, for example, or a sound bar and subwoofer.
What is the Master receiver?	In any Cluster, there is a single Master receiver, and all of the other receivers in the Cluster follow its behaviour. You can control the entire Cluster by operating the  Bond Button of the Master. A receiver must have a physical Bond Button in order to become the Master.
How do I “uncluster” several receivers?	Do the Make a Cluster of Receivers procedure once for each receiver, but omit Step 3. Do them one at a time. This gives each of the receivers a functioning  Bond Button, and each of them will thereafter operate independently.
What are some tips for making Clusters?	Each step in the Make a Cluster of Receivers procedure has a 10-second time limit. When you see the Master's Indicator start to flash Red, you have 10 seconds to power on the next receiver. When that receiver's Indicator starts to flash Red, you have 10 more seconds to power on the next one, and so on.
Why does only one of my Bond Buttons work?	When you make a Cluster from several receivers, the first one powered on in the Make a Cluster of Receivers procedure becomes the Master of the Cluster. Only the Master's  Bond Button works because a Cluster uses just one Green List –the Master's Green List. The Bond Button of each of the other receivers will work only for the Mute / Unmute function (3-Click of the Bond Button).
Can any group of receivers be made into a Cluster?	No. The receivers must be members of the same product family. If they are not, the Make a Cluster of Receivers procedure won't work. This is because only receivers which were designed to work together (as a single product) can be made into a Cluster.

Volume

XB's large numeric display normally shows LOCAL VOLUME – that is, the volume of this particular XB. BLUE color means LOCAL VOLUME. If you instead see ORANGE color, that means you're looking at (and controlling) GLOBAL VOLUME.

- Your XB features 2 types of volume: LOCAL and GLOBAL
- Both LOCAL and GLOBAL will affect XB's actual volume
- GLOBAL volume can also be controlled from most SKAA source devices like Stage One (in Relay mode) or Dani.
- Here's an example. If GLOBAL volume is set to 80% and LOCAL volume is set to 50%, XB's actual volume will be $0.8 \times 0.5 = 40\%$.
- Clicking the center of the knob will temporarily change the color of the numeric display to ORANGE, and while orange, turning the knob will control GLOBAL VOLUME. The numeric display will automatically change back to BLUE (LOCAL VOLUME) after a few seconds of inactivity



Click to change to GLOBAL VOLUME. The numeric display will temporarily change to ORANGE. Changing GLOBAL VOLUME will affect ALL speakers in your SKAA wireless network. Turning the knob while the display is orange is equivalent to changing GLOBAL volume from the SKAA transmit side.

Turn the knob to change XB's VOLUME. Both types of volume (LOCAL and GLOBAL) may be controlled by this knob and both of them range from 0 to 30 on the numeric display.

NOTE: In addition to the hardware controls described here, GLOBAL and LOCAL volumes for your whole SKAA network may be controlled by the app

Batteries & Charging

Insert the Battery with this arrow pointing UP to use your XB. Insert it with arrow pointing DOWN for shipping (this severs all electrical contact).

Strap

Fuel Gauge LED stack

Charging-in-process LED

To charge the Battery, plug in the included Charger Brick into this jack, and into AC power

To remove a Battery from XB, depress this metal Clip while you use the Strap to pull the Battery out

Click this button to activate the battery's Fuel Gauge. The LED Stack displays the remaining Battery life as a stack of lit LEDs.

While XB is powered ON, double click the Power/Gear button to change the active Battery. An empty or absent Battery may not be selected.

- Batteries may be charged both IN and OUT of XB
- To use XB, you'll need to have at least one Battery inserted
- It's recommended that you charge the Battery which is NOT currently active; charging will complete faster this way
- But if you need to, you can also charge the active battery, even while playing XB at full volume
- Before you physically pull out a Battery, switch XB to the other Battery first
- The RIGHT MOST LED in the Fuel Gauge LED stack will illuminate when the Battery is charging. It will turn off when charging is complete.
- Charging a Battery from empty takes 3 hours (longer if the Battery being charged is also currently powering your XB)
- Use only the included Charger Brick to charge XB's Batteries
- You can use a Y cable (not included) to charge both Batteries concurrently from a single Charger Brick. When you do this, neither Battery should be powering XB.
- When loaded with 2 (not empty) Batteries, XB will select and use the LEFT Battery first (default selection following Power ON)
- When the LEFT Battery is fully depleted, XB will automatically switch to the RIGHT Battery and this will not introduce any audio artifacts or interruption. This is a great time to charge the LEFT Battery.
- When the RIGHT Battery is depleted, XB will attempt to switch to the LEFT Battery
- Batteries will flash the far left LED when 3% or less energy remains
- When both Batteries are fully depleted, XB will power itself OFF



HOLD FOR POWER



LPF

Phase

Routing

XLR HPF



Overview (part deux)

9 mm baltic birch plywood cabinet construction, armoured with tough, weather-resistant hex-pattern phenolic sheathing

