

SAR-2

STEREO AUDIO RELAY A/B SWITCH



INSTALLATION MANUAL

IB 628203

DESCRIPTION

The SAR-2 Stereo Audio Relay A/B Switch is a 2X1 Stereo audio relay switching unit that is operated by a 12 VDC or 24 VDC control voltage. This device is a Broadcast quality Balanced Stereo Audio Relay switch. When used to select from two different audio sources, the unit stays in the "A" channel output position until 12 VDC or 24 VDC is applied to the power input connector, then the unit switches the audio input source to the "B" channel output. If the power is disconnected the unit will automatically switch to the "A" channel output.

The switch can also be used to switch from one source of audio and choose output A or output B using the control voltage. When purchasing the SAR-2 please specify 12 VDC (SAR-2/12) or 24 VDC (SAR-2/24) operation.

This switch uses two DPST dry contact air gap type relays and can be used for any signal balanced or un-balanced that needs to be controlled by an external low voltage control signal. A total of 8 separate input connections are controlled in an A/B switch configuration with 4 common output connections.

The unit can be used to engage a hot standby source, put up a test tone or simply cut off the audio signal with an applied voltage. This system will maintain your stereo audio integrity and reduce trouble calls or use it for to multiply low voltage industrial control signals.

FEATURES

Also included is a Green LED which indicates the status of the audio A/B switch. When the LED is on the unit is switched to the "B" position and when the LED is off it is in the "A" position for a visual indication of relay position.

Standard plug-in style removable screw terminal connectors are used for all the input and output signals. The left audio and right audio are on separate connectors for easy wiring. These screw terminal plugs can be pre-wired for ease of installation. This relay unit is housed in a flame-retardant (94-5VA) ABS box with two screw flanges for easy mounting.

RECEIVING INSPECTION

Remove the equipment from the packing materials. The following materials should be supplied with each order.

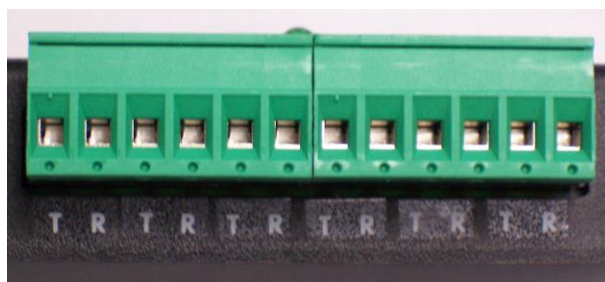
- QTY 1 SAR-2.
- QTY 1 Power Cube 12 VDC or 24VDC. Depending on order suffix /12 or /24.
- QTY 2 6 Position Plug Audio Connector (may be attached).

SET-UP AND INSTALLATION

Locate a convenient place to mount the unit using the two flanges on the case. Use appropriate size screws to mount the unit to any surface that is dry and safe from rain or any water. **Warning:** this unit is not protected from exposure to water, care must be taken to avoid contact with water as that may damage the components inside the box. If the unit must be mounted where it is exposed to weather, it must be placed inside an appropriate weather proof box to keep out any water or other elements.

The two 6 position snap in audio connectors can be removed to connect your audio or signal wires prior to installation when needed. Simply put the wire under the cage type opening in the connector and tighten down the screw for each connected wire. The following is a table of the connections used to switch Balanced audio from Primary to Secondary input. This audio switch is accomplished by two air gap internal relays switching in a DPDT configuration. In the event of a power loss the audio is switched to the “A” Primary audio side.

1. B input Left Tip or +
2. B input Left Ring or -
3. COM output Left Tip or +
4. COM output Left Ring or -
5. A input Left Tip or +
6. A input Left Ring or -
7. A input Right Tip or +
8. A input Right Ring or -
9. COM output Right Tip or +
10. COM output Right Ring or -
11. B input Right Tip or +
12. B input Right Ring or -



CONNECTOR BLOCK DIAGRAM

1 2 3 4 5 6 7 8 9 10 11 12

B COM A A COM B
 T R T R T R T R T R
 LEFT INPUT RIGHT INPUT

When audio wiring is complete Plug in the power cube and attach the \12VC OR 24VDC connector into the SAR-2 UNIT.

OPERATION

The SAR-2 unit will now switch the balanced audio channels from A to B under the control of the DC voltage input. When the voltage is supplied the A/B switch will be in the “B” position and the green LED will be “ON”. When the voltage is removed the A/B switch will rest in the “A” position and the green LED will be OFF.

MAINTENANCE

The SAR-2 is sealed and there are no adjustments or calibration required inside the box.

SPECIFICATIONS

AUDIO

Input / Output	Balanced Left / Right
Frequency Response	Flat from DC to 50KHz
Cross-Talk (A/B)	> 80 dB
Cross-Talk (Left/Right)	> 80 dB
Signal to noise ratio	> 90 dB

ELECTRICAL

Control Voltage	12 VDC or 24 VDC (Specify)
Contact Rating	0.3A @ 125 VAC
	0.3A @ 110 VDC
	1.0A @ 30 VDC

MECHANICAL

Power requirement	12 or 24 VDC Power Cube (Included)
Power Connector	2.5mm X 5.5mm Barrel type
Audio Connector	2 Six Position Plug-in Screw Terminal

Enclosure	2.2” x 4.9” x 1.1” ABS
-----------	------------------------