

B41R and B81R

Operating Instructions

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BALDWIN BOXALL
COMMUNICATIONS

B41R and B81R Relay Sets

When installing a multi loudspeaker zone system it is necessary to use a relay unit to route the paging or background music through to the relevant zones. The B41R and B81R are designed to be operated by our BDM204, 208 and 216 multizone paging microphones. The B41R will control 4 zones and the B81R will control 8 zones. If more than 8 zones are needed, use multiples of the units. The relays need 24VDC to operate them. This supply will normally be obtained from the amplifier.

The B41R and B81R are each available in two versions. When supplied as a printed circuit board for fitting into a rack they are designated B41R and B81R. They are also supplied in a mild steel enclosure and are then known as B41RB and B81RB.

Order Code Numbers are:

| | |
|--------------|--|
| <i>B41R</i> | 4 way less box for incorporation into racks. |
| <i>B41RB</i> | 4 way in enclosure. |
| <i>B81R</i> | 8 way less box for incorporation into racks. |
| <i>B81RB</i> | 8 way in enclosure. |

The B41R and B81R Relay Switching Sets can be used in a variety of different ways to route paging announcements and background music to a maximum of 4 or 8 loudspeaker lines (Max current capacity per relay 5A ie 500 Watts @ 100V).

A) Speech/Music Diversion Application

The B41R can be used in a single amplifier installation to divert speech only to one zone and background music only to another, simply by wiring the units as shown in Figure 2.

B) Single Amplifier Paging and Music Application

The B41R wired as figure 3 will interrupt background music and broadcast a paging announcement in any pre-selected zone via a zoned microphone. The disadvantage of using one amplifier is that unselected zones will lose BGM and will be silent for the duration of the message.

C) Dual Amplifier Paging and Music Application

On a larger system where two amplifiers are used, one amplifier is dedicated to speech and the other for background music. The B41R wired as Figure 4 will interrupt background music and broadcast a paging announcement in any preselected zone, via a zoned microphone such as the BDM204, 208 or BDM216.

BACKGROUND MUSIC WILL NORMALLY BE FED INTO N/C AND PAGING FED INTO N/O.
 IF B.G.M. IS NOT REQUIRED IN A ZONE. REMOVE BOTH SAME COLOURED LINKS. E.G. B.G.M. NOT REQUIRED IN ZONE 2, REMOVE BOTH RED LINKS. PAGING WILL STILL BE BROADCAST TO ALL AREAS.

| ZONE | LINK WIRE COLOUR |
|------|------------------|
| 1 | BROWN |
| 2 | RED |
| 3 | ORANGE |
| 4 | YELLOW |
| 5 | GREEN |
| 6 | BLUE |
| 7 | MAUVE |
| 8 | GREY |