M20 threaded all-steel top hat for ultra-stable pole attachment

8 massive rubber bumpers serve as stable feet plus prevent XB from sliding around in your vehicle during transport



two pro-grade handles for easy transport

12 ASA edge protectors provide UV-stable light-weight protection whilst not hampering wireless range

rubber bumpers enable both vertical & horizontal stacking

rear panel made from heavy gauge steel; properly recessed to protect controls

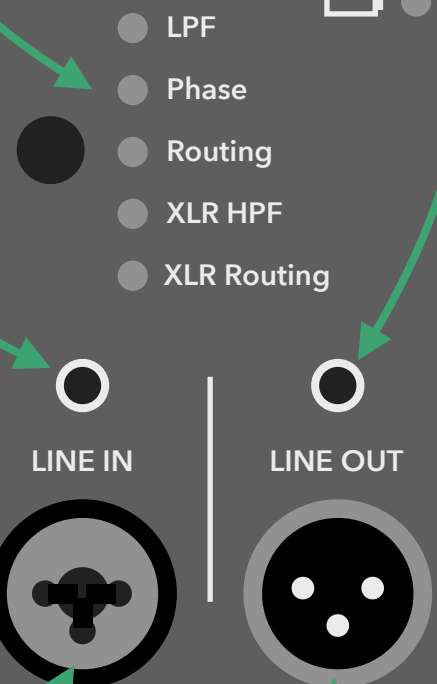
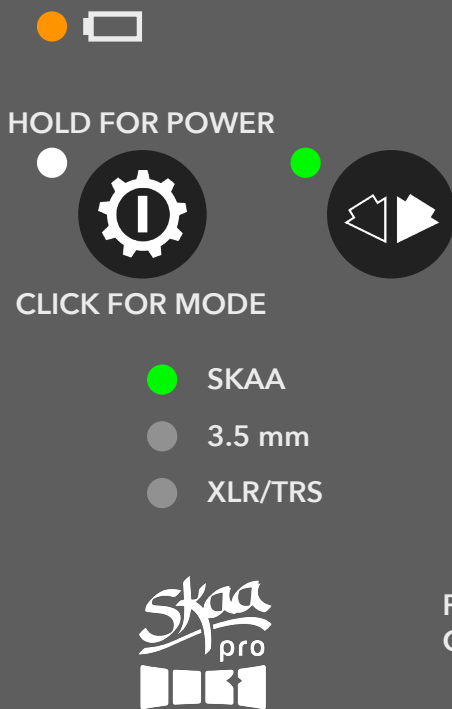
dual hot-swappable batteries deliver 15 hours play time at full volume

Line Inputs & Outputs

The 3.5 mm LINE IN is a stereo input capable of accepting up to 1.05 VRMS signals without clipping

The 3.5 mm LINE OUT is a 0.850 VRMS full scale stereo output. The input to XB must be either SKAA or 3.5 mm for this output to truly be stereo. The audio processing of the Function Stack does NOT affect this output

Function Stack



- Both the 3.5 mm and XLR LINE OUTPUTS are normally “full scale” (that is, the signal is sent to the jacks “full up” regardless of the current LOCAL and GLOBAL volume settings)
- If you’d like the 3.5 mm and XLR LINE OUTs to be scaled by XB’s volume level, you can turn on this feature on P2 of the Electrotec SKAA cmd app
- IMPORTANT - the XLR input is NOT a microphone input. This is a line-level input and lacks a microphone preamp.
- The XLR and TRS signal lines are hardwired together

This jack can accept a mono audio source in one of these formats:

- a) an XLR line-level (balanced) source, or,*
- b) a TRS line-level (balanced) source, or,*
- c) a TS (unbalanced) line-level source*

