PERLISTEN

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D-Series
THX Certified Dominus Subwoofers

Welcome to the World's first THX Certified Dominus Subwoofer

Congratulations, on your purchase of the world's first THX Certified Dominus family of subwoofers. We designed these products to ensure maximum output with the lowest distortion to recreate the dynamics that are needed for realistic 2-channel and cinema experiences. This new experience level is created using innovative engineering and many advanced technologies.

We recommend that you take some time to read this manual before starting the installation and setup. For more information about Perlisten subwoofers and other products, please visit our website at https://www.perlistenaudio.com/

Note: This guide is applicable to all Perlisten THX Certified Dominus D-series subwoofers. D12s, D15s, D212s, D215s. Use the bar code below to download the Perlisten App from the Google Playstore.

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Product Description

Subwoofer driver

Our subwoofer drivers are designed by the Perlisten engineering team from the ground up using a carbon fiber composite diaphragm, an aluminum alloy shorting ring, huge magnets for efficiency, a durable multilayer Nomex spider and a lightweight aluminum alloy voice coil. The Perlisten engineering team uses advanced FEA modeling technology to simulate and design these raw components and Klippel laser measurement testing is then used to validate the results to ensure every ounce of performance is achieved. Our flagship D212s and D215s also incorporates our Push-Pull woofer alignment to reduce even order harmonics by an additional 10-12dB.

Amplifier

Our amplifiers have a rated power of 1500W (D12s), 2000W (D15s), and 3000W (D212s, D215s) of peak power. Temperature, current, voltage and much more, are dynamically monitored at more than 1000 times a second with our 48 bit data path 32-bit ARM Cortex processor which reacts in microseconds to ensure maximum performance. All of this power is managed by our 2.4" touchscreen and with more advanced features controlled by our APP.

Mobile APP

Our app can be downloaded from the Android Play Store or the app store for iOS by scanning the bar codes on the previous page to enable maximum control of our subwoofers. The APP details will be discussed in the APP manual and can be downloaded on our website "Downloads" page or scan the QR code below. Just a few of our APP features are listed below.

- Perlisten subwoofers can be connected to iOS and Android mobile devices for settings and control of up to 8 subwoofers simultaneously which is both powerful and flexible.
- Perlisten subwoofer parameter status information and the APP communicate in real-time to have dynamic real-time control of your subwoofer settings.
- Preset equalizer modes, low-pass frequency, phase, polarity, and delay
- Three independent PEQ presets , and each preset is comprised of 10 separate parametric EQ's. Settings can be copied to other Perlisten subwoofers.
- Many more user-friendly control options for maximum flexibility.

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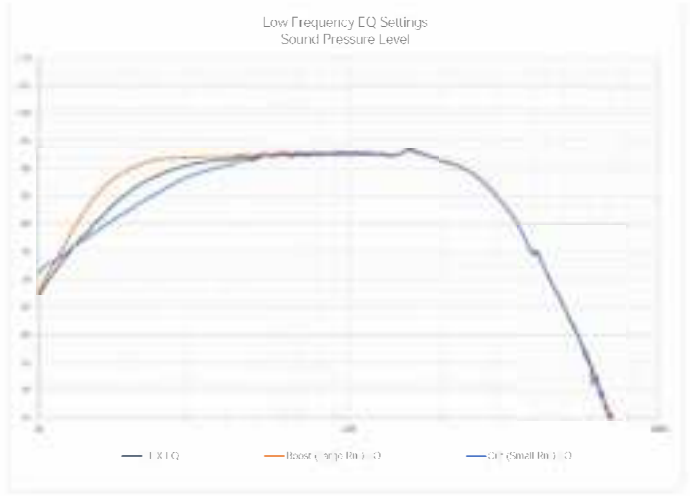

MODEL D12s Subwoofer: Small footprint, big sound. Benefiting from many of the technologies of our flagship subs, these sealed subs generate amazing performance in the smallest footprint. Low Q, shallow rolloff response geared for sound quality and smoothly integrating into the listening room. Also, a great choice for using multiple subs to optimize in room response and smooth out seat-to-seat variation. The smallest subwoofer in the series, yet packs enough punch to be certified THX Dominus using a pair of D12s subs. Powerd by our 1.5kW amplifier, all functions and safeties are controlled by a 48-bit data bath DSP and 32-bit ARM M4 Cortex processor, able to react in microseconds, powerful enough to slam. Ground up drivers developed by our team of engineers. Carbon fiber composite diaphragms, multiple aluminum shorting rings, massive magnets, multi-layer Nomex spiders and lightweight aluminum voice coil wire are the key ingredients - Proprietary nonlinear modeling techniques allow us to simulate all these components and then optimize for real world driver performance - free air and in box. Further refinement is done with the aid of Klippel laser measurements to dial things in. All D-Series subs share our 2.4" LCD touchscreen display and ability to control advance settings using our App.

D12s

Technical Specifications:	
Alignment	acoustic suspension
Amplifer	1.5kW rms short term
Display Interface	2.4" LCD color touchscreen
App	iOS and Android
Processor	32-bit Arm Cortex M4, double precision floating point math
DSP Engine	Ti DSP 48-bit data paths
Driver compliment	300mm, Carbon fiber diaprhragm +/-30mm linear excursion
Reference sensitivity	92dB / 150mV/ 1.0m
Frequency Response	
THX EQ	20-289Hz (-6dB) / 16-330Hz (-10dB)
Boost (Large Room) EQ	16-289Hz (-6dB) / 14-330Hz (-10dB)
Cut (Small Room) EQ	25-289Hz (-6dB) / 19-330Hz (-10dB)
Inputs	(2) Balanced XLR (2) Unbalanced RCA
Outputs	(2) Balanced XLR unbuffered (2) Unbalanced RCA unbuffered
Parametric EQ	10-Band PEQ with 3 user presets
Low Pass filter	bypass, 30-160Hz, slope 6,12,18,24dB/oct
Phase	variable 0-270°
Polarity	normal / inverted
Configurable Auto turn-on and 12v Trigger	XLR 1, XLR 1+2, RCA 1, RCA 1+2
Dimensions (HxWxD)	448 x 420 x 450mm 17.6 x 16.5 x 17.7"
Weight	41.0 kg (90.2 lbs.)
Certification	THX Dominus
Available finishes	piano black, custom finishes available

APP Control - iOS and Android

Advanced APP User interface - customizeable turn on controls and input selection, multiple PEQ's with presets

