Glensound
Keeps Working

BEATRICE
B1 & B2

Ultra-compact Dante network intercom

PRODUCT DETAILS

Dante™

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Visit our Website at www.glensound.com

Glensound Electronics Ltd

Thank you for choosing a new Glensound product.

All rights reserved.

Information contained in this manual is subject to change without notice, if in doubt please contact us for the latest product information.

If you need any help with the product then we can be contacted at:

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Technical enquires: techinfo@glensound.com

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IMPORTANT SAFETY INSTRUCTIONS

Read this safety sheet prior to installation or initial use. This generic safety sheet covers multiple product configurations across our range. The full operating & installation manual and model-specific technical specifications are available online at: www.glensound.com

 DANGEROUS VOLTAGE: This symbol is intended to warn that dangerous voltages within the product are present and constitute a risk of electric shock.	 IMPORTANT INSTRUCTIONS: This symbol is intended to highlight that there are important operating, installation, and maintenance instructions in the literature accompanying this unit.
 **THIS UNIT MUST BE EARTHED (Class I Mains Models):** English: This symbol highlights that the equipment must have a valid earth connection with the protective earthing conductor. Danish: *Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.* Finnish: *Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.* Norwegian: *Apparatet må tilkoples jordet stikkontakt.* Swedish: *Apparaten skall anslutas till jordat uttag.*	 **CAUTION – SHOCK HAZARD: DISCONNECT ALL POWER SOURCES:** This symbol warns that the product can be energised simultaneously from more than one power source (e.g., dual AC mains supplies, external DC power, and/or PoE). Care must be taken if accessing internal components. Ensure that ALL connected power supplies are fully disconnected.

1. Read & Keep Instructions: Read these instructions, keep these instructions, heed all warnings, and follow all instructions.

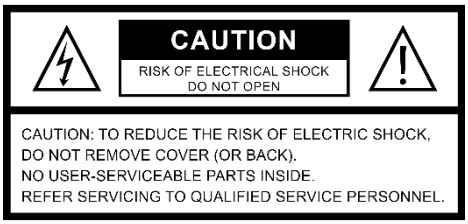
2. Indoor Use & Moisture: Unless otherwise specified in the model-specific manual, this product is intended for indoor use only. Do not use this apparatus near water, and do not expose this product to rain or moisture.

3. Ambient Temperature: The intended ambient operating temperature of this product is 0°C to 40°C (or 0°C to 50°C where specified in the model-specific technical specifications in the online user manual).

4. Cleaning & Heat Sources: Clean only with a dry cloth. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

5. Cable & Cord Protection: Protect all power cords and network cables from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

6. Attachments & Lightning: Only use attachments/accessories specified or supplied by the manufacturer. Unplug this apparatus during lightning storms or when unused for long periods of time.



WARNING:

To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

7. Servicing & No User-Serviceable Parts: The product contains no user-serviceable parts and must not be disassembled or modified in any way. Doing so could result in personal injury and/or product failure. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when a 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.

8. Professional Environment: This equipment is not suitable for use in locations where children are likely to be present.

POWER SUPPLY & DISCONNECT INSTRUCTIONS (APPLICABLE BY MODEL CONFIGURATION)

9. Simultaneous / Redundant Power Sources (Mains, DC & PoE): Depending on the model, this product may be powered by a single source or simultaneously by multiple redundant power sources (dual AC mains inlets, an AC mains inlet, an external DC power input, and/or Power over Ethernet [PoE]). Disconnecting a single power lead will NOT isolate the unit if another power source remains connected. To completely de-energize the equipment, unplug ALL connected AC mains cords, DC barrel jack/external DC connectors, and PoE RJ45/etherCON network cables.

10. AC Mains Disconnect Devices (Single or Dual IEC Inlets): Where AC mains inlets are fitted, the mains plug(s) and rear-panel IEC appliance coupler(s) serve as the disconnect device(s). On dual-mains models, both mains' cords must be unplugged to isolate the unit from AC mains power. The socket-outlet(s) used for mains power must be installed near the equipment and be easily accessible.

11. Plug Grounding & Polarization (AC Mains Models): Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has 2 blades with one wider than the other. A grounding-type plug has 2 blades and a third grounding prong provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

12. Approved Detachable Earthed Mains Cords (Class I AC Mains Models): Use only approved detachable 3-core earthed mains cords (minimum H05VV-F 3G0.75 mm² with IEC 60320-1 C13 connector) rated for the country of installation: • United Kingdom: Use a BS 1363-1 approved molded plug fitted with a 5 A ASTA-approved BS 1362 fuse. • European Union: Use a CEE 7/7 (Schuko/French) earthed plug. • Denmark: When connecting to wall socket-outlets in Denmark, use an approved 3-pin earthed plug complying with DS 60884-2-D1 (Standard Sheet DK 2-1a) to ensure protective earthing is maintained. • USA/Canada: Use a UL-listed / CSA-certified 3-conductor grounding power cord [minimum 18 AWG, SVT/SJT] with a NEMA 5-15P plug. • All other regions: Use a nationally safety-approved 3-core earthed mains cord rated for the country of installation.

13. Internal Primary Fusing & Neutral Fusing Warning (AC Mains Models – Service Personnel Only): Internal primary fuse(s) are located between the Live terminal of the IEC inlet and the Live input of the power supply and should only be changed by a qualified service engineer using a correctly rated replacement as specified in the product handbook. WARNING – Neutral Fusing: Because the AC mains plug may be reversible in some electrical distribution systems, the internal primary fuse may be located in the neutral conductor. Always disconnect all AC mains power cords completely from the IEC inlet(s) to de-energize all phase conductors before opening the enclosure or servicing the unit.

14. Power over Ethernet (PoE) Models: Unplugging the RJ45 / etherCON network cable disconnects PoE power from the unit. The Ethernet cable intended to be connected to the unit is for indoor building routing only and must not exit the building structure without appropriate primary surge protection.

15. External DC / USB Power Input Models: Connect only the manufacturer-supplied AC/DC power adaptor (where provided), or a safety-approved external DC or USB power supply complying with BS EN IEC 62368-1 (classified as ES1 and PS2/Limited Power Source [LPS]) that matches the voltage, minimum current rating, and pin polarity marked adjacent to the DC/USB input connector or specified in the product manual. The external power adaptor plug and the DC/USB input connector serve as the DC disconnect devices and must remain readily accessible; unplugging the DC/USB connector disconnects external DC power only and will not isolate the unit if AC mains or PoE remains connected.

INSTALLATION, THERMAL, MECHANICAL & OPTICAL SAFETY (APPLICABLE BY MODEL CONFIGURATION)

16. Ventilation & Sealed Heatsink Enclosures: Do not block any ventilation openings; install in accordance with the manufacturer's instructions. On models where the aluminum enclosure acts as the units heatsink, do not cover the unit or speaker grille with soft furnishings, cloths, or curtains, and allow free airflow around the housing.



17. 19-Inch Equipment Rack Installation (Rack-Mount Models): Rack-mounted models are designed for stationary installation in a standard 19-inch equipment rack. Secure the unit to the front rack rails using all four mounting holes on the integral rack ears with appropriate rack screws (e.g., M6 screws and cage nuts). Ensure that ventilation openings on the chassis are not obstructed by rack walls or cabling.

