

Dante® Network Intercom




BEATRICE D8
Eight Channel Desktop Intercom

Highlights

Dante® and
AES67 Compliant

Simple To Use

Intelligible
Loudspeaker

48kHz Crystal
Clear Digital Audio

Mains/
PoE Powered

Low Noise
Microphone Amp

Overview

The GlenSound BEATRICE D8 is a versatile and fully featured, 8 channel desktop intercom with crystal clear audio designed for broadcast, theatre and professional audio applications.

It is part of our Beatrice intercom system that utilises the reliable and proven Dante network audio transmission protocol to allow real time distribution of uncompressed audio across standard networks, it is also AES67 compliant. As such the BEATRICE D8 is fully compatible with other manufacturers' equipment using the Dante and/ or AES67 protocols.

The desktop intercom was designed to be very easy to use for the operator and simple to set up for the technician. It includes all the basic functionality required for small intercom systems and none of the overly complex installation requirements normally associated with large systems.

BEATRICE D8

Eight Channel Desktop Intercom

Features



- 8 Channels Of Intercom**

One single user connected to the unit can listen to and communicate with 8 separate locations on the network. Depending upon how the Dante network has been routed the incoming audio circuits and outgoing circuits can be different locations.
- Dante Routing & Partyline**

Audio routing to/ from other devices is setup using Dante controller which allows for point to multipoint routing on outgoing circuits (but only 1 single incoming circuit for each of the 8 channels). Therefore we've included an inbuilt fixed ratio 14 input 19 output mixer matrix with inputs and outputs connected directly to the Dante / AES67 network, which allows for setting up partyline and complex group circuits.
- Onboard Mic & External Mic Input**

A good quality, clear sounding microphone amplifier designed for communication purposes is fitted which also has the benefit of a compressor/ limiter circuit to help keep levels and intelligibility consistent even when the operator gets overly excited. This microphone amp has two microphone sources, either the inbuilt front panel mounted electret capsule which provides good voice intelligibility from normal working distances or a balanced XLR input for connecting external gooseneck microphones. Twelve Volt Phantom power is also available and can be turned on/ off as required via an internal link.
- Large Diameter Visatron Loudspeaker**

What's the point of an intercom unit if the onboard speaker is so small and cheap that you can't understand what is being said to you? We use high output, high quality, large magnet Visatron speakers with excellent voice intelligibility to make communication straightforward and easy to understand.

Intercom & Talkback



BEATRICE D8

Eight Channel Desktop Intercom

Features



- Mains or PoE Powered**
 An inbuilt wide range switch mode mains power supply is fitted for powering the Beatrice D8. It is terminated with a standard IEC plug, making it easy to plug in wherever you are in the World.
 The unit can also be powered via the Ethernet cable by standard PoE (Power over Ethernet) on either of the copper Ethernet ports. The PoE power can be supplied by an external PoE switch or a midspan power injector.

- Redundant Twin Copper & Twin Fibre Ethernet Interface**
 When ultra reliable communications is needed for the utmost important jobs, glitch free redundant network circuits can be set up using the primary and secondary Dante network ports.
 There are 2 copper Ethernet ports on Neutrik Ethercons and also 2 fibre Ethernet ports presented as SFP slots (SFP modules not included). Redundant networks can be set up across any of these ports.



- Channel Input and Output Gain Controls**
 For maximum flexibility, gain can be applied to incoming audio signals and outgoing signals separately. A row of LEDs indicate the current gain setting when a channel's input or output is being adjusted.



Intercom & Talkback





Programmable Speak Keys

Each speak key can be individually programmed to operate how you would like, be it push to talk, latching or intelligent lever key.

- AUX/IFB**

To allow a flexible intercom system to be built around the D8, AUX/ IFB circuits are built in.

This means that for each of the 8 talkback outputs there is a specific AUX/ IFB audio input from the Dante/ AES67 network.

Any audio routed to the channel's AUX/ IFB input is mixed together with the channel's outgoing talkback circuit. The incoming AUX/ IFB audio is ducked when the channel's talkback key is operated. The level of ducking is user configured.
- IFB Monitoring**

If the D8 is being used as an outside source talkback device then it is possible to set the audio monitoring circuits to monitor the incoming AUX/ IFB circuits and not the 'normal' Dante inputs.

This allows an operator to know what they hear is also what the outside source hears
- Monitor Button Setup**

To allow you to operate the D8 in a way that works for you it is possible to set the loudspeaker/ monitor circuits to either route all the monitoring inputs circuits to the loudspeaker/ monitor when all the monitoring select switches are off, or have the unit not send any audio to the loudspeaker/ monitor when all switches are off.
- Variable Loudspeaker Dimming**

The output level of the loudspeaker automatically dims when a speak key is pressed to prevent acoustical feedback. The level of the dim can be programmed by the operator to suit their working environment.
- Presence Indication**

A front panel illuminated red switch is used to indicate the presence of incoming audio on that channel. When audio is detected on the channel the switches internal red LED is illuminated. The red LED then stays on for a short period after the incoming audio stops to help the operator identify who has been talking to them.