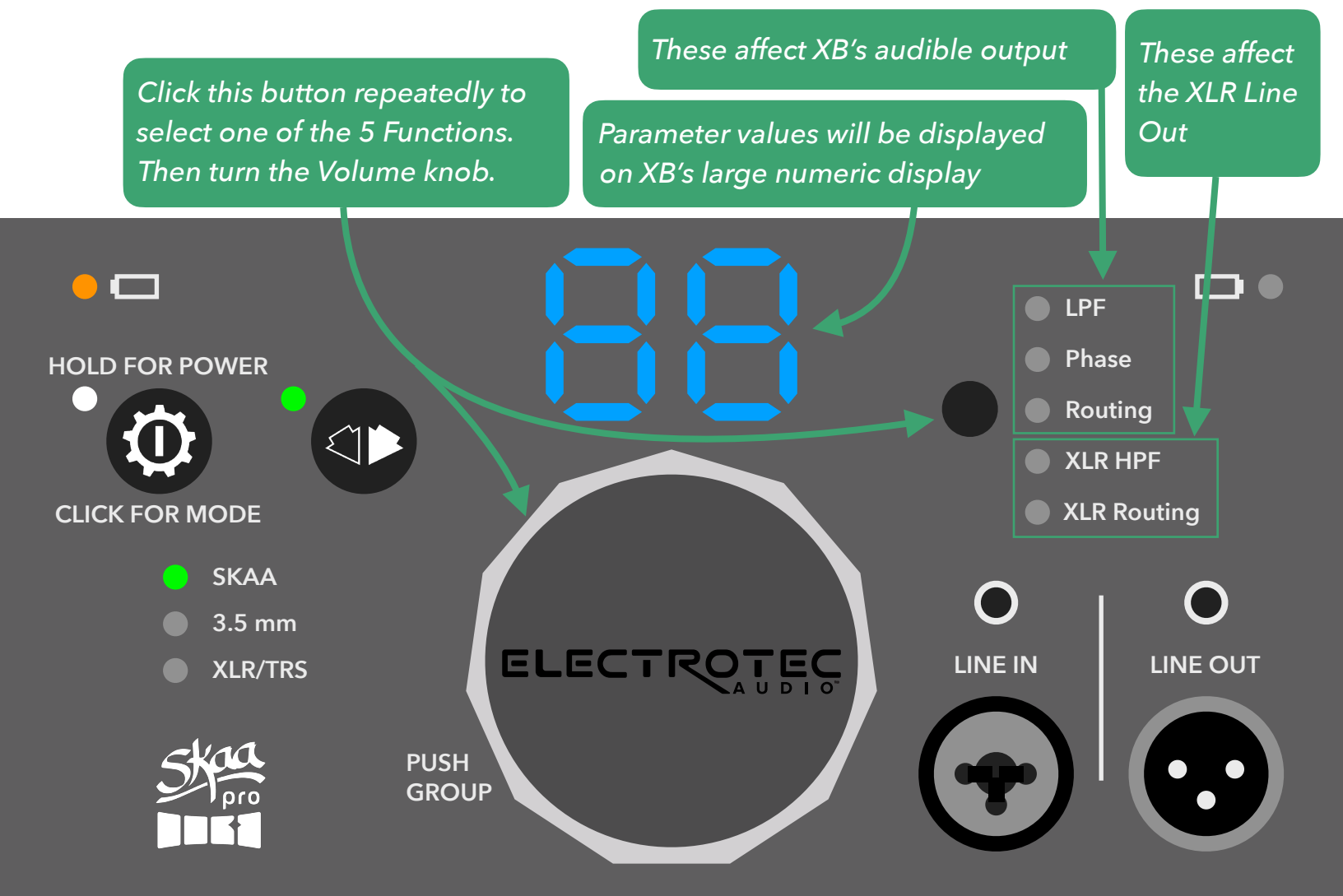
Signal level can be max 12.6 dBu (balanced) and 6.6 dBu (unbalanced) before clipping

This XLR jack outputs a mono signal at 12.6 dBu full scale (balanced)

Both LINE OUTs are always active, but only the XLR LINE OUT is affected by audio processing of the Function Stack above

Crossover, Routing & Polarity

Function Stack



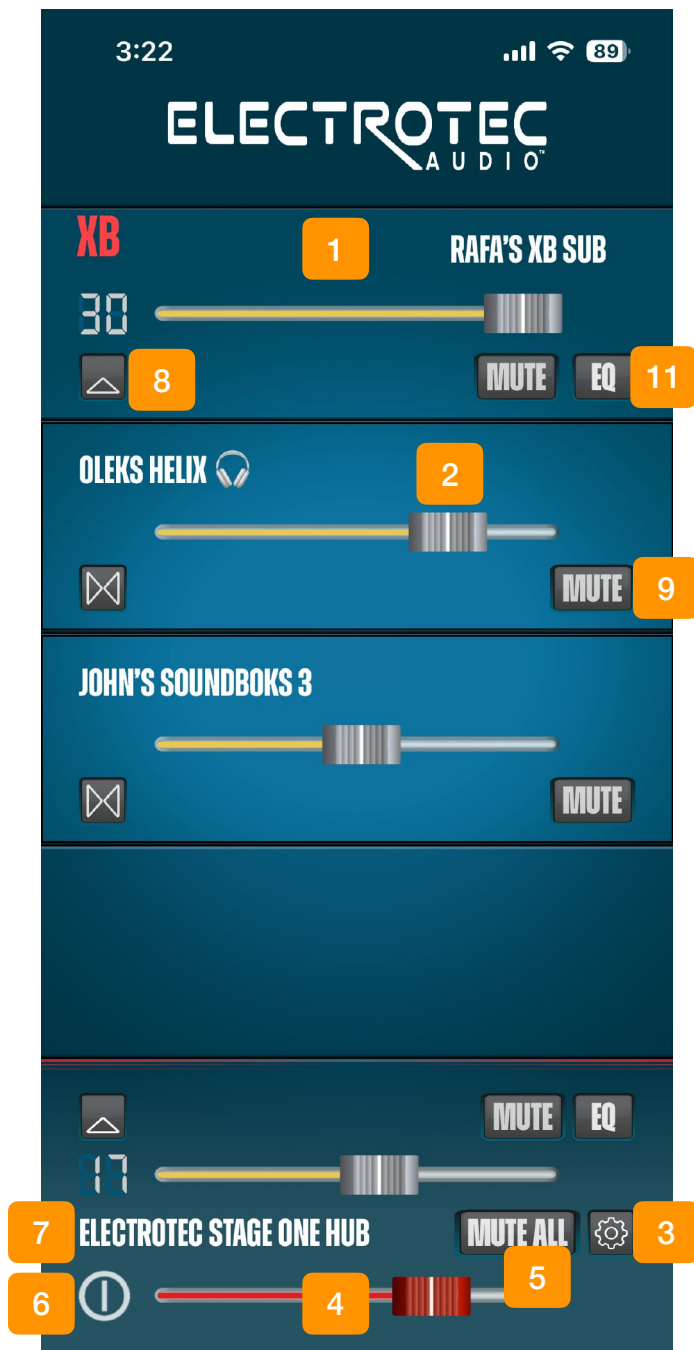
- NOTE - the High Pass Filter for the XB's audible output (which is disabled by default) is not controlled here on the rear panel; it is controlled via Page 2 of the Electrotec SKAA cmd app
 - Changes you make in these parameters are stored permanently in XB; new values remain active until you change them again or do a Factory Reset
 - The Function Stack temporarily takes over XB's volume knob and numeric display to let you easily see and set parameters for each of 5 functions
 - Take full advantage of XB's crossover, fine tuning both the LPF of XB itself and the HPF of the XLR out
- Try connecting a powered top speaker to XB's XLR line out. Set the LPF of XB to 70 Hz (7 on the display). Then set the XLR HPF to 70 Hz too. This sets a clean crossover with XB handling below 70 Hz and the top handling above 70 Hz.
 - You are free to set the audio channel routing of XB and the XLR line out differently from each other. For example, in the above example, set XB to "bo" and XLR to "L"
 - Set the Phase to what sounds best from the listening position