18. Carts, Stands, Brackets & Tip-Over Hazard: 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.

19. Optical SFP Transceiver Modules (Where fitted): Any optical SFP transceiver modules installed in this product must be certified Class 1 Laser Products in accordance with IEC/EN 60825-1. Do not look directly into open optical ports or fibre-optic cable ends while the equipment is energized.



Disposal (WEEE): the crossed-out wheeled bin symbol means this product must not be disposed of with household waste. Take it to an approved electrical and electronic equipment recycling point, or contact Glensound for advice.
Declaration of conformity: Glensound declares that this product complies with the applicable UK and EU legislation. The full declaration of conformity is available at www.glensound.com.
Manufacturer: Glensound Electronics Ltd, The Design Buildings, 6 Brooks Place, Maidstone, Kent, ME14 1HE, UK · Tel: +44 (0)1622 753662 · Email: sales@glensound.com · www.glensound.com

PRODUCT WARRANTY

All equipment is fully tested before dispatch and carefully designed to provide you with trouble free use for many years.

We have a policy of supporting products for as long as possible and guarantee to be able to support your product for a minimum of 10 years.

For a period of one year after the goods have been despatched the Company will guarantee the goods against any defect developing after proper use providing such defects arise solely from faulty materials or workmanship and that the Customer shall return the goods to the Company's works or their local dealer.

All non-wear parts are guaranteed for 2 years after despatch and any defect developing after proper use from faulty materials or workmanship will be repaired under this warranty providing the Customer returns the goods to the Company's works or their local dealer.



SAFETY WARNING



This product can produce high sound levels via the headphone output.

Please take caution when operating this product as listening to excessively high peak or sustained levels of volume may permanently damage human hearing.

CE

EU DECLARATION OF CONFORMITY

GS-BEATRICE B1 & B2

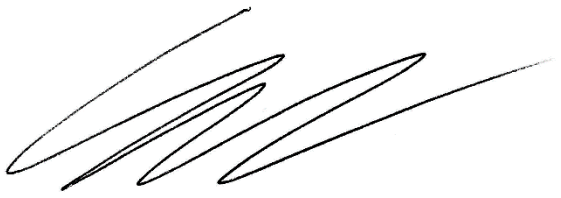
Ultra-compact Dante intercom

This declaration of conformity is issued under the sole responsibility of the manufacturer.

This equipment is manufactured by Glensound Electronics Ltd of Brooks Place Maidstone Kent ME14 1HE is CE marked and conforms to the following Union harmonisation legislation:

Emissions:	BS EN55032:2015
Immunity:	BS EN55035:2017
Safety:	EN62368-1 :2018

Signed for and on behalf of Glensound Electronics Ltd.



Gavin Davis, Managing Director
Maidstone, Kent, England

Date: 12/10/2018

RoHS DIRECTIVE

RoHS 2 Directive 2011/65/EU restricts the use of the hazardous substances listed below in electrical and electronic equipment.

This product conforms to the above directive and for these purposes, the maximum concentration values of the restricted substances by weight in homogenous materials are:

Lead	0.1%
Mercury	0.1%
Hexavalent Chromium	0.1%
Polybrominated Biphenyls	0.1%
Polybrominated Diphenyl Ethers	0.1%
Cadmium	0.01%

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT REGULATIONS 2006 (WEEE)

Glensound Electronics Ltd is registered for business to business sales of WEEE in the UK our registration number is:

WEE/JJ0074UR

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OVERVIEW

The BEATRICE range of IP intercoms was designed for broadcast, theatre and professional audio applications.

Our Beatrice intercom system utilises the reliable and proven Dante™ network audio transmission protocol to allow real time distribution of uncompressed audio across standard networks. As such the BEATRICE B1 & B2 units are also fully compatible with other manufacturers' equipment using the Dante™ protocol. The Beatrice B1 & B2 are also both AES67 compliant.

All units in the system are designed to be very easy to use for the operator and simple to setup for the technician. They includes all the basic functionality required for small intercom systems and none of the overly complex installation requirements normally associated with large systems.

The name Beatrice was chosen for our intercom range as she was the love of Dante Alighieri:

'Dante had fallen in love with another, Beatrice Portinari (known as Bice), whom he first met when he was only nine.' Source Wikipedia.

B1 & B2 FRONT PANEL LAYOUT



1. **Talk switch**

   The front panel speak switches allow the operator to talk to the outgoing talk circuits and hear sidetone. These lever switches can latch on permanently or be momentarily activated depending on which orientation they are held, therefore giving the operator immediate tactile feedback regarding the state of their mic activation.

   The speak lever keys also double as call switches, whereby a fast double click of the speak lever will send a call signal to the network.

   The keys are also used during config mode to toggle different features.

2. **Incoming level adjust**

   This pot adjusts the volume of the incoming Dante audio for the headphones mix. This pot also controls other parameters when the device is in config mode.

3. **Mic activity LED**

   This Red/Green LED indicates the level of the mic connected to the headset and other parameters in config mode. It will only illuminate during config mode.

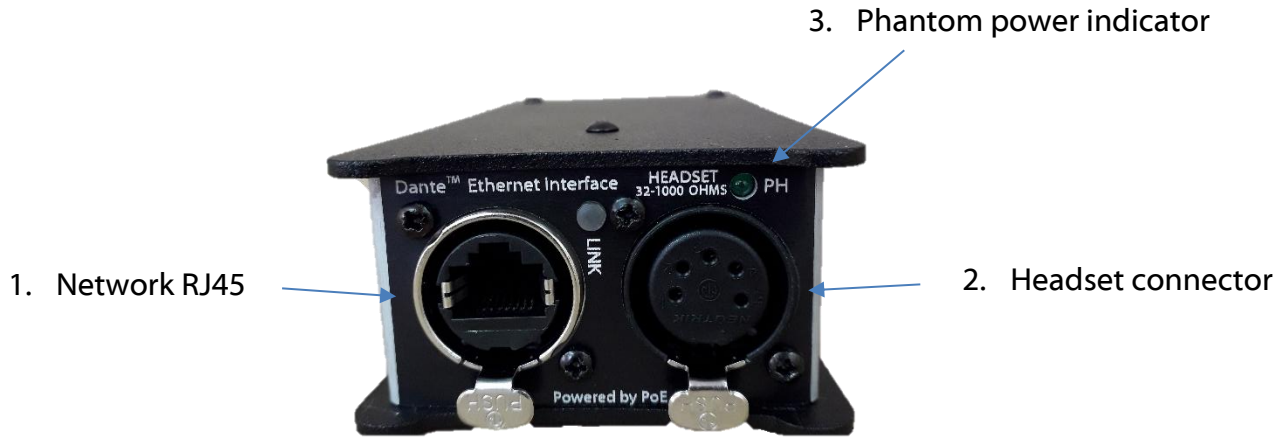
4. **Call LED**

   The Call LED(s) indicates the presence of an incoming audio from the Dante network by illuminating solidly when the audio goes above a threshold of -30dBFS. The Call LED(s) will flash for a few seconds upon receiving a call. The Call LED(s) will also flash during config mode to indicate the state of the config mode.

