



DEVINE

**B-series passive subwoofers
(B115 / B118)**



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: 18-02-2014 RV

Safety instructions



WARNING!



This speaker is not designed for use outside! Keep this speaker away from moisture and rain at all times! Exposing the speaker to moisture and rain may cause permanent damage to the housing and components!



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.

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:

- 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.
- 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.
- 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.

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Guidelines and types of use:

- This device is intended to be used by professionals on stage, in theaters, 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.
 - Temporary outdoor setups, without protection
 - Indoor areas where intense heat sources are present or where the temperature exceeds levels which are comfortable for humans.
- 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:

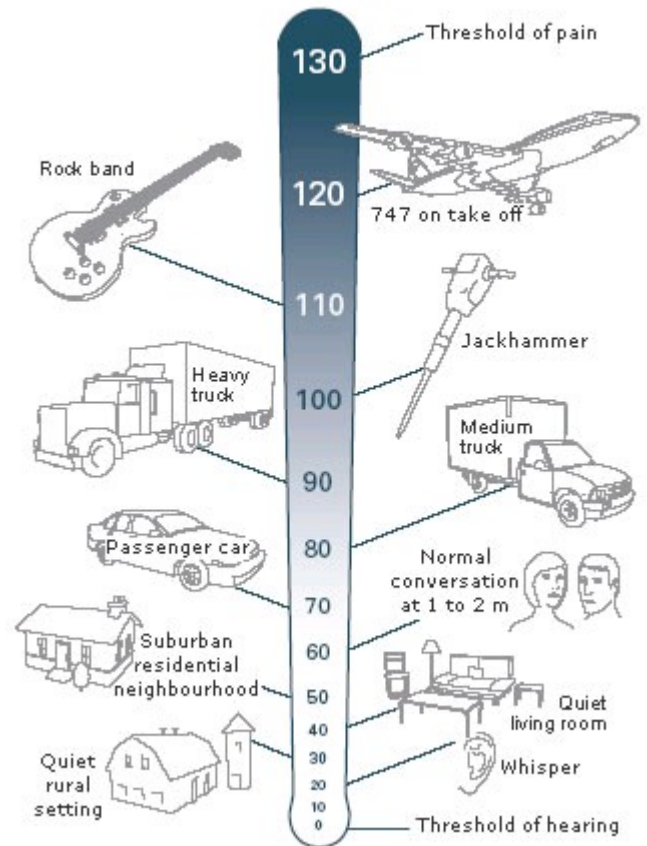
- Inspect the housing of the device frequently. Severe dents, cracks and missing screws should be avoided at all costs. Do not use the device when the housing is not in optimal condition. Contact your dealer or a skilled technician when in doubt about the state of the device
- Check the fixture and screws 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 speaker cables of which the cores are visible (except the ends when using wire terminals). 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.

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- 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 at 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 injury.

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Introduction

Thank you for purchasing this passive 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 passive subwoofer (B115, B118)

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!
- This passive subwoofer must be connected to a power amplifier in order to create sound.
- This passive subwoofer must be used with an external crossover for optimal performance. This subwoofer is not capable of reproducing mid/high frequencies in optimal quality.

Features and technical data:

- passive subwoofer
- robust, lightweight construction
- wooden cabinet with black carpet finish
- speaker protection with strong metal grill
- 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)
- impedance: 8 Ohms
- handles on the sides
- 35mm stand adapter for distance poles
- sensitivity B115: 96 dB (+/- 2 dB)
- sensitivity B118: 98 dB (+/- 2 dB)
- power capacity B115: 450W RMS, 600W program, 800W peak
- power capacity B118: 600W RMS, 900W program, 1200W peak

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Use of the speaker

Both the B115 and the B118 subwoofers are perfect for producing low frequencies, also known as bass. The B115 produces a sound that accentuates kicks and gives a bass-punch, while the B118 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 best used with an external crossover, which filters out the mid/high frequencies. This way, your subwoofer can focus on reproducing bass frequencies, while your normal (fullrange) speakers receive an optimized mid/high signal. As your fullrange speakers do not need to reproduce low frequencies anymore, you will notice a slight positive change in sound quality and quantity.

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.

To make sure that you are able to enjoy this subwoofer for a longer period of time, pay attention to clipping amplifiers and distorted sound reproduction. Speaker overload or distortion from clipping components may cause permanent damage to the speaker system.

The B115 and B118 subwoofers require an external power amplifier, which provides sufficient power to your subwoofers. Devine recommends the use of a powerful amplifier with more capacity than needed. This way, the amplifier does not have to work at full capacity to provide the subwoofer with sufficient power.

The B115 and B118 subwoofer have dual speaker connectors, which makes it possible to link multiple subwoofers. Keep in mind that the impedance drops when you link two subwoofers. For example, if two subwoofers of 8 Ohms each are linked together, the impedance drops from 8 to 4 Ohms. Make sure your power amplifier is capable of delivering power on such low impedances and contact your local dealer for advice if you are not sure how to link several speakers with the correct power amplifier.

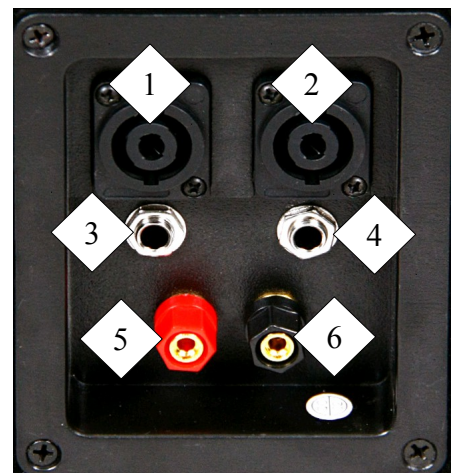
Warranty is void when damage to this speaker is caused by improper use. When any damage to this speaker occurs, please contact your local dealer for help.

The connection panel on the rear needs to be connected with a power amplifier. Please pay attention to the wiring scheme and your cables, as faulty wiring may cause permanent damage. Use cables with an appropriate diameter. Devine recommends the use of cables with a core diameter of 1.5 mm².

Connector panel:

1. Speaker-lock input
2. Speaker-lock output
3. 6.35mm TS jackplug input
4. 6.35mm TS jackplug output
5. Bare wire terminal / banana plug terminal (+)
6. Bare wire terminal / banana plug terminal (-)

WARNING: Do not use microphone or any other low-level capacity signal cables, as these do not have the capacity to handle amplified audio signals! Always use cables with a core diameter of at least 1.5mm².



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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:

B115 subwoofer match – Devine Trono 10 or Devine Trono 12 satellites
(or any passive 10 or 12 inch speaker)

B118 subwoofer match – Devine Trono 12 or Devine Trono 15 satellites
(or any passive 12 or 15 inch speaker)

For optimal performance, Devine recommends the use of two power amplifiers for a complete PA system with two fullrange speakers and two or four subwoofers, combined with a 19 inch crossover system. The crossover splits the incoming signal in low frequencies and mid/high frequencies. The power amplifier for your fullrange speaker receives the mid/high signal, while the power amplifier for your subwoofers receive the signal with low frequencies.

This way, each power amplifier only has to amplify a specific range of frequencies instead of the whole signal, thus providing better performance, better amplification and better sound quality/quantity.

The examples below are schematic images which show setup possibilities using two power amplifiers and a crossover system. It also shows how to connect a B-series subwoofer to your existing or new passive satellite speakers.

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



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