Manuals+ — User Manuals Simplified.

KLARK TEKNIK VNET2-DANTE BRIDGE VNET2 Connection Bridge for Dante Sources User Guide

Contents

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Important Safety Instructions

- Terminals marked with this symbol carry an electrical current of sufficient magnitude to constitute a risk of electric shock. Use only high-quality professional speaker cables with ¼" TS or twist-locking plugs pre-installed. All other installations or modifications should be performed only by qualified personnel.
- This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure – voltage that may be sufficient to constitute a risk of shock.
- This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.
  Caution
- To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user-serviceable parts inside. Refer servicing to qualified personnel.

Caution

To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus. These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the

point where they exit from the apparatus.

11. Use only attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this app aratus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.

16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

17. Correct disposal of this product: This symbol indicates that this product must not be disposed of with household waste, according to the WEEE Directive (2012/19/EU) and your national law. This product should be taken to a collection center licensed for the recycling of waste electrical and electronic equipment (EEE). The mishandling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the efficient use of natural resources. For more information about where you can take your waste equipment for recycling, please contact your local city office, or your household waste collection service.

18. Do not install in a confined space, such as a book case or similar unit.

19. Do not place naked flame sources, such as lighted candles, on the apparatus.

20. Please keep the environmental aspects of battery disposal in mind. Batteries must be disposed-of at a battery collection point.

21. This apparatus may be used in tropical and moderate climates up to 45°C.

LEGAL DISCLAIMER

LIMITED WARRANTY

For the applicable warranty terms and conditions and additional information regarding Music Tribe's Limited Warranty, please see complete details online at **musictribe.com/warranty**. Instrucciones de.

Thank you

Thank you for choosing the Dante Bridge for your professional audio application. Please study the contents of this guide to obtain the best possible performance from this unit.

Unpacking

After unpacking the unit, please check carefully for damage. If damage is found, please notify the shipping carrier

concerned at once. As the consignee, you must initiate any claims. Please retain all packaging in case re-shipment is necessary.

Introduction / Key features

Dante is a low-latency multi-channel digital audio networking technology developed, patented and licensed by Audinate (audinate.com). The Dante Bridge enables connection of a computer or IT system to a range of products that do not natively support Dante. The three primary uses for the Dante Bridge are:

- Dante audio to AES3 conversion with VNETTM control (for use with VNET2 equipped products eg. TANNOY QFlex)
- Conversion of Dante audio to analog audio (for connection to any product with analogue inputs)
- Conversion of Dante audio to analogue audio with VNET control (for use with 1st generation VNET equipped products)

When the Dante Bridge is connected to a network of VNET-equipped devices, all devices can be controlled and monitored via a direct Ethernet connection from your PC. Housed in a rugged steel case, the Dante Bridge can be used free-standing or rack-mounted (along with up to two additional accessory products) in a 1U rack space.

- Rugged steel enclosure
- Free-standing or rack-mount options
- Self-powered using Power Over Ethernet (PoE)
- Capable of driving 1 km of VNET network cable
- No special cables needed

Computer System Requirements

Minimum requirements:

- PC with >1 GHz processor
- > 512 kb RAM
- 32-bit Windows™ operating system (NT, 2000, XP, Vista, Windows 7)
- CD-ROM drive or Internet access
- Ethernet connection