5. **Power LED**

   This LED indicated the power status of the device. This LED also doubles to indicate the status of the config mode.

B1 & B2 REAR PANEL LAYOUT



1. Network RJ45

The Neutrik Ethercon network socket can connect to both Neutrik Ethercon and standard RJ45 cables. It is a 100M/bit standard IP network connection. The status LED flashes to show when data is being correctly communicated with the attached switch.

This is also how the device is powered using a Power Over Ethernet (PoE) source. The PoE source can be a mid-span source or a network switch with PoE.

2. Headset connector

Headphone output

This 5 or 4 pin XLR socket accepts headphones from 30 to 1000 Ohms.

It has a unique headphone amplifier that allows it to provide the correct output level regardless of the headphone impedance and it can also have mono headphone jacks connected with no adverse effect.

Microphone Input

This is a balanced microphone input sharing the connector with the headphone output. It can accept dynamic and condenser microphones and phantom power (12v).

Refer to the end of this manual for wiring information.

3. Phantom power LED

This green LED will illuminate to indicate if +12v phantom power is active or disabled.

SIDE PANEL LAYOUT

1. External control input

This 3.5mm (TRS) jack connector allows an external switch to trigger the talk functionality. The switch must connect the Tip and Ring to Sleeve; bridging tip (T) to sleeve (S - GND) will activate the channel 1 circuit and bridging ring (R) to sleeve (S – GND) will activate the channel 2 circuit (if using a Beatrice B2).



External talk switch input

CONFIG MODE

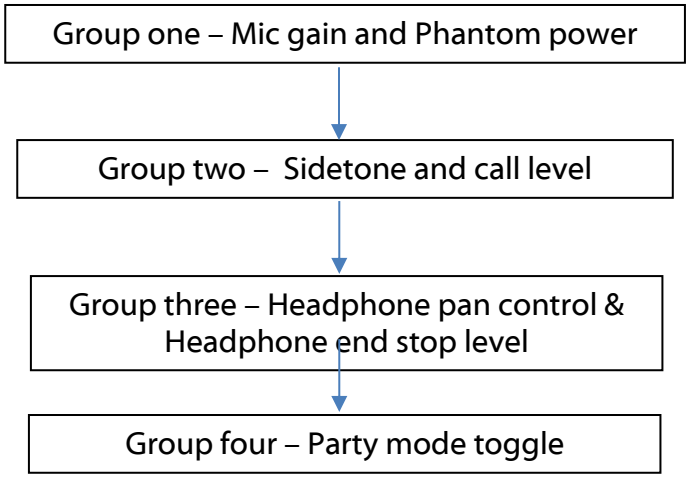
The Beatrice B1 and B2 have a configuration mode that allows the user to adjust certain settings and parameters of the device.

To enter config mode, the UPDATE button on the left side panel must be held down for 3 seconds.

Config mode is linear, where settings are changed in groups that are cycled through.



UPDATE button



Once config mode is entered, the LEDs will rapidly flash to indicate which group of the config mode the device is currently in. To cycle through to the next group, simply press the UPDATE button once.

Note: In config mode, audio from the Microphone input is only transmitted to Dante during group one (where mic gain is adjusted), regardless of the talk switch position or party mode status.

Audio from Dante is not silenced and continues as normal whilst in config mode.

1. **Power LED and Call LED flash – Mic gain and Phantom power control**

   In this first config mode, turning pot one will adjust the Microphone gain, whilst pressing the talk switch will toggle +12v phantom power on or off.

   On the B2 this is done by pressing both talk switches at the same time.

   The Red/Green LED “Mic” LED will illuminate to indicate mic gain level. Green is acceptable level, orange indicates that the level is a little high and red indicates close to overloading the input and clipping.

2. **Call LED flashes - Sidetone and call chime level**

   In the second config mode, activating talk switch one will allow adjustment of the call alert tone and the call send tone by turning pot one.

NOTE: When the call level is turned fully off and muted, calling functionality is fully disabled.

When the talk switch is off, sidetone level is adjusted when turning pot one.

3. **Power LED flashes - Headphone pan control and Headphone end stop level**

   In the third config mode, pot one and pot two (if using a B2) will control the headphone panning of the respective incoming Dante audio.

   During this config mode, pressing the talk switch will toggle the headphone level end stop value. The mic activity led will show the state; Red indicates the minimum headphone volume level is -20dBu (from 0dBu input) and Green indicates that the headphone volume is fully off when the potentiometer is at minimum.

   On the B2 this is done by pressing both talk switches at the same time.

4. **No LEDs flash – Party mode setting**

   Party mode is toggled by pressing the talk switch. The mic activity LED will indicate if party mode is enabled or disabled by illuminating either green or red.

   On a B2, the mic activity LED will illuminate orange and the respective red channel call LEDs will flash to indicate if party mode is active. Pressing down the talk switches will independently enable or disable party mode for each channel.

To leave config mode, simply push the UPDATE button again to return to normal usage. The device will exit config mode automatically after a few minutes.

Normal mode is the only state in which the PWR LED will be on solidly.

Note: In config mode, the pots will only change a value if the user turns them far enough away from their current position. This is to avoid the levels being changed without the users desire every time the device cycles to the next config group.

RESET TO FACTORY DEFAULT SETTINGS

To reset the device to a base default configuration, make sure both talk switches are set to the off position (middle) and simply hold down the update button continuously for 11 seconds. The device will illuminate all LEDs for 1 second and play a pip tone out of the headphones on success.

The default settings are as follows:

Mic gain level 23 / 31
Sidetone level 8 / 31
Call ring level 10 / 31
Panning – All central
HP Volume end stop set to -20dBu (from 0dBu in)
Phantom power off
Party mode off on all channels

Alternatively, if you activate talk switch 1 whilst holding down the update button for 11 seconds then a different base setting will be applied.

The alternate setting is as follows:

Mic gain level 23 / 31
Sidetone level 0 / 31
Calling fully disabled
Panning – All central
HP Volume end stop set to -INF
Phantom power off
Party mode off on all channels

CALLING OTHER BEATRICE DEVICES

The Beatrice uses a standardised calling method that allows it to send and receive calls to and from other Beatrice devices. A 20kHz tone is sent to alert the recipient of an incoming call.

