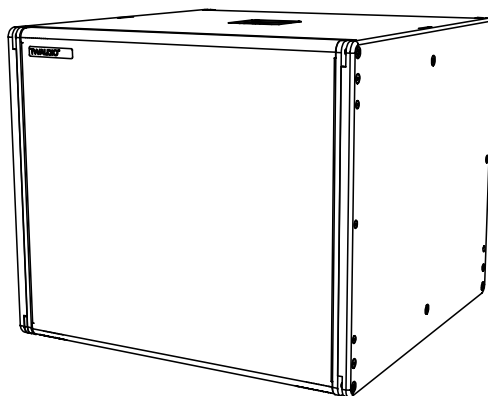


VERAS17i | **Operation manual**



Introduction

Thank you for choosing a high-quality product “MADE IN GERMANY” from the brand TWAUDIÖ.

The VERAS17i is a compact, flyable install subwoofer in a symmetrically vented enclosure, equipped with one 18” long excursion driver.

The specifically developed integrated rigging hardware allows a tightly screwed installation for perfect integration into VERA20i arrays with nearly invisible rigging parts, without the use of expensive locking pins and additional frames.

The fully symmetrical design of the rigging also allows to set up cardioid sub arrays with mechanically reversed enclosures. There is also the possibility to mount an optional front grill to the rear side of the enclosure giving a seamless look of the entire array.

The two recessed panels with screw terminals - one on the top and one on the bottom of the enclosure - allows for the signal connection between cabinets to be hidden. There are also installer options of plates with speakON™, cable gland and blanking plates available.

If you lend your product to another party, inform that party of the safety-related operating procedures and hand over this assembly guide. If you require additional copies of this manual, you can obtain them free of charge from TWAUDIÖ or download them from www.twaudio.de

Instructions in this user manual

Strictly adhere to the instructions contained in this operating manual that are marked as follows:



This symbol in combination with the signal word “Warning” identifies a potentially hazardous situation. Failure to comply with this safety instruction can lead to serious injury or even death.



This symbol in combination with the signal word “Warning” identifies a potentially hazardous situation for persons with a pacemaker. Failure to comply with this safety instruction can lead to serious injury or even death.



This symbol in combination with the signal word “Caution” identifies a potentially hazardous situation. Failure to comply with this safety instruction can lead to light or moderate injury.



This symbol in combination with the signal word “Note” identifies a potentially hazardous situation. Failure to comply with this safety instruction can lead to product damage.



This symbol in combination with the signal word “Tip” identifies additional information or notes that will simplify working with TWAUDIO products on the basis of practical experience.

Notes on the products

**Read manual
before use!**

Before using the device, carefully read the operating manual and keep it with the VERAS17i loudspeaker.

General information

Operation manual: OM-VERAS17i
Version 2.0 en, 01/2022
© by TWAMBO 2022; all rights reserved.

All information contained in this operating manual was correct to the best of our knowledge at the time of printing.

Quality warranties or assurance of suitability for a certain type of use based on the technical specifications, dimensions and weights are not granted by TWAMBO.

TWAMBO also shall not assume liability for any secondary damage (property damage and/or personal injury) nor for the failure to comply with this operating manual!

TWAMBO reserves the right to update this document based on recent developments.

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1. Safety | Intended use

Please adhere to the following safety instructions to avoid risks when operating loudspeakers.

The VERAS17i loudspeaker was developed for use in professional sound systems. The loudspeaker may only be used by trained and qualified personnel.

Note the operating modes described in this operating manual. Other uses are not permissible.

Damage caused by improper use is not covered by TWAMBO.



Loudspeakers generate an electromagnetic field. Persons with pacemakers are not permitted to remain in the immediate vicinity of loudspeakers as the electromagnetic fields can cause pacemakers to malfunction.



When working with heavy loads exceeding 20 kg (44 lbs.), use suitable aids (dollies, hoisting slings, etc.). Multiple persons may be required depending on the situation.

