



The VAR4, VAR12 and VAR20 are DSP-based Voice Alarm & Public Address routers, allowing routing of 4, 12 or 20 audio inputs to any combination of 4, 12 or 20 outputs. In addition to audio routing these units provide full system control and fault reporting functions for ASL's rack mount Intellevac Voice Alarm systems. This includes the monitoring and control of up to 64 amplifier mainframes (V400 and X400) and their associated amplifier interface card/surveillance units.

The VAR4 router provides digital storage for 2 x 66 second and 2 x 50 second DVA messages, four audio outputs, and four universal mic/line inputs. Each input can be used with an ASL multi-zone paging microphone, Fire Microphone, Station Announcement Point, or other source. All-call or zoneable Fire Microphones may be connected to inputs 1 & 2. These act as all-call failsafe override microphones in the event of processor failure, as required by BS5839 Pt 8.

Fire alarm interfacing is built in, as are numerous routing and general control inputs. A serial control port enables interfacing to advanced DVA or site control systems, and gives the router the ability to be remotely monitored and configured. There are many other built in functions which are accessible via the front panel LCD display or the PC based Router Configuration Tool.

The router has a front panel display and control interface for commissioning the system, fault monitoring, diagnostics and audio monitoring. Access to all configurations settings is controlled by 4 digit PIN code.

The VAR12 has all functions of the VAR4, but offers 12 universal audio inputs, 12 audio outputs, and storage for 4 x 66 second and 4 x 50 second DVA messages.

The VAR20 again has all functions of the VAR4, but offers 20 universal audio inputs, 20 audio outputs, and storage for 6 x 66 second and 6 x 50 second DVA messages.

For further details please refer to the [VAR4 / VAR12 / VAR20 Voice Alarm & Public Address Router Manual](#).

For information on other products, please visit [www.asl-control.co.uk](http://www.asl-control.co.uk)



# Specification

## General

### VAR4

Universal mic / line audio inputs with serial control, surveillance tone, and phantom power.....	4
Audio outputs with surveillance tone.....	4 (separate A and B outputs for each)
Built in DVA Storage.....	4 (2 x 66 second & 2 x 50 second)

### VAR12

Universal mic / line audio inputs with serial control, surveillance tone, and phantom power.....	12
Audio outputs with surveillance tone.....	12 (separate A and B outputs for each)
Built in DVA Storage.....	8 (4 x 66 second & 4 x 50 second)

### VAR20

Universal mic / line audio inputs with serial control, surveillance tone, and phantom power.....	20
Audio outputs with surveillance tone.....	20 (separate A and B outputs for each)
Built in DVA Storage.....	12 (6 x 66 second & 6 x 50 second)

### All variants

Hardware bypass Fire Microphone inputs .....	2 (Universal mic / line inputs 1 & 2)
Background Music line audio inputs.....	2 * stereo pairs (Internally Mixed)
Mixed Listen In monitoring audio output.....	1

## Audio Routing

### VAR4

Analogue input interfaces.....	10
Opto-Isolated Digital control / Fault / Routing / Fire alarm panel input interfaces.....	12
Remote I/O Expander Unit (BMB01) Interfaces.....	3

### VAR12

Analogue input interfaces.....	10
Opto-Isolated Digital control / Fault / Routing / Fire alarm panel input interfaces.....	32
Remote I/O Expander Unit (BMB01) Interfaces.....	6

### VAR20

Analogue input interfaces.....	10
Opto-Isolated Digital control / Fault / Routing / Fire alarm panel input interfaces.....	52
Remote I/O Expander Unit (BMB01) interfaces.....	9

### All variants

Control / Fault reporting display and button interface .....	on front panel
Fault Log .....	200 events
Real time clock .....	built in (externally synchronisable)
Remote diagnostics / control / PC-DVA interface .....	1 (RS232)
Auxiliary DC supply for external equipment .....	18 – 36V DC @ 100mA
Change over fault relays.....	2 (one monitored)

## Dimensions & Weight

### VAR4

Dimensions (H x W x D).....	(1U)	44mm x 436mm x 222mm (excl. handles)
Weight.....		2.2kg

### VAR12 & VAR20

Dimensions (H x W x D).....	(3U)	133mm x 436mm x 222mm (excl. handles)
Weight.....		6.0kg

## Environmental

Temperature (storage and operating).....	-5°C to +50°C
Humidity range.....	0% to 93% non-condensing

## Audio Signal Processing

### Input

Graphic equalisation.....	3 band plus LF cut
Input overload margin.....	40dB
Input attenuator range.....	0dB to -63dB
Phantom power.....	12V DC
Chime generation .....	test tones, none, whoop, 1 / 2 / 3 chimes

### Output

Graphic equalisation.....	8 band
Level and impedance.....	0dBu @ Z=660Ω
Hard limiter threshold.....	+2.5dBu
Induction loop.....	2-6 channels compression, gain, EQ

### General

Gain control.....	input / output / external volume control
Ambient noise sensing .....	programmable output level control
Night volume control.....	7 day scheduler function / output level control
Gain control range.....	0dB to -63dB
THD input to output.....	<0.1% @1kHz
Crosstalk.....	>70dB @1kHz
Residual noise.....	<78dBu (A)
S/N line.....	>70dB (A)
S/N mic.....	>60dB (A)
Frequency response (input to output).....	100Hz to 20kHz -3dB

## Current Consumption

### VAR4

Backlight on and sounder on.....	400mA @ 24V DC supply
Backlight off and sounder off.....	350mA @ 24V DC supply

### VAR12

Backlight on and sounder on.....	1.1A @ 24V DC supply
Backlight off and sounder off.....	1A @ 24V DC supply

### VAR20

Backlight on and sounder on.....	1.6A @ 24V DC supply
Backlight off and sounder off.....	1.5A @ 24V DC supply



This equipment has been designed and manufactured to the following standards:

- EMC.....EN50121-4, EN 55103-1 Environment E1, EN 55103-2 Environment E5
- Safety..... EN 60065
- Voice Alarm Control & Indicating Equipment..... EN 60849, BS 5839 Part 8 2008, NFPA130
- Rail Approvals..... Network Rail PA/VA & Long Line PA NR/L2/TEL/30134, London Underground



Failure to use the equipment in the manner described in the product literature will invalidate the warranty.



A 'Declaration of Conformity' statement to the above standards, and a list of auxiliary equipment used for compliance verification, is available on request.

QUALITY ASSURED ISO9001:2000