Fire detection and evacuation solutions that save lives.

EvacU^Elite 150 Watt Amplifier Card

1. Description

The 150 Watt Amplifier occupies 2 slots in the EvacU^Elite Universal Rack. Up to 8 x 150 Watt Amplifiers can be fitted into each Universal Rack providing up to 8 EWS Zones.

A fully loaded maximum of 20 x 150 Watt Amplifiers can be configured in a EvacU^Elite . Assuming the amplifiers were all fully loaded.

The 150 Watt Amplifier provides one 150 Watt EWS Zone with an integrated 4-Way Audio Splitter. The 4 Audio outputs operate as one EWS zone.

If using a Remote Paging Console and 4 individual speaker circuits are connected '4 individual paging zones' can be achieved or grouped to suit.

One BGM source can be configured to each 150 Watt Amplifier.

Multiple 150-Watt Amplifiers (and other sizes) can be configured *to activate simultaneously* when larger speaker loading areas are needed. **For example** a 450 Watt EWS zone is required.

Install 3 x 150 Watt amplifiers. Cable a minimum of 3 "equally loaded 150W speaker feeds". Multiple amplifiers are then configured to activate from one EWS -VACIE control widget and from one FIP input.
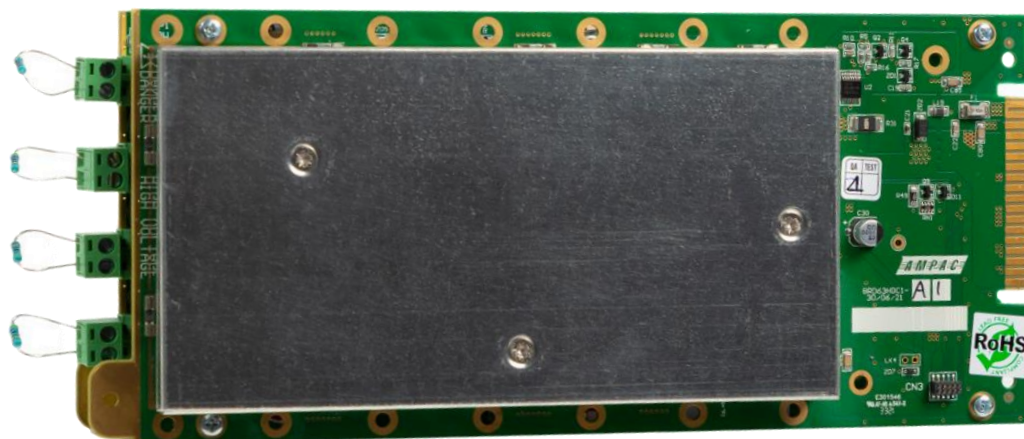
2. Connections

Connected speakers fitted with capacitors should be used so the DC EOL speaker monitoring circuit is functional.

A maximum load across all 4 outputs shall not exceed 150W in total. Where circuits are split the following applies:

- Output 1 Maximum load 150Watt
- Output 2 Maximum Load 75Watt
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3. Cabling Max Distance (Non-Distributed Load Calculations)

Loading	Load Impedance	1.0mm^2 Field Wiring	1.5mm^2 Field Wiring	2.5mm^2 Field Wiring	Maximum Capacitance
75Watt	67Ω	386m	594m	1056m	200nF
150Watt	67Ω	193m	297m	528m	200nF

Max Drive Voltage	100V rms @ full load
Distortion	<=0.3%@ 150 Watt x1
Frequency Response (AS 4428.16)	300 Hz to 10 kHz +/- 1 dB w.r.t. 1 kHz
	150 Hz to 12 kHz +/- 3 dB w.r.t. 1 kHz
SNR	>=70 db
Speaker Circuit Monitoring	DC, nominal 47 kΩ

4. Amplifier Status Indicators

Both AS 4428.4 And AS 4428.16 require all internal cable terminations and cable routings to complete with the relevant clauses of AS/NZS 3100 and AS/CA S009.

To comply with the above, there must be 50mm separation between ELV and LV wiring.

The only LV wiring within the cabinet is the 100V speaker wiring. It is recommended that all speaker wiring is terminated **using ferrules** – which suit the gauge of the cable being used.

Speaker wiring should conform to one of the following standards: AS/CA S008, AS/NZS 3191, AS/NZS 5000.1, AS/NZS 3808 or marked with VW-1.
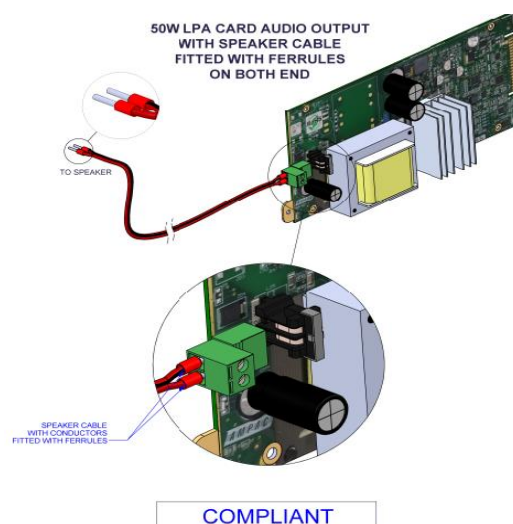
5. General Status Indicator

OFF: cards have no power or processor is fault

FLASHING GREEN: board is operating, no faults

FLASHING AMBER: board has a fault condition

STEADY AMBER: Not receiving commands from the Distribution CPU

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6. Installation

a. Turn power OFF to the Universal Rack. Use the **EWCIE Power Switch** on the Primary PSU.

b. Observing anti-static precautions, install the Amplifier Card in the panel.

c. Ensure the 2 slots consumed in the panel are configured as a 150Watt Amplifier*.

d. Ensure the EWS zone actions and descriptors are configured*.

e. Connect the field cables using ferrules.

f. Fit all the cards into the universal rack slots correctly.

g. Fit the rack cover plates which prevent dislodgement of the cards.

h. Turn power ON to the Universal Rack. Use the **EWCIE Power Switch** on the Primary PSU.

*For Item C&D refer to the EvacU Elite Programming Manual MAN3142

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