Ensure that the units are in a stable position and are firmly attached. A falling loudspeaker can result in serious personal injury and property damage.

When using and assembling TWAUDIÖ loudspeakers, only use materials specified by TWAUDIÖ. These tasks must be performed by qualified personnel. Adhere to the applicable safety regulations.



When setting up loudspeakers, ensure that they are not exposed to the following ambient conditions:

- Direct sunlight
- Humidity
- Jolting
- Dust



Keep away from the immediate vicinity of loudspeakers that are operated at high sound pressure levels. These loudspeaker systems are capable of endangering your health. Sound levels beginning as low as approximately 90 dB SPL can lead to long-term hearing impairment.



Avoid:

- Feedback
- Distorted signals (clipping) and
- Peaks resulting from switching on devices, plugging in devices or unplugging devices during operation.

Such signals can lead to loudspeaker overload and ultimately to loudspeaker failure.



Ensure that the loudspeaker is not exposed to permanent thermal overloads. Thermal overloads may cause a fire and result in serious personal injury and property damage.

Note that TWAMBO does not provide a warranty for damage that can be attributed to this type of overload and therefore cannot be held liable for any secondary damage.



A permanent magnetic field is present in the immediate vicinity of loudspeakers. Ensure that objects which react sensitively to magnetic fields are not located in the immediate vicinity of the loudspeaker. In particular, this applies to magnetic storage media, magnetic stripe cards such as debit cards and CRT displays. A distance of approximately one meter is sufficient to avoid damage.



Check loudspeakers and accessory parts regularly for visible wear. This is essential to ensure continuing fault-free operation. Worn parts should be replaced immediately. Spare parts are available from TWAUDI.O.