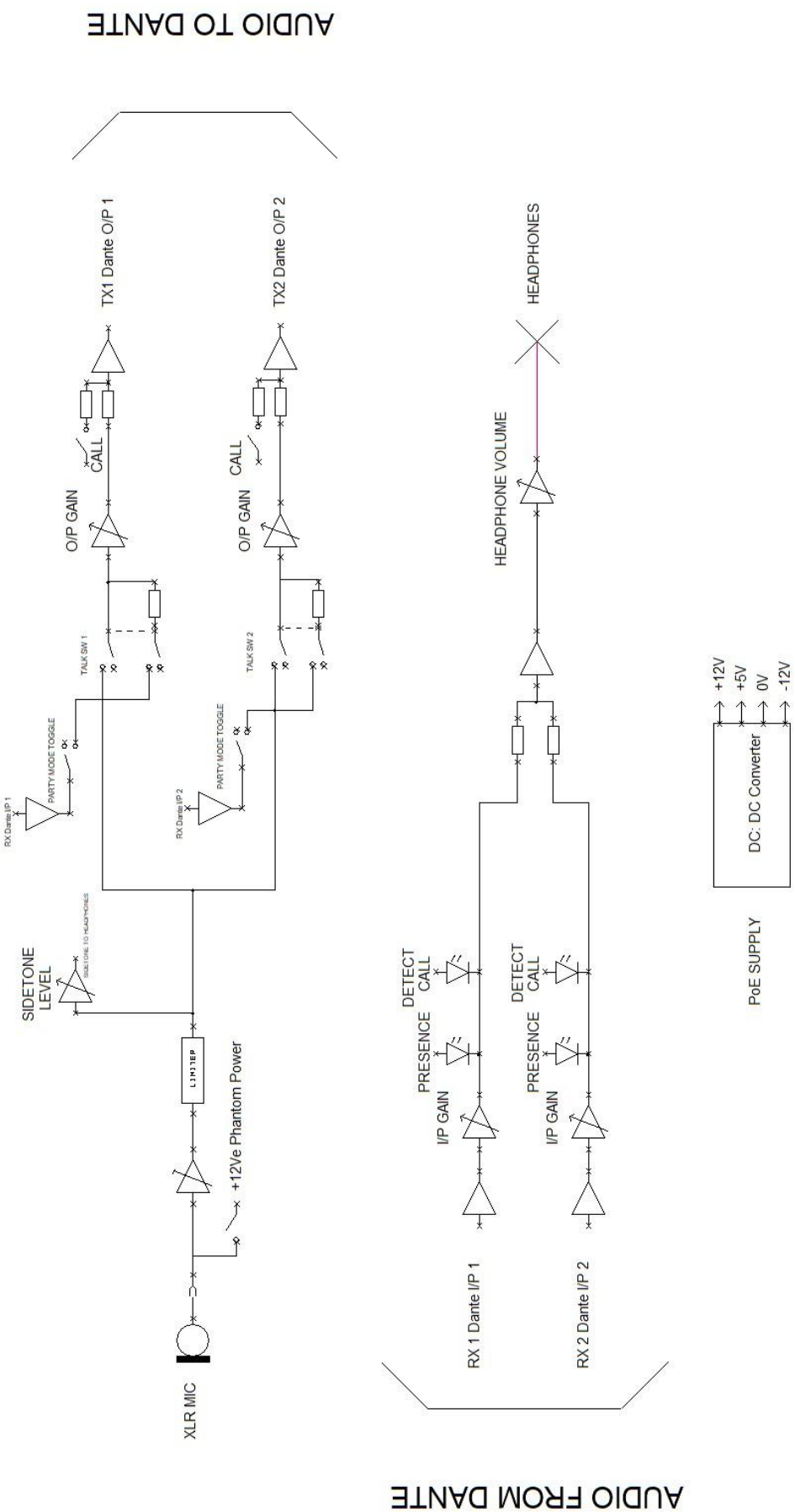
When the Beatrice B1 or B2 receives a call, the channel specific call led will flash and the device will ring for a few seconds.

To send a call to another device, quickly double press the talk switch for the channel you want to call. An audible beep will sound when a call is successfully sent. There is a 5 second cooldown after sending a call before another call can be sent.

Note: If you have muted the calling volume in config mode then all call functionality is disabled. This does not mean that you cannot send and receive normal audio, it means that the device will not send a 20kHz tone or react to receiving a 20kHz tone.

AUDIO BLOCK DIAGRAM (analogue representation of digital circuits)

Audio Circuits TO and FROM Dante/ AES67



CONNECTING THE BEATRICE UNITS TO A DANTE NETWORK

The Beatrices are network audio devices utilizing the reliable and versatile Dante audio over IP protocol. Dante is a proprietary system (although very widely used) the originators of which are Audinate.

The information below is only meant as a very basic guide. Full details of the power of Dante network audio and instructions for using it can be found at www.audinate.com

Getting Dante Controller

If you are connecting the Beatrice to a new Dante network the first thing you will need to do is to get the free Dante controller software from Audinate.
This can be downloaded by visiting Audinate's web site at www.audinate.com

Connecting Beatrice D8 To the Network

The Beatrice can be connected to the network that you are going to use for your audio distribution simply by plugging in to the RJ45 network connections on the rear. Once connected to the network it will be possible to see the Beatrice from within the Dante controller and route its' audio circuits.

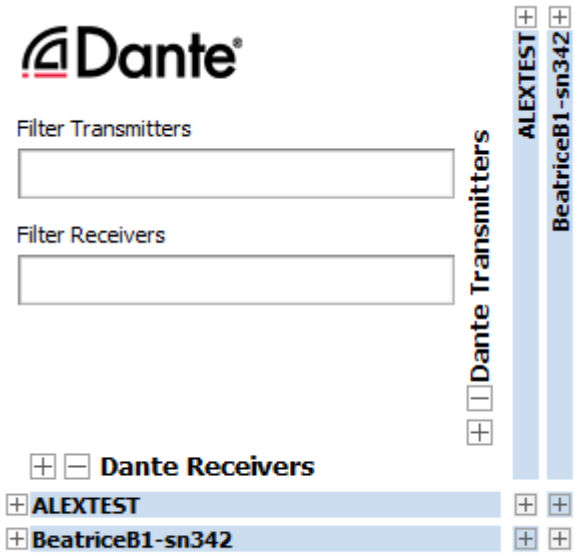
Audio Over IP Network

We strongly recommend that you consider your network topology carefully and would not recommend sharing broadcast audio and general data on the same network.

For more details of audio over IP network structure please visit www.audinate.com

Running Dante Controller

At the time of writing this manual the Dante Controller looks as per the screenshot below:



The Beatrice B1 and Beatrice B2 will have been named at the factory during test to allow them to be identified by the Dante controller.

The format used for the factory name is:

‘BeatriceB1-snXXX’

Where ‘BeatriceB1’ refers to the Glensound product i.e. BeatriceB1.

The ‘–snXXX’ refers to the serial number of the BeatriceD8 which can be found printed on the rear or side of the unit.

The unit may be renamed in Dante controller by opening the ‘Device view’ window and selecting BeatriceB1 in the drop-down menu. Go to the ‘Device Config’ tab and change the name with the Rename Device box.

Note if you upload a new DNT file or clear the devices config then the name will change to BeatriceB1-xxXxXx whereby the ‘X’s refer to the devices MAC address.

Dante Controller TIP

If you have never run Dante controller before then make sure that on the bottom left of the Dante controllers’ screen ‘P’ or ‘S’ is next to a green square as this indicates that it is connected to a network. By clicking ‘P’ or ‘S’ a pop up box opens to allow you to set what network interface the controller is using.

