

GLENSOUND RECCE



**TELEPHONE
HYBRID**

Glensound Recce
Portable Reporters Unit
With POTS Hybrid

The Glensound Recce is a portable telephone hybrid and three input mixer. It is designed for reporters and commentators that need to connect to normal POTS telephone lines, with headphone monitoring and microphone interfaces for two commentators. A report can be simply mixed, monitored and transmitted at the highest possible quality available, over a normal POTS line

Key Points

- High quality digital POTS telephone hybrid
- Dual DSP hybrid with dedicated echo canceller
- All mixer inputs available as line, mic, or mic +12v phantom.
- Two headphone outputs
- Three input headphone mixer
- External monitor input
- Battery or external DC powered

Hybrid Functions

Twin DSP Digital Hybrid

The Recce performs two distinct functions - one as a mixer, and the other as a digital hybrid. GlenSound have been working on hybrids since the mid 1960's and our current hybrid design utilises twin DSP modules to provide maximum processing power in the most important area of echo cancellation. The result is one of the finest sounding hybrid's available.

- **Twin DSP Processing and Control**
Two digital signal processors are used in the Recce to allow dedicated control of the very important echo cancellation routines in one, whilst employing a second that is dedicated to the input/output process.
- **Compressor and Limiter - DSP1**
The incoming audio into the Recce must be at the correct levels to start with. DSP1 manages the incoming analogue and digital audio with compression and limiting so as to not overload the telephone line.
- **Band Pass Filters - DSP1**
Incoming and outgoing audio is put through band pass filters to remove unwanted artefacts.
- **Echo Cancellation Algorithm - DSP2**
Our impressive separation figures are a result of our dedicated echo cancellation system enhanced by the GlenSound Digital Design Team.
- **Intelligent Sample Rate Converter**
DSP1 manages sample rate conversion and removes any unnecessary delay.
- **Worldwide Line Impedance Matching**
A DAA device optimized for voice applications is used to match worldwide impedance variations on analogue telephone circuits. This allows maximum compatibility with telephone networks across the world.
- **Keypad Dialer**
The top panel includes a 12 key keypad dialer for making calls, so there is no need for an external handset.
- **Adjustable Level Control**
The input and outputs both have adjustable level control

The facilities of the hybrid on the Recce result in separation figures of better than -70dB.



Mixer
Functions

Three Input Mixer

The front end function of the Recce is of a 3 input mixer. Two reporters / commentators can connect microphones and headphones to the Recce and report across the POTS line. As the Recce will often be used by the non technical all operation is very familiar and straightforward.

- **Three Input Mixer**

There are XLR inputs on the front panel for line and mic inputs. The three inputs have adjustable level, and clear on/off buttons, with an 'active' LED. A 12v phantom power option for a microphone is also included.

- **Three Input Headphone Mixer**

There are adjustable levels into the headphones of three different sources:

1. **Cue** - The incoming audio from the caller via the digital hybrid.
2. **Ext In** - An adjustable level for a locally connected external input.
3. **Mix** - The overall output mix of the three front panel inputs (the programme audio being sent down the phone line through the digital hybrid).



Each of these inputs can be independently switched to different sides of the headphones. They can be on the left ear only, right ear only, or both equally. This allows the users to obtain their preference of monitor mix.

- **Two Headphone Sockets**

The front panel contains 2 x 6.35mm jack sockets for headphone connection.

- **PPM Meter**

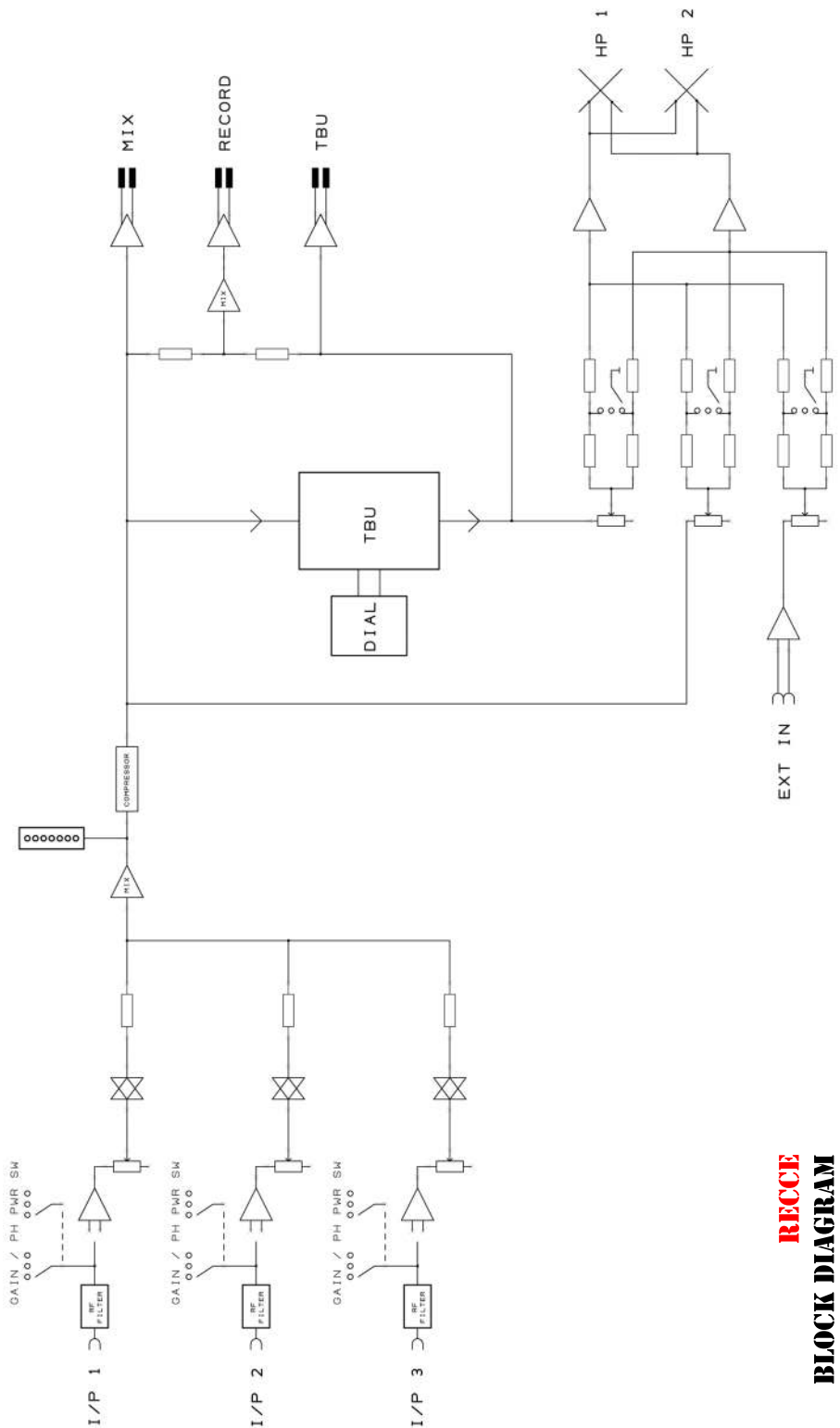
A 7 LED PPM meter monitors outgoing level of the mixer.