Function	Description	Affects	Display	Meaning
LPF	Low Pass Filter	XB Audible	5, 6, 7... 15	50, 60, 70 ... 150 Hz (filter cutoff freq)
Phase	Polarity Invert	XB Audible	0,1	Not Inverted, Inverted
Routing	XB's Audio channel	XB Audible	L, r, bo	Left, Right, Both (both=mono mix)
XLR HPF	High Pass Filter	XLR Line Out	5, 6, 7... 15	50, 60, 70 ... 150 Hz (filter cutoff freq)
XLR Routing	XLR Audio channel	XLR Line Out	L, r, bo	Left, Right, Both (both=mono mix)

Electrotec SKAA cmd app

When using XB together with an Electrotec Stage One Hub, we recommend using the Electrotec SKAA cmd app which is available for iOS and Android (download it for free from the Apple App Store and Google Play). Using apps with SKAA gear is, as always, optional. Ensure your Stage One speaker is in Bluetooth Relay mode, then START WITH ITEM 3.

Electrotec SKAA cmd actually communicates between your phone (or iPad/tablet) and the Stage One Hub via BLE. That Hub speaker in turn has a data connection with all its downstream SKAA-bonded receivers, including your XB. Customize the name of XB and other SKAA Receivers, easily mute any or all Receivers, adjust individual volumes, see which Receivers are Bonded to your Hub, adjust the high pass filter on your XB, and more.



1. Each Hub has 4 bays (3 shown used in the example to the left – you can Bond a single Receiver or a Cluster into each bay
2. Slide a fader to change the volume of a Receiver – its volume is also affected by No. 4.
3. Click the gear to get to the BLE connect page. **START HERE.** Make a data connection between your phone and the Hub first. Then this app will come alive.
4. Global volume control. This fader affects volume on all Bonded Receivers.
5. Mute All macro: clicking this is a quick way to mute all Bonded Receivers. Click each Receiver's speaker icon individually to unmute and get audio playing again.
6. Transmitter Power Mode
RED: Always ON
GREY: Always OFF
WHITE: ON only when there is audio
7. Click to edit the name of your Hub speaker
8. Audio Routing: The Grey Bond Block lets you choose whether a Receiver is playing Left, Right, Mono Mix or Stereo audio. Since XB is a single-channel device, the stereo option is hatched out (disabled in XB). From the factory, XB is configured for Mono Mix audio (that's the icon with a downward firing speaker). Make one XB Left and another XB Right if you want stereo subs.
9. Click to mute this Receiver. Click again to unmute.
10. Click to edit the name of your Receiver
11. [XB ONLY] Click EQ to get to Page 2. This is where you can set the HPF for your XB and control other XB-specific functions.

Electrotec SKAA cmd app (cont.)

12. Clicking the Gear (previous page No. 3) brings you to this Connect page.

13. There may be several devices in the list. Click the CONNECT button to make a data connection to your Stage One Hub speaker. The button becomes a DISCONNECT button.

