



DEVINE

Blist 12D / Blist 15D
Self-powered speaker with class D amplifier



User manual

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

User manual version: 1.0 Creation date + author initials: 09-01-2014 RV Revision date + author initials: 13-01-2014 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.
- 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.

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- 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 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.
 - 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. Devine 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 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.

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Guidelines for speakers



WARNING!

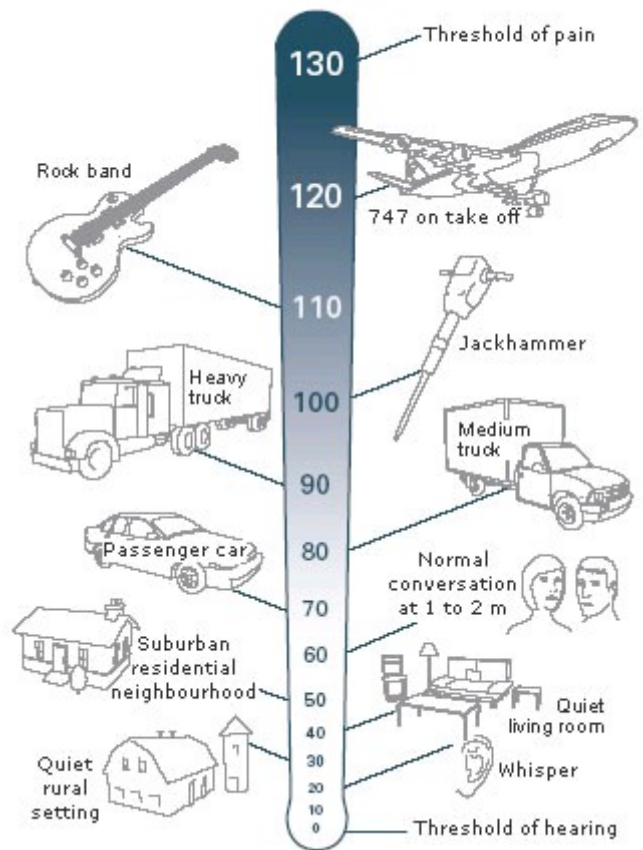


This loudspeaker is capable of producing a sound pressure level which can be harmful for humans and animals when used incorrectly and/or without protection. Possible permanent hearing loss may occur when humans or animals are exposed to high sound pressure levels for a longer period of time.

- 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 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 injuries.

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Box contents

Box contents:

1x powered speaker (Blist 12D or Blist 15D)

Unit and accessory inspection

- Always use the supplied power cable to connect the unit to a power supply. If the cable appears broken or has visible damage, do not use it.
- If the unit is not going to be used for a longer period of time, disconnect it from the power supply and store it in a dust-free environment.
- Always check the unit for possible damage before use. If you suspect that something is wrong with the unit, do not connect it to a power source! If you suspect that your unit is broken or damaged, contact your local dealer or a certified technician to inspect the unit.



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Speaker overview



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1. Compression driver with asymmetrical horn
2. Woofer with protective grill
3. Bass reflex ports
4. Top handle
5. Side handle
6. MP3 display
7. SD card input
8. MP3 controls (mode, play/pause, stop, continuous play, previous, next)
9. USB drive input
10. MP3 volume level
11. Mic input (balanced XLR or unbalanced 6.35mm TRS jack)
12. Mic volume level
13. Line input (balanced XLR or unbalanced stereo RCA)
14. Line volume level
15. Master volume level
16. Line output (balanced XLR or unbalanced 6.35mm TRS jack)
17. Treble control (+/- 12 dB)
18. Bass control (+/- 12 dB)
19. Clip limiter LED indicator
20. Power LED indicator
21. Power on/off switch
22. IEC power input with fuse

Practical info and function information:

USB/SD/Bluetooth player:

The USB/SD card player supports drives up to 32 GB. Compatibility with all brands and types is not guaranteed as several manufacturers maintain different standards. Larger drives may be supported, but loading time may increase when storage devices with larger capacity are used.

The standard Bluetooth password is: **1234**

Use this password to connect your mobile device to the speaker, to stream audio and music.

