



DEVINE

**B-series powered subwoofers
(B115A / B118A)**



User manual

Any information and illustrations shown in this user manual are subject to change without further notice.

User manual version: 3.0 Creation date + author initials: 04-12-2013 RV Revision date + author initials: 25-02-2014 RV

Safety instructions



WARNING!



Always keep this device away from moisture and rain! Hazardous electrical shocks may occur!



WARNING!



Only connect this device to a matching power outlet. This device is intended to work on a specified AC currency. Connecting this device to power outlets with other voltages may result in permanent damage and possible hazardous situations, such as fire or electrical shocks!



WARNING!



Be careful with every operation of this device. Touching live wires inside and outside the unit may cause hazardous electrical shocks!

This unit must be operated by, or under the supervision of an adult. This device is not suitable for children.

Every person involved with the installation, operation and maintenance of this device has to:

- Be qualified
- Follow the instructions of this manual
- Make sure there is no damage caused by transport. If the device seems damaged from the outside, do not use it and contact your dealer for more information and consultation.
- To make sure the device maintains in perfect condition and for safe operation, it is necessary for the user to follow the instructions and warning notes of this user manual.
- Damage caused by improper use or modifications to the device are not covered by warranty.
- This device does not have any user-serviceable parts inside. Servicing of this device needs to be done by qualified technicians.

Important notes regarding safety and health:

- Always keep the power cord away from other cables. Handle the power cord and all connectors with caution.
- Never remove any warning or informative labels from the unit
- The ground contact always needs to be connected. Do not cover or remove the ground contact.
- Never leave cables lying around
- Do not open the device and do not modify any hard- or software of this unit.
- Do not insert this object into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the system on and off frequently as this will reduce the lifespan of the device.
- Do not drive the inputs of the fixture with a signal larger than required to work at full performance.
- Only use this device indoor, avoid contact with water, moist or other liquids. Do not place items filled with liquids on top of the unit.

Any information and illustrations shown in this user manual are subject to change without further notice.

User manual version: 3.0 Creation date + author initials: 04-12-2013 RV Revision date + author initials: 25-02-2014 RV

- Avoid nearby flames or heat sources, do not place this device near flammable liquids, gas or flammable items.
- Always disconnect the device when it is not in use for a longer period of time, when servicing is needed or when the device needs cleaning.
- Only handle the power cord by its connectors. Never pull the cable to remove a connector from its socket, as this could lead to damage and electrical shocks.
- Always operate this device with a stable AC current.
- Always operate this device with the AC ground wire connected to the electrical system's ground.
- Never use other types of cables than specified in the manual, do not use defective or bad functioning cables. Contact your dealer when the included or required cables do not work properly with this device.
- When the device has been exposed to large temperature differences (for example, transport from outdoor to indoor), do not connect the device immediately. Do not activate the unit until it has reached room temperature, as moist might build up inside the unit, which may cause short circuits and/or electrical shocks.

Guidelines and types of use:

- This device is intended to be used by professionals on stage, in theatres, clubs and other equal venues.
- This device is not suitable for children and always needs to be operated by an adult.
- Only use the device when the environment is suitable and will not cause any damage. Do not use the product in moist or dusty environments, or where long-term damage may occur such as:
 - indoor swimming pools where chlorine is used.
 - Beaches, where sand and salt are present.
 - Outdoor, without roof protection
 - Indoor areas where intense heat sources are present or where the temperature exceeds levels which are comfortable for humans.
- Only use the included power adapter and only connect the device to a suitable power outlet with the correct output voltage. Connecting the device to a power outlet with the wrong type of voltage or using the product with a wrong type of power supply may cause permanent damage to the device.
- Avoid shocks and collision during use and transport. Do not transport the device while in use. Avoid brute force during the installation and operation of this device.
- Familiarize yourself with the functions of the device before use. Do not allow operation of the device by unskilled or unqualified people.
- Use of the device in other ways than described in this user manual may cause damage and injury. Ayra does not take responsibility for any damage or injury caused by improper use.