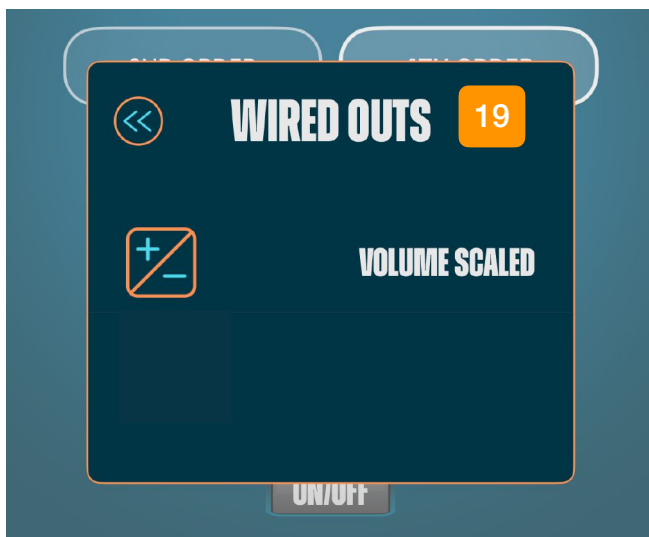
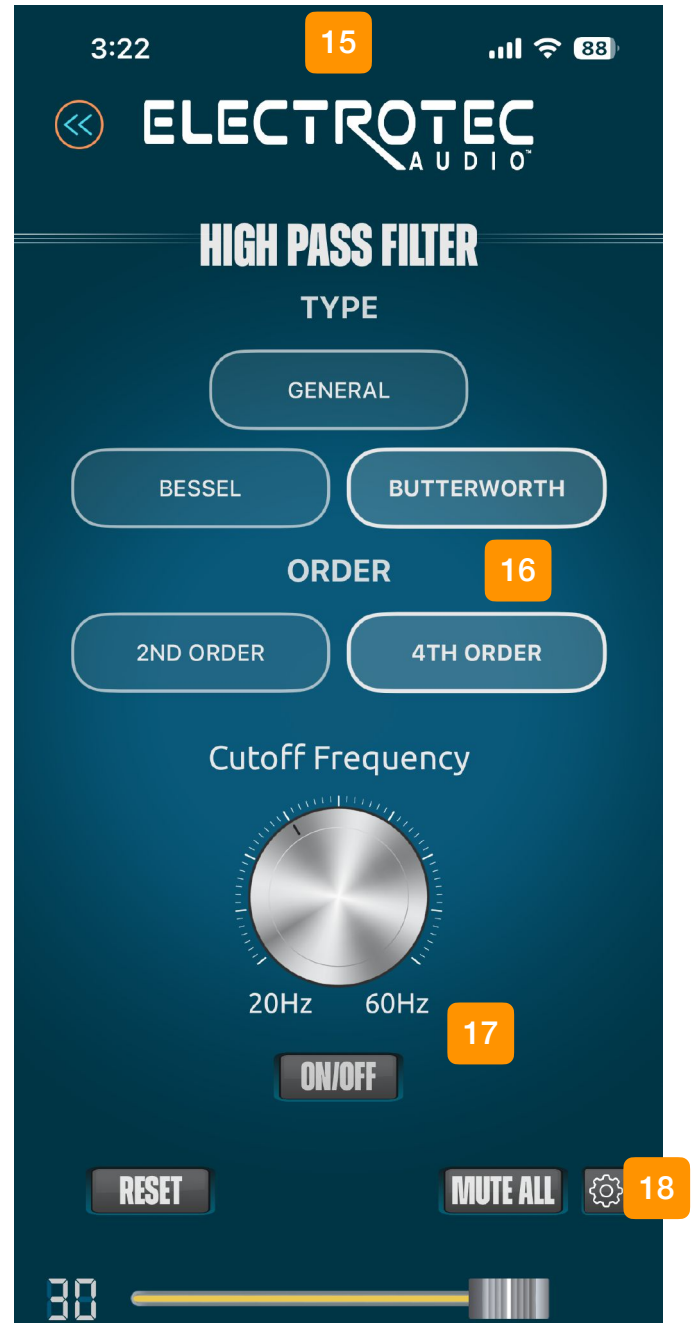
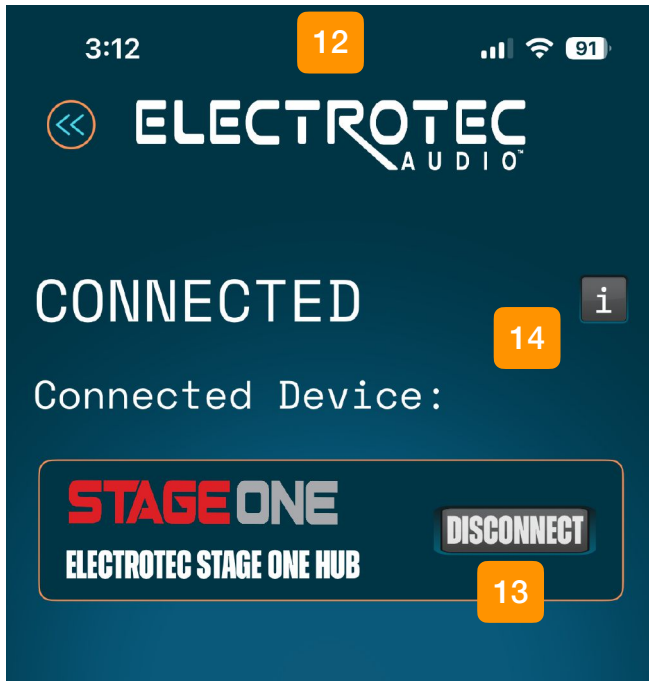
14. Click the "i" button to get app version information

15. This is Page 2. The XB-specific functions are handled here. User gets here via No. 11.

16. Use these TYPE and ORDER buttons to set your high pass filter type and sharpness, respectively

17. Set your high pass filter cutoff frequency using the giant knob. Turn on the high pass filter by clicking the ON/OFF button. When ON, the giant knob turns bright silver.