Installation

Because the Dante Bridge uses Ethernet, no drivers need to be installed. However, you will need to install Audinate's Dante Controller PC software to control the audio routing and the PodWare application to control and monitor VNET devices.
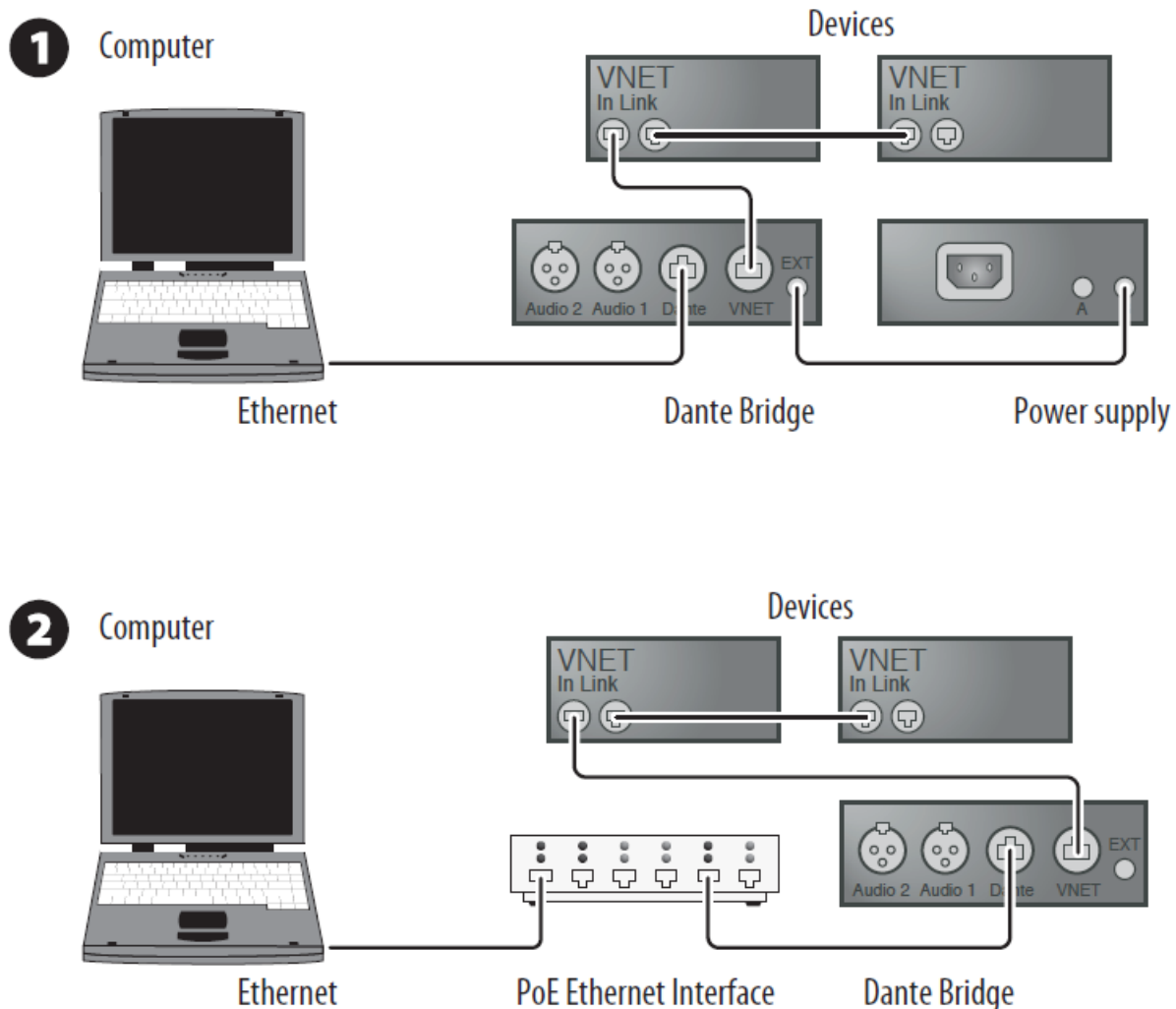
External Power Supply

This product may be powered by a Power Over Ethernet (PoE) Ethernet switch. However, if such a switch is not available, a provision is made to power the unit from an external accessory power supply via a cable with a 3.5 mm jack. One or two compatible accessories may be powered from a single power supply; either the A or the B output may be used as they are identical.

Connecting a Computer

You can connect your computer to the Dante Bridge in one of two ways:

- By direct connection from the Ethernet port of your computer to the Dante Bridge
- By connecting your computer to an Ethernet switch, and connecting the same switch (or another switch on the same network) to the Dante Bridge

