

EvacU^{Elite} 50 Watt Amplifier

1. Description

The 50 Watt Amplifier occupies 2 slots in the EvacU^{Elite} Universal Rack. Up to 8 x 50 Watt Amplifiers can be fitted into each Universal Rack providing up to 8 EWS Zones.

The 50 Watt Amplifier is a Class D amplifier with 1 x 50 Watt audio output with DC monitoring. One channel source and BGM selection for each 50 Watt Amplifier means tones / message and background music source can be routed to each amplifier respectively.



2. Connections

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

Loading	Load Impedance	1.0mm ² Field Wiring	1.5mm ² Field Wiring	2.5mm ² Field Wiring	Maximum Capacitance
50Watt	200Ω	579m	891m	1333m	100nF

Max capacitance must be below 100nF and max inductance must be below 1mH

Max Drive Voltage	100V rms @ full load
Distortion	<=0.1%@ 50Watt x1
Frequency Response (AS 4428.16)	400 Hz to 10kHz +/- 1dB w.r.t. 1kHz 200 Hz to 12kHz +/- 3dB w.r.t. 1kHz
SNR	>=70db
Speaker Circuit Monitoring	DC, nominal 47kΩ

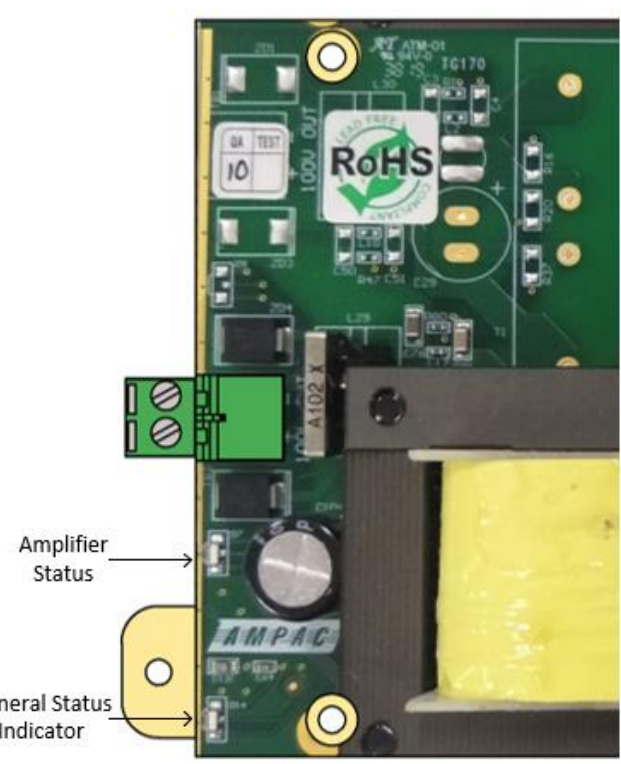
Both AS 4428.4 and AS 4428.16 require all internal cable terminations and cable routings to complete with the relevant clauses of AS/NZS 3100 and AS/CA S009.

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

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The only LV wiring with 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.



Amplifier Status Indicators

Dual Color LED indicators

RED: Output is activated (should be red all the time – showing the test tone is being broadcast)

FLASHING AMBER: Fault condition – short circuit / open circuit.

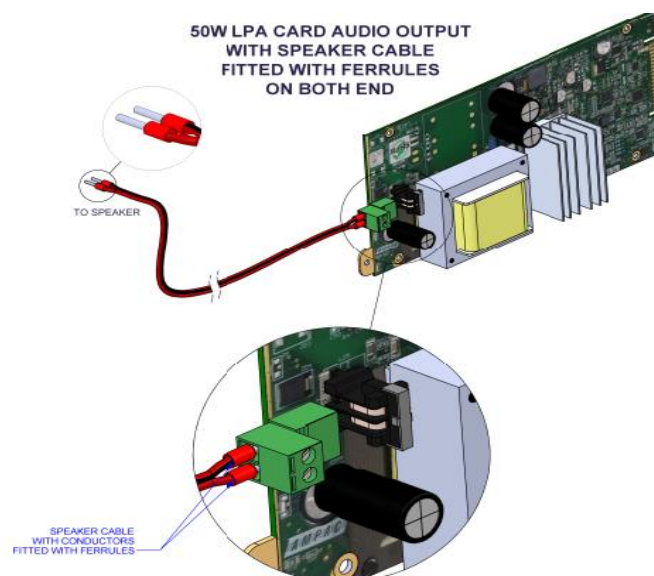
General Status Indicator

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



COMPLIANT

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3. 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 50Watt Amplifier Card in the panel.
- c. Ensure the 2 slots consumed in the panel are configured as a 50Watt Amplifier*.
- d. Ensure the EWS zone actions and descriptors are all configured*.
- e. Connect the field cables as shown in the diagrams using ferrules.
- f. Fit all the cards into the Universal Rack slots correctly.
- g. Fit the rack cover plates which prevent dislodgement.
- h. Turn power ON to the Universal Rack. Use the **EWCIE Power Switch** on the Primary PSU.

For Item C&D Refer to EvacU Programming Manual MAN3142

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