Asymmetrical horn dispersion:

The compression driver of the speaker (capable of producing mid-high and high frequencies), is mounted in a moulded asymmetrical horn. The horn dispersion is wide at the bottom and small at the top. This way, the sound dispersed on small distance is projected very wide. The dispersion for longer distance is narrow, as the high frequencies need more coupling to carry them further and provide the complete room with sufficient sound pressure.

Bass reflex ports:

The bass reflex ports of this speaker have two functions:

- Produce airflow, caused by the woofer. As the woofer is constantly moving, the built up air pressure needs to be able to enter and exit the cabinet, otherwise the pressure in the cabinet will be too high for the speaker to move sufficiently (and thus produce less sound pressure). By adding bass reflex ports, more sound pressure is created and more bass response is created easily.
- Create airflow for cooling. The rear of the speaker, where the amplifier module is located, creates heat when used for a longer period of time on high volume. The airflow makes sure that sufficient cooling takes place to cool down the internal components.

Do not block the bass reflex ports as this has a negative influence on your maximum sound pressure level, the sound quality of the speaker and the internal components.

Built-in mixer:

The built-in mixer on the rear panel is used to control several inputs at the same time. For example, when you wish to use the Bluetooth connectivity to stream background music and wish to connect a microphone, it is possible to mix the two input signals with the volume levels for each signal input.

Line output:

The line output is designed to transfer the incoming signal from one speaker, to another active speaker. This way, multiple speakers can be daisy-chained easily, for public address applications.

The line output has the same signal as the master signal from the speaker. For instance, when you mix signals of the line and mic inputs, this mix will be transferred to other active speakers.

It is not possible to connect passive speakers, as there is no powered output available.

Stand adapter:

The built-in stand adapter on the bottom of the speaker is equipped with a tightening knob. This makes sure the speaker is clamped to your stand perfectly. This also prevents unwanted rattling noise and movement when positioned on a stand.

Monitor feet:

The side handles of the speaker are equipped with special monitor feet. This way, and without the use of separate feet, you can use the speaker as a floor monitor.

Fixed installation:

This speaker has no rigging hardware for flying use or installation. When installing this speaker in a fixed position, always use a wall bracket with 35mm tube to mount the speaker to. Do not install the speaker directly above any audience and do not position the speaker in a position which may harm anyone if it falls down unexpectedly.

Optimal high frequency dispersion:

Optimal high frequency dispersion for larger amounts of people is created when these speakers are placed on universal speaker stands with 35mm top diameter. This way, the high frequency dispersion can be spread more easily towards your audience. As high frequencies tend to reflect when they reach an object (such as a wall or person) and low frequencies can move through objects more easily (thanks to resonance), this will provide better sound quality for your audience.

To improve the low frequencies when placed on a speaker stand, experiment with the two-band equalizer (Bass, Treble) to create the optimal sound. When used on the floor as a stage monitor, the low frequencies probably need to be decreased as acoustic coupling with the floor creates more low frequency response naturally.



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Powered speaker troubleshooting

If you have any problems with active speakers, consult this troubleshooting section to solve any difficulties with your product. If this troubleshooting section does not solve your problem, contact your dealer for more information and help.

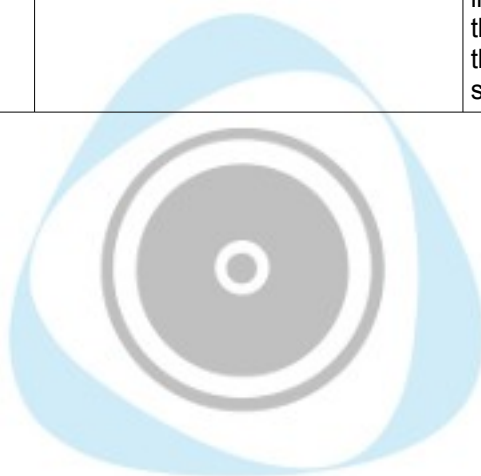
This troubleshooting section contains the most frequent problems and is not a complete collection of possible faults, defects and solutions. The troubleshooting section applies for powered speakers. It is possible that not all described problems, causes and solutions apply to your situation as product details may vary from product to product.

