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1. Introduction

Thank you for purchasing a KLING & FREITAG product. With the purchase of a VIDA L loudspeaker system with integrated power amplifier technology,

1.1 Icons Used

This icon indicates a risk of injury or death. Not following these instructions may result in serious health problems including potentially fatal injuries.

This icon indicates a possibly dangerous situation. Not following these instructions may cause minor injuries or damage.

This icon marks instructions for proper use of the described products. Not following these instructions may cause malfunctions or damage.

This icon marks information provided for simplified use of the described products.

1.2 About this Manual

© KLING & FREITAG GMBH, alle Rechte vorbehalten.

All specifications regarding the features of the described products and applicable safety guidelines provided in this manual are based on information available at the time of publishing.

We assume no responsibility for technical specifications, dimensions, weights, and properties.

All information in this manual is subject to change without notice.

To ensure safe operation, all persons using the speaker system must have access to these user’s manual and all other relevant material during installation. Ohne dieses gelesen, verstanden und griffbereit vor Ort zu haben, darf das Lautsprechersystem weder aufgebaut noch eingesetzt werden.

All KLING & FREITAG manuals are originally authored in German.

KLING & FREITAG spare manuals are separately available for order or can be downloaded

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2. **Product Description**

2.1 **Intended Use**

Use the Kling & Freitag speaker for audio reproduction only. Always use the specified accessories for flying or rigging.

Never operate the speaker in environments where the temperature exceeds 35 °C / 95 °F.

Never operate the speaker in places exceeding an altitude of 2,000 meters / 6,000 ft.

Make sure that the humidity is between 10% and 90%.

When using a single flying frame, you can fly up to 8 VIDA L without VIDA C at a maximum down-tilt of -7.9° or up to 8 VIDA L with VIDA C at a maximum down-tilt of -6.1°.

When using two VIDA L flying frames, you can fly up to 4 horizontally aligned VIDA L with or without VIDA C.

For commercial use as specified in this document only!

Unless otherwise stated, use only KLING & FREITAG original parts for mounting the speakers. Never use other parts (in particular, parts not made by KLING & FREITAG).

Any other use not described in this document is not an intended use.

2.2 **Items Included VIDA L**

- (1x) Line-array speaker with beam steering and optional VIDA C
- (1x) VIDA L hardware reset dongle
- Neutrik PowerCon TRUE1 power cord (with Type C safety plug)
  - Or Neutrik PowerCon TRUE1 power cord (1 item, no connector, for 115 V operation)
- User manual (1 item)

Using the VIDA App software is obligatory for setting up the system. You can download the latest version from the Microsoft App Store (http://www.microsoftstore.com).

http://www.microsoftstore.com

When setup is complete, if you use the speaker in a fixed installation, you will not need VIDA App anymore.

2.3 **Items included VIDA C**

- (1x) VIDA C
- (1x) Allen wrench (6 mm)
- CP-4 - Speaker-patch-cord, 4x2.5 mm², black, 0.5 m, K&F Art.-No. 35892
- User manual (1 item)
2.4 Overview of VIDA L Parts

1. (4x) Connecting Adapters (extended)
2. (8x) Connecting Pins
3. Upper Lever
4. Upper Terminal
5. Status indicator
6. ‘VIDA C’ (optional)
7. Lower Terminal
8. Bottom Lever
2.4.1 Upper Terminal

1. Analogue Input (XLR-female)
2. AES/EBU Input (XLR-female)
3. VIDA Link Bus Input (RJ45)
4. AC Mains, 100 V – 240 V AC (Neutrik PowerCon True1)
5. Analogue Link (XLR-male)
6. AES/EBU Link (XLR-male)
7. Dante/Remote Primary (RJ45)
8. Dante/Remote Secondary (RJ45)
9. Phoenix Connectors (see below)

• 1. – 4. NC1, NO1, NC2, NO2: GPOs used for status output (warnings, errors)
• 5. – 7. COM, MUTE, PRIO: GPIs used, for example, for warning systems: auto switch-off
• 8. – 13. GND, +10 V, COM, a1, a2, a3: GPIs featuring power sources, allowing for switching between 8 presets
2.4.2 Lower Terminal

1. AUX output (XLR)
2. VIDA Link Bus Output (RJ45)
3. AMP output (Neutrik Speakon)

2.5 Product Labels and Icons

VIDA L speakers have one or more labels showing icons and important information.

2.5.1 VIDA L name plate

1. Manufacturer logo
2. Disposal information (see the »Disposal« on page 73)
3. Rating information (see the »Wiring« on page 23)
4. Product weight
5. Product name
6. Manufacturer address
7. Grounding instruction
8. CE mark
9. Warnings
10. NEVER use this product in tropical climates or under similar climate conditions.
11. Never use this product in places exceeding an altitude of 2,000 meters.
12. Serial number, weight
1. Warnings
2. AUX-out pinout and internal wiring (see the »Wiring« on page 23)
3. AMP OUT pinout and internal wiring (see the »Wiring« on page 23)
4. Safety instructions on operating rigged speakers (see the »Interconnecting System Components« on page 13)

2.5.2 VIDA L, bottom label

1. Manufacturer logo
2. Serial number, weight
3. Product name
4. Manufacturer address
5. Disposal information (see the »Disposal« on page 73)
6. CE mark

2.5.3 VIDA C name plate

For operating a VIDA L speaker, you only need a power source and an audio source. For setup purposes, you need a computer running Windows 8, 8.1, or 10 and the VIDA App installed. The software allows for making all required adjustments to the VIDA L: emulating audiences, managing array groups, making detailed sound-ray settings, and selecting the appropriate cardioid configuration. For more information, refer to the VIDA App user’s manual, which is available for download. The audio can be applied from any source including Analog, AES, or Dante.
3. Safety Instructions

3.1 General Safety Instructions

Power Supply

- Before connecting the device to a power source, check if the local voltage matches the voltage marked on the device. NEVER connect the device to an unauthorized power source. Doing so may permanently destroy the device.
- Make sure that the power outlet has a ground connector and it is connected to the device through the PE conductor of the power cord!
- Always route power cords so that they are protected from damage caused by stepping on it, tensile stress, or getting caught.
- Make sure you can disconnect the device from the mains at any time!
- All equipment interconnected through signal cables must be connected to common ground. Failing to do so may result in an electric shock or permanent damage to the connected equipment.