2. Overview

2.1 Components

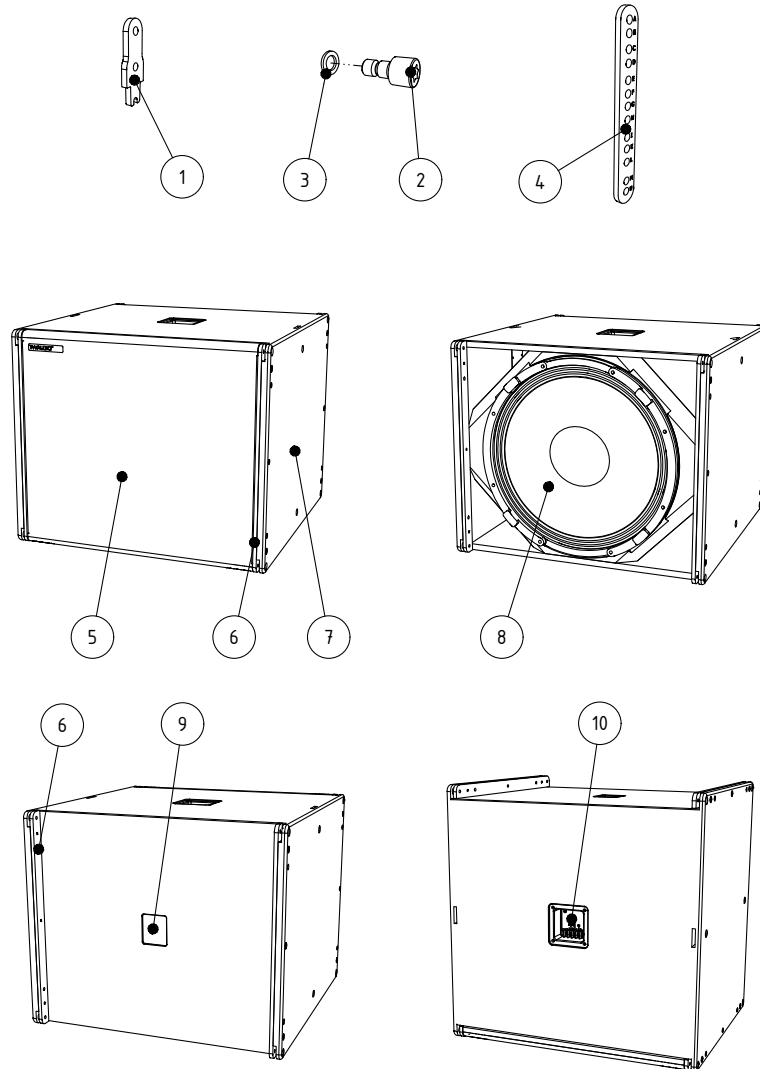


Figure 2.1 - Overview

1. Splay link (2 pieces) – enclosed separately
2. Hexagon socket head cap screw M8x16-12.9 (9 pieces) – enclosed separately
3. Lock washer VS-8-1.4301 (9 pieces) – enclosed separately
4. Bracket (2 pieces) – enclosed separately
5. Front grill
6. Rigging tracks (4 pieces)
7. 15 mm Multiplex enclosure - Warnex textured paint surface
8. 18" cone driver
9. Type label
10. Standard i-series screw terminal

3. Technical specifications

3.1 Data sheet

Drivers	1x 18" LF
Frequency response	37 - 110Hz
Power handling (program/Peak)	2400 / 4800W
Impedance	8Ω
Max. SPL / 1m	132dB
Dimensions (h x w x d)	500 x 600 x 600 mm [19,69 x 23,62 x 23,62 in]
Weight	34,0kg [81,571 lbs]
Surface	Warnex textured paint

3.2 Connection diagram

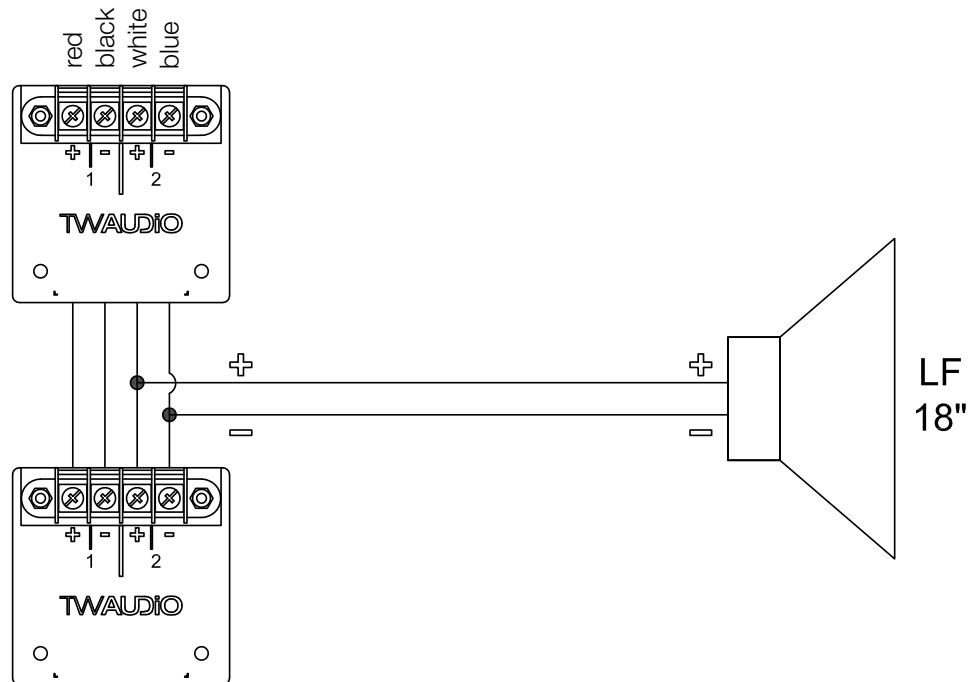


Figure 3.2 - Connection diagram

4. Commissioning

4.1 Setup

The VERAS17i loudspeaker is designed for array operation.



WARNING

Make sure that all system structures are located on a firm, level surface and that the surface can bear the total weight!



WARNING

Make sure the speakers are securely fastened to prevent personal injury and property damage.