Manual IP address is not required with the Dante Bridge. It is set by default to DHCP, so your DHCP server will automatically allocate the IP address. If there is no DHCP server, it will use "zero-config". In either case, addressing is fully automatic. For more information on this topic, please refer to information pertaining to automatic configuration on the Audinate website.
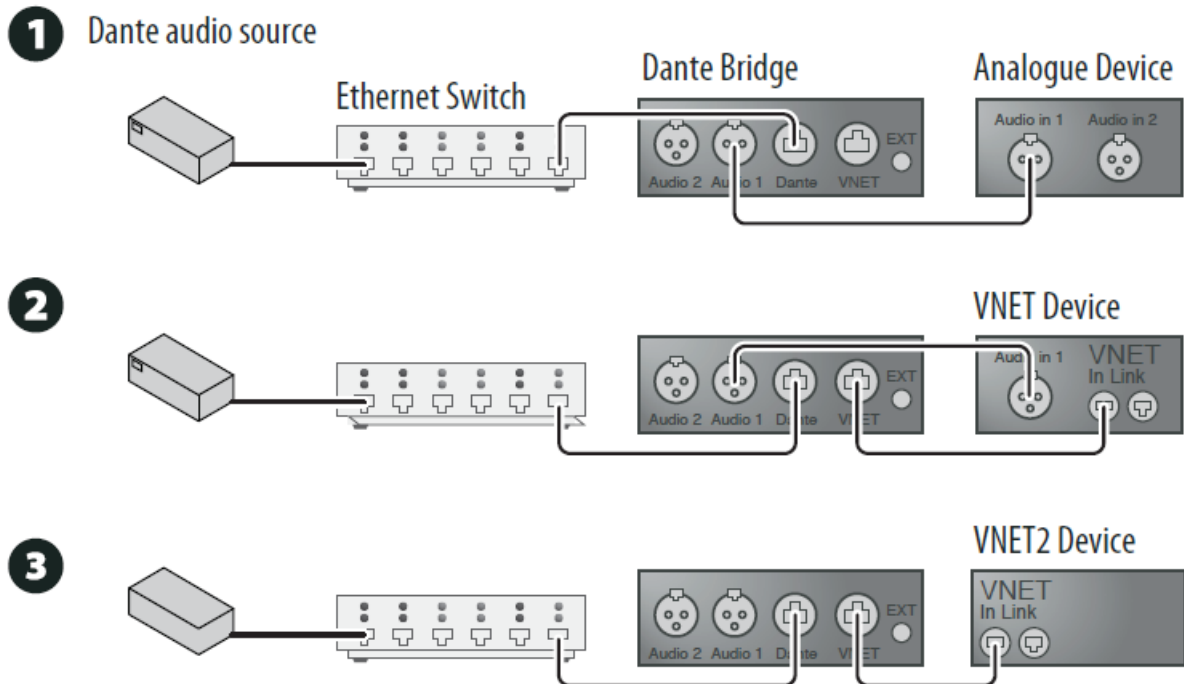
BioWare Setup

The PodWare application uses a direct connection via Ethernet to communicate with the connected devices via the Dante Bridge. Using PodWare V5.68 or later, select and add the Dante Bridge network under the Networks -> Add Networks dialogue. You can connect multiple Dante bridges to PodWare via Ethernet. The Bridges will be transparent to PodWare and the devices will appear under the Dante Bridge network in the device tree.

Connecting Devices

- For analogue audio applications, simply connect one or both audio output XLRs to the analog input(s) of the

device.

- For VNET devices, connect the VNET Link socket on the Dante Bridge to the VNET In socket of the first device you wish to control; then connect the VNET Link socket of this device to the VNET In socket of the next device, continuing as required. The order in which the devices are connected is not important. The Link socket of the last device in the 'chain' need not be connected.

- For VNET2 devices (which have long-distance AES3 integrated with VNET networking) there is no need to make connections to the audio outs since audio will be delivered to the device in digital format. (It will be necessary to select digital inputs on the device).

Please refer to Application Note DQ2707 "Large system statistics for VNET" if this product is to be used in a system with more than 16 VNET nodes or more than 100 m of VNET cable.

Audio Routing

The Dante Bridge can use one or two audio channels from the Dante stream. Normally the unit would be configured to route channels to Input 1 and Input 2. You may see an option to route to channels 3 and 4; however, these are not used in the product. Audio routing is accomplished using the Dante Controller application. You may find it helpful to name all Dante devices to clarify routing.
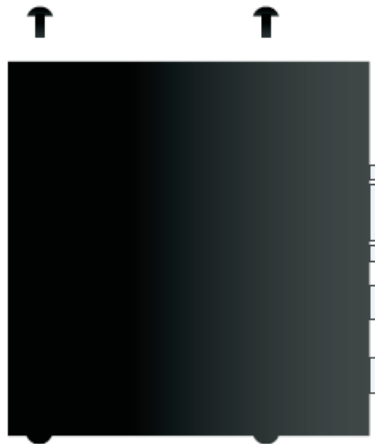
Rack Mounting

