
JACQUES EWIS and Line Monitor

Description

The JACQUES JELM-1 combines an 8 channel PA line monitor and EWIS in one unit. It provides diagnostic and fault indication for high voltage PA speaker lines and the ability to produce alert tones in an emergency situation. It is a hub which connects between PA music sources, PA amplifiers, PA speakers, PA microphones and a standard building FIP (Fire Indication Panel).



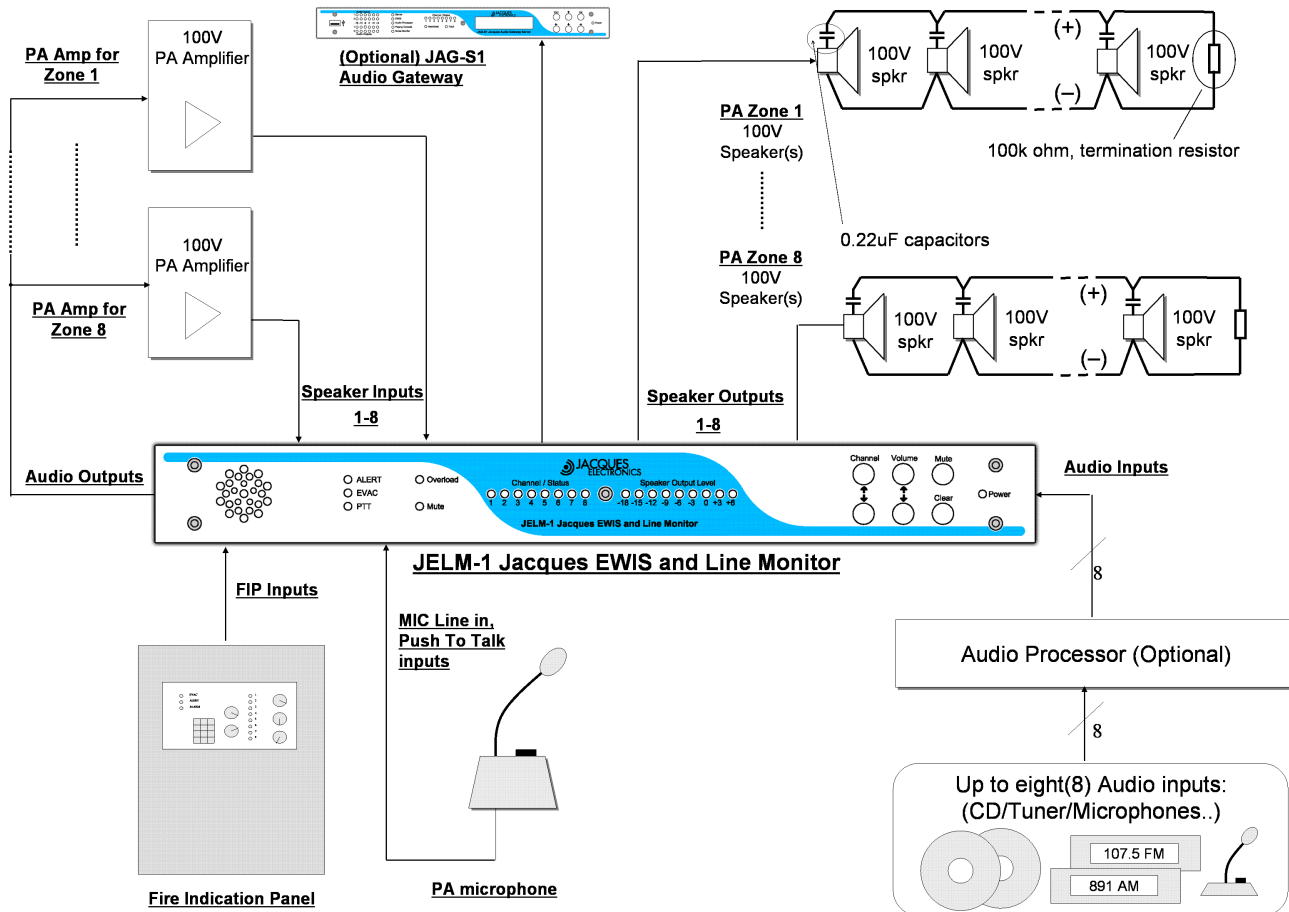
Features

- Line fault detection (open, short) for eight PA speaker zones
- Standalone operation
- Channel monitor with internal speaker and VU meter
- Diagnostic indicators for speaker faults, speaker overload and FIP status
- Diagnostic DTE RS-232C port
- Line r.m.s. level detection for eight PA speaker zones
- Inbuilt emergency tone generation (AS2220)
- Slimline 1RU case for rack mounting
- 240 V a.c. power input with alternate 24 V d.c. power input
- Relay inputs for EVAC, ALERT and PTT (Push to Talk)
- Relay outputs (NC/NO) for FAULT and ALARM
- Balanced line input for FIP announcement microphone
- Bypassable fault detection for individual PA zones
- Removable enclosure rack ears for desktop mounting
- Compatible with the JACQUES JAG-S1 Audio Gateway Server

Applications

- Shopping centres / supermarkets
- Rail and Bus stations
- Auditoriums
- Schools and universities

Block Diagram



Operation

- Audio inputs from music and microphone sources are fed to the JELM-1
- The audio inputs are in turn fed out to PA Amplifiers.
- The speaker output from the PA Amplifiers are fed into the JELM-1
- The speaker outputs are fed to daisy chained PA speakers in EWIS configuration if required.
- The JELM-1 monitors the voltage levels and line status (open/short circuit) and reports faults.
- If the FIP inputs are triggered, the JELM-1 overrides the audio input channels with emergency tones.
