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Adept AC1A

Operating Instructions

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BALDWIN BOXALL
COMMUNICATIONS

AC1A BATTERY CHARGER

The AC1A Battery Charger is a small add-on board that may be fitted to Adept amplifiers. The unit provides a constant voltage output of 27.1 volts at a maximum output current of approximately 1 amp suitable for charging batteries used for mains supply failure emergency backup. The output voltage is interrupted periodically in order for some simple surveillance to take place. The functions monitored are “Charger Fail” and “Battery Disconnected”. Should one of these conditions exist a relay and a fault LED output are activated. The LED connection points and the relay contacts are brought out on an 8 way SIL pin header.

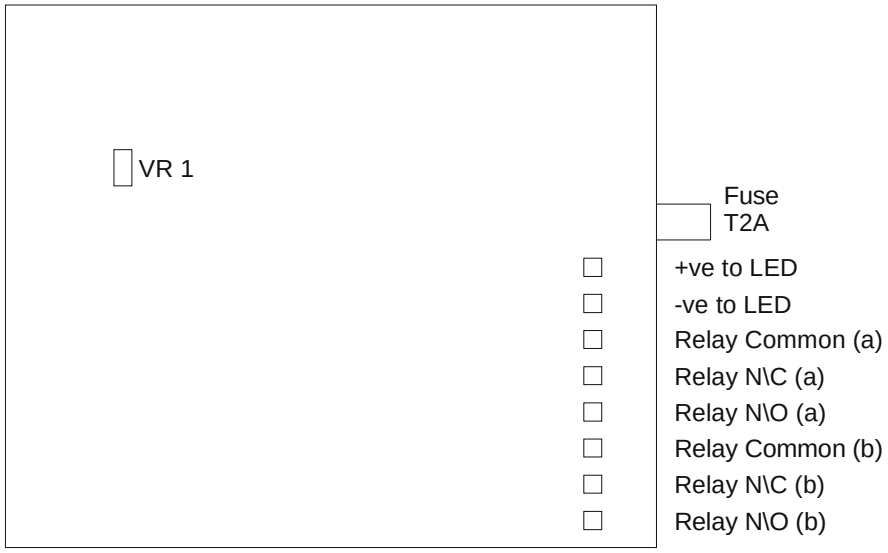

Figure 1 - Solder side view of PC1098-1 AC1A

Fitting Your AC1A

The AC1 printed circuit board is mounted into the Adept amplifier on the right hand side of the chassis using two self tapping screws which screw into the AC1’s heatsink. The printed circuit board is mounted in the chassis solder side uppermost.

Three flying leads are connected to the PCB. The red wire is connected to the H.T. fuseholder on the rear panel. The orange wire is connected to the Batt 24V fuseholder on the rear panel. The black wire is connected to the negative terminal of the large smoothing capacitor on the base of the chassis.

Setting Up & Testing The Battery Charger

Turning on the amplifier with the batteries disconnected will produce a voltage at the battery input connector which must be set to 27.1 Volts by adjusting VR1. This must be done whilst the charger is active and not when it is monitoring for faults ! When the charger checks to see if the batteries are connected the relay and LED output will be activated. This condition will remain until batteries (with a reasonable degree of charge) are connected to the system. Having connected the batteries and the alarm condition reset, turn the amplifier off (simulating a charger fail condition). The relay and LED output will again indicate that a fault exists, (this time the board being powered by the batteries). Turn on the amplifier again and the fault will clear itself and the batteries will be charging.