

## Dante® Network Intercom


**BEATRICE M1**  
 Intercom Walkie Talkie/ Radio Interface

## Highlights

 Ideal For  
 Broadcast, Theatre &  
 Pro Audio

 Works With  
 Different Walkie Talkie  
 Brands

PoE Powered

 4\* Network  
 Audio Inputs

 AES67/  
 SMPTE 2110  
 Compliant

 GPO For  
 Triggering Talk  
 Switch

## Overview

The Glensound BEATRICE M1 is a robust interface for connecting wireless radios and walkie talkies to a Beatrice intercom. It has 4\* audio inputs from the network and features crystal clear audio. It is designed for broadcast, theatre and professional audio applications.

The M1 is part of the 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 M1 is also fully compatible with other manufacturers' equipment using the Dante® protocol. The Beatrice M1 is also AES67/ SMPTE 2110 compliant.

Being able to interface a network audio intercom to low cost wireless radios and walkie talkies provides a real benefit to small theatres and studios. The low price point of walkie talkies combined with the features of Beatrice makes this a great solution for the technician and accountant alike.

**BEATRICE M1**

## Intercom Walkie Talkie/ Radio Interface

## Features



- Interfaces To Many Different Radios**

A versatile 9 pin D connector is used for providing bi-directional audio and trigger connectivity to the attached walkie talkie. This connector is wired to the same format as legacy products from other manufacturers, making a system upgrade simple. Usefully the wiring of this connector provides both normally open and normally closed relay outputs for triggering the walkie talkies talk switch, making interfacing to different manufacturers' radios easy.
- Audio Presence With Delay**

The activation of the relay for triggering the radio's speak switch is done on detection of an incoming audio signal from the network. The threshold and hold time of this activation can be set in the menu system. Importantly and uniquely to the Beatrice M1 a small digital delay is introduced to the audio signal being sent to the walkie talkie. This prevents the very initial part of a message being missed as the threshold is detected and the radio's talk switch is triggered.
- Input & Output Level Controls**

To allow correct system setup and practical interfacing to as many different walkie talkies as possible, multiturn preset pots are provided to setup the incoming audio level from the radio and also the outgoing audio level to the radio.
- Audio Level Meter**

To help with setting up the incoming audio level from the radio and matching it to the Dante network an audio meter is displayed on the front of the Beatrice M1's screen. This level meter is after the incoming audio preset gain control making level setup easy.
- Transformer Isolated Inputs & Outputs**

For extended reliability and to protect the M1's circuits from external radio issues both the audio inputs and outputs to/ from the radio are transformer isolated.

Intercom &amp; Talkback



- 4\* Incoming Audio Circuits**

For versatility and to allow more than just one person to communicate with the walkie talkie interface the Beatrice M1 can receive 4\* incoming audio circuits. These 4 audio circuits are mixed together internally and then sent to the attached radio when audio is present. Being a network audio device the audio from the radio to the Beatrice intercom network can easily be routed to multiple network points for monitoring.
- Preset Switches**

Three preset switches are provided on the side of the unit. These are used to allow a wide range of walkie talkies' microphone inputs to be accommodated.
- LCD Screen For Setup**

To allow easy setup the Beatrice M1 has a backlit LCD screen on the top panel. This allows such items as incoming audio detect threshold and also hold times to be set. This LCD screen also provides a visual level indication of the audio being received from the radio.
- RF Immunity**

Our experience in designing mobile phones for broadcasters has allowed us to develop our RF immunity circuits to be best in class. This technology is incorporated within the Beatrice M1 (and our whole range of Beatrice units), to prevent as much as possible RF noise caused by the external walkie talkies/ radios.
- PoE Powered**

For ease of connection and setup one single network cable provides both bi-directional audio and power to the unit.

**BEATRICE M1**

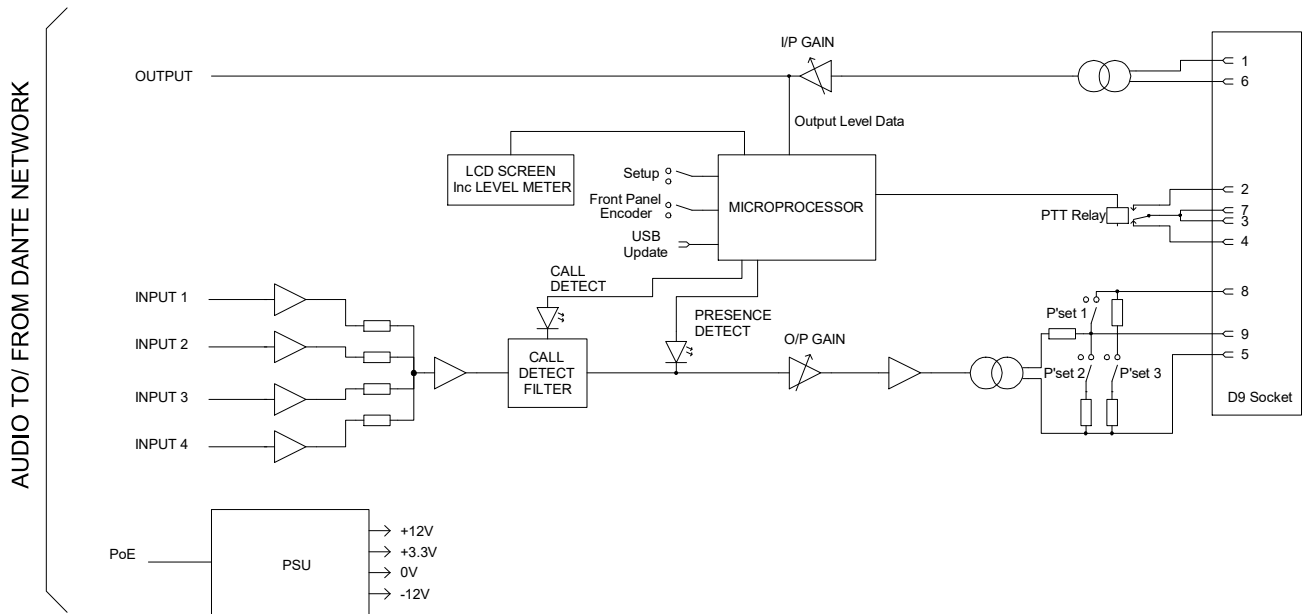
Intercom Walkie Talkie/ Radio Interface



**Simplified Block Diagram**

The audio block diagram below shows an analogue representation of the digital audio routes within the Beatrice M1.

**Block Diagram**



Intercom & Talkback



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.



## BEATRICE M1

### Intercom Walkie Talkie/ Radio Interface

## 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

##### Output To Radio Type

Transformer Isolated

##### Output To Radio Level Range

-67 to 0 dB

##### Input From Radio Type

Transformer Isolated

##### Input From Radio Level Range

-20 to +18dB

##### Band Pass Filter

50Hz to 15kHz

#### INCLUDED ITEMS

##### Handbook

By download

##### RJ45 Network Cable

2 metre Cat5 RJ45plug /RJ45plug cable

#### NOT INCLUDED

##### Walkie Talkie Connection Cable

No cable to connect the M1 to a radio or walkie talkie is included.

#### POWER

##### Power over Ethernet (PoE)

Powered by PoE

Complies to: IEEE 802.3af-2003

Classification Class 0

##### Consumption

<3 Watts

##### Power On LED

Bright Blue

#### 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

##### 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

E & OE

Intercom & Talkback