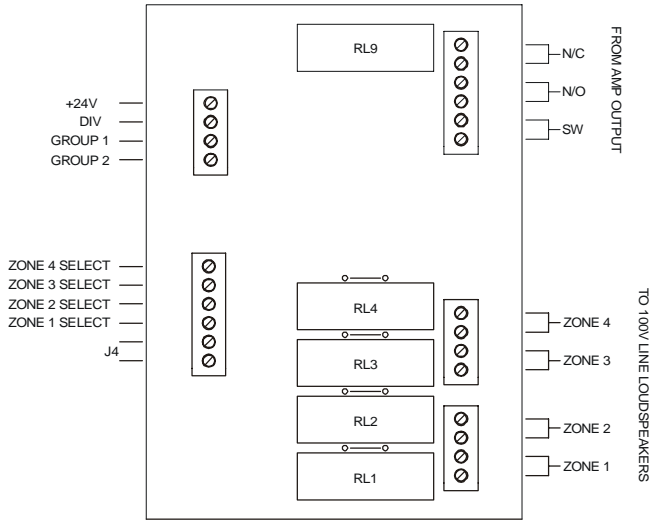


Figure 1a - B41R/B Connection Drawing

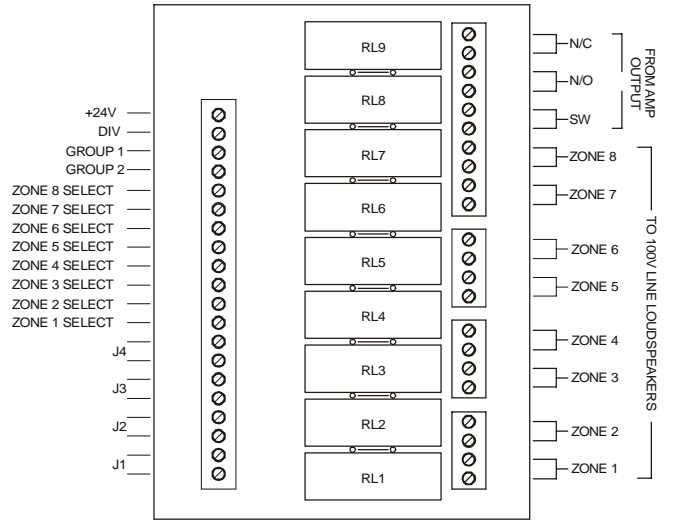


Figure 1b - B81R/B Connection Drawing