Storage and transport:

- This device is intended for mobile use. When transported, use the original packaging of the product, or a fitting flightcase, preferably filled with foam.
- This device is not intended for permanent use. Operation breaks will ensure that the lifespan of the device remains unchanged.
- If the device is not used for a longer period of time, disconnect it from its power source and store it in its original packaging, or in a fitting flightcase.
- Store the device indoor, dry and do not expose the device to extreme temperature differences.

Housing:

- Inspect the housing of the device frequently. Severe dents, cracks and missing screws should be avoided at all costs. Do not use the device when the housing is not in optimal condition. Contact your dealer or a skilled technician when in doubt about the state of the device
- Check the fixture and screws for corrosion. Corrosion should not be present on the fixture. Contact your dealer or a skilled technician when corrosion is found on the fixture
- Every power or signal chassis/connector should be mounted tightly. Do not use the device when connectors are loose.
- Do not use the power cord when the cores are visible. Contact your dealer for a replacement if needed.
- Avoid the buildup of dust and dirt. Clean the exterior of the fixture every month with a dry or damp cloth. When using the device intensively, the cleaning frequency needs to be increased.

Fuses:

- The main fuse of this device is to be found on the rear of the device. In most cases, directly next to the power inlet.
- Only replace a fuse for a new one with the same type and rating! Do not use a fuse with a higher or lower

Any information and illustrations shown in this user manual are subject to change without further notice.

User manual version: 3.0 Creation date + author initials: 04-12-2013 RV Revision date + author initials: 25-02-2014 RV

rating.

- Do not bridge the fuse with electrical wires, aluminum foil, as the fuse is used for protection against electrical shocks and short circuit.
- Always mount the fuse cover back to the fuse compartment.



DEVINE

Any information and illustrations shown in this user manual are subject to change without further notice.

User manual version: 3.0 Creation date + author initials: 04-12-2013 RV Revision date + author initials: 25-02-2014 RV

Guidelines for speakers



WARNING!

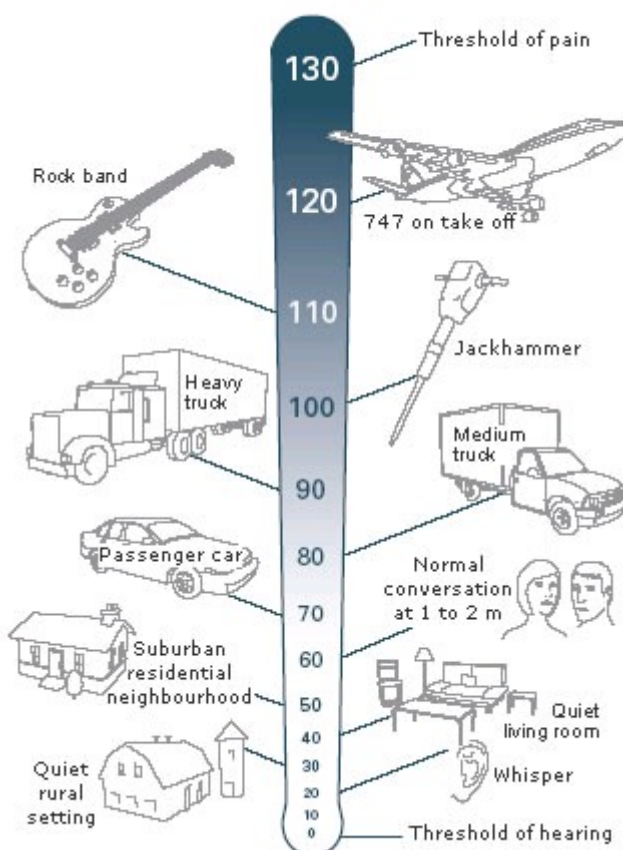


This loudspeaker is capable of producing a sound pressure level which can be harmful for humans and animals when used incorrectly and/or without protection. Possible permanent hearing loss may occur when humans or animals are exposed to high sound pressure levels for a longer period of time.

- Avoid exposure to high sound pressure levels for a longer period of time. See the charts on this page for more information about sound pressure levels and exposure to high levels.