Processor - 32-bit ARM Cortex M4

DSP Engine - 48-bit data paths

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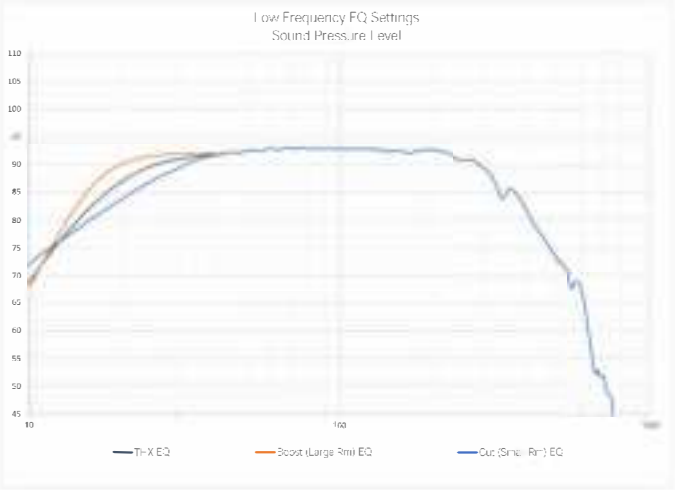


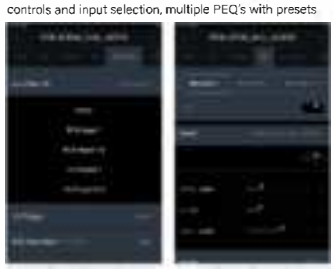
MODEL D15s Subwoofer: Small footprint, big sound. Benefiting from many of the technologies of our flagship subs, these sealed subs generate amazing performance in the smallest footprint. Low Q, shallow rolloff response geared for sound quality and smoothly integrating into the listening room. Also, a great choice for using multiple subs to optimize in room response and smooth out seat-to-seat variation. The D15s is the smallest single sub certified THX Dominus available on earth. Powerd by our 2.0kW amplifier, all functions and safeties are controlled by a 48-bit data bath DSP and 32-bit ARM M4 Cortex processor, able to react in microseconds, powerful enough to slam. Ground up drivers developed by our team of engineers. Carbon fiber composite diaphragms, multiple aluminum shorting rings, massive magnets, multi-layer Nomex spiders and lightweight aluminum voice coil wire are the key ingredients - Proprietary nonlinear modeling techniques allow us to simulate all these components and then optimize for real world driver performance - free air and in box. Further refinement is done with the aid of Klippel laser measurements to dial things in. All D-Series subs share our 2.4" LCD touchscreen display and ability to control advance settings using our App.

D15s

Technical Specifications:	
Alignment	acoustic suspension
Amplifer	2.0kW rms short term
Display Interface	2.4" LCD color touchscreen
App	iOS and Android
Processor	32-bit ARM Cortex M4, double precision floating point math
DSP Engine	Ti DSP 48-bit data paths
Driver compliment	380mm, Carbon fiber diaprhragm +/-30mm linear excursion
Reference sensitivity	92dB / 150mV/ 1.0m
Frequency Response	
THX EQ	20-320Hz (-6dB) / 16-395Hz (-10dB)
Boost (Large Room) EQ	16-320Hz (-6dB) / 14-395Hz (-10dB)
Cut (Small Room) EQ	24-320Hz (-6dB) / 18-395Hz (-10dB)
Inputs	(2) Balanced XLR (2) Unbalanced RCA
Outputs	(2) Balanced XLR unbuffered (2) Unbalanced RCA unbuffered
Parametric EQ	10-Band PEQ with 3 user presets
Low Pass filter	bypass, 30-160Hz, slope 6,12,18,24dB/oct
Phase	variable 0-270°
Polarity	normal / inverted
Configurable Auto turn-on and 12v Trigger	XLR 1, XLR 1+2, RCA 1, RCA 1+2
Dimensions (HxWxD)	528 x 508 x 500mm 20.8 x 19.7 x 19.7"
Weight	46.0 kg (101.2 lbs.)
Certification	THX Dominus
Available finishes	piano black custom finishes available

APP Control - iOS and Android

Advanced APP User interface - customizeable turn-on controls and input selection, multiple PEQ's with presets



Processor - 32-bit ARM Cortex M4

DSP Engine - 48-bit data paths

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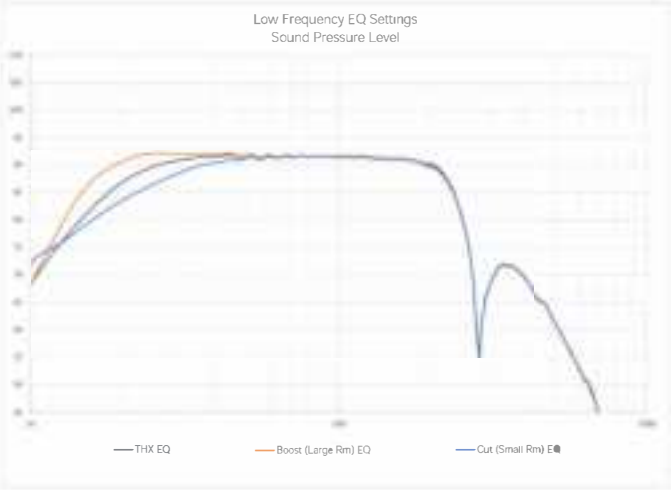

MODEL D212s Subwoofer: Dynamic, Accurate, Solid. The audiophile's choice. Where sound quality and Transients free of overhang are paramount. Simply no better expression of bass performance then our push-pull subs. Ground up drivers developed by our team of engineers. Carbon fiber composite diaphragms, multiple aluminum shorting rings, massive magnets, multi-layer Nomex spiders and lightweight aluminum voice coil wire are the key ingredients - Proprietary nonlinear modeling techniques allow us to simulate all these components and then optimize for real world driver performance - free air and in box. Further refinement is done with the aid of Klippel laser measurements to dial things in. To take performance to another level, the push-pull drivers reduce even order harmonics distortion by an additional 10-12dB. Powerd by our 3.0kW amplifier, all functions and safeties are controlled by a 48-bit data bath DSP and 32-bit ARM M4 Cortex processor, able to react in microseconds, powerful enough to slam. All D-Series subs share our 2.4" LCD touchscreen display and ability to control advance settings using our App. Ceritfied by THX Dominus, The D-Series subs are the world's first. A testament to the level of design and performance achieved.

APP Control - iOS and Android

Advanced APP User interface - customizeable turn-on controls and input selection, multiple PEQ's with presets.