The Dante Bridge and accessory power supply may be used free-standing. If you wish to mount them in a 19-inch rack, then the Accessory Mounting Kit may be used. Please note that this product generates some heat, which is normal. However, to prevent overheating, allow for a free flow of air around the unit. Do not stack units on top of one another. To mount an Accessory in the Mounting Kit panel:
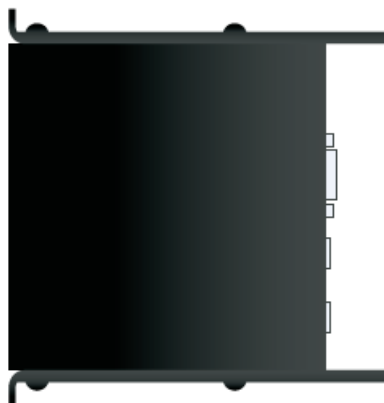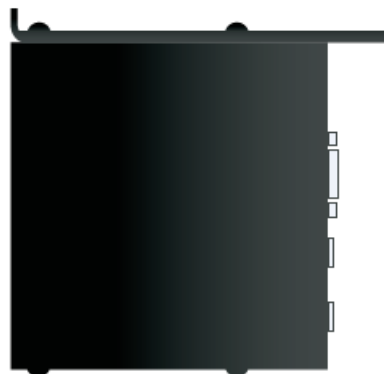
1. Remove the two mounting brackets and Lexan blanking sheet which are covering the aperture you wish to mount the Accessory in, by removing the two nuts. (Keep these and the screws and washers).
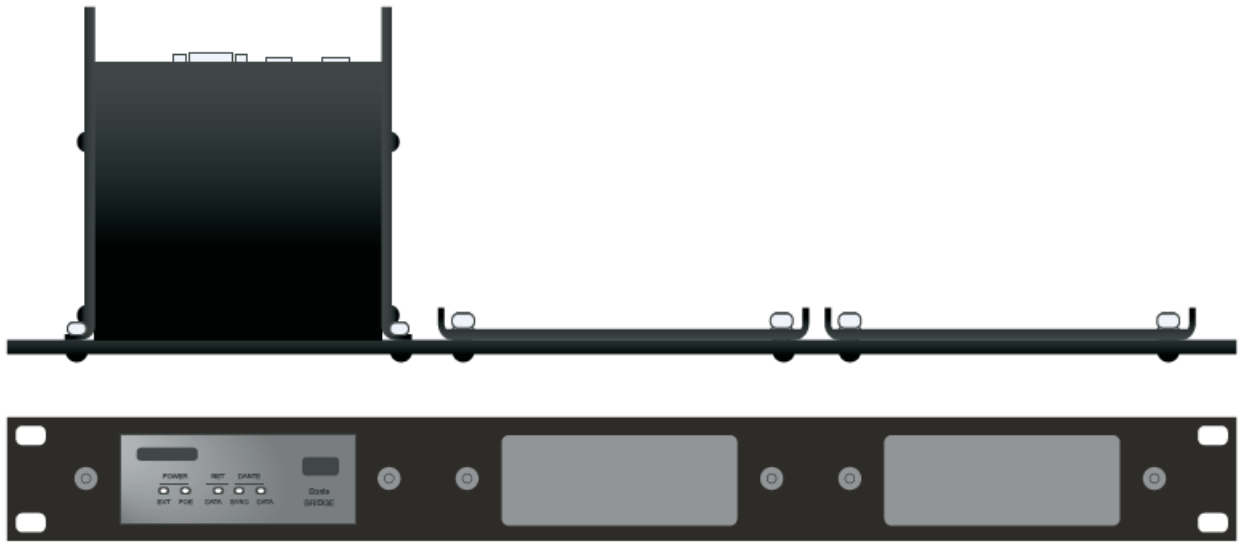
2. Remove the two screws from one side of the accessory.

3. Using the two screws removed in 2, attach one mounting bracket loosely to the side of the Accessory, with the "ear" towards the front, pointing outwards

4. Repeat 2 and 3 for the other side. Now push the lid towards the back of the unit as far as it will go then align the bracket ears with the front edge of the lid. Now tighten the screws.