Continuous dB	Permissible exposure time
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 minutes
100	15 minutes
103	7.5 minutes
106	3.75 minutes (<4 minutes)
109	1.875 minutes (<2 minutes)
112	0.9375 minutes (<1 minute)
115	0.46875 minutes (+/- 30 seconds)

DECIBEL SCALE (dBA)



- When installing this speaker on a speaker stand or distance pole, always tighten the screw knobs firmly.
- When using this speaker for the first time, set the gain settings on the amplifier (module) on a minimum level. After this, raise the volume to a comfortable listening level (not on its maximum level). The speaker needs to perform on a moderate level for several hours to perform on its full potential, when used for the first time.
- When transporting the speaker on a cart, use caution during movement. Prevent the cart and speaker combination from tipping over as this may cause serious injuries.

Any information and illustrations shown in this user manual are subject to change without further notice.

User manual version: 3.0 Creation date + author initials: 04-12-2013 RV Revision date + author initials: 25-02-2014 RV

Introduction

Thank you for purchasing this powered Devine B-series subwoofer. To make sure you use this loudspeaker as intended and for optimal performance and protection of this speaker, Devine recommends you read this user manual.

Box contents:

1x B-series active subwoofer (B115A, B118A)
1x power cable

Warning!

- This subwoofer is not suitable for use outside. Keep this speaker away from moisture and rain.
- This subwoofer is capable of producing sound levels that may cause severe and permanent hearing damage.

- Make sure the speaker cabinet is installed on a proper surface when used.

Devine is not responsible for any damage caused by improper installation of this device.

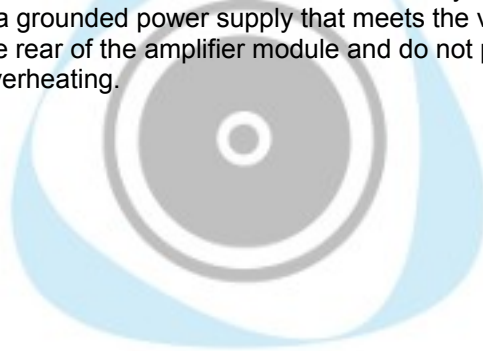
- To clean this speaker from any dirt or dust and keep it in optimal shape, use a vacuum cleaner with carpet mouthpiece. To clean the front grill, use a sponge or cloth with a non-aggressive solution mixed with water.

Do not detach the grill to clean the speaker with any wet cloth, as this may cause permanent damage!

- Always check the voltage settings on the unit and the power supply you want to connect the device to. If the voltage requirements do not meet, do not connect the device as this may cause serious damage.

- This unit must be connected to a grounded power supply that meets the voltage requirements of the device.

- Do not cover the heatsink on the rear of the amplifier module and do not place the speaker directly against any walls or objects to prevent overheating.



DEVINE

Any information and illustrations shown in this user manual are subject to change without further notice.

User manual version: 3.0 Creation date + author initials: 04-12-2013 RV Revision date + author initials: 25-02-2014 RV

Use of the speaker

Both the B115A and the B118A subwoofers are perfect for producing low frequencies, also known as bass. The B115A produces a sound that accentuates kicks and gives a bass-punch, while the B118A has a larger woofer and is more capable of reproducing the lowest bass sounds, providing a deep, warm bass. The B-series subwoofers are equipped with their own amplifier module, which eliminates the need of an external amplifier. This amplifier module matches perfectly with the characteristics of the other components.

The subwoofers are equipped with an internal crossover, which can enhance your sound performance and audio quality, when using active speakers for your high and mid frequencies. The internal crossover takes the incoming signal (coming from your PA- or DJ-mixer) and takes out the low frequencies. These low frequencies will be reproduced by the subwoofer itself. The high and mid frequencies will be sent to your connected satellite speakers.

This system provides optimal performance, because your normal speakers do not have to reproduce low frequencies anymore, leaving more room for your high and mid performance. The subwoofer also receives the right frequencies, as your subwoofer can not reproduce high and mid frequencies.

Make sure to connect the right audio sources to the right inputs and connect the satellite speakers using the correct speaker-lock outputs. The subwoofer is capable of handling stereo signals, with XLR or 6.35mm jack inputs. This way you can use one subwoofer with 2 satellite speakers, or one subwoofer on each side if you prefer.