18. The Gear icon takes you to the WIRED OUTS pop up menu (No. 19). Here you can select whether you want XB's line outs to be scaled by XB's volume setting, or not scaled.



specifications

Parameter	Conditions	Value
Cabinet Construction		9mm birch plywood construction with black phenolic coating on outside; vinyl coated inside
Battery Capacity	Per each Battery Magazine	Li-ION 6S 2P pack, 21.9VDC LMC: 99.65 Wh, 750 charge/discharge cycles
Run Time	Normal listening	Up to 34 hours
Run Time	Full Volume	Up to 18 Hours
Charge Time	From Empty	3 Hours
Amplifier Power		288W RMS (2 x 144W Infineon Amplifiers)
Amplifier Type		Class D
Heat Sink	Direct connected by aluminum block	35 x 21 x 5 mm aluminum plate to amp heat sink
Woofers	Each woofer	10" diameter, rubber surround, 350W continuous power, 650W peak power
Woofer Impedance	Each woofer	1.7Ω
Punch Enhancement	soldered directly to amplifiers	6 x 40V 1000uF film caps
Port		Tuned Bass Reflex Port
Frequency Response	Reference: 100 Hz at 1W, AES17 LPF	45 Hz - 200 Hz +/- 3 dB
Acoustical Max Level	1 m	126 dB SPL
THD+N	1W, 45 Hz - 200 Hz, AES17 LPF	<0.05%
SNR	Ref: 1W at 100Hz	82 dB
Digital Resolution	Each of 2 available channels	48 kSamples/s, 16 bit
Antenna Type		FE Model B0
RF Power	Maximum	+18 dBm
Wireless Range	Actual range depends also on the actual antenna performance of the transmit-side SKAA device	Up to 50 meter reliable range
SKAA Input	SKAA OS 2.1 and later	Any SKAA or SKAA Pro wireless audio source
Analog Input	XLR/TRS/TS full scale	12.6 dBu (balanced), 6.6 dBu (unbalanced)
Analog Input	3.5mm full scale	1.05 VRMS
Analog Output	XLR full scale	12.6 dBu
Analog Output	3.5mm full scale	0.850 VRMS
Standard Compatibility	SKAA OS 2.1 and later	Any SKAA or SKAA Pro Transmitter, any Nadja Hub

specifications (cont)

Parameter	Conditions	Value
Transport Latency	I2S Digital to I2S Digital, SKAA	36.71ms +/- 1.5 samples
(cont.)	I2S Digital to I2S Digital, SKAA Pro	19.39ms +/- 1.5 samples
Max Receivers	Concurrent per Transmitter	4 (with SKAA source) , 2 (with SKAA Pro source)
Dimensions (H×W×D)	Cabinet, including rubber bumpers	16 × 26.5 × 14.38 inches 40.6 × 67.3 × 36.5 cm
Dimensions (H×W×D)	Cabinet, not including rubber bumpers	15.25 × 25.75 × 13.94 inches 38.7 × 65.4 × 35.4 cm
Mass - Metric	Anywhere	21 kg
Weight - Imperial	Near the Earth's surface	46 lbs
Power Supply Rating	External floor brick type	Input: 100-240 VAC, 50/60Hz, Output: 26V 130W
HPF Adjustable Range	2nd/4th order; APP controlled	20 Hz - 60 Hz, 1 Hz increment
LPF Adjustable Range	4th order; Panel control	50 Hz - 150 Hz, 10 Hz increment
XLR HPF Adjustable Range	2nd order; Panel control	50 Hz - 150 Hz, 10 Hz increment