- **Battery Power Or External DC**

The Recce operates from 2 D cell batteries or from an external DC plug top power supply. The front panel has a low battery LED.



Block Diagram



RECCE
BLOCK DIAGRAM

RECCE

Technical Specifications

Technical Specifications

GENERAL SPECIFICATIONS

HEIGHT (TBC)	98mm
WIDTH	151mm
DEPTH (Excluding Connectors)TBC))	210mm
POWER INPUT	90 to 240 VAC 50 – 60 Hz
AUDIO CONNECTORS	Neutrik XLRs

ANALOGUE AUDIO INPUT SPECIFICATIONS

QUANTITY	3
CIRCUIT TYPE	Electronically balanced
INPUT CONNECTORS	3 Pin XLR sockets
INPUT IMPEDANCE	> 100K
INPUT LEVEL	Each input selectable between Mic, Mic +12v, Line
MIC INPUT GAIN RANGE	± 10dB
MAXIMUM MIC INPUT LEVEL (UNITY GAIN)	-35dB
LINE INPUT GAIN RANGE	± 10dB
MAXIMUM LINE INPUT LEVEL (UNITY GAIN)	+20dB

LEVEL METERS (PPM STYLE)

QUANTITY OF LEDS	7
RANGE PER LED	4 dB
LED INDICATION RANGE	+12 to -20dB
INPUT METER POINT	Pre compressor/limiter

ANALOGUE AUDIO OUTPUT SPECIFICATIONS

QUANTITY	2
SOURCE	Mix of all three input channels with incoming caller audio
CIRCUIT TYPE	Electronically balanced
OUTPUT CONNECTORS	3 pin XLR plug
OUTPUT IMPEDANCE	50 Ohms
MAXIMUM OUTPUT LEVEL	+18dBu
OUTPUT GAIN RANGE	±10dB

TELEPHONE LINE INTERFACE SPECIFICATIONS

QUANTITY	1
CONNECTOR	RJ11 socket (6P4C)
IMPEDANCE	16 complex AC circuits suitable for use Worldwide selectable by rear panel 'HEX' switch.
STANDARDS	Globally compliant design implemented (FCC, NET4, TBR-21 (replaces BABT), JATE & others)
LINE ISOLATION	5000 V
BANDWIDTH	125Hz to 3.6kHz (- 3dB) at 1kHz
SEPARATION (AUDIO IN to OUT)	>70dB with 0dB pink noise input
LINEUP LEVEL TO/ FROM LINE	0dB
LINE DISCONNECT	Automatic on K break (selectable)

TELEPHONE CALL CONTROL

DIALLER	Top panel standard 12 key keypad
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FRONT PANEL CONTROLS

INPUT GAIN	3 individual, via front panel input pots.
ON HOOK/ OFF HOOK SWITCH WITH LED	Can answer/ hang up call, LED flashes on incoming ring and indicates when line is open

RECCE



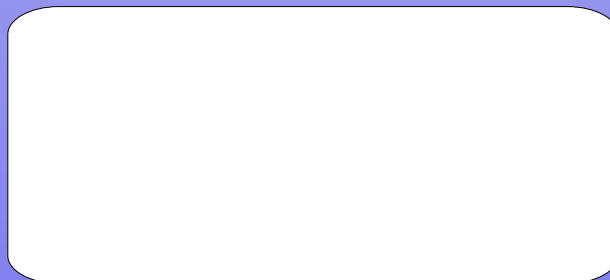


GLENSOUND RECCE

mobile reporting



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