The internal 35mm distance pole adapter makes it possible to increase the distance between your subwoofer and speakers. The subwoofer stays on the ground due to its weight and acoustical benefits, while your speakers can be placed on a sufficient height. This way the high and mid frequencies can be spread more evenly over your audience and the soundwaves will project further.

The built-in phase switch is provided for certain acoustic problems. When placing the speakers at a slightly deviating parallel line, your frequencies will be extinguishing each other, thus causing certain frequency to be absent. This is also possible when using active speakers and subwoofers that have certain frequencies in common (as the crossover point is not a straight wall, but a slightly deviating X-point.) The phase switch will shift the frequencies slightly, thus placing the soundwaves of your frequencies in perfect parallel shape. In use however, use your ears to determine which sounds better. Do not use the switch when not needed (try to place the subwoofers on a parallel line first), but when you hear that certain frequencies are missing, you might want to experiment with the phase switch.

Warranty is void when damage to this speaker is caused by improper use. When any damage to this speaker occurs, please contact your local dealer for help.

DEVINE

Power amplifier module section

The built-in amplifier module, plus the several connections and controls, are situated at the rear of the subwoofer. The controls and connections are defined below:



1. Main volume control	8. Satellite powered output L
2. Subwoofer volume control	9. Satellite powered output R
3. Phase switch (0/180 degrees)	10. Clip limiter LED indicator
4. Input L XLR	11. Power LED indicator
5. Input R XLR	12. IEC power inlet with fuse holder
6. Input L 6.35mm jack	13. On/off switch
7. Input R 6.35mm jack	14. Amplifier module fan

Any information and illustrations shown in this user manual are subject to change without further notice.

User manual version: 3.0 Creation date + author initials: 04-12-2013 RV Revision date + author initials: 25-02-2014 RV

Practical information and tips for optimal use of your speaker system

For optimal performance and a long lifespan of your speaker, please pay attention to the following when using your Devine subwoofer:

- This speaker is equipped with a CLIP limiter, which prevents damage to the speaker. This CLIP limiter will activate at excessive volume levels and a red LED shows when the CLIP limiter is active. Prevent the activation of the CLIP limiter system and the indicating LED. The CLIP limiter protects the system from permanent damage, but is only effective at peak signals. Long term exposure causes distortion and power overload, with possible permanent damage to your speaker system.
- When using an external mixer (such as a PA-mixer or DJ-mixer), make sure your master channel sends out signals at 0dB maximum. This will provide optimal signal quality and with the volume control on the speaker you are able to turn up the volume, just before the CLIP limiter LED will slightly flash. This way you are using the speaker to its full potential with optimal sound quality.
- When using the crossover system and adjusting the volume and/or frequency balance between your speakers and subwoofer(s), keep the master volume on a medium, neutral level which is comfortable to your ears.
- Do not remove the protective cover in front of the voltage-switch. The correct voltage is pre-defined at 230V AC. When selecting the wrong voltage you may cause permanent damage to the speaker and its internal components. Only select the 115V AC option when your local power source is capable of delivering this voltage.
- Do not switch the power on and off frequently as this reduces the lifespan of the speaker and its internal components. The speaker can be used for a whole day without any cooling-down time, if sufficient cooling is provided.
- The speaker is equipped with an internal fuse, located directly next to the IEC power input section. If this fuse blows for any reason, only replace it with a fuse that has the same values as the original fuse. Do not bridge the gap with any electrical wiring or whatsoever as this voids your warranty.
- Severe shocks and impact must be prevented as much as possible. Secure this speaker properly in place during transport to prevent damage to the housing and the internal components of the speaker.
- The signal inputs (XLR and 6.35mm jack) are linked directly. This means that the non-used inputs can be used as signal through-outputs. Therefore it is possible to send the signal to an extra Devine B115A and B118 subwoofer without losing the stereo signal distribution. Devine does not recommend linking more than two subwoofers at once, as this might have bad influence on the line signal quality.
- The B115A and B118A subwoofers are developed to provide power to a subwoofer with two connected satellite speakers, but also have the ability to work stand-alone as a self-powered subwoofer without any connected passive satellite speakers. This provides more power for the subwoofer amplifier system.
- The B115A and B118A subwoofers are not designed to work with active (self-powered) loudspeakers. However, it is possible to connect an active (self-powered) loudspeaker by using the signal input terminals. Connect an active loudspeaker through the XLR or 6.35mm jackplug connections.