D212s

Technical Specifications:	
Alignment	Push-Pull, acoustic suspension
Amplifer	3.0kW rms short term
Display Interface	2.4" LCD color touchscreen
App	iOS and Android
Processor	32-bit Arm Cortex M4, double precision floating point math
DSP Engine	Ti DSP 48-bit data paths
Driver compliment	(2)300mm, Carbon fiber diaprhragm +/-30mm linear excursion
Reference sensitivity	92dB / 150mV/ 1.0m
Frequency Response	
THX EQ	20-231Hz (-6dB) / 16-245Hz (-10dB)
Boost (Large Room) EQ	15-231Hz (-6dB) / 13.5-245Hz (-10dB)
Cut (Small Room) EQ	24-231Hz (-6dB) / 18-245Hz (-10dB)
Inputs	(2) Balanced XLR (2) Unbalanced RCA
Outputs	(2) Balanced XLR unbuffered (2) Unbalanced RCA unbuffered
Parametric EQ	10-Band PEQ with 3 user presets
Low Pass filter	bypass, 30-160Hz, slope 6,12,18,24dB/oct
Phase	variable 0-270°
Polarity	normal / inverted
Configurable Auto turn-on and 12v Trigger	XLR 1, XLR 1+2, RCA 1, RCA 1+2
Dimensions (HxWxD)	668 x 420 x 550mm 26.3 x 16.5 x 21.6"
Weight	68.0 kg (149.6 lbs.)
Certification	THX Dominus
Available finishes	piano black custom finishes available

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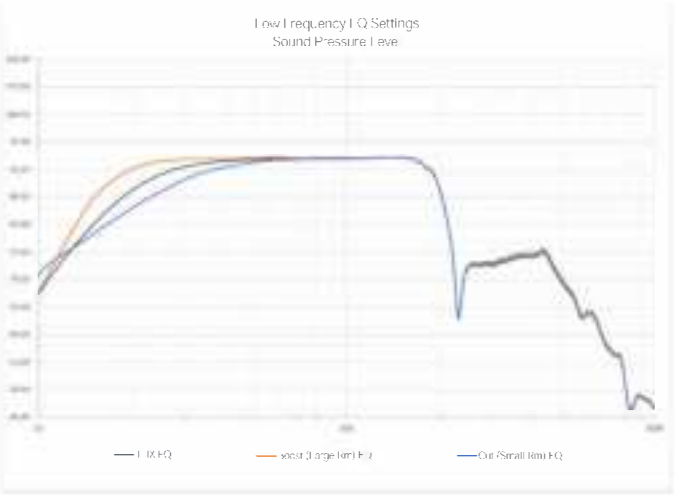

MODEL D215s Subwoofer: Dynamic, Accurate, Solid The audiophile's choice. Where sound quality and Transients free of overhang are paramount. Simply no better expression of bass performance then our push-pull subs. Ground up drivers developed by our team of engineers. Carbon fiber composite diaphragms, multiple aluminum shorting rings, massive magnets, multi-layer Nomex spiders and lightweight aluminum voice coil wire are the key ingredients - Proprietary nonlinear modeling techniques allow us to simulate all these components and then optimize for real world driver performance - free air and in box. Further refinement is done with the aid of Klippel laser measurements to dial things in. To take performance to another level, the push-pull drivers reduce even order harmonics distortion by an additional 10-12dB. Powerd by our 3.0kW amplifier, all functions and safeties are controlled by a 48-bit data bath DSP and 32-bit ARM M4 Cortex processor, able to react in microseconds, powerful enough to slam. All D-Series subs share our 2.4" LCD touchscreen display and ability to control advance settings using our App. Ceritfied by THX Dominus, The D-Series subs are the world's first. A testament to the level of design and performance achieved.

APP Control - iOS and Android

Advanced APP User interface - customizeable turn-on controls and input selection, multiple PEQ's with presets

D215S

Technical Specifications:	
Alignment	Push-Pull, acoustic suspension
Amplifer	3.0kW rms short term
Display Interface	2.4" LCD color touchscreen
App	iOS and Android
Processor	32-bit ARM Cortex M4, double precision floating point math
DSP Engine	Ti DSP 48-bit data paths
Driver compliment	(2)380mm, Carbon fiber diaprhragm +/-30mm linear excursion
Reference sensitivity	92dB / 150mV/ 1.0m
Frequency Response THX EQ Boost (Large Room) EQ Cut (Small Room) EQ	 20-200Hz (-6dB) / 16-210Hz (-10dB) 15-200Hz (-6dB) / 13-210Hz (-10dB) 24-200Hz (-6dB) / 18-210Hz (-10dB)
Inputs	(2) Balanced XLR (2) Unbalanced RCA
Outputs	(2) Balanced XLR unbuffered (2) Unbalanced RCA unbuffered
Parametric EQ	10-Band PEQ with 3 user presets
Low Pass filter	bypass, 30-160Hz, slope 6,12,18,24dB/oct
Phase	variable 0-270°
Polarity	normal / inverted
Configurable Auto turn-on and 12v Trigger	XLR 1, XLR 1+2, RCA 1, RCA 1+2
Dimensions (HxWxD)	805 x 500 x 650.5mm 31.7 x 19.7 x 25.6"
Weight	92.0 kg (202.4 lbs.)
Certification	THX Dominus
Available finishes	piano black custom finishes available

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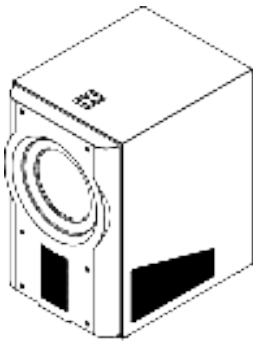
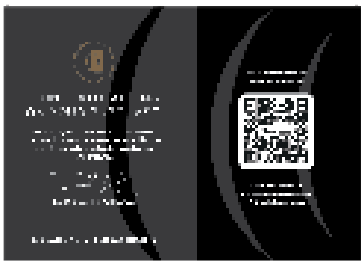
Subwoofer packaging

Subwoofer box contents

Warning, your new Perlisten subwoofer is very heavy and set up is best done with two people.