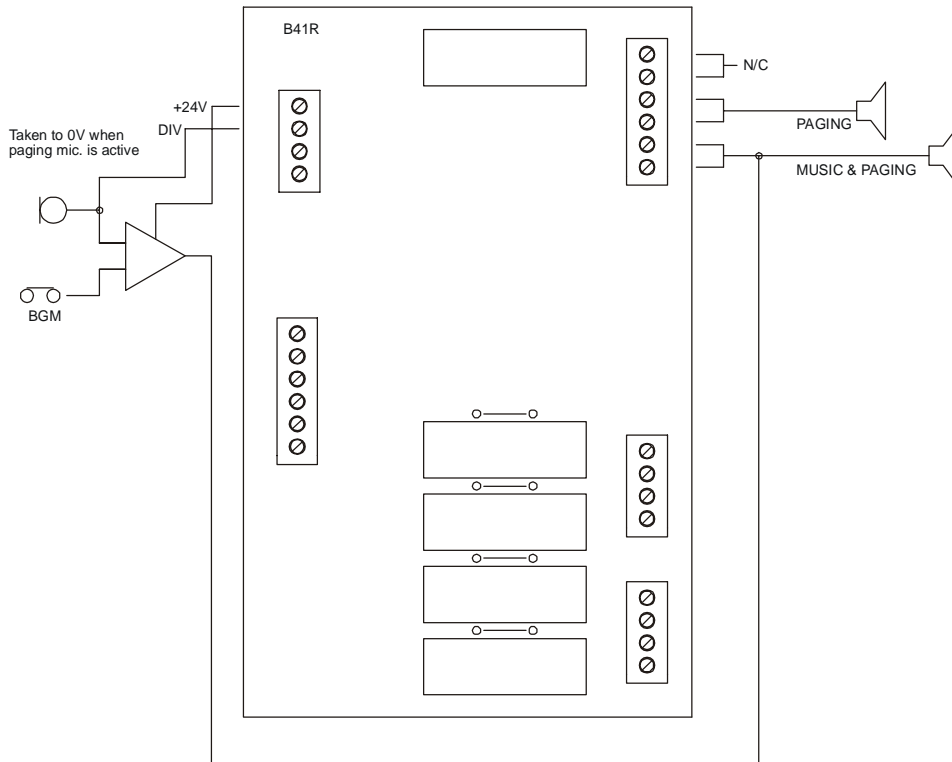


Figure 2 - Speech/Music Diversion Application Using the B41R/B

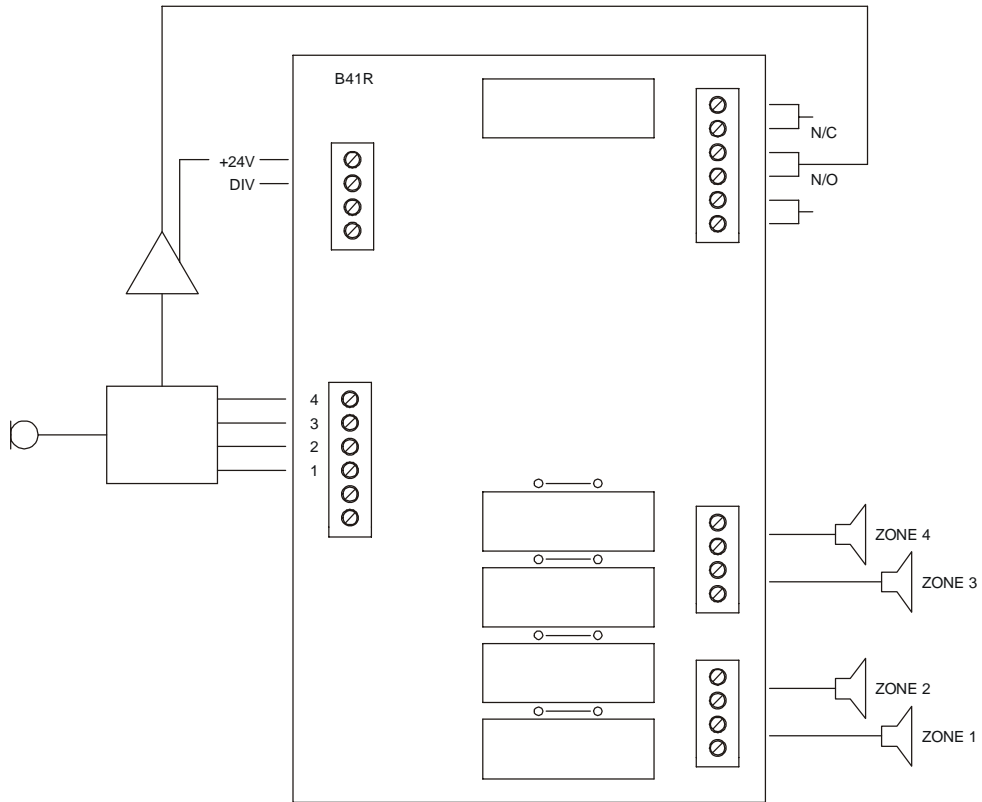