Intercom & Talkback



Monitor Selection

Each channel has an illuminated audio monitor switch. This allows the channels' incoming audio circuit to be routed to the headphones/ loudspeakers. Using these switches makes it easy for an operator to just monitor the desired incoming audio channels.



Call Function

A simple call function is inbuilt allowing the operator of one unit to call/alert other users that they want to communicate with. A simple double tap of the speak key initiates a calling signal sent to the other party. The audio presence indicator flashes to indicate that you have been called. As well as the flashing LED at the receiving end of the call an audible 'beep' can be set to alert the user that an incoming call has been placed to them. The call function can be disabled on a channel by channel basis if required.

Mixer Matrix

For setting up more complex groups and partyline circuits that could not be achieved via Dante controller or your AES67 router, an inbuilt fixed ratio mixer is supplied. It has 14 audio inputs direct from the network and 19 mix outputs to the network. 5 of the mixers have inbuilt automatic audio ducking circuits.

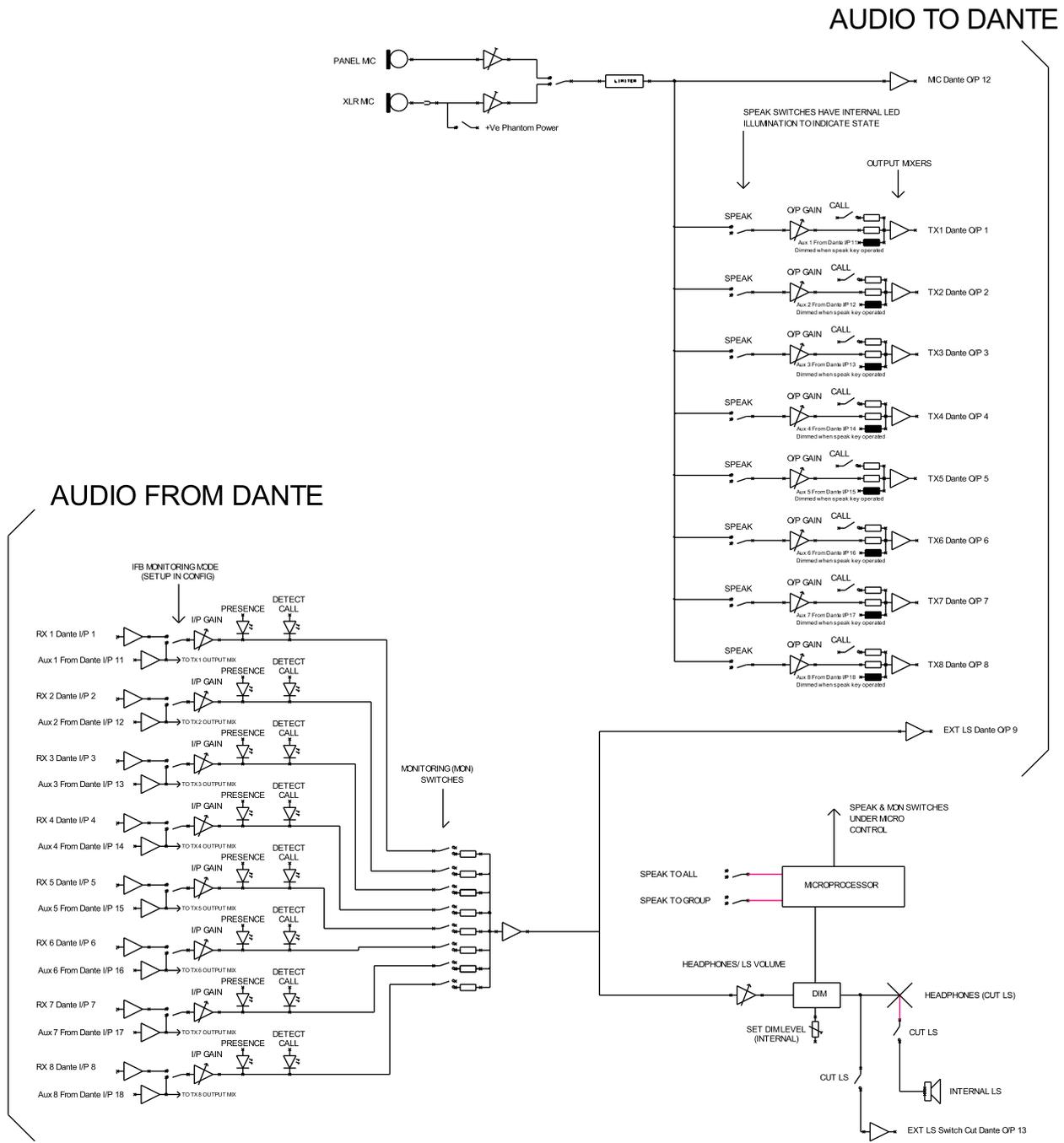
MIX OUTPUT		SUM OFF	NOTES
<i>Dante Output Channel No:</i>	<i>Default Name in Dante Controller:</i>	<i>Dante Receiver Channel Nos:</i>	
14	"Sum of 19 to 32"	19 to 32	
15	"Sum of 19 to 25"	19 to 25	
16	"Sum of 26 to 32"	26 to 32	
17	"Sum of 19 to 21"	19 to 21	
18	"Sum of 22 to 24"	22 to 24	
19	"Sum of 25 to 27"	25 to 27	
20	"Sum of 28 to 30"	28 to 30	
21	"Sum of 19 & 20"	19 and 20	
22	"Sum of 21 & 22"	21 and 22	
23	"Sum of 23 & 24"	23 and 24	
24	"Sum of 25 & 26"	25 and 26	
25	"Sum of 27 & 28"	27 and 28	
26	"Sum of 29 & 30"	29 and 30	
27	"Sum of 31 & 32"	31 and 32	
28	"Sum of 19 & 20 Dim"	19 and 20	Note Mix in 19 dimmed when signal present on Mix in 20
29	"Sum of 21 & 22 Dim"	21 and 22	Note Mix in 21 dimmed when signal present on Mix in 22
30	"Sum of 23 & 24 Dim"	23 and 24	Note Mix in 23 dimmed when signal present on Mix in 24
31	"Sum of 25 & 26 Dim"	25 and 26	Note Mix in 25 dimmed when signal present on Mix in 26
32	"Sum of 27 & 28 Dim"	27 and 28	Note Mix in 27 dimmed when signal present on Mix in 28