NOTE

TWAUDIÖ recommends using only the accessories specified by TWAUDIÖ for securing and mounting loudspeakers.

4.2 Rigging



Please refer to the VERARF600i manual for operating modes and set-up options.



EASEFocus simulation software can be used to plan line arrays with VERAS17i loudspeakers. EASEFocus is available as a free download from the TWAUDIO website at www.twaudio.com.



In order to connect the VERAS17i loudspeakers mechanically with each other, the dedicated rigging tracks, links and brackets have to be used (figure 2.1 - pos.1 to pos.4).

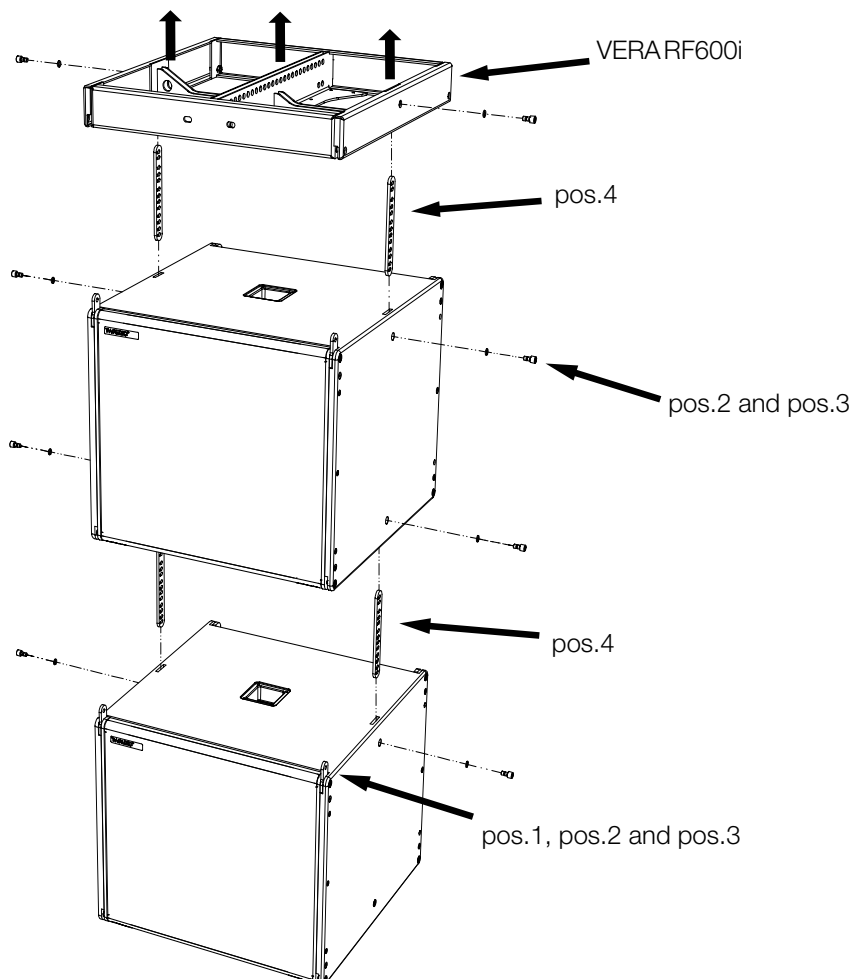


Figure 4.2.1 - VERAS17i vertical alignment



An optional front grill for the rear of the twisted VERAS17i loudspeaker is available for a seamless look when in cardioid setting.



Only mount the VERA20i loudspeakers when all VERAS17i loudspeakers are mechanically connected to the VERARF600i rigging frame through the front and the middle rigging tracks.

Make sure that the load is never transferred from one rigging track to another rigging track through the speaker enclosure.

