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Dealers Throughout Australia

A 2065

Line Monitoring Unit

The A 2065 Line Monitoring Module has been specifically developed to continually monitor the integrity of the speaker lines for 100V Line distributed PA systems. The module is easy to install and connect.

CONNECTION

Mount the module within the amplifier or an appropriate enclosure.

Connect a nominal 24V DC supply (15 - 35V DC) positive pin 1, negative pin 2. The output of the amplifier is connected to the "IN" terminals pins 3 + 4. The speaker line is connected to pins 5 + 6. Pins 7,8 and 9 are used for monitoring an alarm condition.

i.e PIN 7. Switched negative out in OPEN CIRCUIT condition

PIN 8. Positive 12V

PIN 9.Switched negative out in SHORT CIRCUIT condition

Please note: pins 7+9 are only rated at 100mA. For driving loads larger then 100mA use a 12V interface relay.

SPEAKER CONNECTION

For the A 2065 to operate correctly the speakers must be wired in a "loop in" "loop out" basis. See diagram 2. "T" connections are not permitted. Each speaker must be fitted with a 22µf bipolar capacitor to prevent DC flowing through the speaker transformer. Altronics speakers C 2105 4" and C 2111 8" are suitable for this application. At the last speaker, the speaker line must be terminated with an end of line (EOL) resistor valued at 100K.

The module continuously sends a DC signal down the speaker line looking for the 100K EOL resistor. If this is present the OK (green) LED lights.

If the 100K is not found ie. open circuit the OPEN CIRCUIT (Red) LED lights.

If the EOL resistor is lower than 100K the SHORT CIRCUIT (Yellow) LED lights.

This signal will not interfere with any audio program being sent to the speakers.

When a fault develops the appropriate LED lights and an output appears at either pin 7 or 9. When either pin 7 or 9 receives an output, this could be used to sound an alarm or operate a relay etc.

Several modules can be connected to the output of one amplifier where several speaker circuits are installed. This way each speaker line can be monitored independent of the others.

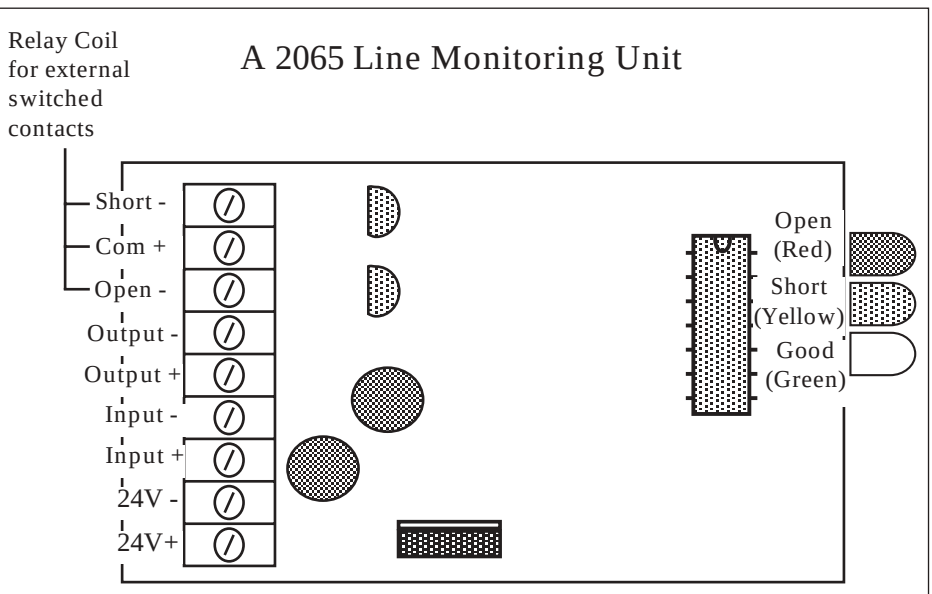

Figure 1: Wiring pin outs for the A 2065 Line monitoring unit. Take care to note the polarity of the wires, reversing them may cause damager to the amplifier or line monitoring unit

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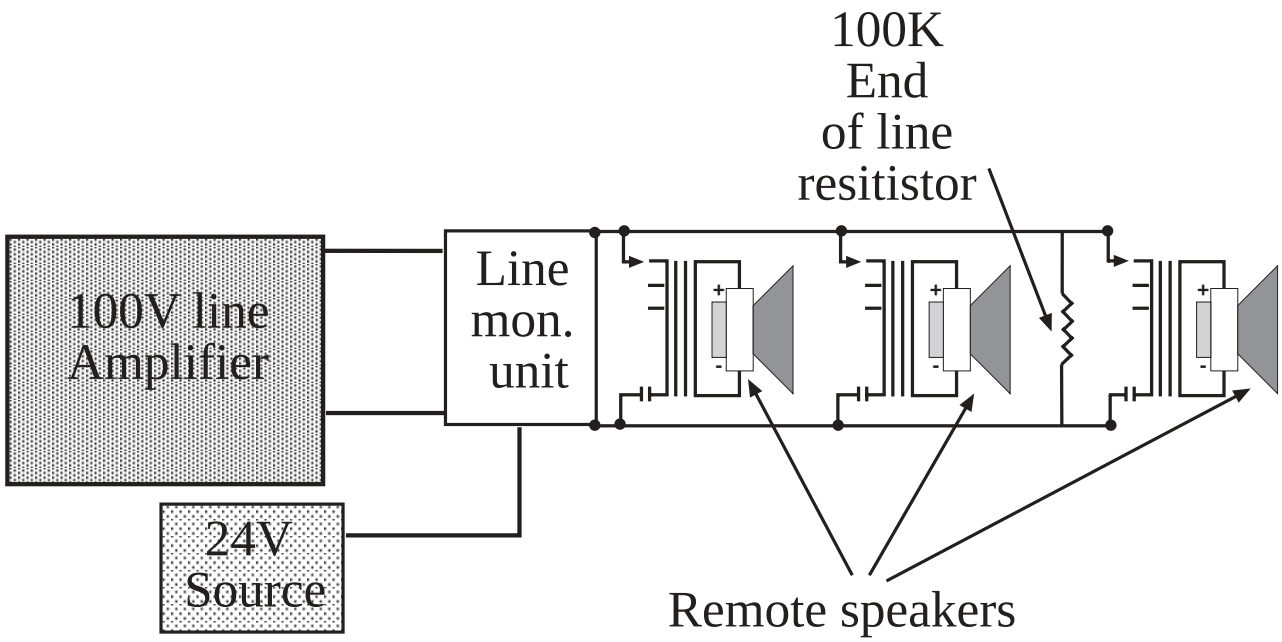