Simplified Block Diagram

The audio block diagram below shows an analogue representation of the digital audio routes with the Beatrice D8 excluding the fixed ratio mixer.

Block Diagram

Intercom & Talkback



BEATRICE D8

Eight Channel Desktop Intercom

Specification

NETWORK/ Dante®

Physical Interface

2 off RJ45
2 off SFP slots

Audio Sample Frequency

48kS/s

Transfer Rate

1000 Mbps

Dante® Chipset

Brooklyn II

Note: suitable for acting as master clock for a network incorporating many Ultimo chipsets

AES67 Compliant

AES67 compliant

POWER

Mains Voltage

100 - 240 VAC +/-10%

Mains Frequency

50 to 60 Hz

Power over Ethernet (PoE)

48V

Consumption

10 Watts

Redundancy

Mains & PoE supplies are dioded together for glitch free redundancy

Call Circuit

Inband Calling Frequency

20kHz

Amplitude

-20dBfs

Duration Of Signal

2 seconds

Compatibility

All GlenSound Beatrice units & Studio Technologies

INCLUDED ITEMS

Handbook

Physical A5 (download also available)

RJ45 Network Cable

2 metre Cat5 RJ45plug /RJ45plug cable

AUDIO

Mic Gain Range

61 to 21dB

Phantom Power

12 Volts (set via internal link)

Equivalent Input Noise

-126dB (20-20Khz RMS A Weighted 150 Ohms)

Headphone Impedance

32 - 1000 Ohms

Max Headphone Output Level

+14dB into 600 Ohms

Headphone Connector

6.35mm (1/4") TRS socket

Band Pass Filter

50Hz to 15kHz

PHYSICAL

Mechanics

All aluminium with laser etched panels and light textured black powder coated base & sides

Size

269 x 172 x 100mm (w x d x h)

Weight

1.6Kg 3.5lb

ENVIRONMENTAL

Operating Temperature

0 to +50 °C (32° to 122°F)

Storage Temperature

-20 to +70 °C (-4°to 158°F)

Relative Humidity

0 to 95% non-condensing

SHIPPING SPECIFICATIONS

Weight: 3.10Kg

Shipping Size: 620x410x210mm

Shipping Carton

Rugged export quality cardboard

MIC/ HEADSET OPTION

Standard (Part no: Beatrice D8)

Front Panel 3 pin XLR socket Mic Input

Optional 5 Pin (Part no: Beatrice D8-X5)

Front Panel 5 pin XLR socket Headset Connector

Optional 4 Pin (Part no: Beatrice D8-X4)

Front Panel 4 pin XLR plug Headset Connector

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.

We hope that you will also fall in love with Beatrice.

E & OE