I/O

- The device does not include a master fuse. Therefore, be sure to protect the supply line appropriately (230 V: 16 A fuse max.; 115 V: 20 A fuse max.)!
- Also make sure the supply line has an appropriately dimensioned cable cross-section.
- Always use properly shielded cables with connectors attached as specified by the EMC directive.
- This device is not designed for home use.
- The device is designed for indoor use only.

Maintenance and Technical Service

Never perform any maintenance work on the equipment other than what is described in these user’s manual. Have repairs works performed by a qualified service technician only.

Only qualified technicians expressly authorized by KLING & FREITAG are permitted to repair

- the power cord or power inlet have been damaged,
- objects or liquids have got inside the device,
- the device was exposed to rain,
- the device doesn’t appear to be functioning properly,
- the device has fallen down or the enclosure has been damaged.

Never place your devices

- where they are permanently exposed to direct sunlight,
- near heat sources or open fire,
- where the airflow for cooling is blocked,
- where they are exposed to high moisture,
- where they are exposed to strong vibrations or dust.

Intrusion of liquids

Make sure at all times that no objects or liquids can intrude or leak into the device.
3.2 Preventing Hearing Damage

Preventing Hearing Damage

- This equipment is capable of delivering sound pressure levels in excess of 90dB SPL, which may cause permanent hearing damage. Keep your distance from operating speakers.
4. VIDA L Setup

As general rules apply:

- With one strand rigging you can array up to eight pieces of K&F VIDA L for mechanical tilt angles between 2.5 to -6.1 degrees (with VIDA C), or rather 2.0 to -7.9 degrees (without VIDA C).
- According to larger or smaller mechanical tilt angles the number of speakers for an array may need to be reduced.
- Detailed information about the rigging of K&F VIDA L arrays can be found in the user’s manuals for K&F VIDA L Flying Frame and K&F VIDA L Flying Bracket.

4.1 Required Tools

The following is required for mounting the VIDA C to the VIDA L speaker:

- Allen wrench (6 mm)
- Torque wrench for 16Nm

4.2 Interconnecting System Components

The following describes how to interconnect VIDA L system components. The approach is basically applicable to VIDA L accessories, too. Here, we will explain how to securely interconnect two speakers as an example. In this case, whether the components are placed vertically (upright) or horizontally is not important.

The key parts required for interconnecting two components are the upper and lower levers.

Upper lever:
The upper lever is used for locking or unlocking the rigging-system connecting adapter (steps 1 – 6 below).

Lower lever:
The lower lever is used for locking or unlocking the connection to another speaker or accessory (steps 7 – 9 below).

1) Pull out the upper lever towards its longitudinal axis.

2) Rotate the lever clockwise by 90 degrees. Doing so will push the connecting adapters out of the speaker.
3) When all four connecting adapters are in position, rotate the lever anticlockwise back into the vertical position.

4) Push the lever back in in longitudinal direction until it snaps. This will lock the lever.

5) Pull the connecting adapters out of the housing. The connecting adapters are fastened and secured by means of connecting pins.

2) Rotate the lever clockwise by 90 degrees. Doing so will push the connecting adapters out of the speaker.
6) **Risk of injury from falling objects!**

Improperly mounted speakers are not safe for suspending. Objects falling down impose a deadly risk for people standing nearby!

Check whether all four connecting adapters have been fully pushed out and locked (a).

Make sure that the lever has returned to its captive position (b).

On both sides of the speaker, make sure that you can see and feel the chamfers of the 4 connecting pins (8 pins in total) are flush with the walls from outside (a).

The speaker top with the pulled-out connecting adapters is now ready for interconnection with another speaker or accessory.

The steps 7 – 9 below show how to prepare the speaker bottom for accepting the connecting adapters of another speaker or accessory.

7) **Pull out the lower lever towards its longitudinal axis.**

8) **Rotate the lever clockwise by 90 degrees.**

9) **Push the lever longitudinally into the joint case to lock it.**

   Doing so will allow the receptacles to accept the connecting adapters of another speaker or accessory.

This speaker is now ready for accepting and securely locking the connecting adapters of another speaker or accessory. The steps below explain how to securely mount two prepared speakers to each other.
10) **Crushing hazard!**
When mounting, avoid crushing your body parts between system components moving towards each other. While mounting speakers onto each other, never put your hands between the connecting faces (i.e. speaker bottom and top faces)!
Put this speaker onto another one or the connecting adapters of an accessory.

11) Pull out the lower lever towards its longitudinal axis.

12) Rotate the lever anticlockwise into its original position.
Doing so will fasten and secure the connecting adapters of the lower speaker.

13) Push the lever back in in longitudinal direction until it snaps.
14) **Risk of injury from falling objects!**

Improperly mounted speakers are not safe for suspending. Objects falling down impose a deadly risk for people standing nearby!

Check whether all four connecting adapters have been fully pushed out and locked (a).

Make sure that the lever has returned to its captive position (b).

On both sides of the speaker, make sure that you can see and feel the chamfers of the 4 connecting pins (8 pins in total) are flush with the walls from outside (a).

---

**Tip**

To support the adapters snapping into each other, slightly push the joint in every direction.

If any connecting pin still doesn’t extend fully, try pulling it
4.2.1 Troubleshooting Mechanical Issues

**Risk of injury from falling objects!**

Improperly mounted speakers are not safe for suspending. Objects falling down impose a deadly risk for people standing near-by!

At the end of the installation process, make sure that the lever locks into its horizontal position. In this position, the lever is secured against rotation.

Never use the rigging system if the lever does rotate in this position! Contact your retailer.

At the end of the connecting process, if the connecting pins have not been sufficiently moved out, the rigging system of this speaker may be damaged.

If the pin is blocked by dirt or foreign objects, try loosening it through the emergency bore.

1) **For this purpose, carefully thread an M4 screw into the connecting pin from outside.**

2) **Trying moving the screw and the lever to release the blocked pin.**

   If you have successfully released and pulled out the pin, be sure to have any issues resolved before next use.
### 4.2.2 Setting up a Speaker Array

1) Prepare the interfacing speaker sides as described on page 13.
   - Upper speaker: steps 1 – 6
   - Lower speaker: steps 7 – 9

2) After preparing the speakers as explained, push them towards each other.
   Make sure that the four connecting adapters smoothly slide into the other speaker's housing.