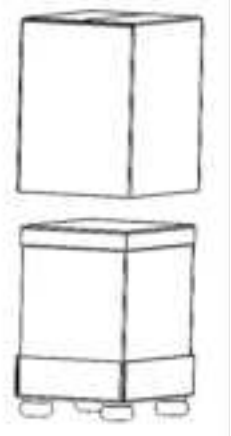
Carpet pad x4

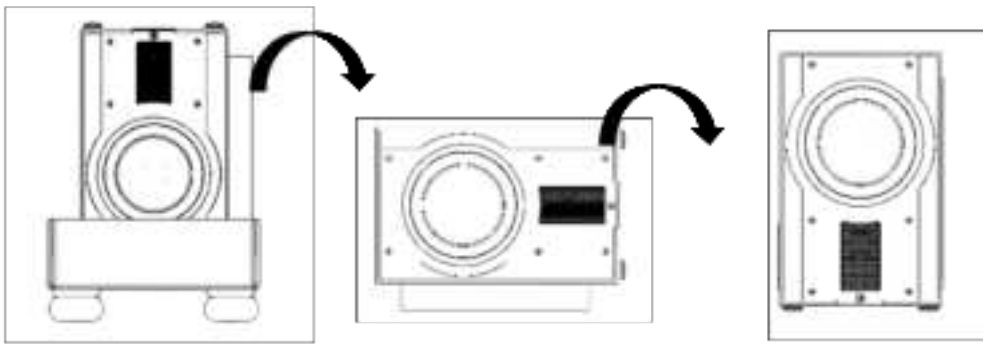
Hard surface pad x4

Prepping the area

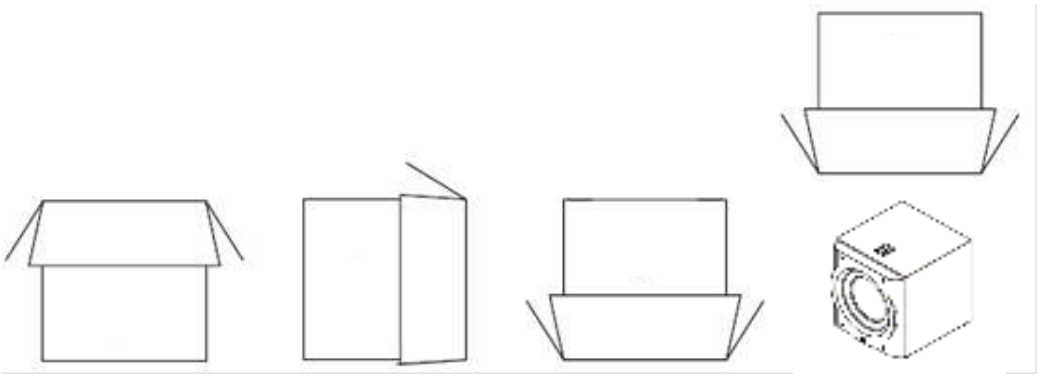
The subwoofer artwork on the packaging indicates the front of the actual subwoofer inside the box. Use this guide to position the subwoofer as close as possible to its final position. Included in the box are 4 carpet pads with a hard plastic bottom for smooth sliding into final position on carpet or soft felt pads for a hard floor to prevent scratching delicate flooring.

For the D212s and the D215s cut the plastic straps holding the subwoofer packaging together. Do not cut the tape and open the flaps like a typical box. Instead slide the top box vertically off the bottom . After removal of the top box open the cloth bag just enough to expose the bottom feet of the subwoofer. Then remove the extra packaging except for 1 EPE foam pad on one side of the subwoofer and use this as protection as you roll the subwoofer onto its side and continue to roll the enclosure onto its feet. This prevents damage from occurring during the critical placement operation. Use the carpet pads or hardwood pads mentioned above to slide the woofer into final position.





For the smaller D12s and the D15s cut the tape and open the top flaps. Open the second internal box, flip open the flaps, and remove the EPE foam. You will then see the velvet bag covering the bottom feet of the subwoofer. Remove the bag so the subwoofer feet are exposed. While holding the flaps tightly to the side of the box carefully roll the subwoofer over until the subwoofer feet are on the floor. You can then lift the box up and remove all of the packaging. Use the carpet pads or hardwood pads in the packaging to slide the woofer into final position.



Subwoofer Placement

Subwoofer placement is critical for the best performance in your listening room.

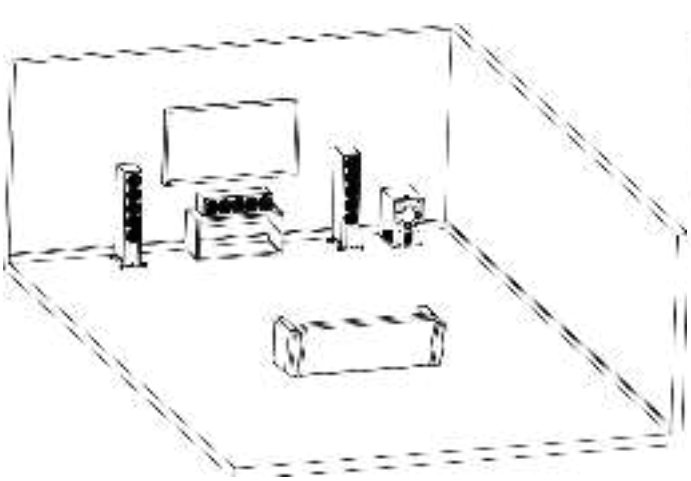


Fig. 1

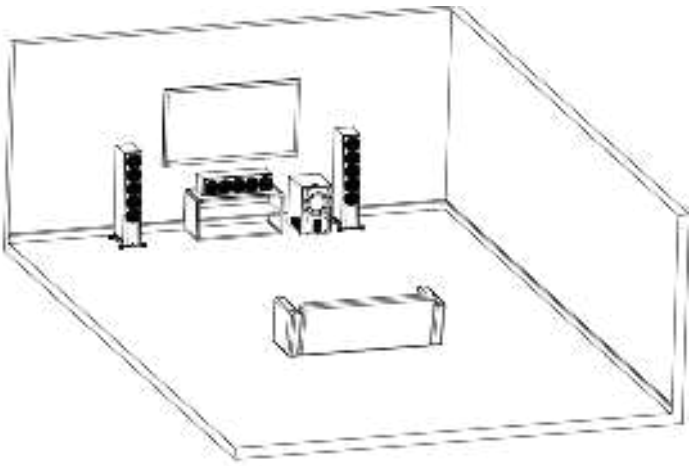
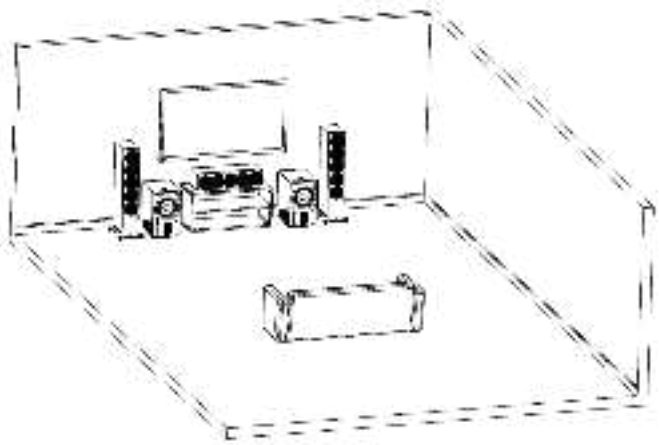