Figure 2: Line diagram representation of the speaker loop that will operate the unit correctly. Note the 100K End of line resistor, this must be installed on the last speaker otherwise the unit will not operate correctly

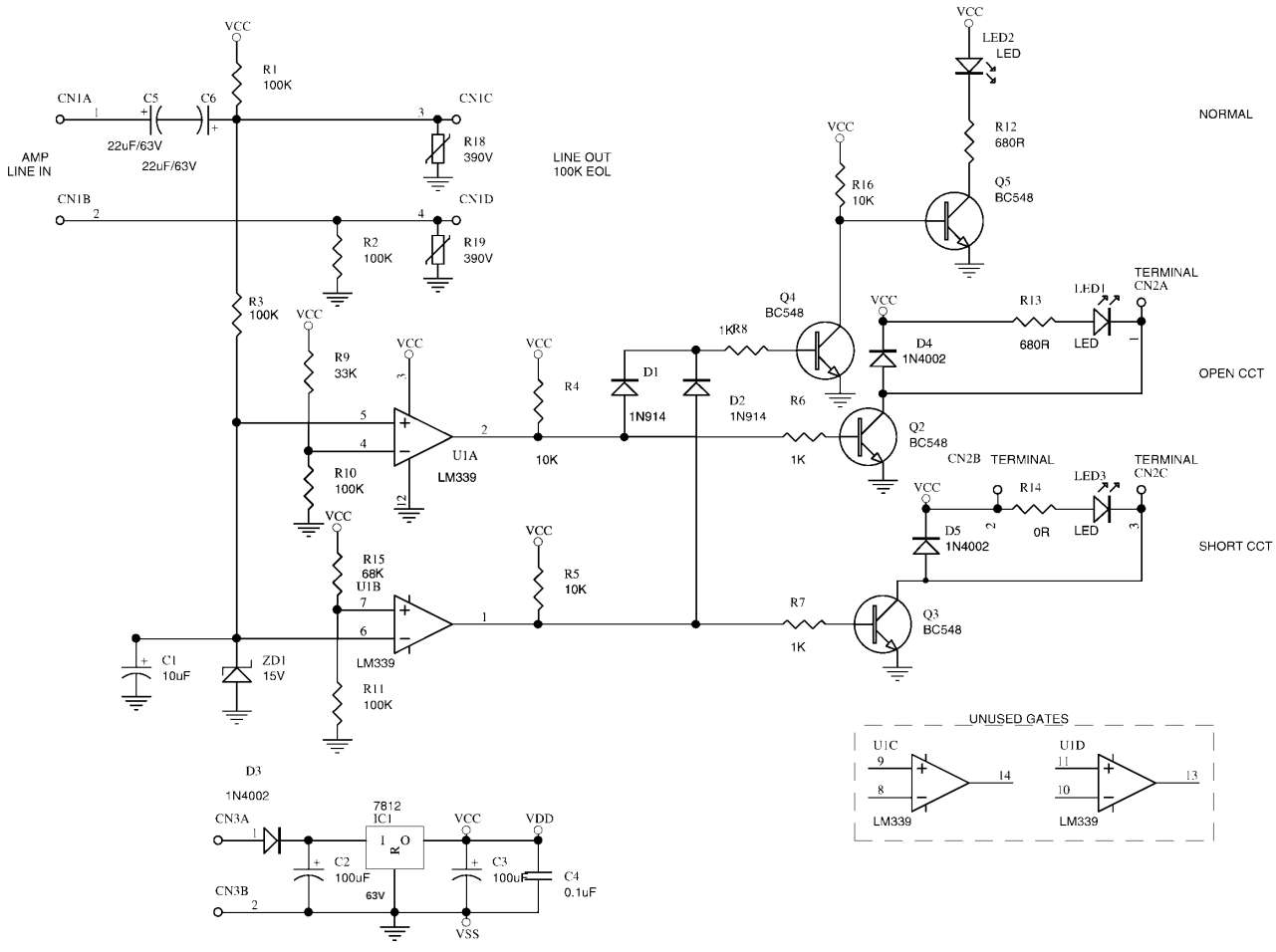

Figure 3: Circuit diagram of the A 2065 line monitoring module.