4) **Risk of injury from falling objects!**
   Improperly mounted speakers are not safe for suspending. Objects falling down impose a deadly risk for people standing near-by!
   On both sides of each speaker box, make sure that you can see and feel the chamfers of the 4 connecting pins (8 pins in total) are flush with the walls from outside (a).
   Make sure that all levers of both speakers are locked in their captive positions (a, 2x).
4.2.3 Mounting the VIDA C

Risk of injury from falling objects!
Improperly mounted speakers are not safe for suspending. Objects falling down impose a deadly risk for people standing near-by!

To attach the VIDA C, use only the dedicated fasteners featuring captive screws inside the rails located at the VIDA L rear panel.

Make sure all bolts and screws are tightened to the specified torque.

If you want to use the VIDA L speakers in combination with VIDA C you need to attach one VIDA C to each VIDA L speaker. You need to emulate that setup using the VIDA App, too.

You can mount a VIDA C to a VIDA L speaker while it is still in the transportation case.

1) Loosen the mounting screws until the VIDA C can be mounted.
Note that these are captive mounting screws, i.e. they are tied to their respective holders. To avoid damaging the screws and threads, don’t apply excessive force when loosening the screws.
2) Place the VIDA C onto the VIDA L speaker. The Speakon port of the VIDA C needs to point towards the lower connector panel (three ports).

3) When the VIDA C is properly aligned to the speaker through all four screws, push it towards the lower connector panel until it stops.
4) Fasten all four screws finger-tight. Connect the VIDA C to the VIDA L’s AMP OUT port using a 4-pin SpeakOn patch cord.

5. Dismounting

When dismounting is completed, store all speakers and accessories in the transportation case. This way, they cannot get lost and are always at hand when needed. In addition, the parts are protected at least temporarily against the effects of unfavorable weather conditions, etc.

Basically, dismounting the speakers is performed in reverse order of the installation process.

- Unload the interconnect point.
- Rotate the lever on the upper speaker clockwise until it snaps.
- Pull the speakers apart.

If you intend putting the speakers into a transportation case, you don’t need to push the connecting adapters back into the housing and to unmount the VIDA C. The transportation case is designed for housing the speaker with the adapters extruded and the VIDA C mounted. This saves a few steps when dismounting and remounting the speakers.
6. Wiring

Risk of Electrical Shock

Speaker-signal currents are potentially hazardous to the human body.

When the system is in use, make sure that the connectors are secured against inadvertent touch.

Be sure to fully insert the stripped wires into the Euroblock, so stripped wire parts cannot be touched.

Power Supply

- Make sure that the power outlet has a ground connector and it is connected to the device through the PE conductor of the power cord!
- Always route power cords so that they are protected from damage caused by stepping on it, tensile stress, or getting caught.
- Make sure you can disconnect the device from the mains at any time!
- All equipment interconnected through signal cables must be connected to common ground. Failing to do so may result in an electric shock or permanent damage to the connected equipment.

I/O

- The device does not include a master fuse. Therefore, be sure to protect the supply line appropriately (230 V: 16 A fuse max.; 115 V: 20 A fuse max.).
- Also make sure the supply line has an appropriately dimensioned cable cross-section.
- Always use properly shielded cables with connectors attached as specified by the EMC directive.
- This device is not designed for home use.
- The device is designed for indoor use only.

When laying the connecting cables, make sure that nobody can trip.

Never use signal cables or power cords for suspending, aligning, or securing the systems.
6.1 AMP OUT pinout

This output is provided mainly for connecting a VIDA C; However, using the VIDA App, you can set up the AMP OUT of the VIDA L speaker for joint operation with PASSIO SUB 12 or PASSIO SUB 15. In addition, using the Flat setting, you can connect a passively equalized top. For this purpose, the AMP OUT setup allows for configuring high-pass and low-pass filters, etc.

Note that with the PASSIO SUB 12, PASSIO SUB 15, and Flat settings, the AMP OUT is available at the array master unit only! In an array, the master unit is always the topmost VIDA L speaker.

Pinout:
CH1 = 1+ / 1-
CH 2 = 2+ / 2-

Power:
400 W rms/800 W peak, min. 4 Ohm

Never bridge the 2 AMP OUT channels of the VIDA L.
6.2 Wiring Instructions

Note that the topmost speaker inside a VIDA L array is the ‘master’ speaker.

Connect all audio sources to that speaker. Signal lines to other speakers within the array are not supported!

Just as with the inputs, only the master-speaker outputs are active.

All other speakers are daisy-chained using the VIDA Link Bus. Connect the VIDA Link Bus Out on the lower connector panel of each speaker to the VIDA Link Bus In on the upper connector panel of the next speaker in the chain using an RJ45 patch cord.

- Before connecting your VIDA L speaker, switch off all devices and turn down all faders and encoders.
- To connect the mixing console to the speaker inputs, use shielded balanced 2-pole microphone cables equipped with quality connectors.
- Avoid creating ground loops.
- Be sure to follow the pinouts shown in this manual.
- Check for correct polarity (+/−) at the AMP OUT port of the VIDA L speaker.
- Upon completing wiring, ensure that the connected speaker channels are working in phase, for example, using a phase tester. When the connected channels are used simultaneously, you can identify out-of-phase statuses by bass cancellation or mid-frequency signals (e.g. voices) that cannot be located properly.
- When connecting multiple speakers, you can daisy-chain the signal from one speaker to the next.
- When connecting 3rd-party speakers to the AMP OUT port of the VIDA L speaker, make sure not to fall below the minimum overall impedance of 4 ohms.
6.3 Connecting the VIDA L speakers

6.3.1 VIDA L speakers with or without VIDA C
6.3.2 VIDA L speakers with K&F PASSIO SUB 12 or K&F PASSIO SUB 15

- VIDA L
- K&F-Subwoofer
- Ethernet Master
- 100 V - 240 V AC
- 50/60 Hz
- 16 A (230 V)
- 20 A (115 V)
- (SpeakOn)
- Analog
- AES
- Dante
- VIDA L
- K&F-Subwoofer
- (SpeakOn)
6.3.3 VIDA L speakers with the maximum number of K&F PASSIO SUB subwoofers

[Diagram showing VIDA L speakers and K&F PASSIO SUB subwoofers connected with a Split Adapter and Master control panel. Diagram includes labels for channels 1+1- = CH1 and 2+2- = CH2, as well as power specifications: 100 V - 240 V AC 50/60 Hz, 16 A (230 V), 20 A (115 V).]
### 6.3.4 VIDA L speakers with K&F subwoofers and power amp connected to AUX OUT

Each VIDA L features an LED indicator located behind the front grille. You can turn the LED on and off using the VIDA App in order to identify a specific VIDA L speaker.