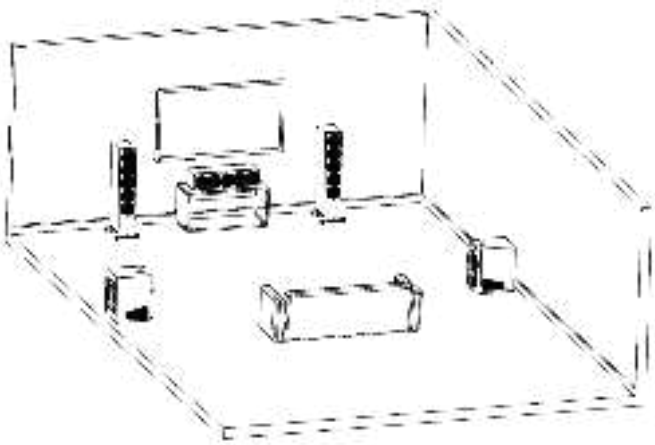
Fig. 2

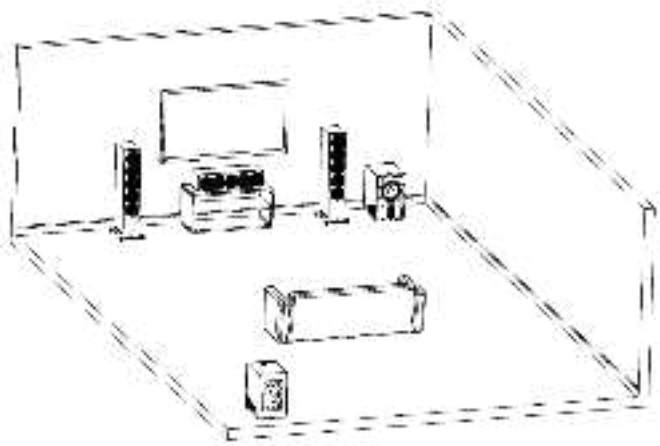
For a single subwoofer like figure 1 the most output can be achieved by placing the subwoofer near a corner. This will excite the room modes the most but will also have the most un-even response from seat to seat in your listening room. Figure 2 moves the subwoofer to 1/3 the distance of the total wall length to balance the room modes that are excited in the room. The maximum SPL will be lower but a smoother response for each listening position can be achieved using this method. Enjoy experimenting with the best position in your room as there are many factors that will change the results from a typical square room compared to odd shaped rooms, open doors, and openings to other rooms.

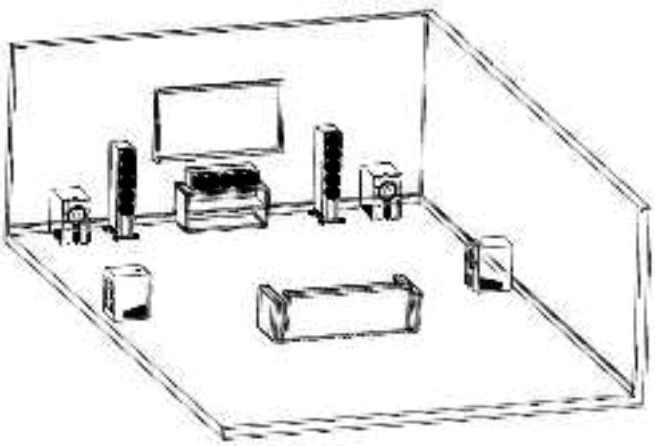
In more advanced systems, 2-8 subs can be used to smooth out the response in the room for more listeners, as well as achieving a higher maximum output for very large spaces. Typically, 2-4 subs in different locations in a room can maximize a balanced frequency response coverage from seat to seat. Some examples of placement of 2-4 subs are shown below. More subs can be used when a very large space is needed to reach the target reference listening level and up to 8 subs can be controlled with the Perlisten subwoofer app discussed later in this manual.

Further improvements to your system can be enabled with powerful free measurement software like REW(Room Eq Wizard) to measure and equalize your room allowing multiple subs to get the flattest response possible for all listeners. Additional benefits can be achieved by maximizing your subwoofer and high frequency speakers as a complete system with advanced DSP processing capabilities from Companies like Trinnov, Storm, Dirac and others.









Power

Wall voltage and current is often overlooked but extremely important to maximize the extreme 1.5kW to 3kW power output of our subwoofers. Ignoring the wall power requirements, would be like buying a Ferrari and using putting bicycle tires on it, destroying the performance you deserve.

Our amplifiers enable advanced technologies to monitor the voltage and current available from the wall and are used to adjust our internal settings to prevent distortion when low power occurs from the wall. Our amplifiers have large capacitor banks to store power needed for large transients delivered in microseconds. This storage of energy also limits the instantaneous power demand from the wall. Although this amazing technology is designed to enable the best sound quality in all conditions such as low voltage or current, it is best to maximize the output capabilities of the subwoofer, and make sure you have proper power for the subwoofer.

Consult a certified electrician if needed to run a separate power circuit for your subwoofer. For existing electrical connections keep in mind that other electrical devices could be on the same circuit which will consume power and all devices need to be considered. Our Fuse values are below and will demand close to the stated current from the wall to maximize the dynamic transients of movies and music.