5. Offer the Accessory with its mounting brackets up to the reverse side of the Mounting Panel, and fix it in place using the two sets of screws, washers and nuts removed in 1.
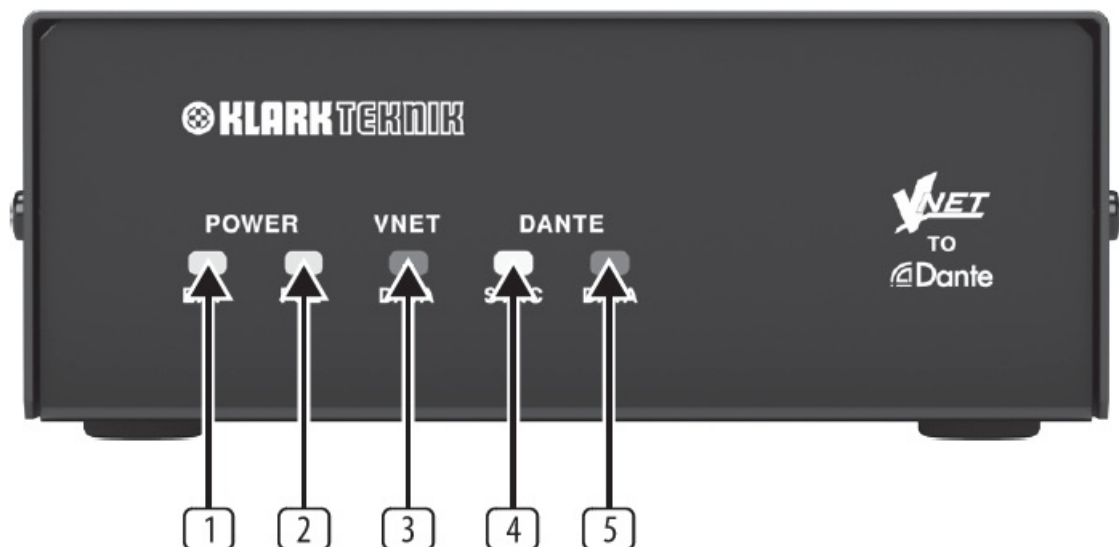
Note that the holes at the rear ends of the brackets may be used as cable tie-off points if desired.
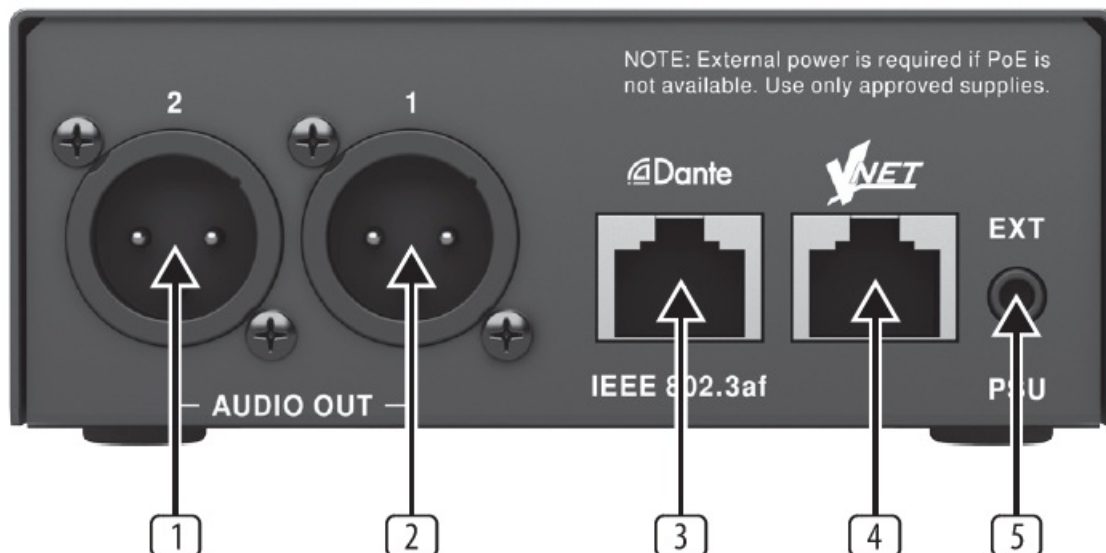
Operation

Once the Dante Bridge has been connected to the computer/switch and to the audio devices (and to the power supply if applicable), then there are no further adjustments required on the unit itself. The indicators on the front of the unit operate as follows:

Front Panel

- The EXT Power indicator (1) illuminates when DC power is applied to the EXT Power socket on the rear of the unit.
- The PoE Power indicator (2) illuminates when DC power is provided by a Power Over Ethernet (PoE) Switch.
- The Net DATA indicator (3) illuminates when data is being received from the VNET network.
- The Dante SYNC (4) indicator illuminates when the unit is supplied with a Dante Clock signal. Note that it will not illuminate if the Device is acting as a clock master.
- The Dante DATA (5) indicator will illuminate when the unit is receiving control data over Ethernet.