#### 6.4 Status indicator

The indicator color shows the following statuses:

- **Power-up (blue):** The speaker is being powered up and will be ready for operation shortly.
- **Beam error (red-lit):** The speaker has been powered up successfully and is ready for operation; however, the sound-ray setup needs to be checked.
- **Identification (green):** The speaker is part of the selected speaker group.
7. Initial Operation

Harmful Environmental Conditions

Environmental conditions falling outside the specifications may damage the system!

The speaker system is designed for operation in environments with a maximum temperature of 35 °C (95 °F), a maximum altitude of 2,000 meters (6,000 ft), and a relative humidity of 10% – 90%.

1. When turning off the system, power down the VIDA L speakers first, then turn off the
2. Make sure that all devices have been turned off and all volume controls have been fully tur-
3. Turn on the devices in the following order:
   • Players
   • Console
   • (1x) VIDA L speaker
   • Auxiliary power amps
4. If noise occurs, turn off all devices and check all cable connections.
5. Output a low-volume signal to the system. Check to see if the desired signals are applied to
   the intended speakers and make sure there is no interference.

To power down the system, turn the devices off again in reverse order.

7.1 Reset dongle

Using the VIDA reset dongle allows for restoring the factory defaults of the speaker. Doing so will rest all customized parameters as well as the network settings. As of firmware 1.2.4, the Dante module is also reset to the factory settings in case of a dongle reset.

In particular, note that the network-address assignment of the speaker will be reset to DHCP.

Insert the reset dongle into the VIDA Link port.
The rear-panel indicators produce the following subsequent light chases:

- Green, from left to right
- Orange, from left to right
- Red, from left to right

If you remove the dongle at this time, the indicators will flash red twice. Meaning that the reset operation has been canceled.

If you don’t remove the dongle, the indicators will flash green twice. Restart the speaker now to complete the reset operation.

When the restart is complete, all editable user data and network settings have been reset. In particular, note that the network-address assignment of the speaker will be reset to DHCP.

To restart the speaker, disconnect it from the mains for at least 3 seconds.
7.2 Anschluss VIDA L an USV

In case of using a UPS System (uninterruptible power supply) with a VIDA L following numbers should be used for designing the system:

For full load, the internal buffers keep the controller of VIDA L at least for 50 ms operational.
To prevent the controller from rebooting the UPS therefore should react within 50 ms.

8. VIDA App Quick Overview

Download the VIDA app from the Microsoft Store and install it.
Download the VIDA-App User’s Manual from our website (www.kling-freitag.de) and print it.
http://www.kling-freitag.de/content/uploads/man_vida-app_en.pdf

In order to access and set up VIDA speakers using the app, you need to add the speakers to the network as well as to the mains. Refer to page 23 in these user’s manual for more.

For details on the VIDA-App, see the VIDA-App User’s Manual available at our website (www.kling-freitag.de).
8.1 Initial Function Checks

1) Wire your speakers as described in these user's manual. (see page 23)

2) Connect the speaker(s) to the mains.

3) Run the VIDA app on your computer.
   The left-hand side of the Setup screen lists all VIDA speakers (or arrays) found. By default, the Offline Device is always displayed. Using that device, you can configure settings without physically connecting a VIDA speaker. This means you can create and store “virtual setups” that you can later apply onto your physical speakers.

4) During the speaker (array) upgrade process, a small green progress bar is displayed next to each speaker array. The update process should be completed after a few seconds. If it continues to show, you need to check why the app cannot access the arrays.
   Check if the speaker-firmware version is compliant with the installed app version. (See the Speaker-Firmware Update section.)

5) When the progress bar is displayed completely and permanently, you can access the speaker settings from within the software for configuration.
   If a red dot appears, the arrays are not accessible. For troubleshooting purposes, first check whether both the VIDA app and the speaker firmware are up to date.
8.2 Key Settings on the Setup Screen

- Speaker-array name settings
- Audio-input and fallback-input settings
- Input-gain adjustment
- Visualization of the selected speaker array

8.3 Key Settings on the Beam Screen

- Sound-beam visualization for various frequencies
- Graphical definition of audience-area sizes and positions
- Measurement of the actual down-tilt of a selected online array, or calculation of the pick point required for achieving a specific down-tilt of an offline array
- Settings for down-tilt and coverage-angle software control including instant sonic-cone calculation
- Split-beam settings
- Sound-beam optimization

8.4 Key Settings on the Audio Tools Screen

- Master gain: Sets the gain of the selected VIDA array. Note that this does not affect the AMP OUT and AUX OUT. Using this in combination with the Amp Out gain control allows for creating an appropriate balance between head and woofer.
- One Knob control for quick compensation of excessive low or high ends
- Parametric EQ
- Full-range/low-cut selection
- VIDA C polar-pattern selection (if available)
- Selection of connected woofers and speaker outputs (PASSIO SUB units at the Amp Out, other amps and woofers at the Aux Out)

8.5 Key Settings on the Groups Screen

- Speaker and array grouping
- Common parametric “group” EQ
8.6 Key Information on the Status Screen

- General system status
- Gain/Gain Reduction
- GPI Priority/Mute
- Selected audio input
- Selected fallback input
- Split-Beam (On/Off)
- Optimize (On/Off)
- VIDA L Mode
- VIDA C Mode
- AMP OUT status (on/off)
- Speaker temperature

9. Control

9.1 GPI

The GPs are designed as floating optocoupler inputs.

Voltages of less than 1.5 V reliably put the optocoupler into the Off state. The reverse voltage is -6 V. Always make sure not to exceed the maximum negative voltage of 6 V.

Voltages of 5 – 30 V reliably put the optocoupler into the On state. Never apply a control voltage exceeding the allowable maximum of 30 V.

The current drawn at 10 V is 2.5 mA.

The 10 V output is a galvanically isolated (floating) DC/DC converter featuring a current limit at approx. 15 mA.

If no external voltage source is used, you can use the converter either for controlling the GPs or for indicating the GPO statuses, for example, using a low-current LED. Another application is a GPO-state indicator (for example, using a low-current LED).
9.2 GPI Software

You can set the response to a voltage change separately for each GPI. The settings available for changes from low to high are listed on the left-hand side of the configuration window; those for high-to-low changes are listed on the right-hand side.

- **Low** means “less than 1.5 V” for hardware GPIs and “0” for software GPIs.
- **High** means “more than 5 V” for hardware GPIs and “1” for software GPIs.