D12s	***230V***	***6.3A 250v slo-blow fuse***
D12s	***120V***	***10A 250v slo-blow fuse***
D15s/D212s/D215s	***230v***	***12.5A 250v slo-blow fuse***
D15s/D212s/D215s	***120v***	***20A 250v slo-blow fuse***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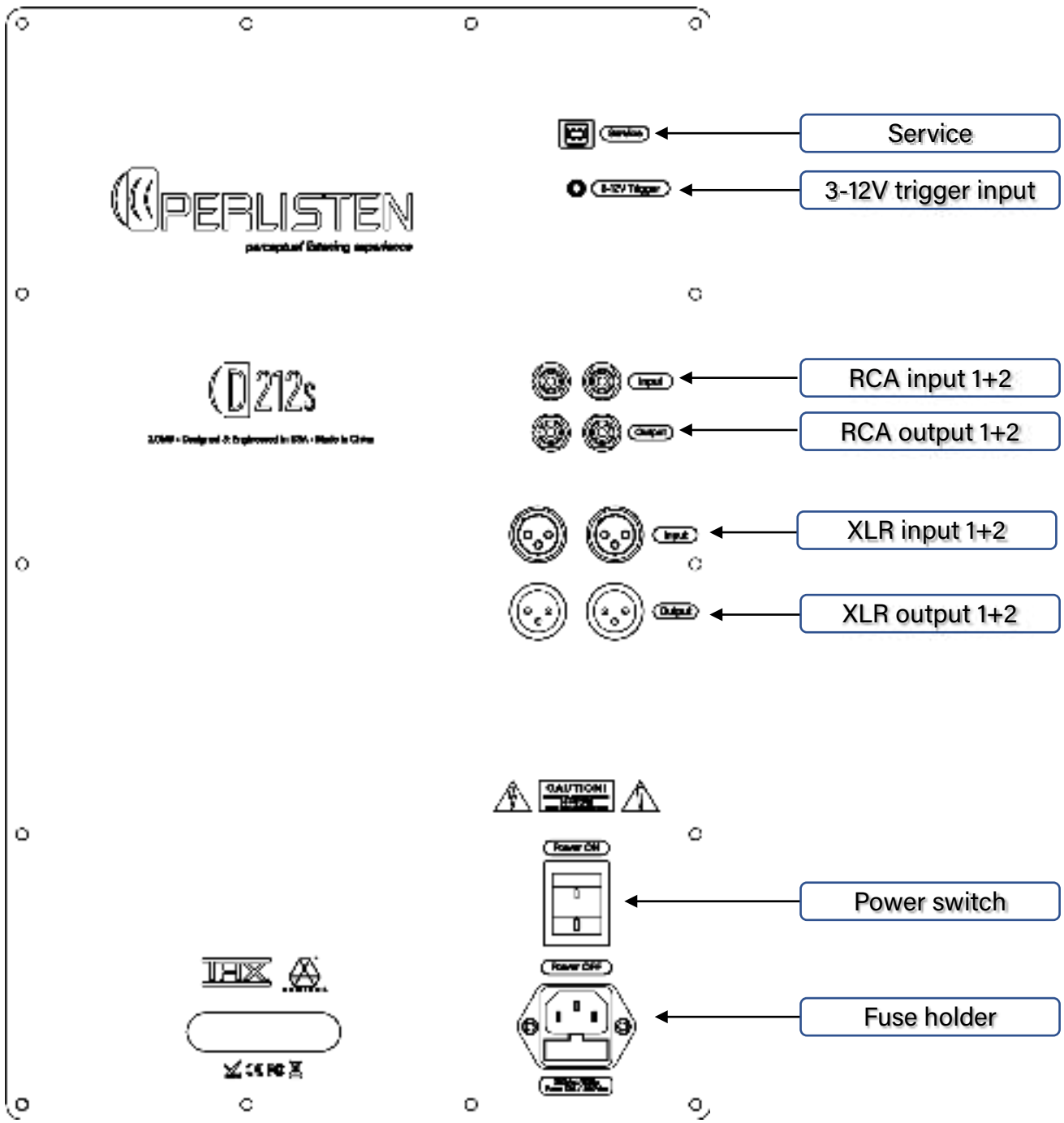
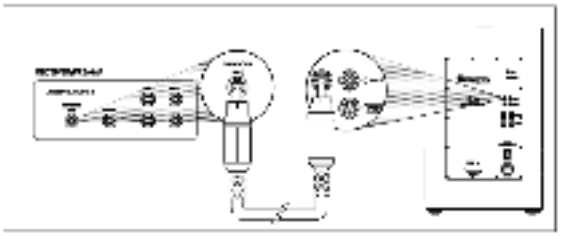
Service
3-12V Trigger
1
2
Input
Output
1
2
Input
Output
• Made in China

Amplifier panel features

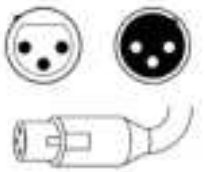


Connections

The following examples shown apply to the RCA or Balanced XLR inputs. Inputs RCA 1, or 1+2 can be used and are a direct pass through to the RCA outputs. Inputs XLR 1, or 1+2 can be used and are a direct pass through to the XLR outputs and are not buffered. The sensitivity is set to 150mV @92dB Connect the LFE out of your cinema processor to RCA 1 input or male XLR 1 input for a single subwoofer application.



OR

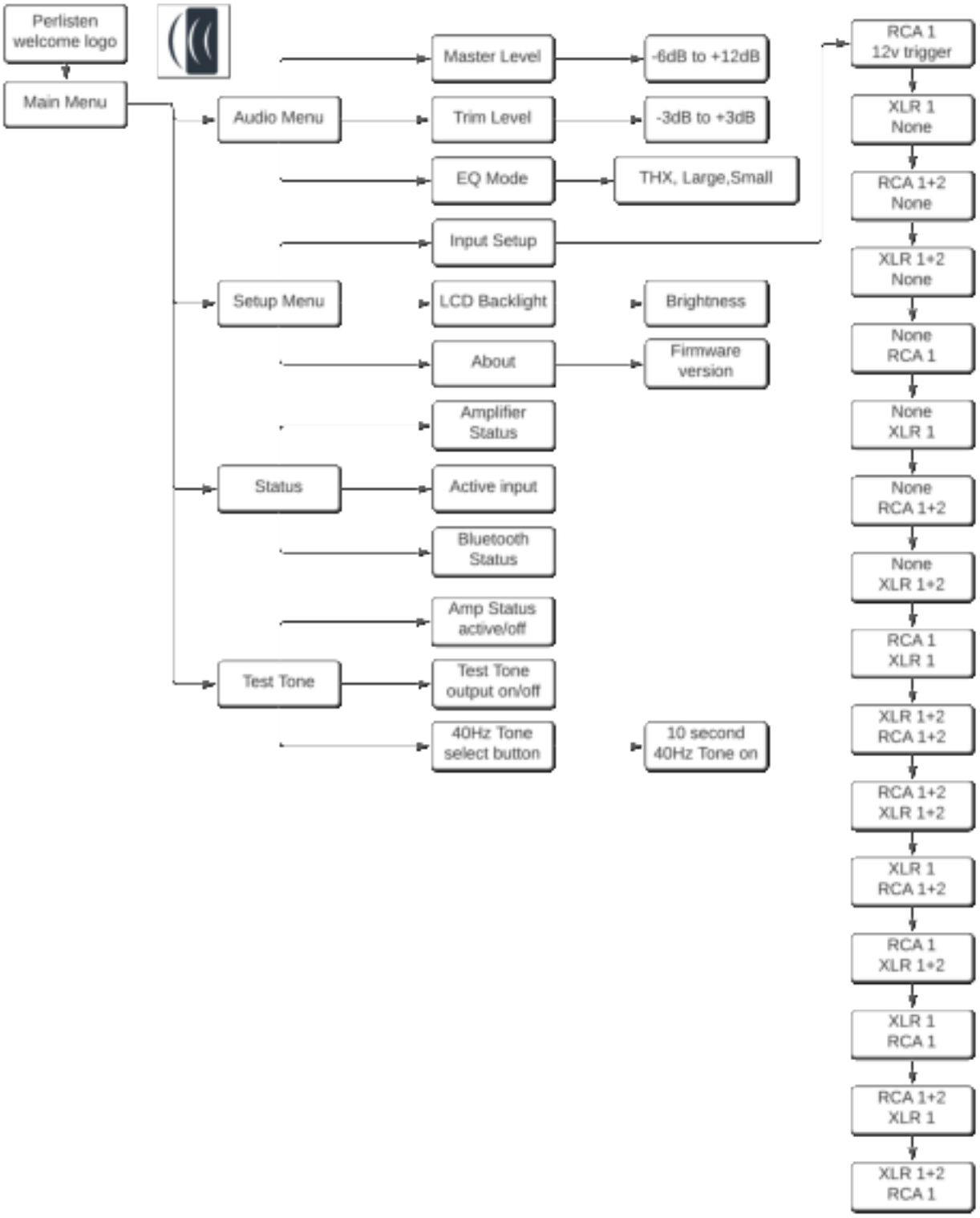


For more than one subwoofer many options are available. Most processors have more than one subwoofer output. Use those outputs for each subwoofer if available. If multiple outputs are not available use the RCA or XLR outputs to connect to the inputs of other subwoofer amp panels.