Warning: Never connect an active loudspeaker to the Sat Power Out connectors, as this will cause permanent damage to your loudspeaker system!

Warning: Never connect PA power amplifier outputs to the XLR or 6.35mm jackplug inputs of the subwoofer, as this will cause permanent damage to your loudspeaker system!

Any information and illustrations shown in this user manual are subject to change without further notice.

User manual version: 3.0 Creation date + author initials: 04-12-2013 RV Revision date + author initials: 25-02-2014 RV

Speaker set-up possibilities and compability

The Devine B-series subwoofers are developed in addition to the Trono-series. These loudspeakers are a perfect match for the B-series subwoofers.

Devine recommends:

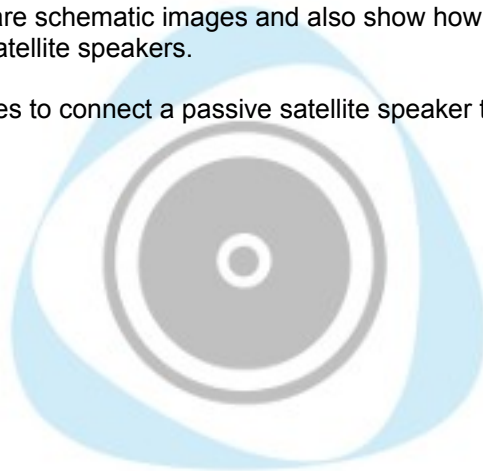
B115A subwoofer match – 2x Devine Trono 10 or Devine Trono 12 satellites
(or any passive 10 or 12 inch passive satellite speakers with a minimum impedance of 8 Ohms)

B118A subwoofer match – 2x Devine Trono 12 or Devine Trono 15 satellites
(or any passive 12 or 15 inch passive satellite speakers with a minimum impedance of 8 Ohms)

Of course it is possible to connect other passive loudspeakers, but only if the speakers have a minimum impedance of 8 Ohms. Connecting passive loudspeakers with a 2 or 4 Ohms impedance may result in permanent damage and is not covered by warranty.

The examples on the next page are schematic images and also show how to connect a B-series subwoofer to your existing or new passive satellite speakers.

Warning: Only use speaker cables to connect a passive satellite speaker to the Sat Power Out connectors.



DEVINE

Set-up examples:
(Devine Trono speakers and cables not included)



Any information and illustrations shown in this user manual are subject to change without further notice.

User manual version: 3.0 Creation date + author initials: 04-12-2013 RV Revision date + author initials: 25-02-2014 RV

Technical specifications

Features:

- powered subwoofer
- robust, lightweight construction
- bass-reflex cabinet
- protective grill
- 15 inch woofer with 3 inch voice coil and 80oz magnet (B115A), 18 inch woofer with 4 inch voice coil and 100oz magnet (B118A)
- handles on the sides
- 35mm stand adapter for distance poles
- sensitivity B115A: 96 dB (+/- 2 dB)
- sensitivity B118A: 98 dB (+/- 2 dB)

Amplifier module features:

- total power: 540W RMS
- split power: 300W (subwoofer), 2x 120W (satellite output)
- impedance satellite output: min. 8 Ohm
- frequency response: 35 – 3500 Hz
- crossover frequency: 500 Hz, 24dB/oct
- built-in Clip and Power LED indicators
- master volume control
- subwoofer volume control
- built-in crossover, satellite outputs optimized for optimal mid/high performance
- built-in 0-180 degrees phase switch
- L+R stereo input: XLR or 6.35mm jack
- satellite speaker output: speaker-lock output
- IEC to Schuko power cable included

Electrical:

- Operation voltage: 230V AC, 50 Hz
- Fuse: T10A

Physical:

B115A

- dimensions B115A: 635 x 505 x 475 mm
- weight B115A: 39.8 kg

B118A

- dimensions B118A: 705 x 565 x 535 mm
- weight B118A: 50 kg