

## Multi-Position Audio Controller Switch

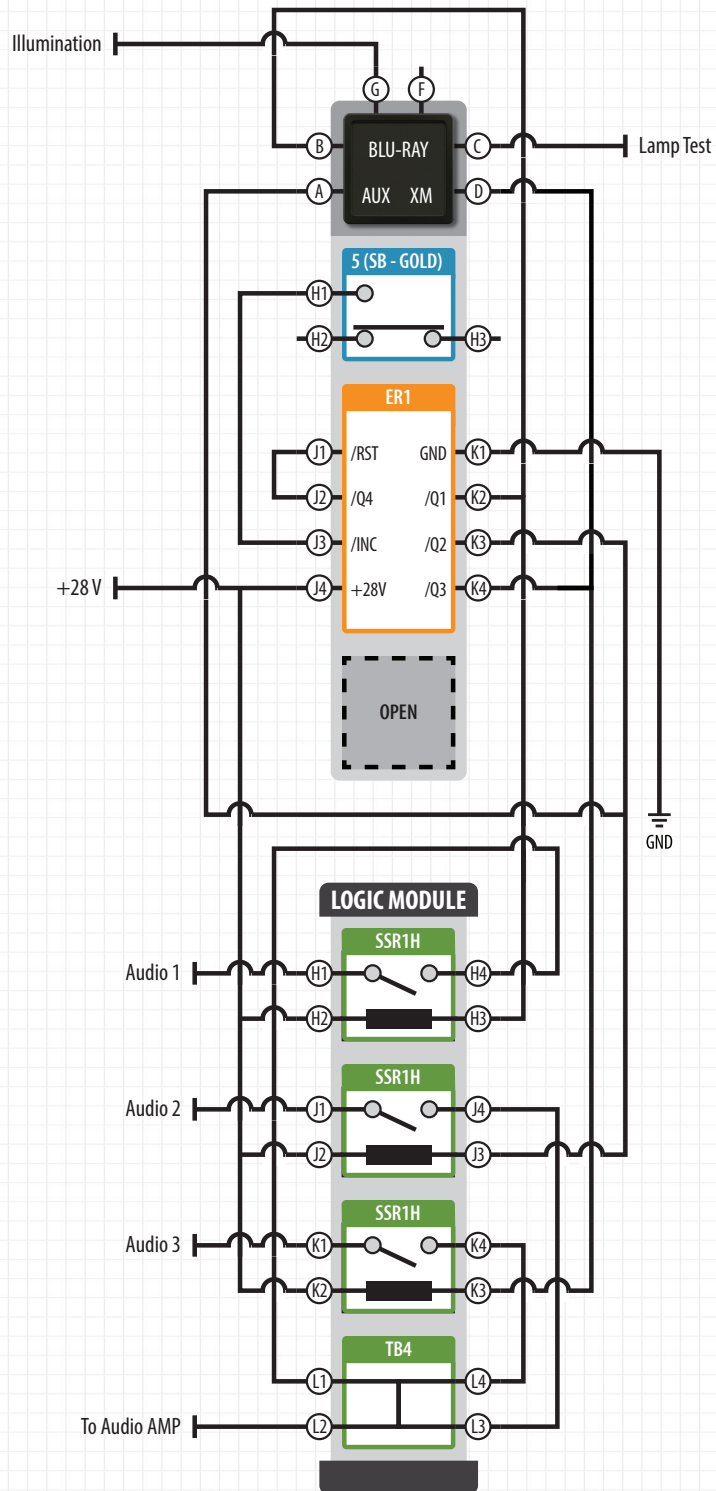
In-Flight Entertainment (IFE) systems require custom control hardware to activate or switch between different audio sources. LOGIC Component Technology offers a simple solution to this challenge with the ability to isolate and buffer individual signals and control multiple individual modes. This application example switches between BLU-RAY, AUX and XM Satellite Radio.

The LOGIC Series Components required to complete this application are contained in a VIVISUN High Capacity Body and one NEXSYS LOGIC Module. The High Capacity Body will include a single switch pole and an (8-Pin) Electronic Rotary (ER1). The LOGIC Module will contain 3 (4-Pin) Solid State Relays (SSR1H) and a (4-Pin) Terminal Block (TB4).

The Audio control system powers up with the ER1 in the default power up state with /Q1 output (K2) ground illuminating the BLU-RAY mode (B) and activating the Audio 1 Mode. When the mode switch is depressed the (H1) switch contact provides a ground to the ER1 /INC input (J3) causing the /Q1 output to transition from ground to high impedance and the /Q2 output (K3) to transition from high impedance to ground activating the AUX illumination legend (A) and the Audio 2 Mode. Depressing the switch a second time transitions the /Q2 output to high impedance and the /Q3 output (K4) from high impedance to ground activating the XM legend (D) and Audio 3. The third depression activates the /Q4 output (J2) which is tied to the /RST input (J1) which again transitions the /Q1 output to ground illuminating BLU-RAY and activating Audio 1 Mode.

The ER1 default power up state is with /Q1 ground which illuminates the BLU-RAY legend and activates the Audio 1 Mode. Moving all outputs down one position (/Q1 open, BLU-RAY moves to /Q2, AUX moves to /Q3, XM moves to /Q4 and /RST open) used would cause the system to power up with no legends illuminated and all modes inactive. The initial switch depression would then illuminate BLU-RAY and activate the Audio 1 Mode. The /Q4 output would be tied to the XM mode (D) and on the next switch depression the system reverts back to the off state as the /Q1 output follows the /Q4 and /Q1 is not connected.

To speak with our Technical Support team on how NEXSYS LOGIC Component Technology can be used to add avionics system capabilities or solve your system integration challenges call us at 1-888-848-4786.



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