

Dante® Network Intercom


BEATRICE B4
Four* Channel Beltpack Intercom

Highlights

4* Channel
Beltpack

AES67 Compliant

High Output
Headphone Amp

48kHz Crystal
Clear Digital Audio

PoE Powered

Low Noise
Microphone Amp

Overview

This device uses Audinate's Ultimo Chipset, which can receive 4 incoming audio channels, each at 48kHz. However, this chipset can only receive these 4 audio channels from a maximum of 2 network locations (2 different devices). This is common with any manufacturer that uses this chipset.

The GlenSound BEATRICE B4 is a robust, portable 4* channel beltpack intercom 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. As such the BEATRICE B4 is also fully compatible with other manufacturers' equipment using the Dante® protocol. The Beatrice B4 is AES67 compliant.

This small beltpack was designed to be easy to use for the operator and simple to setup for the technician. It includes all the basic functionality required for small intercom systems and none of the overly complex installation requirements usually associated with large systems.

BEATRICE B4

Four* Channel Beltpack Intercom

Features

- 4* Channels**

One single user connected to the unit can listen to and communicate with 4 separate audio circuits on the network. Depending upon how the Dante® network has been routed the incoming audio circuits and outgoing circuits can be different locations. PLEASE NOTE THERE IS A LIMITATION TO INCOMING NETWORK STREAMS: SEE * IN SPECIFICATION.
- 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 audio circuit for each of the 4 channels).
An inbuilt partyline facility allows any of the 4 incoming circuits to be routed to any of the 4 output circuits making both simple partyline and more complex group circuits easily configured.
- Presence Indicator**

Each channel has its own red LED that acts as a presence detector on the incoming audio circuit. When audio is detected the LED is lit and it stays lit for a short period after the incoming audio stops to enable the operator to know who is talking to them.
- Mic Amp with Compressor & Phantom Power**

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. 12 Volt Phantom power is also available and can be turned on/ off as required.
- High Output Headphone Amp Suitable For Headphones & Earpieces**

One of our unique headphone amplifiers is fitted to the Beatrice B4. This allows either low or high impedance headphones to be used and automatically adjusts the output level to match the impedance of headphones in use. The headphone amplifier is stereo and sources can be panned to left or right ears as desired. The unique headphone amplifier can also drive mono earpieces from its stereo output without any performance issues.



Intercom & Talkback





- Volume, Panning & Incoming Levels**
The front panel features an easy to use volume/ setup control. This multi-functional control provides day to day operational control of:

 - A)** Overall volume control (just turn the knob)
 - B)** Incoming channel level (push the speak key and turn the knob simultaneously)
 - C)** Panning (push the speak key and push and turn the knob simultaneously)
- Single Cable For Power & Audio**
One single standard RJ45 network cable provides both power (PoE) and bi-directional multichannel digital audio (Dante®). The RJ45 socket on the Beatrice B4 is a rugged locking Neutrik etherCON XLR shell connector capable of connecting to both industrial quality etherCON cables and standard network RJ45 patch cables.



- Optional Multipin XLR Headset Connector**
As standard the Beatrice B4 is fitted with a normal 3 pin balanced XLR socket for the microphone input and a 6.35mm (1/4") TRS jack socket for the headphone output. Optional single connector 4 and 5 pin XLRs carrying both mic and headphone circuits can be factory fitted wired to any of the industry standards for connection to customers' preferred headsets.
- 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 them. To call another user the operator double taps the speak key of the channel they want to call, this then flashes a bright yellow call LED on the other users keypanel, which continues to flash until the call is answered. As well as flashing a 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.

- Display for Setup**

To make setup of the unit easy and intuitive a display is provided on the side panel. This display provides a simple menu system for setting up such items as:

 - Button Configuration
 - Input Type (Mic/ Line)
 - Microphone Gain
 - Phantom Power On/ Off
 - Sidetone Level (Own voice)
 - Partyline/ Loop Through Mode
 - Mixing/ Cutting of Partyline when User Speaks
- Display Type & Illumination**