The GPIs allow for configuring 25 functions for each high-to-low and low-to-high changes.

1. **Mute toggle**: Toggles the master-mute button—disabled mute becomes enabled, and vice versa.
2 – 11: **Change Volume**: Changes the volume by the specified value (10 presets from –10 dB to +10 dB).
12: **Select Input Analog**: Select Analog Input
13: **Select Input Dante 1**: Select Dante Input 1
14: **Select Input Dante 2**: Selects Dante input 2.
15: **Select Input AES 3 L**: Selects AES input 1.
16: **Select Input AES 3 R**: Selects AES input 2.
17: **Select Input AES 3 L+R**: Selects AES inputs 1+2.
18: **Load Preset**: (not yet implemented)

There are also two ‘emergency’ GPIs:

1. **Mute**: You can set whether mute is enabled by the high or low state. Enabling will mute the system – you cannot unmute it using the app nor the mute toggles of other GPIs.
2. **Priority**: Here you can select the audio input that is switched to when the GPI is enabled. This state disables both input gain and input mute, i.e. the signal is routed to the amplifiers at 0-dB level regardless of the gain setting and the mute status.
9.3 GPI MUTE and GPI PRIO

Depending on the setting in the VIDA App, the VIDA L can react to low or high levels (see Chapter ‘GPI Software’).

**GPI MUTE**

For example: If the GPI MUTE is configurated to high level in the VIDA L, the loudspeaker will switch to complete mute when a signal with more than 5 V is applied to the GPI MUTE connector. On the other hand, if there is no high signal present on GPI MUTE, the loudspeaker will continue to play the main audio signal which is set in the software VIDA App at the ‘setup’ screen. This means, an alarm system is able to mute the complete loudspeaker with one signal on GPI MUTE.

**GPI PRIO**

E.g, with a signal applied to the PRIO-GPI the Loudspeaker switches directly to the input channel defined for PRIO-GPI. Also every mute and negative gain will be disabled, so that the priority signal is played instantaneous with 0 dB. With this connector an alarm system can switch the loudspeaker to the channel with an emergency signal, if an emergency case is present.

Depending on the configuration of the GPI input level, the scenarios described above can also change to the inverse cases. That means, the loudspeaker could be muted when no signal is present. The GPI PRIO is always activated by a high level.

- a: COM
- b: GPI MUTE
- c: GPI PRIO
9.4 GPI1, GPI2, GPI3

- a: GND
- b: +10 V
- c: COM
- d: GPI 1
- e: GPI 2
- f: GPI 3

The connectors COM and GND are galvanically isolated. If you want to use an external control, e.g. a fire alarm system, you have to connect it with the COM connector and at least one of the GPI pins and assign a function to the GPI within the software.

**Notice**

If a galvanic isolation is necessary or required, do not use the GND connector.

In this case you can not use the internal voltage supply.

**Internal wiring:**
9.5 GPO Control Outputs

The GPOs are floating MOSFETs supporting NO (normally open) and NC (normally closed). If the outputs have been enabled using the software, NO is low-resistance and NC is high-resistance to common. In case of errors, NO is high-resistance and NC is low-resistance.

9.5.1 GPO Hardware

Resistive Load:
500 mA, 60 V AC/DC
The GPOs allow for querying six statuses:

1. **Off**: The GPO is disabled. The MOSFET switch is off.
2. **System On**: The MOSFET is on when the VIDA has powered up successfully and is ready for operation.
3. **System Status (high if config is wrong)**: The MOSFET is off at config errors. This status is indicated by the red front-panel LED.
4. **System Overtemp**: The MOSFET is off when the temperature of an amp exceeds 70 °C or the power-supply temperature is 5 °C or less within the cutoff-temperature.
5. **System Hardware Fault**: MOSFET switch is off, when ‘Protect’ reports or is not connected.
6. **Input Fallback Error**: A fallback event has been detected.

### 9.6 Software GPIs (SGPI)

The SGPIs and SGPOs are configured in the same way as their hardware counterparts. You can access and query them using a browser or a similar HTTP-enabled piece of software. The VIDA web interface will always respond with JavaScript Object Notation (JSON) messages. The software GPI/Os are provided for integrating VIDA components with media-controller software.

For more informations about the SGPIO's read our “Technical Information, VIDA GPIO/SGPIO”.
10. Updating the Software

Like any other software, the VIDA App as well as the speaker firmware are regularly improved and enhanced with more features. To benefit from software updates, make sure to always have the latest software versions installed on the respective devices.

To update the app, connect your computer to the Internet.

To implement speaker-firmware updates, you need a network link between your computer and the speaker in addition to Internet access.

To perform the updates, first verify your network settings.

10.1 Updating the VIDA App

Just like with any other software from the Microsoft store, the VIDA App should update automatically.

If it doesn’t, automatic updates might be disabled on your system. In this case, search the Internet for information on how to enable automatic updates on your computer.

You may also update the VIDA App manually by browsing to the app page in the Microsoft Store and clicking Update there.
10.2 Updating the Speaker Firmware

To update the VIDA speaker firmware, you first need to download the corresponding file from our website.

From the K&F homepage, change to the Project page, or enter the following URL into the location bar of your browser: http://www.kling-freitag.de/prorental/vida/firmware/#detail

Click the firmware-download link and store the file to your computer.

To update the speaker firmware:

If you know the IP address of the VIDA L to be updated, skip to step 3.

1) In the VIDA app, launch the IP-configuration dialog.

Make a note of the speaker’s IP address displayed.

2)
3) Enter the IP address into the address bar of a web browser. When doing so, omit all leading zeroes. For example: If you want to access the address 192.168.000.015, enter “192.168.0.15” into the browser’s address bar. Please note: Any leading zeroes must be removed even if you have copied and pasted the address using the clipboard.

4) In the occurring speaker menu, click Software Update.

5) Either select the actual firmware installation file from the dialog or drag and drop it onto the appropriate page area using the mouse.
6) Click Upload Firmware.

7) Wait about 2 minutes for the operation to finish.

8) Click Update.
9) Wait about 5 minutes for the operation to finish.

10) When the update is complete, a Rebooting Now message will be displayed. Be sure to wait at least 10 seconds before completing the operation, for example, by disconnecting the VIDA from the mains.

10.3 Upgrading the Dante Firmware

In specific cases, you may need to update the Dante firmware on the VIDA speakers as well. To find out, compare the version number of the Dante firmware running on your speaker with the version number indicated on the product page of the Kling & Freitag website.

