



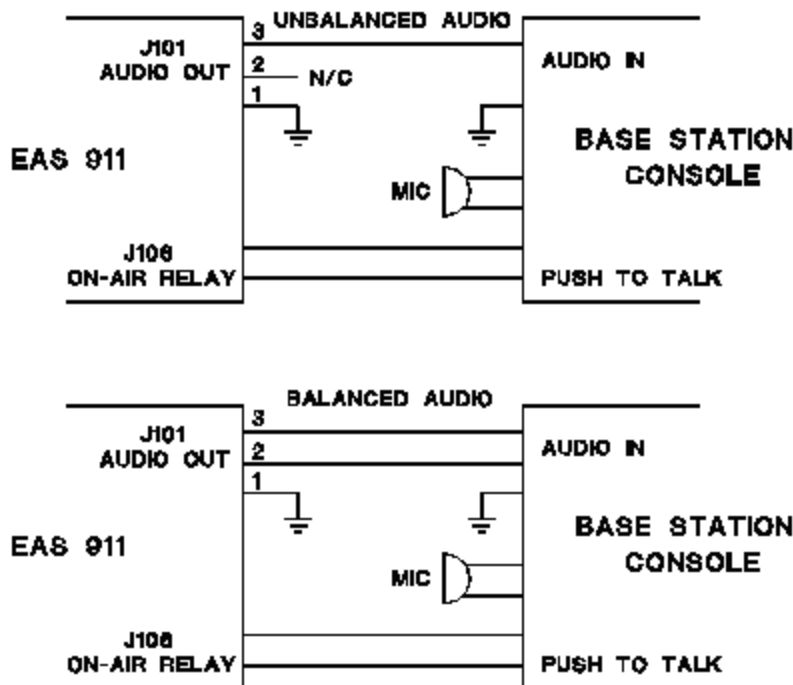
EAS APPLICATION NOTE No. 1008

Interfacing the EAS 911 to a 2-Way Radio Base Station

The EAS 911 Encoder/Decoder can be interfaced to a base station by connecting to an auxiliary audio input or by interrupting the audio output before the transmitter. The EAS 911 provides balanced or unbalanced audio and can adapt to a wide variety of base stations.

Console With Audio input

The illustrations below show typical balanced and unbalanced connections to a base station's auxiliary audio input. The audio output from J101 is capacitively isolated (no DC path to chassis ground), so it can be connected directly to the console's audio input. The audio output impedance is low, 150 Ohms balanced and 75 Ohms unbalanced, and isolating transformers can be used if necessary. The EAS 911's On-Air relay can be connected to the push-to-talk switch input for that audio channel. Some consoles use the push-to-talk switch for multiple functions, so consult the manufacturer's instruction manual to insure proper operation.

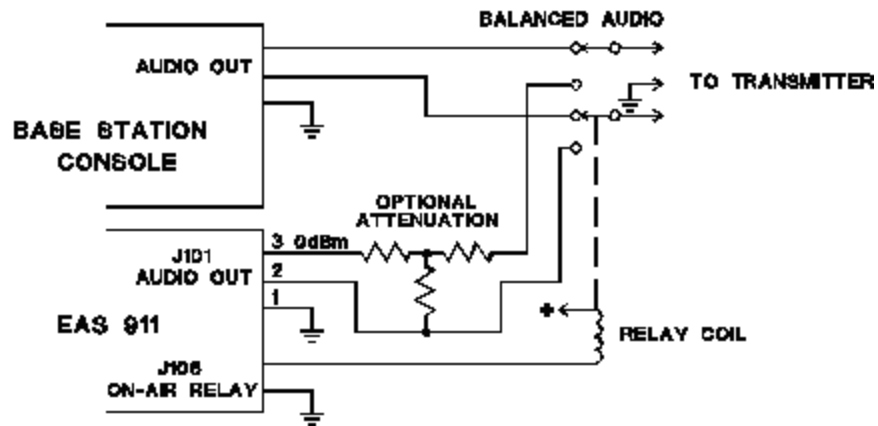
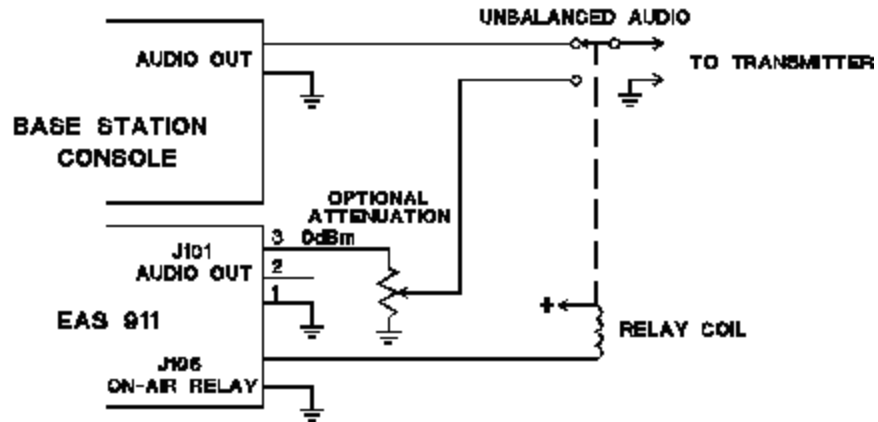


The Grounds are shown symbolically above. Ground wires should be carried along with the Signal and Shield wires; grounding should not be through equipment racks or frames.

When the EAS 911 transmits an alert, it closes the On-Air relay and then sends the header and two-tone audio. The On-Air relay opens and the operator can send the voice message with the console's push-to-talk microphone. At the conclusion of the voice message, the operator transmits the End Of Message (EOM) signal by pressing the EOM button. The EAS 911 closes the On-Air relay, transmits the EOM and opens the relay.

Console Without Audio Input

The illustrations below show typical balanced and unbalanced connections to interrupt the audio output between the console and the transmitter. A relay is inserted in the audio line feeding the transmitter, and its coil is operated by the EAS 911's On-Air relay.



The relay must be a low-signal type designed for audio applications. Some suitable relays are Omron G6A-234P-ST-US and Potter and Brumfield T83 series.

As mentioned above, Ground wires must be carried directly with the Signal and Shield wires, and must be kept isolated from the relay's ground connection.

When the On-Air relay closes, the relay is activated and the transmitter's audio input is switched away from the console's output and connected to the EAS 911's audio output.

TFT also manufactures a Model 940A Program/Transmitter Interrupt Unit that provides sufficient relays and audio outputs to accommodate four transmitters.