Router
BVRD2M4

The BVRD2M4 is a four-zone voice alarm router, with the same great features as the BVRD2M, designed for smaller installations and networked decentralised systems.

VIGIL 2

FEATURES:

- DSP control.
- Possible to monitor up to four dual (A&B) circuits.
- Four electronically balanced inputs. Input one is configurable with 'all call' processor bypass and is normally used for the fire microphone in voice alarm systems. All inputs have both independent priority and level settings, allowing for dual mode; emergency and normal page.
- Up to fifteen priority levels are available. If two concurrent routes are set at the same priority they will be treated on a 'first come first served' basis. Priorities are changeable.
- Three band parametric plus bass and treble equalisation on all inputs (with limiter/compressor), enhancing the intelligibility of the system.
- Four audio electronically balanced (0dBM) outputs with ten band parametric equalisation and audio delay of up to one second.
- Fully monitored surveillance at either 30Hz or 20kHz (faults are recorded in the history log).
- Built-in realtime clock enables detailed logging and reporting, including detected faults. Indicates time, date, month and year. Also used for night time volume reduction, timed message trigger and to control external inputs. The history log can be accessed via the USB2 port on the front panel.
- Six flash stored (57 second) messages with independent level, surveillance and timing. Settings and messages are changeable (password protected) via the USB2 port.
- Nine selectable chimes / pre-announcement tones of up to eight seconds in length.
- Up to 126 EVAS routers can be networked using fibre or copper to produce a truly sophisticated VA network.
- Message synchronisation, even on a decentralised system.

- Ambient noise sensing (using optional ambient noise sensing microphones).
- Amplifier changeover for up to three zones (using optional relay board, product code BVRD2M4ACO).
- Two RS485 ports for networking, microphones, etc.
- Zone grouping and barring on BVRD voice alarm controller.

HARDWARE FACILITIES:

Audio:

- 4 x electronically balanced line -20dB audio inputs (input 1 with processor bypass).
- 'All call' failsafe emergency evacuate message embedded in main processor in the event of DSP failure.
- 4 x electronically balanced 0dBM audio outputs.
- 4 x opto-coupled sounder circuit programmable inputs from the fire detection system.
- 8 x analogue voltage sensing inputs for monitored input access, ambient noise sensors, remote volume controls.
- 8 x surveillance inputs for monitoring 100V loudspeaker lines (using BEL1 modules).

Control Outputs:

- 8 x NPN collector outputs 40V @ 100mA for busy, etc.
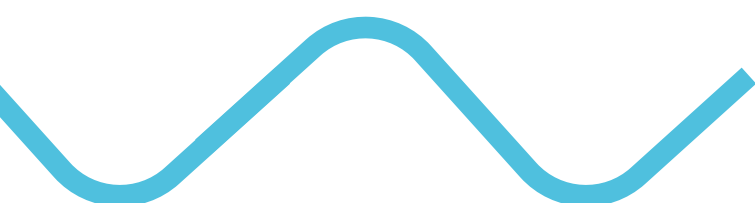- 1 x volt free relay changeover contact for common fault.

Serial Ports:

- 2 x RS485 half-duplex ports for communicating to control microphones, fire detection systems, network control, fault reporting.
- 1 x front panel USB2 port to configure the system, fault diagnostics, fault reporting, message download, etc.

VOICE ALARM
PUBLIC ADDRESS

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Specifications:

Audio input and output processing using DSP analogue devices ADSP2116 operating at 100MHz.

AUDIO INPUTS	
Input sensitivity	80mV (-20dB) to 3V (+12dB)
Frequency response	-3 dB @ 30Hz and 20kHz
Signal to noise ratio	Better than 70dB
Phantom power	12V
Three band parametric equalisation	
Frequency	50Hz, 63Hz, 80Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz, 6.3kHz, 8kHz, 10kHz, 12.5kHz, 16kHz
Bandwidth	0.05oct, 0.1oct, 0.2oct, 0.33oct, 0.5oct, 0.66oct, 1oct & 2oct
Lift and cut	$\pm$ 12dB in 1dB steps
Low filter	
Frequency	250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.2kHz, 1.6kHz, 2kHz, 2.5kHz
Slope	3dB/oct & 6dB/oct
Lift and cut	$\pm$ 12dB in 1dB steps
High filter	
Frequency	500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz
Lift and cut	$\pm$ 12dB in 1dB steps
High pass filter	
Frequency	100Hz, 150Hz, 200Hz, 250Hz, 300Hz
Slope	18dB/oct, 12dB/oct, 6dB/oct
Compressor	
Ratio	1.4:1, 2:1, 4:1, 8:1 & limiter
Attack	0-99mS
Release	0-999mS
Messages flash PROM	
Storage medium flash PROM (non-volatile) 57 seconds	
Frequency response	-3dB @ 50Hz & 18kHz
Signal to noise ratio	Better than 65dB

AUDIO OUTPUTS	
Nominal output level	0.775V (0dB)
Max output level	1.5V (+6dBM) @ 400 ohms source = 400 ohms
Frequency response	-3dB @ 30Hz & 20kHz
Output to noise ratio	Better than -85dB
Ten band parametric equalisation	
Frequency	50Hz, 63Hz, 80Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz, 6.3kHz, 8kHz, 10kHz, 12.5kHz, 16kHz
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High filter	
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Lift and cut	$\pm$ 12dB in 1dB steps
Audio delay	
Selectable from 0 to 1 second	
Front panel	
10 X LED fault indicators	
1 x common fault indicator	
Sounder and fault accept button	
POWER	
DC requirements	22V-35V @ 500mA

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