

EvacU^{Elite} Dual 25 Watt Amplifier Card

1. Description

The Dual 25 Watt Amplifier occupies 2 slots in the EvacU^{Elite} Universal Rack.

Up to 8 x Dual 25 Watt Amplifiers can be fitted into each Universal Rack providing up to 16 EWS Zones.

It is a Class D amplifier with 2 x 25 Watt independent audio outputs with DC monitoring.

Both speaker zone outputs can be switched on simultaneously or independently so it can be configured as 2 EWS Zones or 1 EWS Zone.

Individual channel source and BGM selection for each Dual 25Watt 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.

The following table details audio load, wire size and length of cable runs. Calculations are based on a 1 dB of loss (approx. 10V attenuation at the end of the cable run). Maximum capacitance must be below 75nF and max inductance must be below 1Mh.

Amp Size	Load Impedance	1.0mm ² Field Wiring	1.5mm ² Field Wiring	2.5mm ² Field Wiring	Maximum Capacitance
25 Watt	400Ω	760m	1000m	1000*m	*75nF

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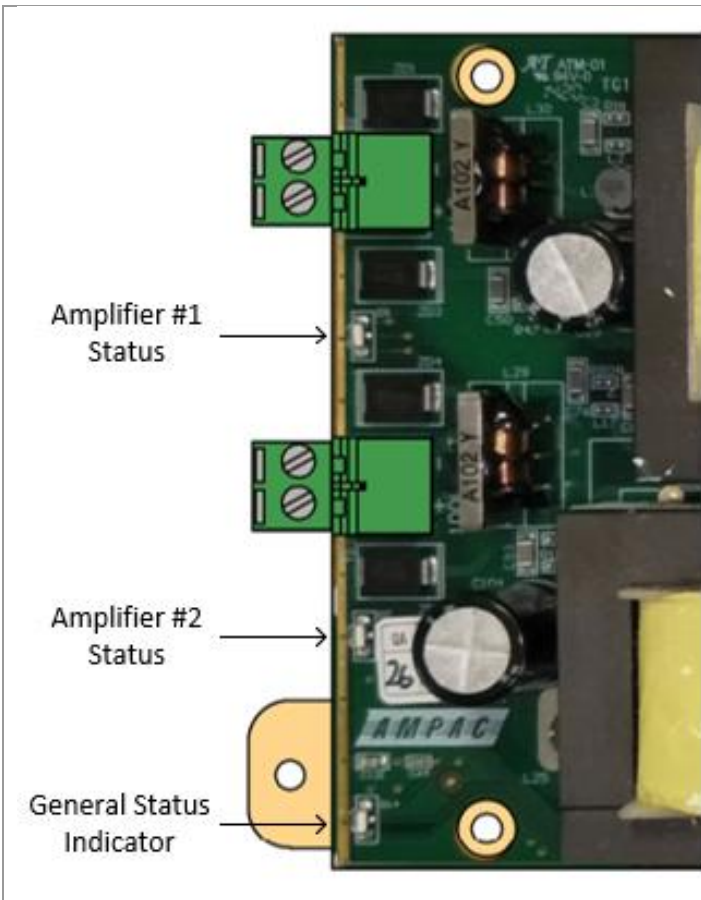
Max Drive Voltage	100V rms @ full load
Distortion	<=0.1%@ 25Watt x2
Frequency Response (AS 4428.16)	400 Hz to 10kHz +/- 1dB w.r.t. 1kHz 200 Hz to 12kHz +/- 3dB w.r.t. 1kHz
SNR	>=70db
Speaker Circuit Monitoring	DC, nominal 47kΩ

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.

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 #1 Status

Amplifier #2 Status

General Status Indicator

Amplifier Status Indicators

Dual 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

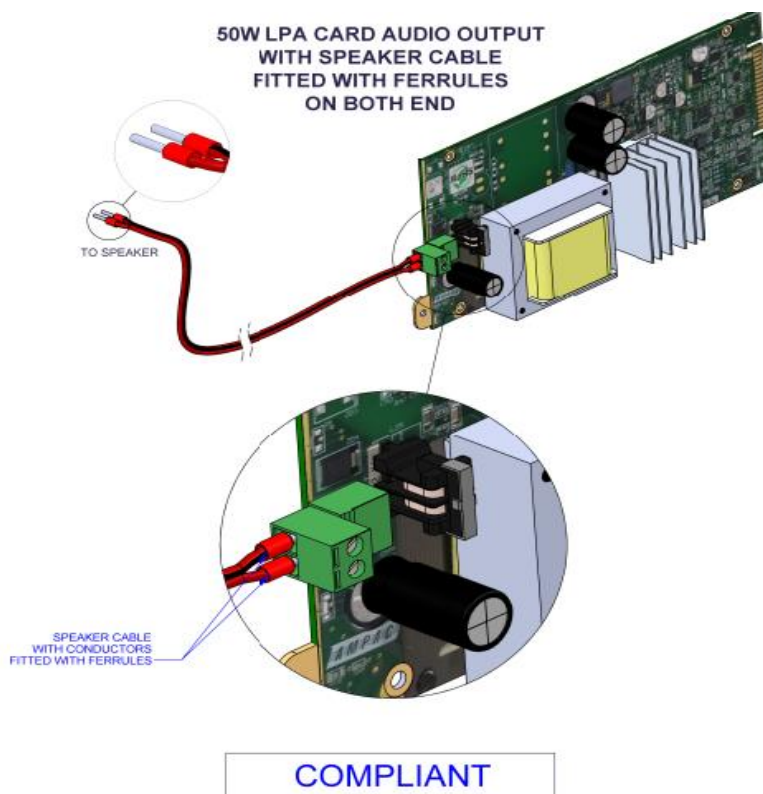
STEADY AMBER: Not receiving commands from the Distribution CPU

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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 Amplifier card in the panel.
- c. Ensure that the 2 slots in the panel are configured as Dual 25W*.
- d. Ensure the EWS zone actions and descriptors are all configured.
- e. Connect the field cables using ferules as shown in the diagrams below.
- 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 Please refer to the **Programming Manual** MAN3142



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