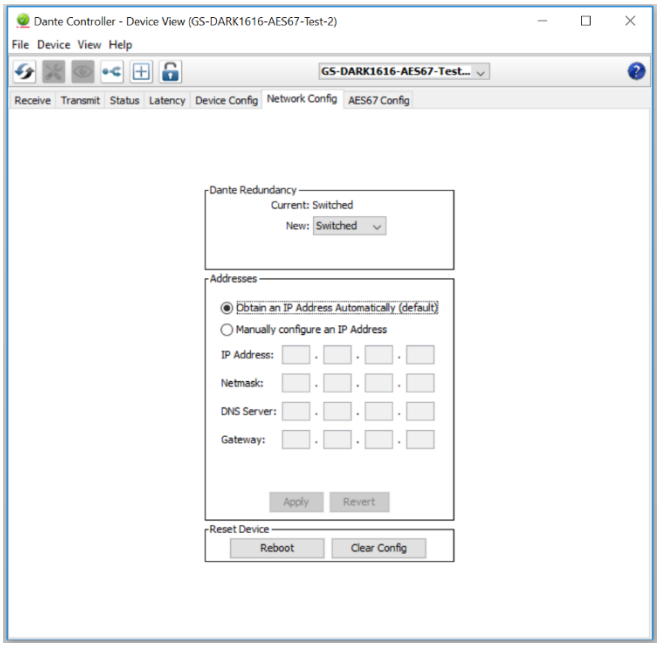
Device not showing up in Dante Controller

If your Dante™ device does not show up in Dante™ Controller then the most likely issue is that the device's IP Address is not appropriate for your network.

A) It maybe that the device is set to obtain an IP address automatically using DHCP (this is the default configuration) and your network is setup for fixed IP addresses only and does not have a DHCP server.
B) It maybe that the device has had a fixed IP address assigned but that this address is not suitable for your network.

The solution to both scenarios is basically the same.

1) You must connect your Dante™ device directly to the Ethernet port of your computer using an Ethernet cable.
2) Make sure that your computer is set to 'Obtain an IP address automatically'
3) After a few minutes the Dante™ device should now appear in Dante™ Controller.
4) Double click the device name to open up device view.
5) Open up the 'Network Config' tab
6) Either turn on 'Obtain an IP Address Automatically' or correctly configure the 'Manually configure an IP Address' options for your network.
7) Click on 'Apply' to confirm the new settings, then disconnect the computer and reconnect the Dante™ device to your network.



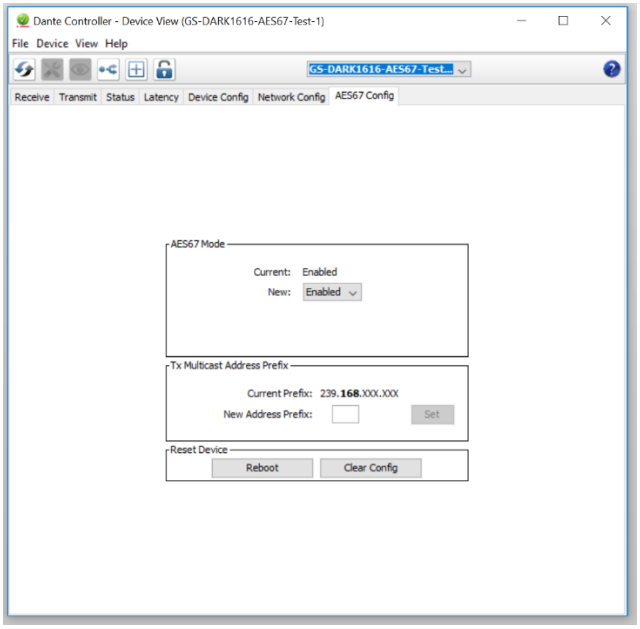
AES67 MODE

The Beatrice uses a chipset from Audinate called the Ultimo for its network audio interface. Audinate are the company behind Dante™ and as such the primary network audio protocol is Dante, however Audinate have enabled their chip to comply with AES67 and therefore the Beatrice can be set to AES67 mode for interaction with other AES67 devices.

Please note however that Glensound are relying on Audinate's AES67 interface and are unfortunately not able to provide full AES67 support for the unit. AES67 support should be sought directly from Audinate.

Turning On AES67 Mode

If you want to use your Beatrice on an AES67 network and it has not been set to AES67 mode then this can be set in Dante controller by double clicking the Beatrice to open the Device View window where you will find an AES67 tab to enable AES67 support.

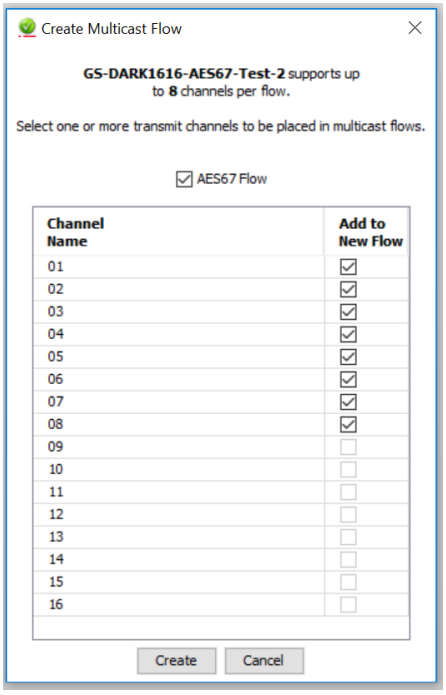


Once the AES67 drop down box has been enabled you'll have to reboot the Beatrice for the change to take effect. After the reboot go back to the AES67 tab and set the multicast prefix address to one that is suitable for your newtork.

Sending AES67 Audio

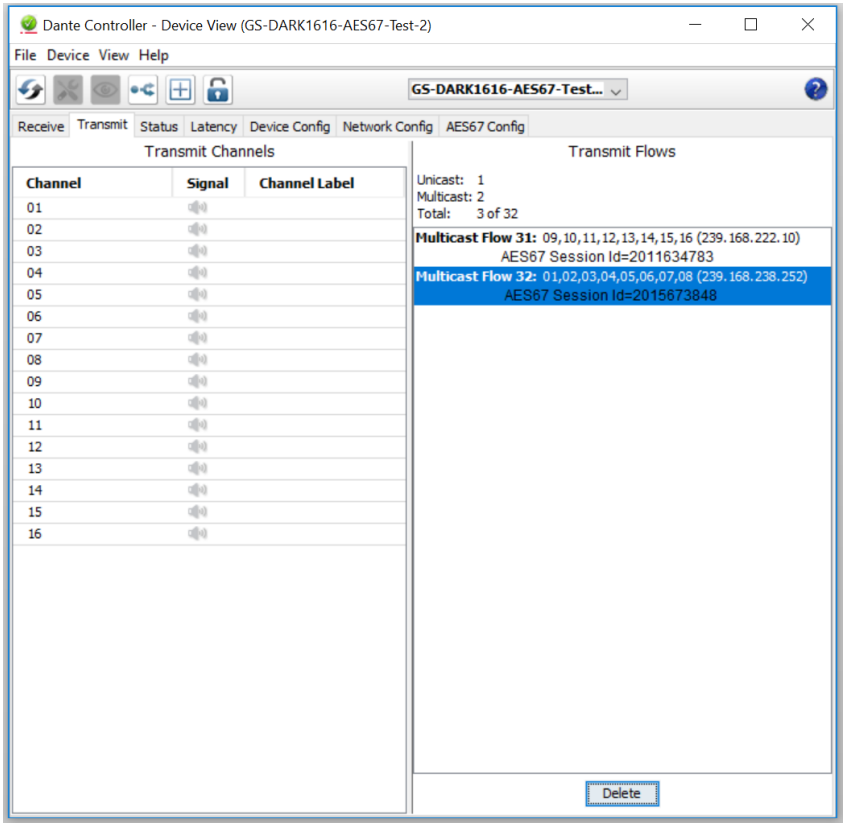
To transmit AES67 audio to the network a multicast flow must first be setup.

