



Toa 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

Please note that not all channels are legal for use in the UK

Please note that Ch 69 frequencies 854.000 MHz to 862.000 MHz and are no longer licensable within the UK

Channels C to F on Bank 1 are all in channel 70 - they are deregulated and license free in the UK & EU

	Bank D01	Bank D02	Bank D03	Bank D04
	Frequency - MHz			
Ch 0	854.900	858.975	846.900	842.325
Ch 1	855.275	859.500	847.275	843.525
Ch 2	855.900	863.725	847.900	844.450
Ch 3	856.175	846.425	848.175	846.025
Ch 4	856.575	846.950	848.575	848.475
Ch 5	857.625	847.925	849.625	863.025
Ch 6	857.950	849.575	849.950	864.300
Ch 7	858.200	850.050	850.200	864.650
Ch 8	858.650	861.200	850.650	863.000
Ch 9	860.400	861.750	850.975	863.475
Ch A	860.900		851.500	864.350
Ch B	861.550		852.400	864.725
Ch C	863.375 deregulated		852.900	842.750
Ch D	863.925 deregulated		853.200	849.500
Ch E	864.375 deregulated		853.550	853.375
Ch F	864.725 deregulated		853.750	

UHF Wireless Mic Frequencies:

WM-4200, WM-4300, WT-4800 & others - utilise all 4 banks

WM-4210, WM-4220, WM-4310, WT-4810, WTU-4800 & others - include bank D01 only

Connecting to Beltpacks

Toa belt pack transmitters use a slim two pole locking 3.5mm jack connectors with a threaded cap over the plug
Tip mic signal input & +Ve bias voltage
Sleeve ground

To make a converter lead for a microphone with a IMG Stageline / AKG standard 3 pin mini XLR connector for use with a Toa wireless transmitter connect the screen on pin 1 of the XLR to the sleeve of the slimline 3.5mm mini jack and the signal and bias connection on pin 3 of the XLR to the tip of the slimline 3.5mm mini jack

Tips & Tricks

Toa wireless mic transmitters have two LEDs, one red and one green. If a transmitter locks and the LEDs are flashing alternately then you have probably set the transmitter to an unprogrammed (unused) bank & channel

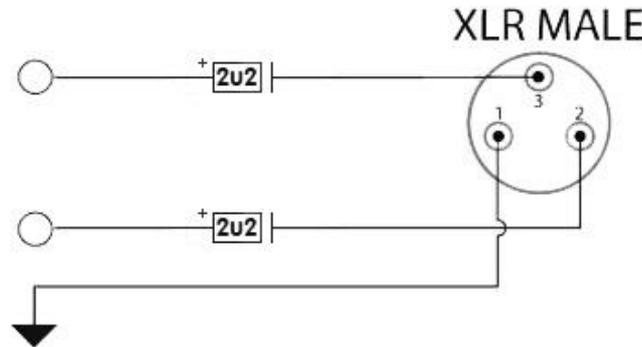


Phantom Power and Wireless Microphone Receivers

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

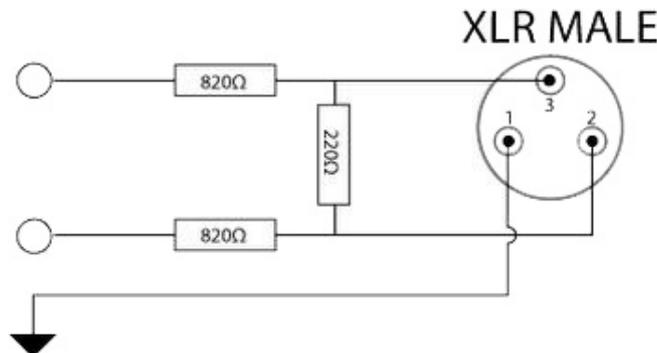


The positive of the capacitor should connect to the receiver and the negative of the capacitor should connect to the mixer or amplifier

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

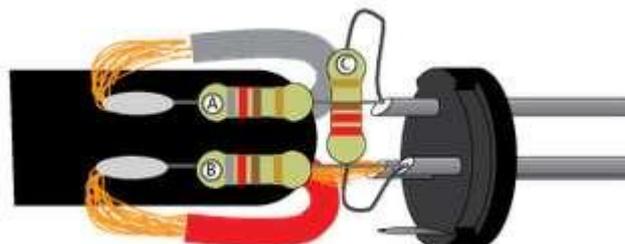
18.5db balanced mic pad attenuator



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





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