We recommend using an IP address that has been automatically assigned to your computer by a DHCP server.

Make sure that an enabled firewall does not prevent network access from your updater.

Verify that you can access and control the VIDA speaker using the VIDA App.

Run the Dante Updater as an administrator.

We recommend reviewing the Audinate website for details on the Dante system.
Launch the Dante Controller and switch to the Status tab.

Find the product version in the Device Information pane.

If the indicated version number is lower than the current version supplied by K&F, be sure to update the Dante firmware on your VIDA speakers.
10.3.2 Dante Firmware-Update Instructions

The Dante firmware update will be completed after a few minutes. Exit the Audinate Firmware Updater.

1) Visit the Kling & Freitag website and go to the Download section.

2) (a) Find the K&F VIDA L item.
   (b) Click the FW (firmware) item in the table.
3) On the opening page, you can download the K&F VIDA L firmware as well as the Dante firmware for the VIDA L.
   (a) Download the latest Dante firmware version VIDA L.
   Note that this is a compressed ZIP archive; be sure to uncompress it in order to use it. A Dante firmware file that can be applied has the “.dnt” extension—for example, “Vida-V1.0.3.dnt”.
   In addition, verify whether the current version of the Audinate Firmware Updater is installed on your system. If not, download and install it.
   If the current version of the Firmware Update Manager is installed on your system, skip steps 4 and 5 and continue at step 6.
   (b) To install the current updater version, click the Audinate Firmware Updater link.

4) (a) Wählen Sie für die Windows-Programmversion den Link ‘Dante Firmware Update Manager ... (Windows)’.
   (b) For the OS X updater, click the link: ‘Dante Firmware Update Manager ... (OS X)’.
5) Click the link displayed on the opening page to download the installer. To install the Audinate Firmware Updater, run the downloaded installer and follow the installation instructions.

6) Run the Audinate Firmware Updater. On the first page, the program lists the available network options. Select your connection type, then click Next to confirm your selection.
7) To perform a Dante firmware update, select the Update Dante Firmware item at the top.

8) (a) Click the Browse button, then browse to and select the previously downloaded and uncompressed Dante firmware file (with the "*.dnt" extension).
(b) Click Next.
(c) We recommend **NOT** to check the Override Device Matching option. Checking that option may render devices not supporting the selected Dante firmware unusable!
9)  (a) Select the VIDA speakers to update from the list.
    (b) Click the Start button to launch the update operation.

If your VIDA system is not listed, verify that you can access and operate it using the VIDA App. If this is not possible, you may need to correct the IP addresses of the devices involved or update the software packages.

To perform a software update, refer to the »Updating the Software« on page 41.

and restart your VIDA speakers.
11. Updating the Firmware

To update the speaker firmware:
If you know the IP address of the VIDA L to be updated, skip to step 3.

1) In the VIDA app, launch the IP-configuration dialog.

2) Make a note of the speaker’s IP address displayed.
3) Enter the IP address into the address bar of a web browser. When doing so, omit all leading zeroes.
For example: If you want to access the address 192.168.000.015, enter “192.168.0.15” into the browser’s address bar.
Please note: Any leading zeroes must be removed even if you have copied and pasted the address using the clipboard.

4) In the occurring speaker menu, click Software Update.

5) Either select the actual firmware installation file from the dialog or drag and drop it onto the appropriate page area using the mouse.
6) Click Upload Firmware.

7) Wait about 2 minutes for the operation to finish.

8) Click Update.
9) Wait about 5 minutes for the operation to finish.

10) When the update is complete, a Rebooting Now message will be displayed. Be sure to wait at least 10 seconds before completing the operation, for example, by disconnecting the VIDA from the mains.

When the update is complete, the speaker will reboot and will then be ready for operation.
12. Dimensions and Weight

12.1 VIDA L, Dimensions and Weight

Weight: 48.2 kg
12.2 VIDA L with VIDA C, Dimension and Weight

Weight: 61.8 kg
12.3 VIDA L Mass Center
13. System latency

The following table lists the systems latency that is to be expected of the VIDA L. These values are true for the firmware version 1.1.0 and without using beamsteering.

<table>
<thead>
<tr>
<th>Input</th>
<th>K&amp;F VIDA L</th>
<th>AUX OUT</th>
<th>AMP OUT Flat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog</td>
<td>6.016 ms</td>
<td>1.260 ms</td>
<td>1.349 ms</td>
</tr>
<tr>
<td>AES 44.1 kHz</td>
<td>8.299 ms</td>
<td>3.537 ms</td>
<td>3.628 ms</td>
</tr>
<tr>
<td>AES 48.1 kHz</td>
<td>8.062 ms</td>
<td>3.313 ms</td>
<td>3.396 ms</td>
</tr>
<tr>
<td>AES 88.2 kHz</td>
<td>7.302 ms</td>
<td>2.540 ms</td>
<td>2.619 ms</td>
</tr>
<tr>
<td>AES 96 kHz</td>
<td>7.208 ms</td>
<td>2.448 ms</td>
<td>2.521 ms</td>
</tr>
<tr>
<td>AES 176.4 kHz</td>
<td>6.830 ms</td>
<td>2.046 ms</td>
<td>2.143 ms</td>
</tr>
<tr>
<td>AES 192 kHz</td>
<td>6.760 ms</td>
<td>2.000 ms</td>
<td>2.094 ms</td>
</tr>
<tr>
<td>DANTE</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

When using system amplifiers such as the K&F PLM+ series with the AUX OUT, additional delay will be added due to the amps signal processing. For this reason, the AUX OUT has the least amount of delay possible, which leaves room to be adjusted via the VIDA APP.

The AMP OUT runs a special attuned mode for the VIDA C alongside the main VIDA L system. To gain more flexibility, the AMP OUT also runs on low latency when using the “Flat” Setup.

13.1 Dante

The latency for the DANTE playback results from the setup for the DANTE network and the

For example:

Setup DANTE controller = 0.5 ms latency, samplerate = 96 kHz

Total latency = 7.208 ms (AES 96 kHz) + 0.5 ms (DANTE) = 7.708 ms

By factory default, the two network ports of the VIDA L are configured for redundant operation. This way, you can route a signal through Dante and two separate cable runs in order to increase fail-safety.

If necessary, you can change the two ports to the ’Switched’ mode using the Dante Controller software. This way, you can route control data and the Dante signal from one speaker to the next. (This is referred to as daisy-chaining.) In this case, you cannot achieve a redundant configuration.