This is done by selecting the ‘Create New Multicast Flow’ Icon  in the Device View.



Tick the AES67 Flow check box, then select up to 8 channels to be included in the flow then click ‘Create’

Once set the flows can be seen in the transmit tab of the device view.



Receiving AES67 Audio

Once a compatible AES67 stream is detected on the network by Dante Controller the AES67 flows will appear in the Dante Transmitters section in the Routing tab.

AES67 Restrictions

AES67 flows can only be generated with the following constraints:

- Multicast Only
- Non-redundant
- Destination address in range 239.nnn.0.0 to 239.nnn.255.255 (239.nnn/16), port 5004
- 48kHz sampling rate
- 24 bit linear (L24) encoding
- 1 msec packet time
- Up to 8 channels per stream

Received AES67 flows have the following constraints:

- Multicast Only
- Non-redundant
- Destination address in range 239.nnn.0.0 to 239.nnn.255.255 (239.nnn/16), port 5004. Must match destinatio address range.
- 48kHz sampling rate
- L16 or L24 encoding
- 125usec, 250usec, 333usec, 1 msec packet time
- Up to 8 channels per stream

UPDATING FIRMWARE

Equipment needed

- A windows based PC
- USB Type A to Micro B cable
- A copy of ‘DfuSe Demo’ software
- The latest firmware from Glensound
- A Beatrice B1/2 and a PoE source

Instructions

1. Download and install DfuSE Demo

   ‘DfuSE Demo’ is a firmware updating tool that is required for loading new firmware on to the STM32 Device.

   It can be downloaded from the STMicroelectronics website found here: https://goo.gl/AbzhsA. It is the file named “STSW-STM32080”.

   Once you have downloaded this file you will need to extract the .exe “DfuSe_Demo_V3.0.5_Setup.exe”, then run and install it.

2. Install DFuSE driver
   Once DFuSE is installed, navigate to the following location on your machine:

   C:\Program Files (x86)\STMicroelectronics\Software\DfuSe v3.0.6\Bin\Driver\Win10

   You now need to run the following driver.
   - If your machine is 64 bit run ‘dpinst_amd64.exe’
   - If your machine is 32 bit run ‘dpinst_x86.exe’

This will install the driver you need.

3 Download firmware



Figure 1 Example filename

4 Connect To A PC

Connect the Beatrice B1/2 to the PC via the USB cable. The micro USB connector is located on the side panel of the Beatrice B1/2.



Figure 2 USB connector

5 Firmware update preperation

To prepare the Beatrice B1/2 for a firmware update;

1. Make sure the device is connected with USB
2. Press and hold down the UPDATE button
3. Power on the unit
4. Release the UDPATE button after a few seconds

Your PC should make an audible sound when this process is successful as windows is detecting a new USB device.

6 Loading the firmware

Now open DfuSe Demo.

If the Beatrice B1/2 successfully entered DFU mode then it will appear as ‘STM Device in DFU Mode’ under the ‘Available DFU Devices tab’.

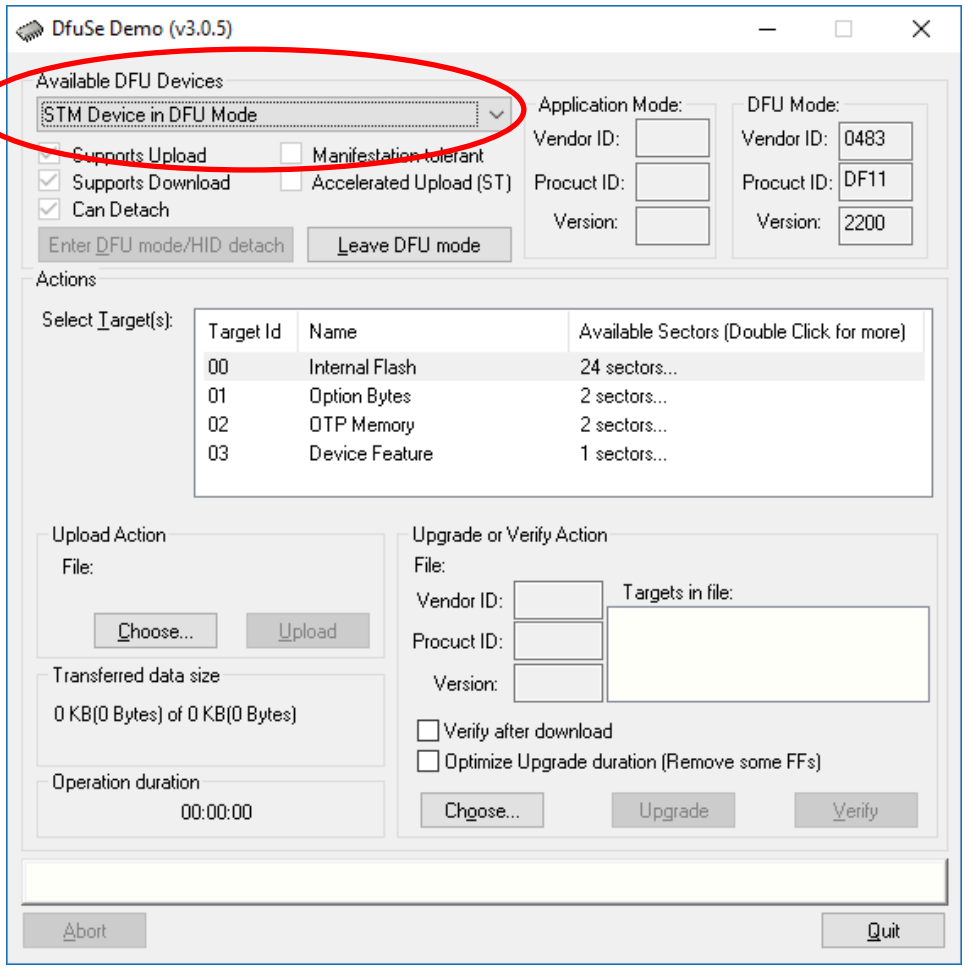


Figure 3 Device successfully recognised

Now the .dfu file needs to be selected so that DfuSe Demo knows the correct firmware to put on to the Beatrice B1/2.