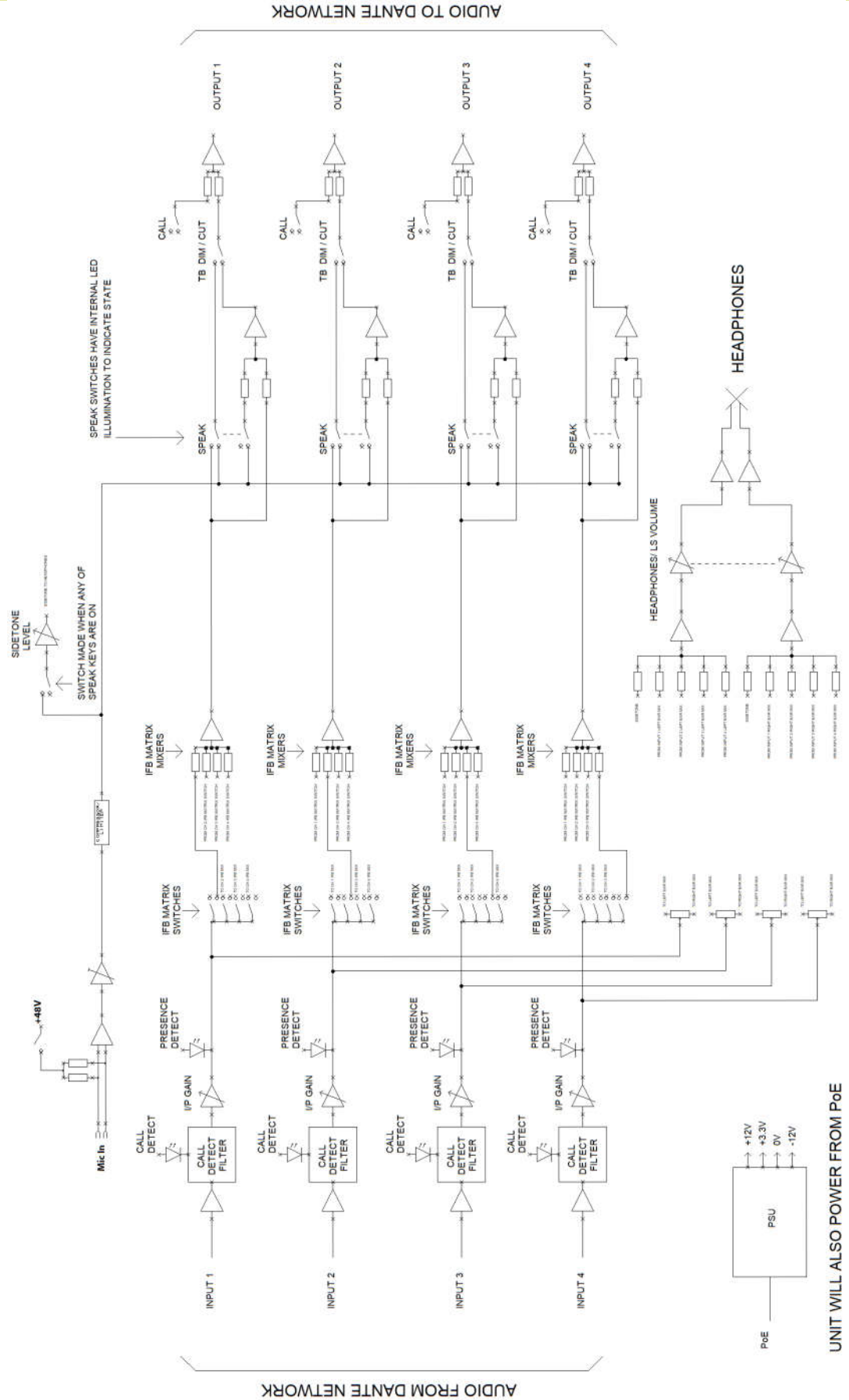
The display is a simple to read 2 line (each with 16 characters) backlit monochrome LCD. Having been designed for use in professional environments the back light is only illuminated when the Beatrice B4 is in setup mode. In normal day to day operation the display and back light are not required and therefore the back light is not on.



Simplified Block Diagram

The audio block diagram below shows an analogue representation of the digital audio routes within the Beatrice B4.

Block Diagram



UNIT WILL ALSO POWER FROM PoE

Intercom & Talkback



Specification

* **FOUR INCOMING AUDIO CIRCUITS**

This device uses Audinate's Ultimo Chipset. This chipset can receive 4 incoming audio channels, each at 48kHz. However this chipset can only receive these 4 audio channels from a maximum of 2 network locations.

NETWORK

Physical Interface

1 off RJ45 Neutrik Ethercon

Audio Sample Frequency

48kS/s

Transfer Rate

100 Mbps

Dante® Chipset

Ultimo UXT-01-004

Note: Audinate recommends no more than 10 Ultimo chipsets on one network **UNLESS** another Dante® device such as the Brooklyn Module (found in 8 channel Beatrice/ Dark units), is on the same network

AES67 Compliant

The Audinate Ultimo chipset is AES67 compliant

AUDIO

Mic Gain Range

60 to 20dB

Phantom Power

12 Volts

Equivalent Input Noise

-110dB (20-20Khz RMS A Weighted 300 Ohms)

Headphone Impedance

32 - 1000 Ohms

Max Headphone Output Level

+10dB into 600 Ohms

Headphone Connector

6.35mm (1/4") TRS socket, can be safely connected to mono TS jack plug

Band Pass Filter

50Hz to 15kHz

INCLUDED ITEMS

Handbook

By download

RJ45 Network Cable

2 metre Cat5 RJ45plug /RJ45plug cable

OPTIONAL ITEMS

Shoulder Strap

Black padded strap printed with GlenSound logo

POWER

Power over Ethernet (PoE)

48V

Consumption

5 Watts

Call Circuit

Inband Calling Frequency

20kHz

Amplitude

-20dBfs

Duration Of Signal

2 seconds

Compatibility

All GlenSound Beatrice units & Studio Technologies

PHYSICAL

Mechanics

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

Beltclip

Long life spring loaded plastic

Shoulder Strap Holes

4 off (2 either side) 6.5mm Diameter

Size

92 x 164 x 39mm (w x l x h)

Weight

850g 1.9lb

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: 2.35Kg

Shipping Size: 310x260x90mm

Shipping Carton

Rugged export quality cardboard

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