Switching the Operating Modes

1. Launch Dante Controller.

2. Double-click the VIDA you want to edit. Doing so will open the Device View.

3. Click the Network Config tab.

4. Make the appropriate settings in the Dante Redundancy section.
Hops:
There is one additional network switch installed inside K&F VIDA L which translates to one additional hop for the network. Take that into account for your Dante network planning.

For more information about setup and design of a Dante audio network and the necessary

* www.audinate.com/resources
14. Measuring Diagrams

14.1 VIDA L diagrams

Horizontal Directivity

Vertical coverage pattern
Vertical coverage, 0° Splayangle, 0° Tilt

Vertical coverage, 0° Splayangle, 5° Tilt

Vertical coverage, 0° Splayangle, 10° Tilt
**Vertical coverage**, 0° Splayangle, 20° Tilt

![Diagram](image1.png)

**Function optimize 'off'**

**Vertical coverage**, 0° Splayangle, 20° Tilt

![Diagram](image2.png)

**Function optimize 'on'**

**Vertical coverage**, 20° Splayangle, 20° Tilt

![Diagram](image3.png)
**Frequency response ‘on axis’**

![Frequency response graph](image)

**Frequency response with PASSIO SUB 12**

![Frequency response graph](image)

**Frequency response with PASSIO SUB 15**

![Frequency response graph](image)
### 15. Technical Specifications

#### 15.1 Technical Specifications VIDA L

<table>
<thead>
<tr>
<th>Speaker</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept</td>
<td>High-performance line-array speaker with beam steering, 3-way coaxial design, built-in DSP and amplifier electronic components</td>
</tr>
</tbody>
</table>
| Frequency range @-10 dB | 65 Hz – 22 kHz ‘FR mode’  
80 Hz – 22 kHz ‘LCut mode’ |
| Frequency range @±3 dB | 77 Hz – 21 kHz ‘FR mode’  
115 Hz – 21 kHz ‘LCut mode’ |
| Horizontal coverage angle (nominal) | 90° (in vertical operation) |
| Vertical coverage angle | Continuously adjustable up to 90°  
±45° steering angle |
| SPL (1 m, max.) | 135 dB |
| Components | 32 x 1” Kalottenhochtöner  
12 x 3,5” Mittelhochtontreiber  
6 x 6,5 Tieftonchassis |
| AMP OUT power | 2 x 400 W RMS/4 Ohm |
| Min. Impedanz AMP OUT | 4 Ohm/Channel |
| AUX OUT | Nominal +6 dBu |
| Analog input | Fullscale at +18 dBu |
| I/O | 1 analog input (XLR), 1 AES/EBU input (XLR), 1 VIDA BUS input (Ethernet), 1 PowerCon True 1, 1 Analog Link (XLR), 1 AES/EBU Link (XLR), 2 Dante Remote (primary/secondary), 1 AUX OUT (XLR), 1 AMP OUT (Speakon), 1 VIDA BUS output (Ethernet), GPIOs (Phoenix terminal block) |
| Mechanical tilt | Single-stranded and double-stranded suspension supported (with or without VIDA C) |
| Enclosure | Aluminum extrusion profile with built-in hidden flying mechanism, rear rail with slot nuts for mounting holders and VIDA C units (flying mechanism is locked / unlocked using a rear lever), highly robust black powder coating, downwards-tilted connector panel, impact-proof grille with black acoustic foam. |
| Dimensions (H x W x D) | 1.075 x 210 x 341 mm  
1.075 x 210 x 480 mm (VIDA L mit VIDA C) |
| Weight | 48.2 kg  
61.8 kg (VIDA L with VIDA C) |
| Color | RAL 9005 (black)  
special finish in RAL colours |
| Ambient temperature (max., during operation) | 35 °C |
| Relative humidity | 10% – 90% |
| Operating altitude (max.) | 2,000 m (6,000 ft) |
Contamination class 2
Power-surge category 2

**Power Supply**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide-range power supply</td>
<td>100 V – 240 V AC, 50/60 Hz</td>
</tr>
<tr>
<td>Rated input power</td>
<td>520 watts (at 1/8 rated output power)</td>
</tr>
<tr>
<td>Maximum power consumption</td>
<td>2350 watts</td>
</tr>
<tr>
<td>Idle power consumption</td>
<td>100 watts</td>
</tr>
</tbody>
</table>

Be sure to use a power-plug design suitable for mains connection at your location. This

### 15.2 Technical Specifications VIDA C

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSP/Amplifier powered by</td>
<td>VIDA L</td>
</tr>
<tr>
<td>Frequency range @±3 dB</td>
<td>65 Hz – 240 Hz</td>
</tr>
<tr>
<td>Frequency range @-10 dB</td>
<td>57 Hz – 350 Hz</td>
</tr>
<tr>
<td>Horizontal coverage angle</td>
<td>Cardioid, HyperCardioid, Omnidirectional (Bass-Boost)</td>
</tr>
<tr>
<td>System components</td>
<td>4 x 6.5” Woofer</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>210 x 749 x 150 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>13.6 kg</td>
</tr>
<tr>
<td>Color</td>
<td>RAL 9005 (black) special finish in RAL colours</td>
</tr>
</tbody>
</table>
16. EC Declaration of Conformity

Representative authorized for compiling the technical documentation:
Kling & Freitag GmbH
Junkersstraße 15
30179 Hanover
Germany

Produkt:
Kling & Freitag GmbH
Dept. R&D
049 (0)511 96997-50
Germany

Product:
Speaker System
K&F VIDA L

Named Company of the examination:
Test Report No. 028-713069561-000
TÜV SÜD Product Service GmbH
Certification Body
Ridlerstraße 65
80339 München
Germany

We declare that the designated product(s) are in conformity with the protection requirements imposed by the following EU directives:

• 2014/35/EU, Low Voltage Directive
• 2014/30/EU, Electromagnetic Compatibility
• 2011/65/EU, RoHS II

Conformance of the products with the requirements is approved by compliance with the following harmonized European standards:

• Eurocode 1/DIN EN 1991-1-1 : 12/2010
• Eurocode 3/DIN EN 1993-1-1 : 12/2010
• Eurocode 9/DIN EN 1999-1-1 : 12/2010
• EN 55103+1 : 2009+A1 : 2012
• EN 55103-2 : 2009

National regulations:
• DGUV, Regulation 17 (BGV C1)

