



Samson Wireless Microphone Frequencies

UK models only

When using two or more wireless microphones it is important to select two frequencies which are more than 0.5 MHz apart to avoid co-channel interference and intermodulation between the systems

- E1 - 863.125 MHz
- E2 - 863.625 MHz
- E3 - 864.500 MHz
- E4 - 864.875 MHz

All channels on these wireless microphones are in channel 70 - they are deregulated and license free in the UK & EU

Connecting to Beltpacks

Samson belt pack transmitters use 3 pin mini XLR connectors

Pin 1 ground

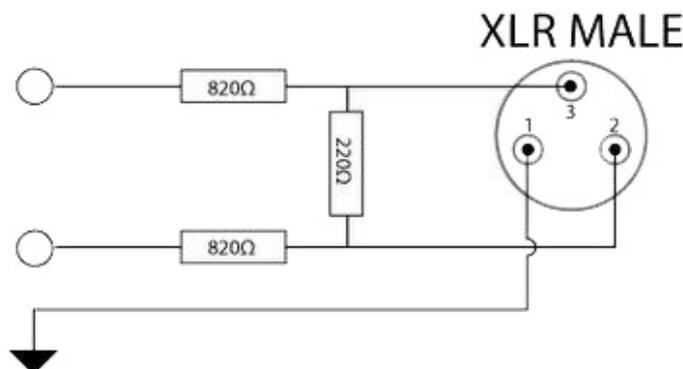
Pin 2 mic signal input

Pin 3 bias voltage +Ve

Attenuator Pads for Mics and Wireless Mic Receivers

Pads or attenuators are often needed to connect a wireless microphone receiver to over sensitive amplifier, PA sound system or mixer inputs. The mic pad will reduce the signal level so that the sound is less distorted and that the operator has more effective control over the volume

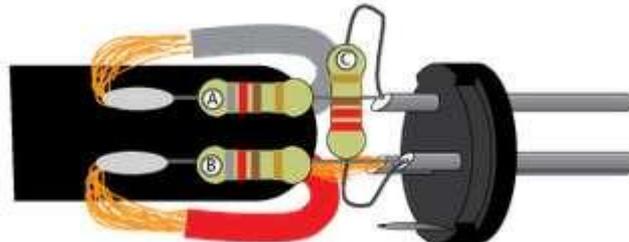
18.5db balanced mic pad attenuator



For unbalanced use replace 820 ohm resistor in the signal line with 1600 ohm (1K6) resistor, connect the 220 ohm resistor between signal and earth and do not use a resistor in earth / ground line

If you require less attenuation reduce the 820 ohm resistors to 390 ohms each for a 14db balanced mic pad

For ease, mount the three resistors in the male XLR connector that plugs into the amplifier or mixer

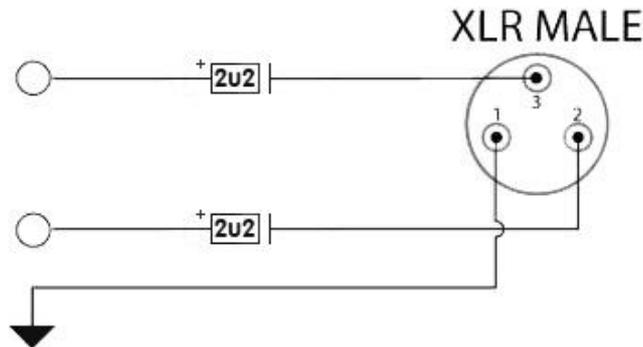


Phantom Power and Wireless Microphone Receivers

Many wireless microphone receivers are not protected from having phantom power connected to their balanced line audio outputs

By connecting a wireless mic receiver to a mixer or amplifier which has phantom power selected can often damage your receiver in moments

You can prevent this damage by having two 2.2mfd (2u2) 63v polarized capacitors in your XLR lead between the receiver and the mixer or amplifier. Taking care to ensure that the capacitors are the correct way round in series with the signals on each of pins 2 and pins 3 of your XLR lead



The positive of the capacitor should connect to the receiver and the negative of the capacitor should connect to the mixer or amplifier

Wireless Mic Aerial Lengths

The length of wireless receiving and transmitting aerials is critical and the following nominal values should be used when replacing broken or missing antenna on wireless mic equipment

Nominal Frequency	Band - Channel	Frequency Range	1/4 Wavelength Aerial Length
174.0 MHz	VHF	173.800 to 175.000 MHz	16" - 40.75cm
610.0 MHz	UHF - Ch 38	606.000 to 614.000 MHz	4" - 10.25cm
684 MHz	UHF - Ch 46 - 48	672.000 to 696.975 MHz	3.5" - 9cm
858.0 MHz	UHF - Ch 69	854.000 to 862.900 MHz	3.25" - 8.25cm
864.0 MHz	UHF - Ch 70	863.000 to 865.000 MHz	3.25" - 8.25cm

Use double the length for 1/2 wavelength aerials