

Application Note APNT-0002

4x2 Stereo A/V Matrix Using R-165

This note shows how two Monroe Electronics Series 3000 Model R-165 A/V Relay Panels may be configured as a 4x2 matrix. RF, IF or just audio may be switched as well. In a complete stereo A/V hookup, these two panels will have 18 video connections and 72 audio connections (plus shields), power and control connections. Six 2x1 sections are required. Two 2x1 switches will remain unused for some other purpose.

The back of one of the R-165 panels is shown below in Figure 1:

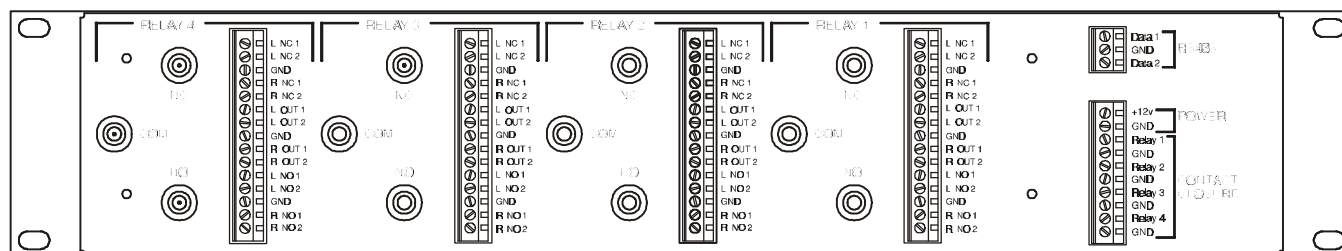


Figure 1

Control may be from a Monroe Electronics Series 3000 Program Timer (R-149 or R-153), a Series 6000 Remote Control (6002 or 6003) or other source of contact closures or logic inputs. A dedicated PC equipped with SWITCHWARE[®] software may also be used through the RS-485 interface.

Typical video connections are shown in Figure 2. Audio wiring is connected in a similar manner. Switching logic is shown in Table 1.

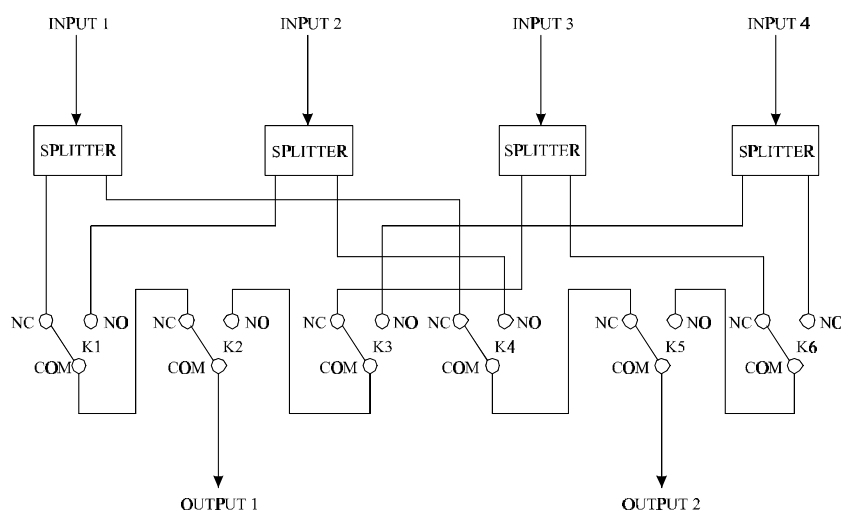


Figure 2

Output 1	Output 2	Relay(s) Energized
Input 1	Input 1	None (default)
Input 1	Input 2	K4
Input 1	Input 3	K5
Input 1	Input 4	K5+K6
Input 2	Input 1	K1
Input 2	Input 2	K1+K4
Input 2	Input 3	K1+K5
Input 2	Input 4	K1+K5+K6
Input 3	Input 1	K2
Input 3	Input 2	K2+K4
Input 3	Input 3	K2+K5
Input 3	Input 4	K2+K5+K6
Input 4	Input 1	K2+K3
Input 4	Input 2	K2+K3+K4
Input 4	Input 3	K2+K3+K5
Input 4	Input 4	K2+K3+K5+K6

Table 1