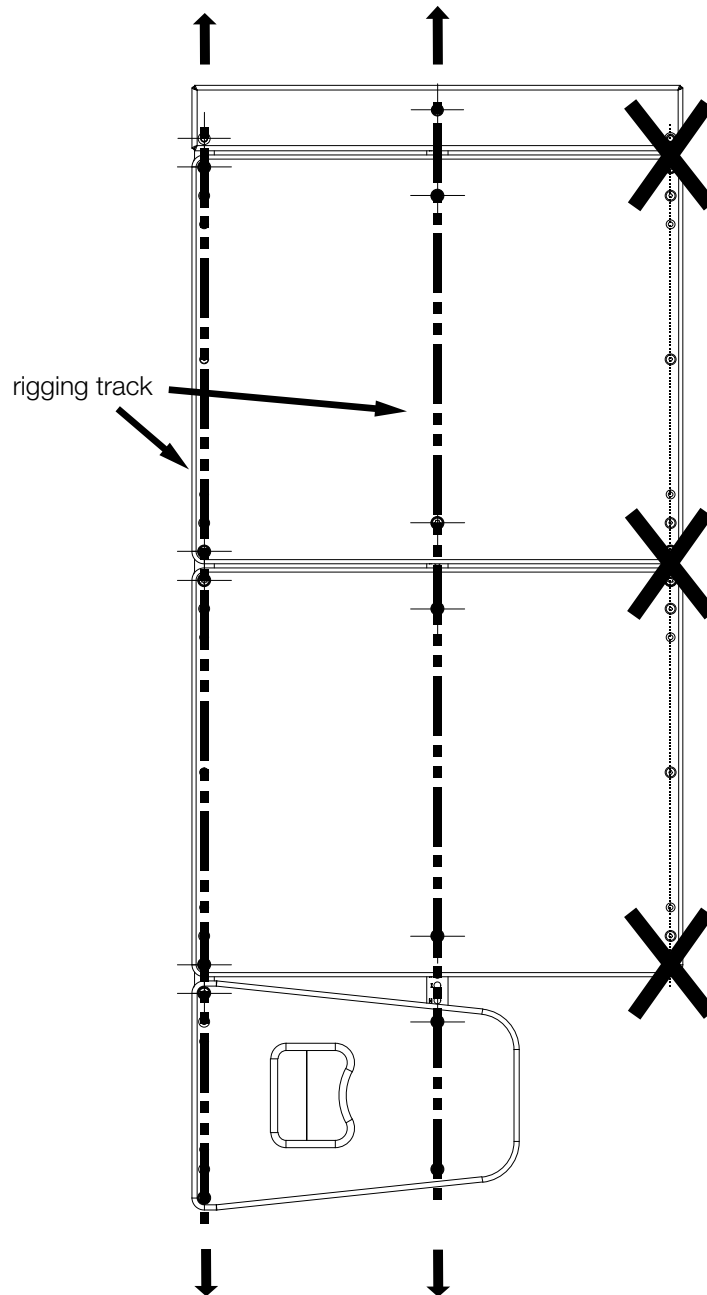


Figure 4.2.2 - side view: system setup VERAS17i with VERA20i



Please note that the following system setup with VERAS17i loudspeakers is not permitted.