Both the RCA and XLR inputs can be connected to two different sound sources when the system is used for two channel listening and for cinema as an example. If signals are present on both inputs at the same time noise could occur due to ground loops. Signal sensing with different sensitivities of low, medium and high can be set in the App for the RCA inputs as well as 3-12v trigger, using 1/8"(3.5mm) mono plug, for the XLR's to prevent this from happening. The trigger input will override the signal sensing to prevent a dual source input conflict from happening. The App will also block out signal sensing options that are not valid to prevent setup conflicts.

Subwoofer Touchscreen Menu

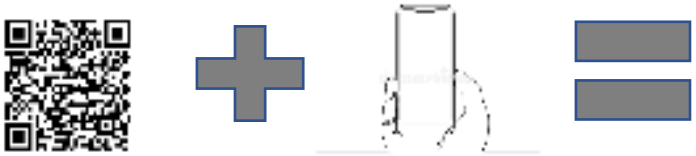
The touchscreen located on the top of the subwoofer allows you to do immediate setup and control of your subwoofer however the App offers an immense amount of speed and flexibility for advanced set up. Utilize the App to enable these advanced features. The OSD "On Screen Display" menu is shown below. The OSD allows you to setup Master level, individual subwoofer trim, EQ modes, and input selections. The Status and test tone modes are helpful for diagnostics.

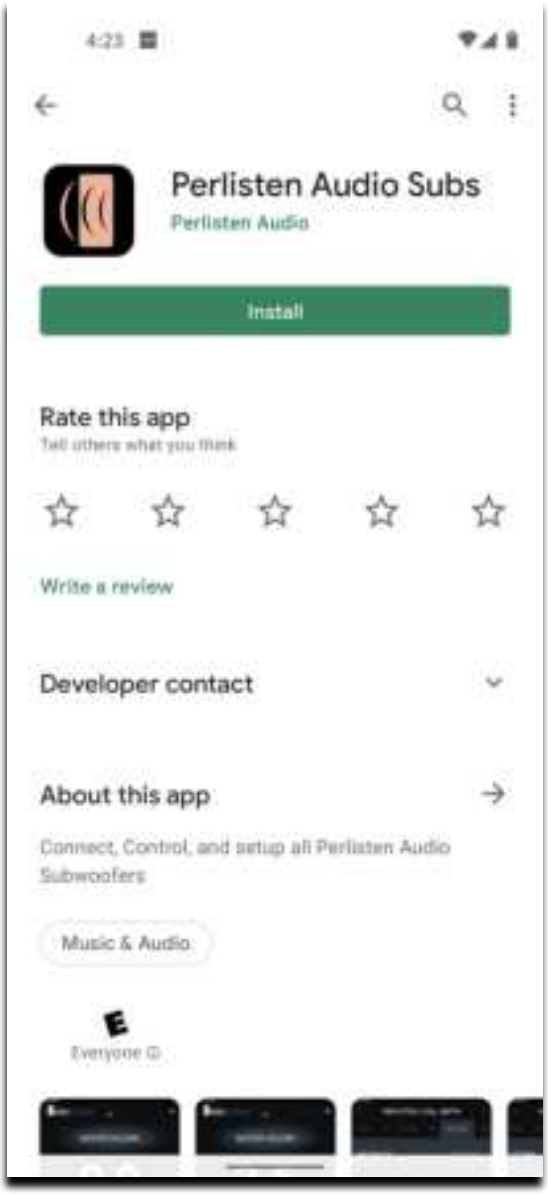


APP

Download the “Perlisten Subwoofer App” from the Google Play Store for Android devices or the App store for iOS devices. The bar codes on page 2 of this manual can be scanned with a bar code scanning app on any phone. When scanned a direct link to the Perlisten subwoofer app will pop up. Install the App and you are ready to have maximum control of your subwoofer.

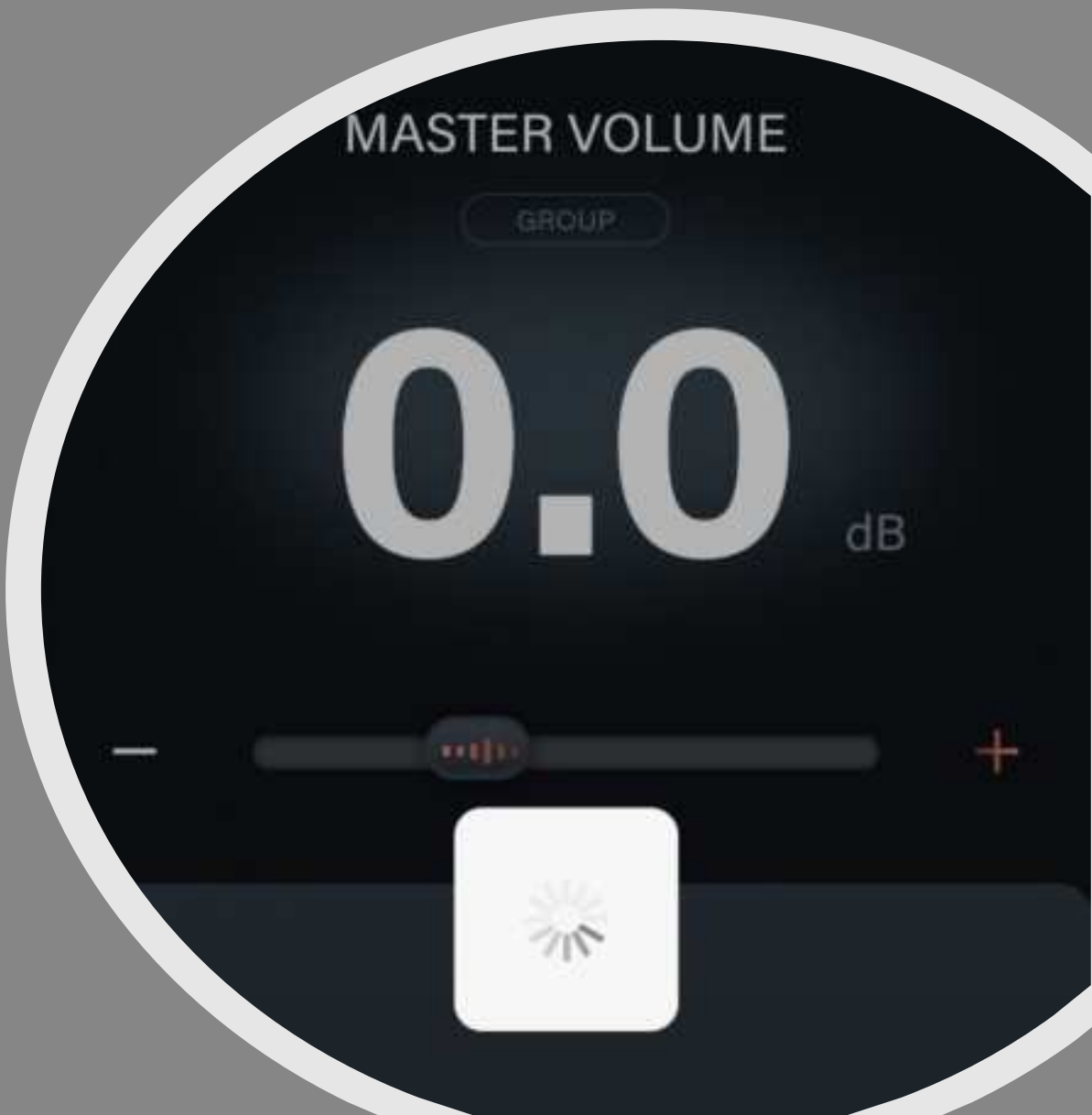
If you do not have a bar code scanning app on your phone go to the Perlisten downloads page and click on the bar code to get a direct link to the app store URL.
https://www.perlistenaudio.com/downloads