Figure 3 - Single amplifier, four zone system

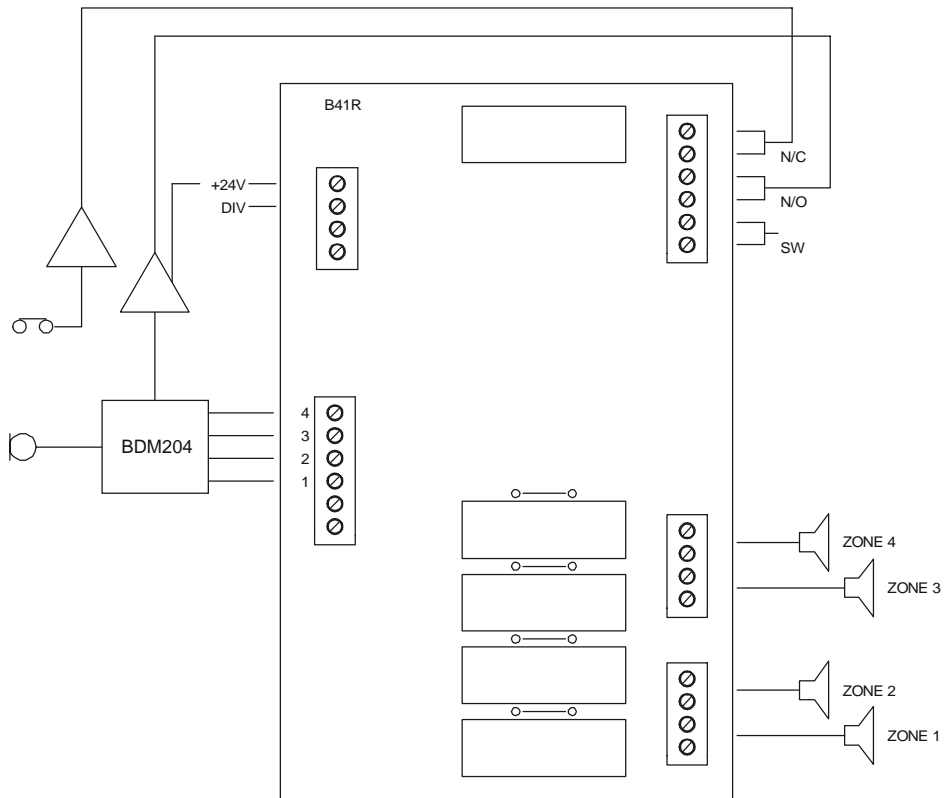


Figure 4 - Two amplifier, Paging and Music application