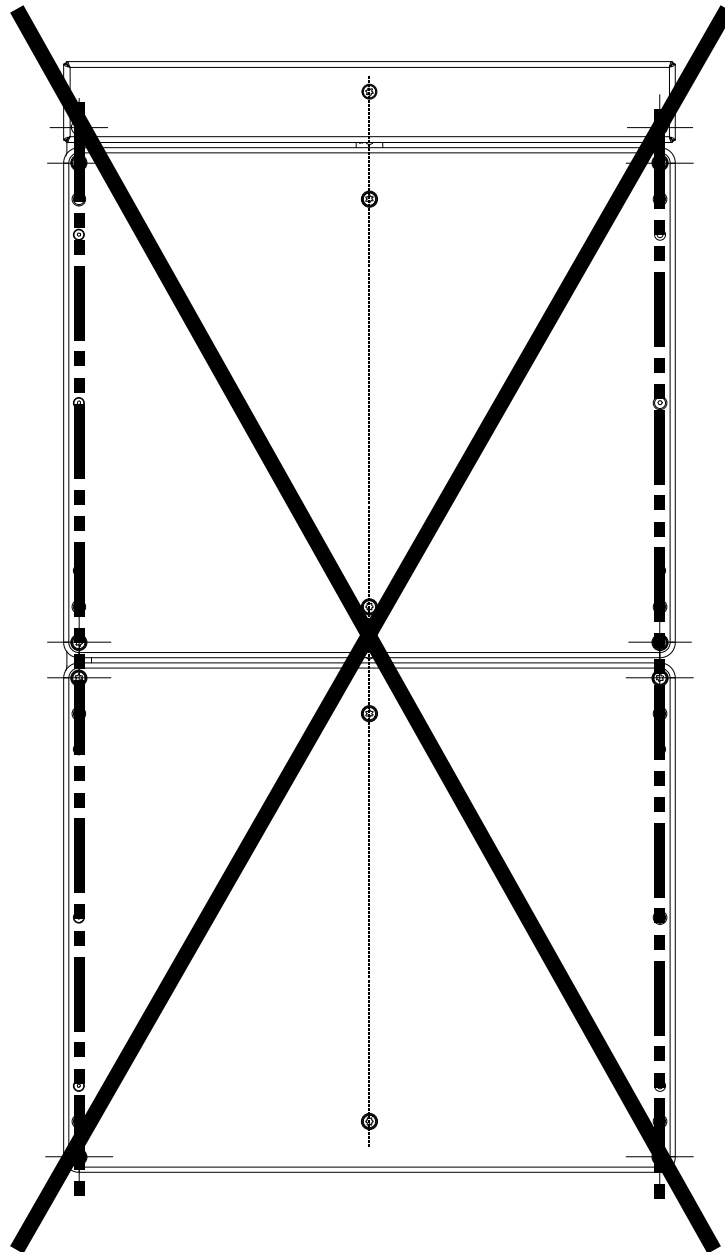


Figure 4.2.3 - side view: improper use of the system setup of VERAS17i



Make sure never to fly multiple horizontally aligned VERAS17i loudspeakers under each other!

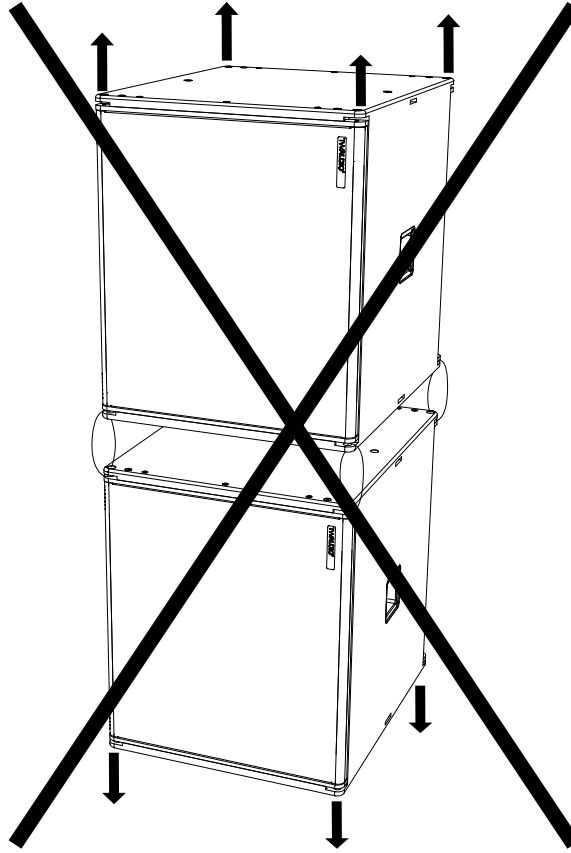


Figure 4.2.4 - improper use of VERAS17i

4.3 Connection options

The VERAS17i loudspeaker is equipped as standard with the i-series screw terminal.



NOTE

As options there can be mounted a panel with cable gland (CG-option) or a panel with two built-in speakON® jacks (SO-option).