Problem	Possible Cause	Solution
Speaker does not activate itself	ON/OFF switch set to OFF	Turn on the speaker with the ON/OFF switch, to the ON position
	Power not plugged in	Connect the included power cable to the power inlet and a wall outlet or power socket.
	Fuse blown	Remove the fuse cover underneath the power input and check the fuse. Replace the fuse with the same type and rating if needed. Use caution when removing the fuse holder, remove the holder with a small screwdriver and gently move the holder towards you. Applying too much force may cause broken fuse holders!
No sound	Signal source level set to minimum	Increase signal source level
	Signal source level on the mixer panel set to minimum	Increase volume of signal source on the mixer panel with the volume knobs
	Master volume set to minimum	Increase master volume
	Cable broken	Change cable
	Lost Bluetooth contact	Move your Bluetooth device closer
Distorted sound	Signal source level too high	Decrease signal source level
	Signal source level on the mixer panel set too high	Decrease signal source level on the mixer panel
	Master volume set too high	Decrease master volume level
Lack of bass	Track without low frequencies	Try another reference track
	Bass level set to minimal level	Increase Bass level
Lack of high frequencies	Track without high frequencies	Try another reference track
	Treble level set to minimal level	Increase Treble level
Too much bass	Bass level set to high level	Decrease Bass level
Too much high frequencies	Treble level set to high level	Decrease Treble level
CLIP limiter indicator keeps on flickering or is constantly lit	CLIP limiter circuit is active to prevent overloading of internal	Decrease volume settings (signal source, signal source on mixer)

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	components	panel or master volume) Also try to set Treble and Bass to normal levels.
Speaker can not be placed on a speaker stand	Tightening knob is turned too tight	Loosen tightening knob
	Stand not suitable	Measure stand top diameter, this should be around 33-36 mm for optimal placement. Use another speaker stand if needed.
Buzzing noise coming from the speaker	Ungrounded power connection	Connect the speaker to a grounded outlet
	Ungrounded signal source	Connect the signal source to a grounded outlet
	Interference from power cables	Avoid placing power and signal cables in a parallel structure
	Bad cables	Remove the cable or increase/decrease the volume of the speaker. If the noise is gone, the problem is somewhere in your signal chain.



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Technical specifications

- Self-powered PA speaker
- built-in high-efficiency class D bi-amplifier
- built-in MP3 player with Bluetooth connectivity, SD card and USB drive support
- lightweight construction
- asymmetrical dispersion horn for optimal wide coverage and long-throw projection
- built-in audio mixer, for microphones and line-level audio sources
- line output for speaker daisy-chaining
- elegant moulded housing with rounded edges for a clean look
- 3 built-in carrying handles - 2 side handles and 1 top handle
- 35 mm stand adapter with tightening knob, for easy placement on a speaker stand
- handles with integrated monitor stands - no separate stands needed!

Mixer connections:

- Line input: balanced XLR or unbalanced stereo RCA
- Mic input: balanced XLR or unbalanced 6.35 mm TRS jack
- MP3 player input: SD(HC) card, USB-drive of 32 GB max.
- Bluetooth wireless connection
- Line output: balanced XLR or unbalanced 6.35 mm TRS jack

Power requirements:

- IEC power input with integrated fuse holder
- Power supply: 95 – 230V AC, 50/60 Hz
- Fuse: F3.15A, 20 mm glass

Blist 12D:

- 12 inch woofer with 2.5 inch voice coil, 50oz magnet
- 1 inch compression driver with 1.35 inch voice coil and titanium diaphragm
- frequency response: 60 Hz - 17 kHz
- Sensitivity: 96 (+/-2) dB (1W/1m)
- amplifier power: 165+35 Watt RMS - 400 Watt peak power
- dimensions: 360 x 310 x 600 mm
- weight: 11 kg

Blist 15D:

- 15 inch woofer with 3 inch voice coil, 60oz magnet
- 1 inch compression driver with 1.75 inch voice coil and titanium diaphragm
- frequency response: 40 Hz - 18 kHz
- Sensitivity: 97 (+/-2) dB (1W/1m)
- amplifier power: 245+55 Watt RMS - 600 Watt peak power
- dimensions: 410 x 360 x 690 mm
- weight: 14 kg

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