- If the PTT input is triggered, the JELM-1 overrides the audio inputs channels and emergency tones with voice from the microphone.

Specifications

General		
Power Requirements	(200 – 240) V a.c. 50/60 Hz, 1 A (18 – 32) V d.c. 1.5 A	
Dimensions (W x H x D)	(425 x 43.5 x 320) mm (1U standard rack size)	
Weight	3 kg	
Host Port	RS-232 DTE Interface, 3-wire (TxD, RxD, GND), 9600,8,N,1	
Digital Inputs	Alert, EVAC, PTT inputs, dry contact	
Relay Outputs	2 x 3-terminal outputs (Normally Open, Common, Normally Closed), 2 A / 24 V d.c. contacts rating	
Audio	Channels 1 to 8	FIP Line In
Connections	8 x line-level balanced inputs, 8 x line-level balanced outputs	1 x balanced input
Input impedance	50 kΩ	20 kΩ
Nominal input level	0 dBu	-10 dBu
Maximum input level	20 Vp-p	5 Vp-p
Output to input gain	0 dB	10 dB
Frequency response	(0 – 100) kHz	20 Hz – 25 kHz
Total Harmonic Distortion & Noise (THD+N)	< 0.02 % @ 1 kHz, 0 dBu	< 0.02 % @ 1 kHz, -10 dBu
Signal to Noise ratio (SNR)	90 dB @ 1 kHz, 0 dBu	80 dB @ 1 kHz, -10 dBu
Common Mode Rejection Ratio (CMRR)	80 dB @ 1 kHz	40 dB @ 1 kHz
EWIS tones generation	Alert and EVAC tones, as defined in AS2220	
EWIS tones output level	0 dBu (Alert tone after initial five level steps)	
100 V Speaker Line Monitoring		
Connections	2 x 16-way pluggable terminal block connector (speaker inputs and speaker outputs)	
Maximum voltage	100 V rms	
Maximum current	1.2 A	
Number of channels	8	
Local monitoring	LED VU meter and built-in speaker, monitored channel selectable from the keypad on the front panel	
Environmental		
Temperature	(0 – +50) °C operating, (-10 – +60) °C storage	
Humidity	5% - 95% RH (non-condensing)	
Compliance		
EMC	EN 55022:1998 incl. Amdt1:2000 & Amdt2:2003, Class A C-tick compliant, N12046	
Safety	AS/NZS 60065:2003, Class I device	

Ordering Information

Part Number	Description
50928	JELM-1, Jacques EWIS and Line Monitor

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