Furthermore, a blind cover option is available.

All connection options are only available in black colour.



NOTE

More information about the different connection options can be found in the respective operating instructions in the download area on the homepage of TWAMBO.

4.4 Operation

Operation of the VERAS17i speaker requires a DSP-Controller. For this purpose, only presets developed by TWAUDI® are recommended. The TWAUDI® system racks are ideally suited for this purpose.



NOTE

Before connecting the loudspeaker to the amplifier, ensure that the right preset has been loaded.

Using a wrong, out dated or a preset not provided by TWAUDI® can lead to destruction of the speaker.



NOTE

Make sure that the amplifier's specifications meet the requirements. Using an amplifier that doesn't meet the specifications can destroy the loudspeaker.

Please note the technical data in section 3.1 on page 8.

4.5 Connecting the cable

To create a cable connection with an amplifier rack from TWAUDIÖ, proceed as follows.



NOTE

Ensure that the cable cross sectional area is sufficient (at least 1.5 mm²) to avoid power losses. TWAUDIÖ recommends using the loudspeaker cables available from TWAUDIÖ.

When connecting the cables to the loudspeaker, ensure that polarity (+/-) and pin assignment (1/2) are correct. Incorrect connection can lead to a significant change in the loudspeaker's sound characteristics and may damage the driver.

The pin connections of the VERAS17i loudspeaker can be found in section 3.2 ("Connection diagram") on page 8.

The internal wiring of the VERAS17i loudspeaker allows for parallel connection of multiple loudspeaker units.

Please note that parallel connections will decrease the total impedance of your loudspeaker configuration.

The total impedance and the resulting power of the speaker configuration must match the output power of the amplifier.

5. Transport and Storage

Due to the VERAS17i loudspeaker weighing over 20 kg [44.09 lbs.], two persons are required to handle and transport the unit.



Ensure that the front grill of the loudspeaker is not damaged during transport and storage. Moisture can penetrate exposed wood surfaces and cause the wood to swell. A bent or broken front grill will no longer adequately protect the sensitive driver membranes.

In addition, larger dust deposits can significantly affect the functionality of a speaker membrane. This is why the product should be transported and stored in a safe, careful, dry and largely dust-free manner.

6. CE Conformity Declaration

Copy and translation of the original CE Conformity Declaration:



We hereby declare that the below-referenced components by virtue of their design and construction, and in the configuration placed on the market by us, satisfy the safety and health requirements of the applicable EC directives. This declaration becomes invalid in case of modifications that have not been approved by us.

This declaration applies to the following components

- VERAS17i

as well as all model variants based on these, provided that they correspond to the original factory models and have not been technically modified in any way.

Applicable directives:

- 2001/95/EG
- 2011/65/EU

Applicable national standards and technical specifications:

- DIN EN 18800
- DIN EN ISO 12100
- DGUV Vorschrift 17 und 18
- EN 50581: 2013-02

Berlin, Germany, January 1st, 2021



Bernhard Wüstner

7. Disposal

It is prohibited to dispose of used electrical equipment with household refuse.



All TWAMBO GmbH products are so-called B2B-products. This means that they are sold by a commercial business to a commercial business. TWAMBO products that bear the trash can symbol shown here may only be disposed of by TWAMBO.

The loudspeaker owner is legally responsible for proper disposal of used devices that do not bear this symbol. This pertains to all products delivered prior to March 29, 2010. Nevertheless, TWAMBO will also be happy to assist you in this case.

If you have any question regarding the disposal of used devices, please contact us under the following telephone number:

+49 (0) 71 41 - 48 89 89 0

Thus, TWAMBO is in strict compliance with the Waste Electrical and Electronic Equipment Directive (2012/19/EU) for the protection of our environment.

TWAMBO is registered under the following WEEE-reg.-no. with the German National Register EAR as a B2B-manufacturer and distributor of electrical devices:

DE93295191

In countries outside of the European Union, comply with local regulations.

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