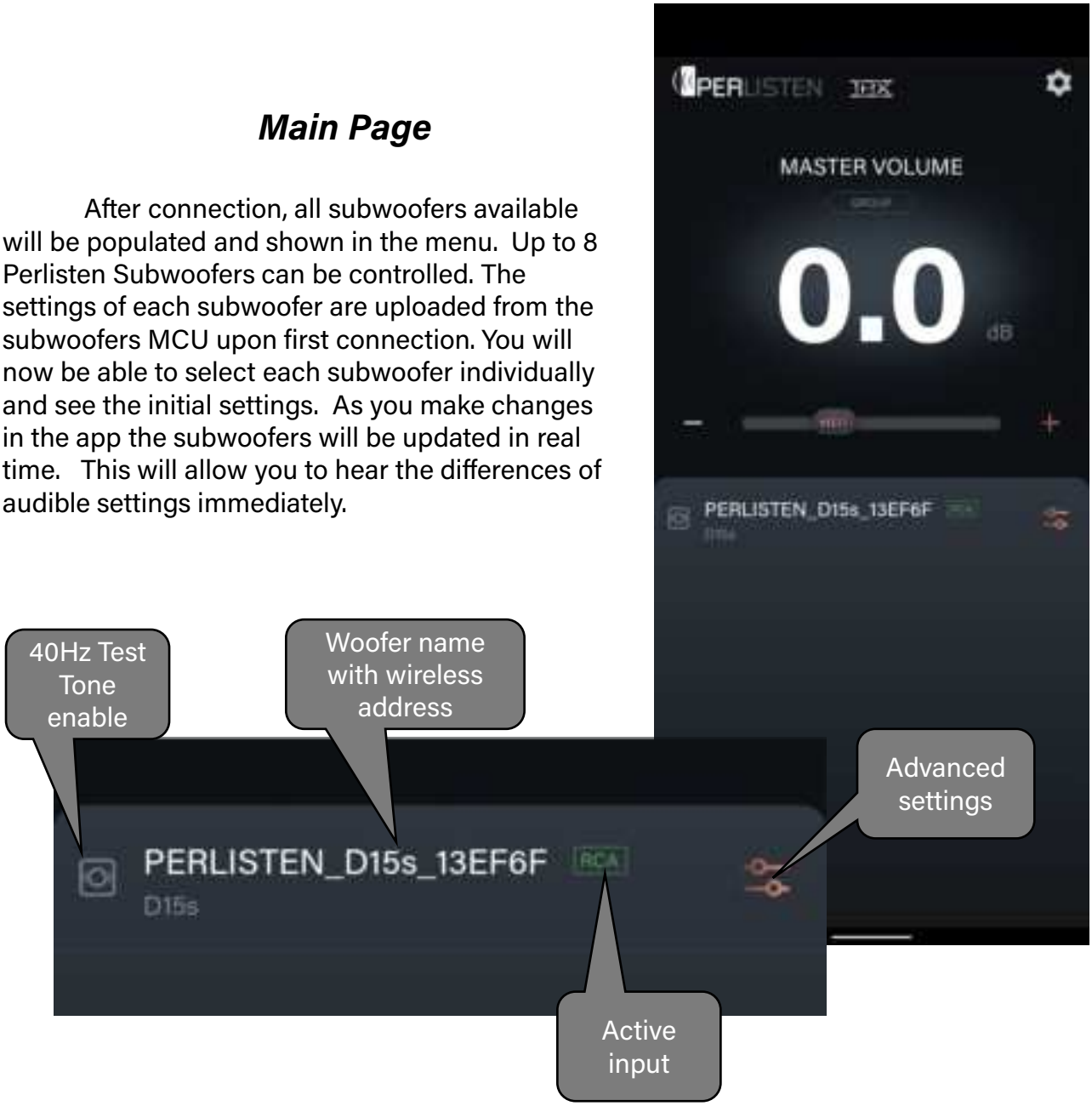
After downloading, and the app opens, it will immediately search for any available Perlisten subwoofers as seen below with the spinning search icon.

Note! If another device is already connected to the subwoofers using our app, you will not be able to connect and control the subs. Disconnect the other phone or tablet to connect to the subwoofer with the intended device.



Main Page

After connection, all subwoofers available will be populated and shown in the menu. Up to 8 Perlisten Subwoofers can be controlled. The settings of each subwoofer are uploaded from the subwoofers MCU upon first connection. You will now be able to select each subwoofer individually and see the initial settings. As you make changes in the app the subwoofers will be updated in real time. This will allow you to hear the differences of audible settings immediately.



The main page of the App has a default screen that allows the user access to key metrics and change the master volume level for all woofers in the system equally. A key tool in allowing a quick level change of the bass for music or cinema preferences. Highlighted above are the key icons to alert you the status of each subwoofer. With a glance you can tell which inputs are being used, which subwoofer input is active, do a quick test tone for setup testing, and enter advanced settings for each woofer.

Tapping the name allows the user to change the name of the woofer to anything desired for easy differentiation of each sub.

Advanced settings

Advanced settings with app screen pictures will be detailed in a separate app manual which is available our downloads page below.

https://www.perlistenaudio.com/downloads

FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user’ s authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- - Reorient or relocate the receiving antenna.
- - Increase the separation between the equipment and receiver.
- - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- - Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Statement

To maintain compliance with FCC’s RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20cm the radiator your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

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