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Citronic Wireless Microphone Frequencies

When using two or more wireless microphones, or *radiomics*, 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

We have found that it is sometimes possible to use Ch 1 - 863.350 MHz, Ch 5 - 863.750 MHz, Ch10 - 864.350 MHz and Ch 16 - 864.950 MHz when you need to use 4 deregulated and license free channels at the same time All channels on these wireless microphones are in channel 70 - they are deregulated and license free in the UK & EU

	Frequency - MHz
Ch 1	863.350
Ch 2	863.450
Ch 3	863.550
Ch 4	863.650
Ch 5	863.750
Ch 6	863.850
Ch 7	863.950
Ch 8	864.150
Ch 9	864.250
Ch 10	864.350
Ch 11	864.450
Ch 12	864.550
Ch 13	864.650
Ch 14	864.750
Ch 15	864.850
Ch 16	864.950

Citronic Channel 38 radiomics require a licence prior to use in the UK

	Frequency - MHz
Ch 1	606.600
Ch 2	607.000
Ch 3	607.500
Ch 4	608.150
Ch 5	608.500
Ch 6	609.150
Ch 7	609.500
Ch 8	609.950
Ch 9	610.550
Ch 10	610.900
Ch 11	611.250
Ch 12	611.750
Ch 13	612.300
Ch 14	612.750
Ch 15	613.150
Ch 16	613.500

Connecting to Beltpacks

Citronic belt pack transmitters use two pole locking 3.5mm jack connectors with 7.9mm male thread on plug
Tip mic signal input with bias voltage
Sleeve: ground

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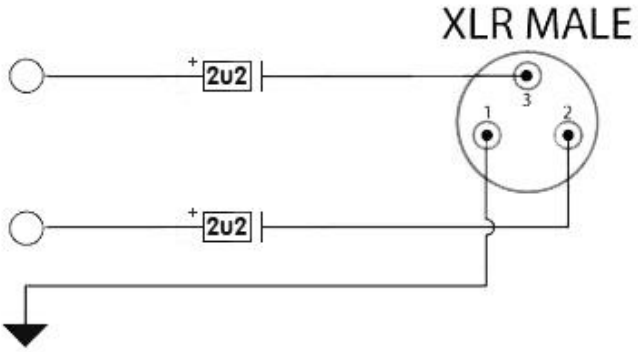
Phantom Power and Wireless Microphone Receivers

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

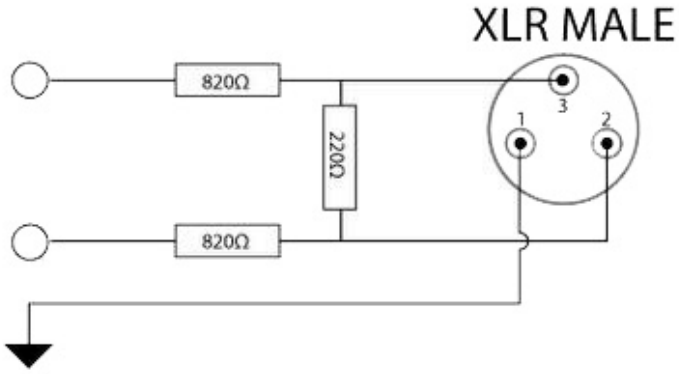


The positive of the capacitor should connect to the receiver and the negative of the capacitor should connect to the mixer or amplifier

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

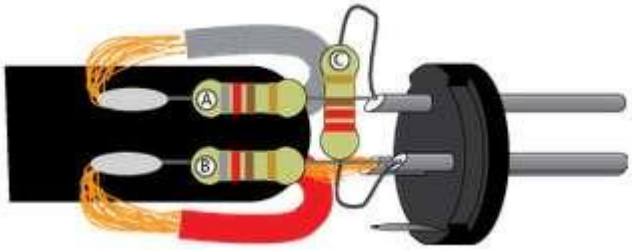
18.5db balanced mic pad attenuator



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



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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