Hannover, 09 November 2017

Jürgen Freitag
(Geschäftsführer)
17. Accessories

17.1 Accessories for VIDA L

**VIDA C**
Expansion module for cardioid applications or as subwoofer expander

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**Speaker Patch Cable NLT-425, 0.5 m**
50 cm patch cable for connections between VIDA L and VIDA C elements, high-grade halogen-free cable, 4 conductors with 2.5 mm² cross section each, water proof metal connectors Neutrik NLT4FX

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**RJ45-Patchkabel, approx. 30 cm**
for interconnecting two VIDA L units

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**Mains power cable (EU, Schuko), 3 m**
Neutrik powerCon True1™ lockable device connector, handles up to 16A, supports insertion / removal on load and voltage

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**VIDA L Mounting Bracket / Handhold**
for mounting to the VIDA L rear mounting rail. This ergonomic handhold allows for carrying the speaker or mount it to a truss using the supplied clips. Items included: 2 handholds, 2 pipe clips, custom screws
VIDA L Wall Bracket (for permanent installation)
For vertical mounting to suitable walls (without VIDA C only)

VIDA L Sub-Adapter
Mounting plate for secure placement of a VIDA L or VIDA L/C configuration onto a K&F subwoofer equipped with K&F M20 mounting plate, horizontally rotatable

VIDA L Reset-Dongle
restoring the factory settings (included)

VIDA L Speaker-stand Mounting Plate
For mounting VIDA L speakers to H.O.F.
K&F VIDA L Transportation Case
For safe and secure transport of a VIDA C unit including VIDA C and other accessories. Available on request.

VIDA L Flying Bracket
Flying bracket for up to four VIDA L or four VIDA L plus VIDA C
0° angulation (fixed)

VIDA L Flying Frame
Flying frame for up to eight VIDA L or eight VIDA L plus VIDA C
17.2 Accessories for VIDA L Flying Frame

**VIDA L Flying Frame Extension**
For enlarging the front capacity in combination with a VIDA L flying frame.

**VIDA L Connector Set (set of 4)**
For attaching a VIDA L flying frame under a VIDA L speaker for two-strand rigging

**K&F Rotation Clamp 450 with 50 mm half coupler (HC823) or 60 mm half coupler (HC828),**
Load max.
18. Care and Maintenance

The K&F VIDA L system can exhibit signs of wear over the years, for example, from mechanical strain, transport damage, corrosion, or improper handling. Remember that flying speakers always impose a high safety risk.

Be sure to always perform a visual inspection of the speaker and all accessories before and after installation. In stationary installations, check the speaker and accessories for signs of wear at regular intervals.

When performing those checks, particularly look for deformations, cracks, dents, damage to threads, and corrosion. Also check slings and lifts (e.g. shackles, chains, and steel ropes) carefully for wear and deformation.

If as a result of these checks any uncertainty should arise with regard to safety or defects are found, don’t use the speaker any longer. Contact your retailer.

Inspection regulations may vary depending on application and country of use. Observe all applicable regulations; if in doubt, contact local authorities.

Many countries require regular inspection of mounting components and accessories. An additional annual inspection is typically required to be performed by a technical expert. Moreover, a legally certified or official authority must perform a detailed inspection every four years.

Therefore, be sure to maintain an inspection log. Enter the values determined for each speaker and accessory during the periodic checks into this log. This way, relevant data are always at hand in case of inspection. This inspection log book shall be updated with the inspection steps, test intervals and parts lists.

We recommend using protective coverings or transport cases to help avoid damaging the paint in case of continuous mobile use, etc.

19. Transportation and Storage

All metal parts are protected against the effects of unfavorable temporary weather conditions, etc.; despite, be sure to store, transport, and use the accessories in dry environments only. Speaker accessories are not designed for prolonged use in corrosive environments.

Make sure that the system is adequately ventilated during longer storage periods so any residual moisture can escape from the equipment.

In addition, protect all system parts and K&F VIDA L accessories from mechanical strains in order to prevent damage.

We recommend storing VIDA L speakers inside a VIDA L transportation case (see the «Accessories« chapter on page 68VIDA L).
20. Disposal

Please recycle the packaging material of the device.

20.1 Germany

Don't dispose of waste electrical equipment through household waste.

Don't deliver it to official recycling points either.

All KLING & FREITAG products are plain business-to-business (B2B) products. Therefore, KLING & FREITAG GmbH is exclusively responsible for disposing of all KLING & FREITAG waste equipment marked with a crossed-out garbage-can icon. Please call the below phone number when you have a KLING & FREITAG product (marked with the crossed-out garbage-can icon) for disposal. We will offer you a straightforward and professional disposal at no cost.

KLING & FREITAG equipment with no such icon was distributed before 24 March 2006; in that case, the owner is legally responsible for disposal. We will, however, gladly assist you by naming appropriate ways of disposal.

For further disposal information of KLING & FREITAG waste products, call +49 511 -96 99 7 -0

Explanation: The Electrical and Electronic Equipment and Appliances Act (ElektroG) is the German implementation of the European (EU) Waste Electrical and Electronic Equipment Directive (WEEE, 2002/96/EC). Therefore, starting on 24 March 2006, KLING & FREITAG GmbH has marked all products subject to the WEEE that are distributed in Germany with an icon showing a crossed-out garbage can with a white bar below it. The icon indicates that the equipment was distributed on or after 24 March 2006 and must not be disposed of through household waste.

KLING & FREITAG GmbH is legally registered as a manufacturer with the German waste-equipment registration authority (EAR). Unsere WEEE-Reg.Nr. lautet: DE64110372.

We substantiated towards the EAR that our products are for B2B trade only.

20.2 EU, Norway, Iceland, and Liechtenstein

Don't dispose of waste electrical equipment through household waste.

Starting on 13 August 2005, KLING & FREITAG GMBH has marked all products subject to the WEEE directive that are distributed in any member state of the European Union (except Germany), Norway, Iceland, or Liechtenstein with an icon showing a crossed-out garbage can with a white bar below it.

This sign indicates that the disposal on domestic waste is prohibited and that the product has been put into circulation on 08/13/2005 at the earliest.

Unfortunately, the European WEEE directive was implemented in different national legislation in the EU member states, making it impossible to offer a consistent disposal solution throughout Europe.

The local distributor (sales partner) in the respective country is responsible for complying with the applicable legislation.

Contact your retailer or the local authorities for information on the regulations applicable in any EU member state (except Germany).

20.3 All Other Countries

Contact your retailer or the local authorities for information on the regulations applicable in any country not listed above.
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