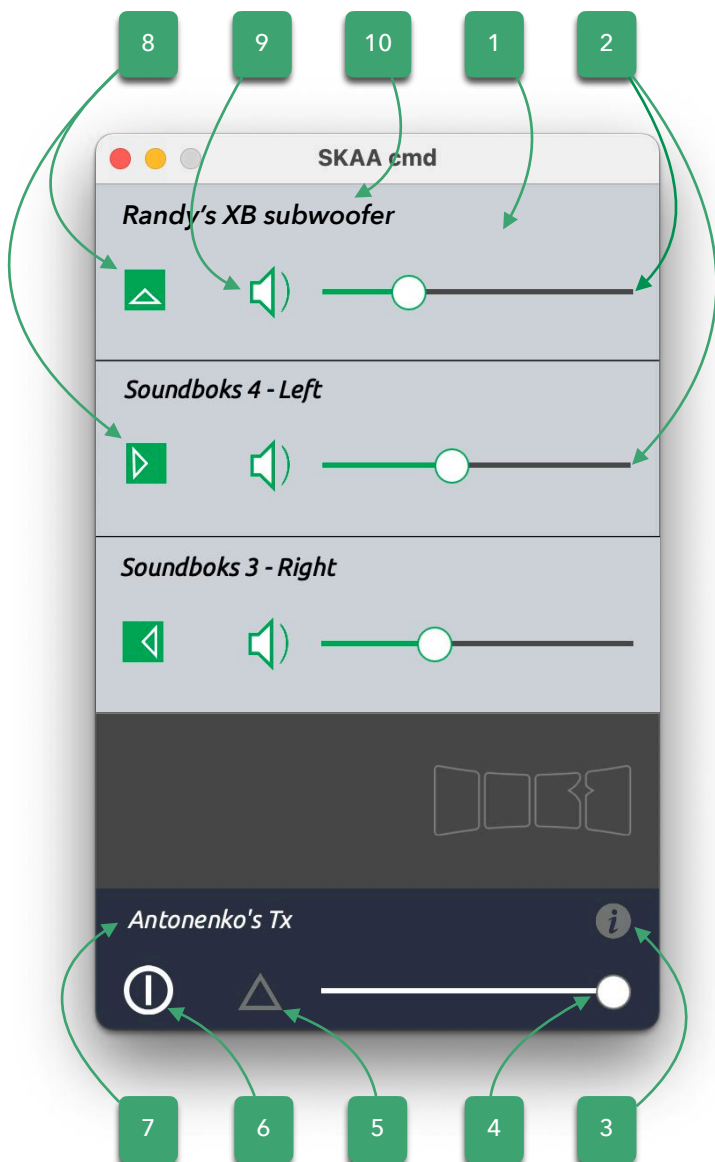


SKAA cmd

XB also works great with “stock” SKAA cmd. Use this app if you’re feeding XB from a smart transmitter such as Cassandra, Diz or Ursula. If you are feeding XB from an Electrotec Stage One, then you should use Electrotec SKAA cmd instead (this unlocks the page 2 HPF feature). As always, use of apps is optional for all SKAA gear.

SKAA cmd adds a long list of features to your SKAA setup. Use it with Cassandra, Diz and Ursula transmitters. Add custom names to Receivers, easily mute any or all of your Receivers, adjust individual volumes, see which Receivers are Bonded to your Transmitter and more.

The SKAA cmd App is available for iOS, Android, Mac, and Windows. Download it from Apple’s App Store, Google Play, and at [SKAA.com/TLC](https://www.skaa.com/TLC).



1. Each Transmitter has 4 bays – you can Bond a single Receiver or a Cluster into each bay
2. Slide a fader to change the volume of a Receiver – its volume is also affected by No. 4.
3. Click the “i” ball to see the SKAA cmd app version and the Transmitter firmware version
4. Global volume control. This fader affects volume on all Bonded Receivers.
5. Mute Macro: clicking this triangle is a quick way to mute all Bonded Receivers. Click each Receiver’s speaker icon individually to unmute and get audio playing again.
6. Transmitter Power Mode
RED: Always ON
GREY: Always OFF
WHITE: ON only when there is audio
7. Click to edit the name of your Transmitter
8. Audio Routing: The Green Bond Block lets you choose whether a Receiver is playing Left, Right, Mono Mix or Stereo audio. Since XB is a single-channel device, the stereo option is hatched out (disabled in XB). From the factory, XB is configured for Mono Mix audio (that’s the icon with a downward firing speaker). Make one XB Left and another XB Right if you want stereo subs.
9. Click to mute this Receiver. Click again to unmute.
10. Click to edit the name of your Receiver

important information

Read the following information carefully. Failure to follow these safety guidelines may result in personal injury or user dissatisfaction.

1. Lift your XB safely by using XB's 2 handles
2. Do NOT poke the woofers by inserting objects through the grille holes.
3. Never place anything in XB's tuned port.
4. XB is weather resistant, not water proof. If it starts raining, protect the rear panel. Also, protect the drivers and make sure water is not getting into XB's tuned port.
5. Only use the Charger Brick (included with XB) to charge XB's Batteries
6. Never store or operate XB near a heat source.
7. Do not charge XB during electrical storms.
8. If you're always using XB with its Charger Brick plugged in, make a point of running it on each Battery at least once a month. Down to 3 LEDs on the Fuel Gauge is enough. This will extend Battery life.
9. Listening to XB at maximum volume may lead to hearing loss or partial hearing loss. We do not recommend listening with volume over 80% within 4 meters of your XB.
10. Not for use by children under the age of 12.
11. Any disassembly of your Stage One XB subwoofer will void your warranty.
12. When using XB with poles and top speakers, use only 1 3/8" steel poles from a brand you trust (the style of pole with the M20 threaded bottom), and get your bud to help you loft that Stage One.

This Owner's Manual is being continuously improved with the most up-to-date and accurate information on XB. Please check our [website](#) for the most recent version.

Have questions or comments about Electrotec Audio products? We want to hear from you! Reach out to us [here](#).

Also, check out SKAA's [YouTube channel](#) for great how-to vids.

setting up Soundboks speakers to work with your XB

Hub speaker

Click the  button to set Soundboks' mode to:

Host

In this mode the Soundboks will act as a SKAA transmitter (what we call a Hub speaker) relaying its own audio to up to 4 additional Satellite Speakers (for a total of up to 5 speakers)

Electrotec Stage One XB subwoofer (+ other satellites)

Click the Power/Gear (repeat if necessary) to set XB's mode to:

SKAA

On XB, double click the  Bond Button to connect XB to the Soundboks (Hub).

Optionally, add more satellite speakers (with built-in SKAA receivers) in the same way. For example, additional XBs or more Soundboks speakers (these set to "Join" mode).