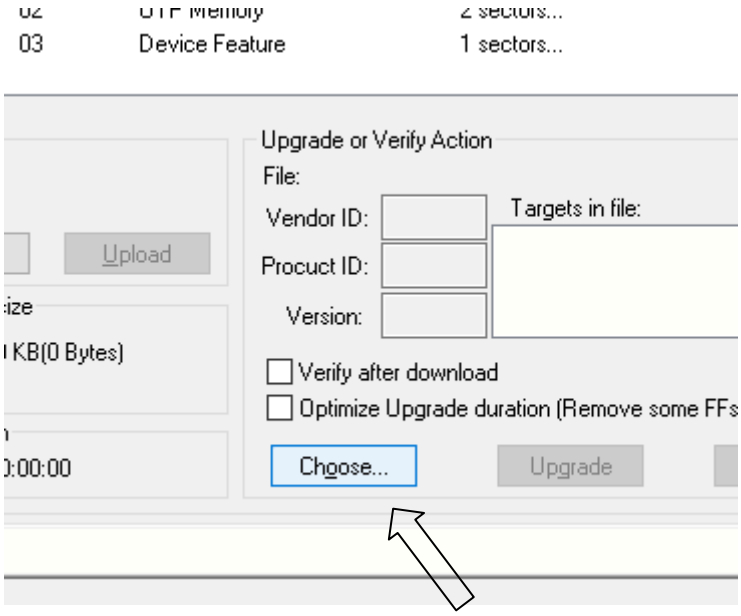


Figure 4 Choose .dfu file

Click choose and then select the .dfu file that you downloaded from the Glensound website. This will be located in your downloads folder by default.

If the file loads successfully then it will read along the bottom ‘File correctly loaded’.

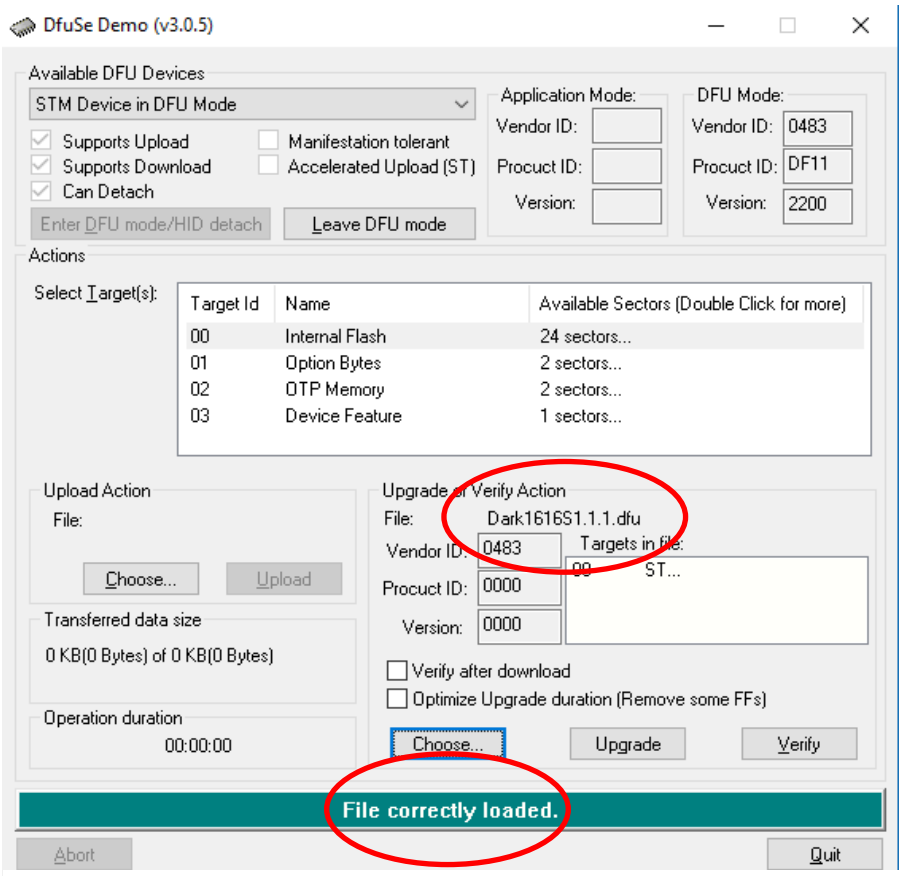


Figure 5 .dfu successfully loaded

7 Upgrading the Beatrice B1/2 firmware

The firmware is now ready to be put on to the Beatrice B1/2. Tick the ‘Verify after download’ box first and then click ‘Upgrade’.

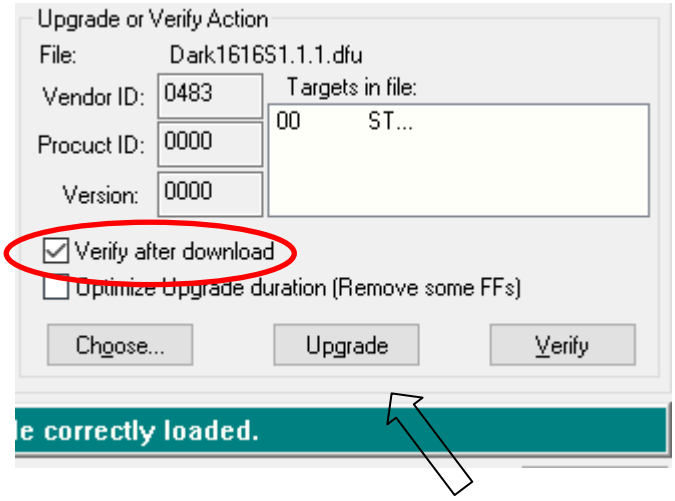


Figure 6 Upgrade

Click yes to proceed.

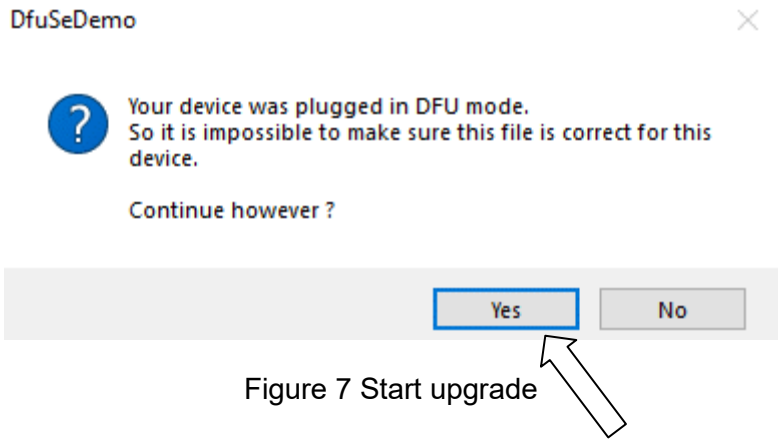


Figure 7 Start upgrade

The progress bar along the bottom will show the status of the operation.

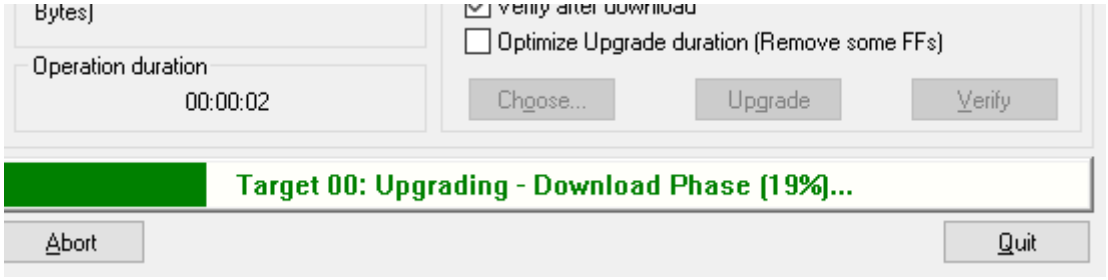


Figure 8 Upgrade status

If the operation was successful, DfuSe Demo will report that “Targery 00: Verify Successful!”.