Rear Panel

- The Audio Out 2 male XLR connector (1) carries the analog audio signal for the second channel.
- The Audio Out 1 Male XLR connector (2) carries the analog audio signal for the first channel.
- The Dante RJ45 connector (3) is the Ethernet port, which should be connected from your computer or Ethernet Switch.
- The VNET RJ45 socket (4) is the serial VNET network connection that should be connected to the first VNET device in your VNET network. It carries control data and AES3 digital audio when VNET2 is enabled. If you are using the Bridge for audio-only (not control), then this socket is unused.
- The Ext 3.5 mm Jack socket (5) is used for applying external power to the Bridge. Use only an approved DC power source. If you are using a PoE Switch, then no connection is made to this connector.

Trouble Shooting

The EXT Power indicator does not illuminate
If you do not have a connection to a PoE Ethernet Switch, you need to use the Accessory Power Supply. Make sure this is connected properly. Check if the power indicator on the Power Supply illuminates. If you are using a PoE Ethernet Switch, an external power supply is not needed and this indicator will not illuminate.

No Audio on the connected Device
Check that the Dante Audio signal is routed to the correct channel. If using VNET2, check that the Digital Input is selected. Also check the audio cables.

Dante Controller does not find Bridge
Check that the Dante Data indicator flashes to indicate that there is an Ethernet connection. Make sure the Ethernet network cable is not too long, is correctly connected, and is not damaged. Turn off the wireless port on your computer. Check that the Ethernet switch has QoS features. Also see: â€œSetting Up Dante FAQ and â€œTroubleshooting FAQ on audinate.com

PodWare finds no devices
Check that you have added the Dante Network node in PodWare. Also check that the appropriate indicators are illuminated. (See above). Make sure the VNET network cabling is not too long, is correctly connected, and is not damaged. Cable must conform to Application Note DQ2707. Check that the VNET Data indicator flashes when PodWare attempts to go online. If not, there may be a problem with the VNET cabling. Check to determine if any firewall is blocking PodWare from accessing the network.

Specifications

Ethernet	
Compliance	100 base T or 1000 base T

VNET	
Cable type	Category 5 UTP (or better)
Max. total cable length	1 km
Max. Network span	1 km
Connector	Standard RJ45

Ext Power	
	Only to be provided by a Power Supply via a 3.5 mm Jack-to-Jack lead

Power	
Consumption	3 W max.

Analog Audio	
Connector	3-Pin locking male XLR
Frequency Response	20 Hz to 20 kHz +-0.2 dB
THD	<0.005% typ. At 1 kHz
Dynamic range	114 dB (A weighted)
Max. output level	+10 dBu into 600 ohms

Environmental	
Temperature	0 to +45°C
Humidity	0 to 80% RH (non-condensing)

Physical	
Dimensions (H x W x D)	45 x 117 x 117 mm (1.8 x 4.6 x 4.6")
Weight	0.6 kg (1.3 lbs)

Important information

1. **Register online.** Please register your new Music Tribe equipment right after you purchase it by visiting musictribe.com. Registering your purchase using our simple online form helps us to process your repair claims more quickly and efficiently. Also, read the terms and conditions of our warranty, if applicable.

2. **Malfunction**. Should your Music Tribe Authorized Reseller not be located in your vicinity, you may contact the Music Tribe Authorized Fulfiller for your country listed under "Support" at musictribe.com. Should your country not be listed, please check if your problem can be dealt with by our "Online Support" which may also be found under "Support" at musictribe.com. Alternatively, please submit an online warranty claim at musictribe.com BEFORE returning the product.

3. **Power Connections.** Before plugging the unit into a power socket, please make sure you are using the correct mains voltage for your particular model. Faulty fuses must be replaced with fuses of the same type and rating without exception.

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Important information:

Changes or modifications to the equipment not expressly approved by Music Tribe can void the user's authority to use the equipment.
Hereby, Music Tribe declares that this product is in compliance with Directive 2014/30/EU, Directive 2011/65/EU and Amendment 2015/863/EU, Directive 2012/19/EU, Regulation 519/2012 REACH SVHC and Directive 1907/2006/EC. Full text of EU DoC is available at **https://community.musictribe.com**/ EU Representative: Music Tribe Brands DK A/S Address: Ib Spang Olsens Gade 17, DK – 8200 Aarhus N, Denmark

Documents / Resources

Quick Start Guide [image]	**KLARK TEKNIK VNET2-DANTE BRIDGE VNET2 Connection Bridge for Dante Sources** [pdf] User Guide VNET2-DANTE BRIDGE, VNET2 Connection Bridge for Dante Sources

References

- *Audinate - Maker of Dante, Pro AV's Leading Networking Technology*
- *Music Tribe*