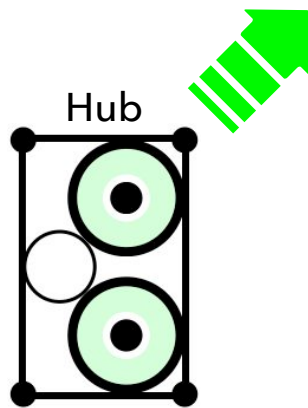
SKAA or SKAA Pro operation

- Use the Soundboks App on your phone to set your Hub speaker (Soundboks speaker in Host mode) to SKAA or SKAA Pro mode (all downstream Bonded speakers will automatically follow the mode of the Hub)
- SKAA mode – Bond up to 4 more speakers at standard low latency (for a total of 5 speakers in the SKAA cell)
- SKAA Pro mode – Bond up to 2 more speakers at ultra-low latency (for a total of 3 speakers in the SKAA cell)

Soundboks speaker models

- All of the following Soundboks speakers will work for the use cases described in this doc
- Soundboks 3, Soundboks GO
- Soundboks Mix (will support all those use cases that do not depend on combo [XLR/TRS] jacks)
- Soundboks 4

Hub speakers have SKAA transmitters built in

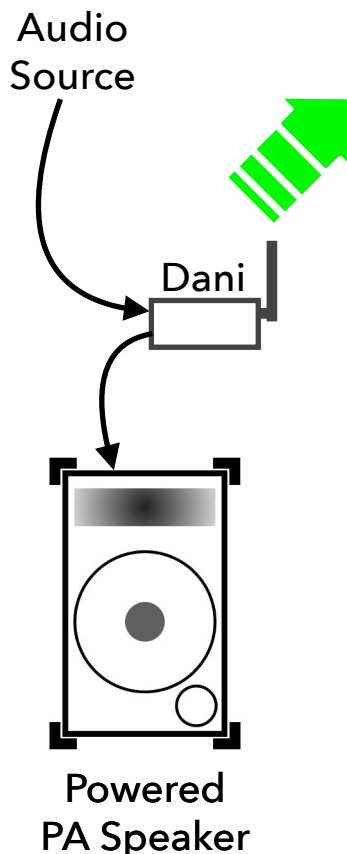


For example:

- Electrotec Stage One
- Soundboks 4 (in Host mode)
- Soundboks Mix (in Host mode)*
- And many others
- They all support both bluetooth and wired audio sources

* Soundboks Mix can serve as a Hub in all use cases that don't require TRS/XLR wired input

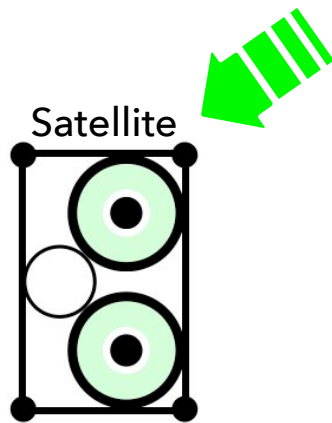
and you can always cook your own Hub ...



The do-it-yourself Hub:

- Use any powered PA speaker (Mackie, EV, QSC, JBL, etc.)
- Add a Dani SKAA/SKAA Pro transmitter
- Daisy chain your audio source into Dani's inputs and then out from Dani's thrus to the PA speaker (use TRS patch cables)
- Enables you to both hear the audio and transmit it to up to 4 Satellites
- Not as good as a speaker with SKAA Hub function built in (Electrotec Stage One, Soundboks 4 and Mix all have it built in) because:
- Bluetooth input not supported
- There's no latency compensation to exactly time align the wired speaker with the wireless ones

Satellite speakers have SKAA receivers built in

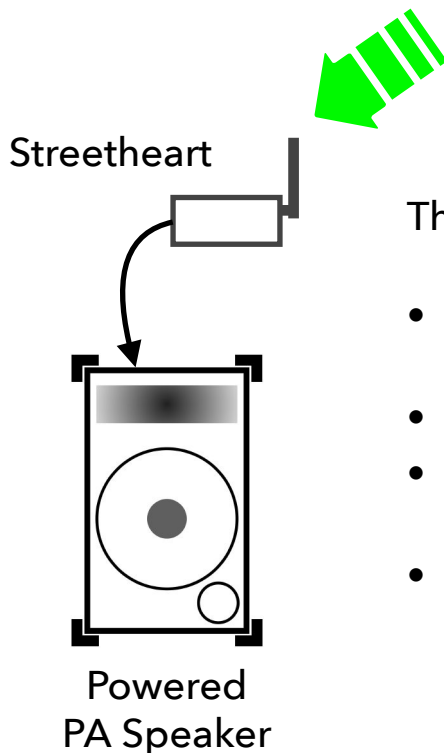


Satellite

For example:

- Electrotec Stage One (in SKAA mode)
- Soundboks 4 (in Join mode)
- Soundboks Mix (in Join mode)
- XB itself is a satellite speaker!
- And many others

and you can always grow your own Satellite ...



Streetheart

The do-it-yourself Satellite:

- Use any powered PA speaker (Mackie, EV, QSC, JBL, etc.)
- Add a Streetheart SKAA/SKAA Pro receiver
- Connect Streetheart's outputs to the PA speaker using 2 TRS patch cables
- Not quite as slick as a speaker with SKAA receive capability built in (Electrotec Stage One, Soundboks 3, 4 and Mix all have this built in)

Powered
PA Speaker



TM

ELECTROTEC
AUDIOTM