You may also see that it will report how much data was successfully transferred.

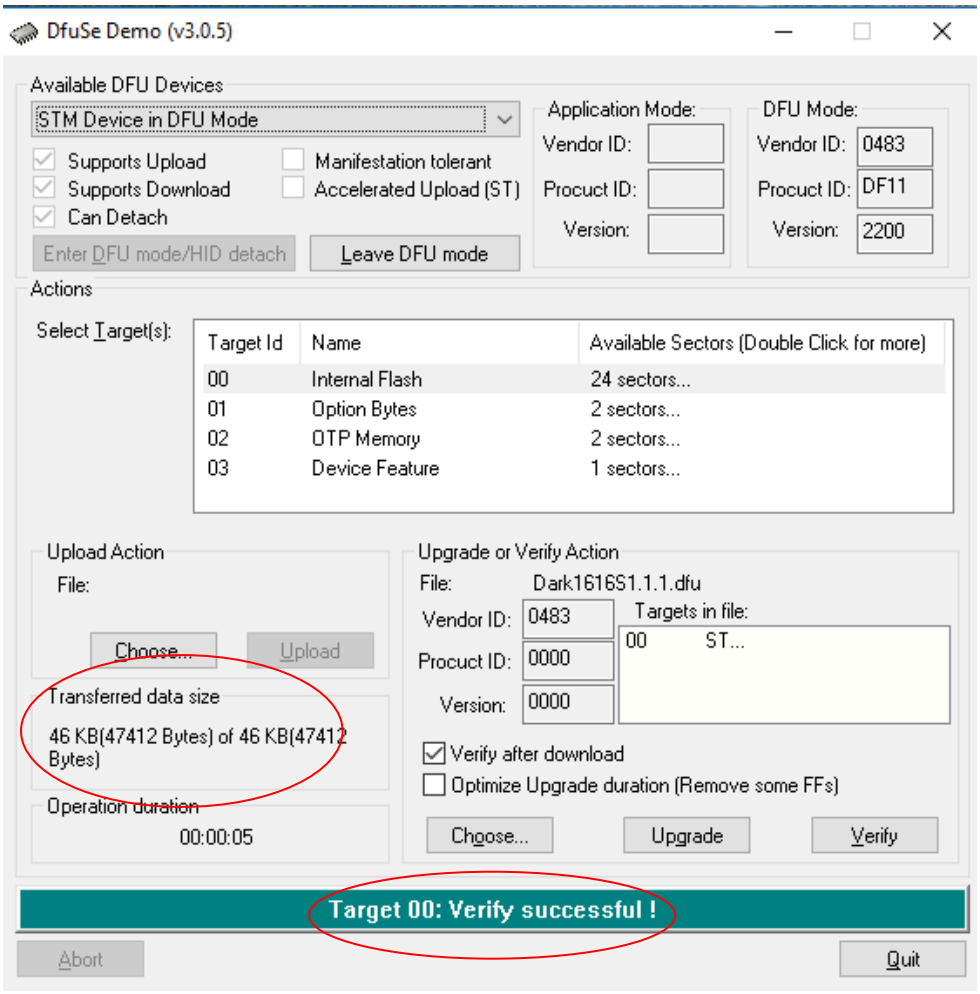


Figure 9 Successful upgrade!

8 Final steps

Now click “Leave DFU mode” to finish the procedure.

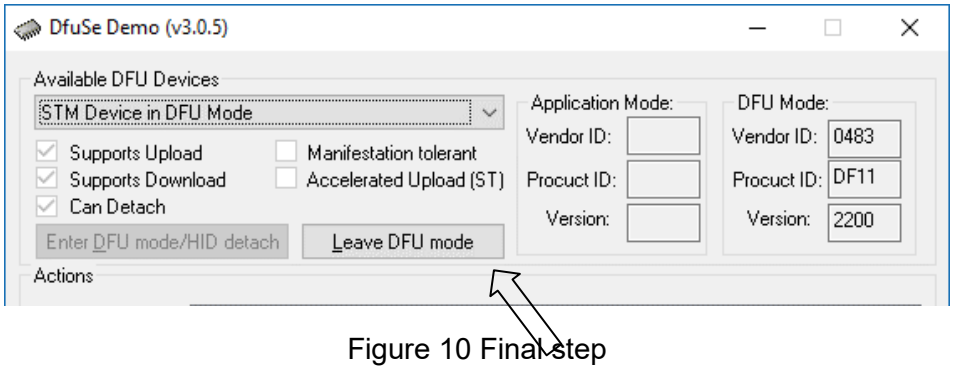


Figure 10 Final step

You may now disconnect the USB cable and continue to use the Beatrice B1/2 with the freshly updated firmware!

UPDATING THE ULTIMO CHIPSET

The Ultimo Chipset is a device supplied by Audinate that does most of the processing for the actual Dante/ AES67 network audio streams. There is one Ultimo Chipset in each Beatrice. We supply special code (a .dnt file) that sets up/ initiates the Ultimo Chipset and makes it work in particular way that is compatible to the Beatrice.

Finding Out Current Installed Version

Using Dante® controller double click on the Beatrice device name in the routing tab to open the Device View box.
Ion the Device View box open the Status Tab.

The 'Product Version:' shows the currently installed version of Ultimo Chipset dnt code.

Updating the device

The firmware that runs in the Ultimo Chipset is updated using Audinate's Firmware updating tool. The updating tool and a user guide can be downloaded from Audinate's website:

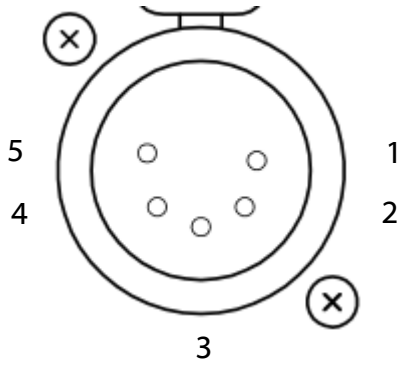
https://www.audinate.com/products/firmware-update-manager

NOTE:

Please note we strongly advise that when you do the update that only your PC and the Dante device that you want to update are on the network to save accidently updating the wrong Dante device.

WIRING INFORMATION

XLR & JACK Wiring



5 PIN XLR AUDIO PINOUTS:

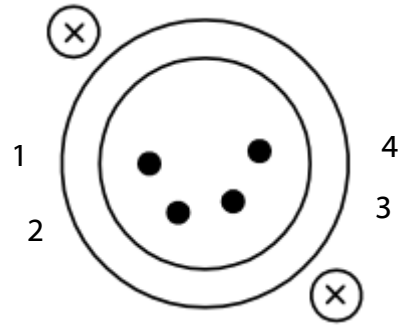
1: MATE/ NEGATIVE/ MIC -

2: INPHASE/ POSITIVE/ MIC +

3: GROUND/ EARTH

4: HEADPHONE LEFT

5: HEADPHONE RIGHT



4 PIN XLR AUDIO PINOUTS:

1: MIC GND/ MIC –

2: INPHASE/ POSITIVE/ MIC +

3: HEADPHONE GND

4: POSITIVE/ HEADPHONE +