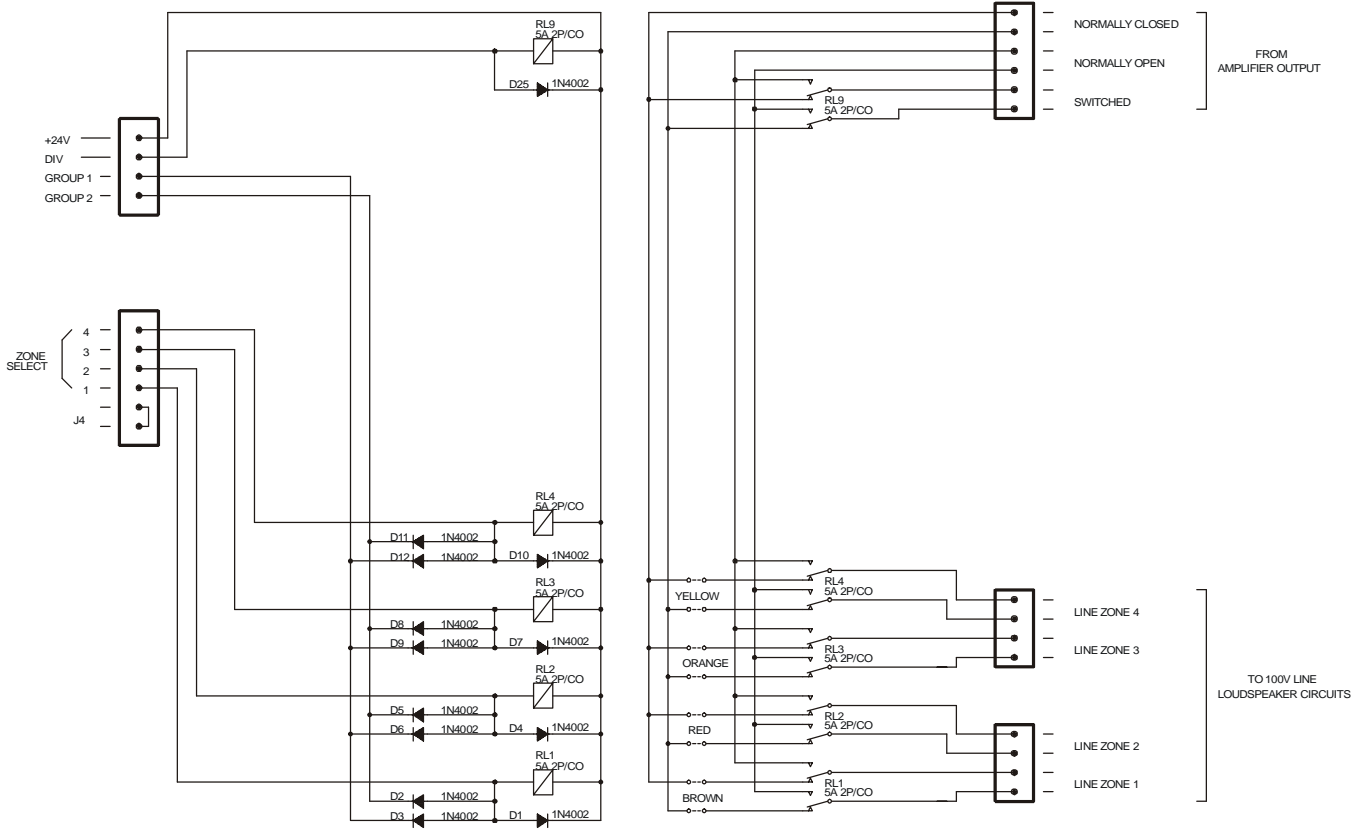


Figure 5 - B41R and B41RB Circuit Diagram

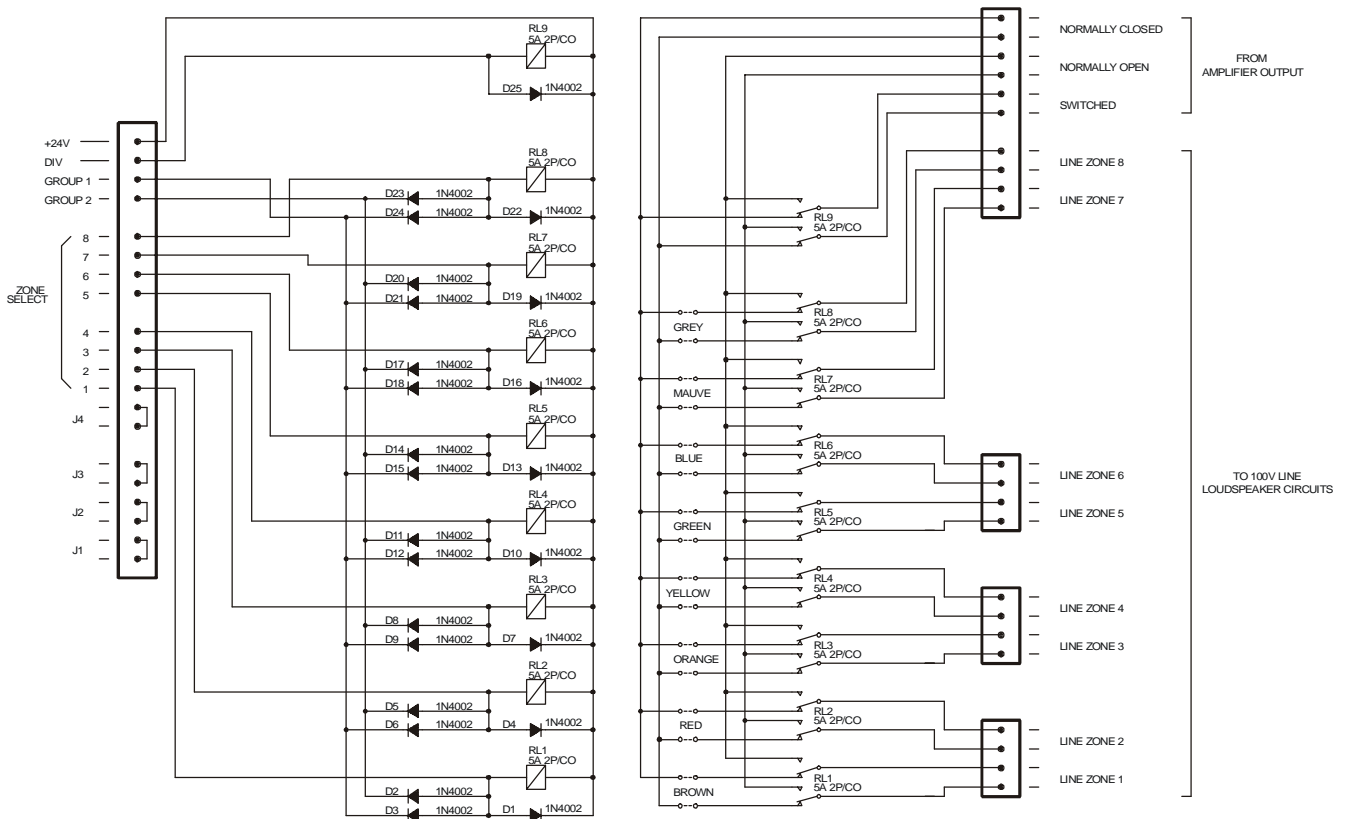


Figure 6 - B81R and B81RB Circuit Diagram