



I N S T R U C T I O N M A N U A L

# KWM1940 V2

UHF wireless microphone / bodypack systems

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Due to continuous product development, please ensure that you have downloaded the latest instruction manual for this product from the Kam website at [www.kam.co.uk](http://www.kam.co.uk)

For the latest updates and information on the entire Kam range visit:

[www.kam.co.uk](http://www.kam.co.uk)

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Due to continuous product development, specifications and appearance are subject to change. © Copyright Lamba plc. E&OE.



**Thank you for purchasing this Kam product, we are sure that it will serve you for many years to come.**

To optimise the performance of this product, please read these operating instructions carefully to familiarise yourself with the basic operations of this unit. Please retain them for future reference. This unit has been tested at the factory before being shipped to you.

To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture. To prevent a fire hazard, do not expose the unit to any naked flame sources. Unplug this apparatus during lightning storms or if it is unlikely to be used for long periods of time. When installing the unit, please ensure you leave enough space around the unit for ventilation. Slots and openings in the unit are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered.

The unit is mains powered, always handle the power cable by the plug. Never pull out the plug by pulling on the cable. Never touch the power cable when your hands are wet as this could cause an electric shock. Do not tie a knot in the cable. The power cable should be placed such that it is not likely to be stepped on. A damaged power cable can cause a fire or give you an electrical shock. Check the power cord periodically, if you ever find that it is damaged, replace it before using the unit again. Contact your retailer for a replacement.

The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit is to be used meets the required written on the unit.

**The lightning flash symbol inside a triangle is to alert the user to the presence high voltage within the unit's enclosure that may be of sufficient power to constitute a risk of electrical shock to persons.**

**Caution: to prevent the risk of electric shock, do not attempt to open the unit. No user-serviceable parts inside. Refer all servicing to qualified service personnel.**

**The exclamation mark inside a triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.**

Select the installation location of your unit carefully. Avoid placing it in direct sunlight or locations subject to vibration and excessive dust. Do not use the unit where there are extremes in temperature (below 41°F / 5°C or exceeding 95°F / 35°C).

**Unpacking and safety** Please unpack your new product carefully. Your new product should reach you in perfect condition. Please check that no damage has occurred during transit. If any damage is found, do not operate your unit. Please contact the retailer you purchased it from immediately. If there is any damage to the mains cable do not use the device. Always disconnect the unit from the mains supply when carrying out any cleaning of the unit.

#### **Manufacturer declarations**



In compliance with the following requirements: **RoHS Directive (2002/95/EU)** and **WEEE Directive (2002/96/EU)**, and **Battery Directive (2006/66/EU)**. If this product is ever no longer functional please take it to a recycling plant for environmentally friendly disposal. Any supplied batteries can also be recycled.

#### **CE declaration of conformity**

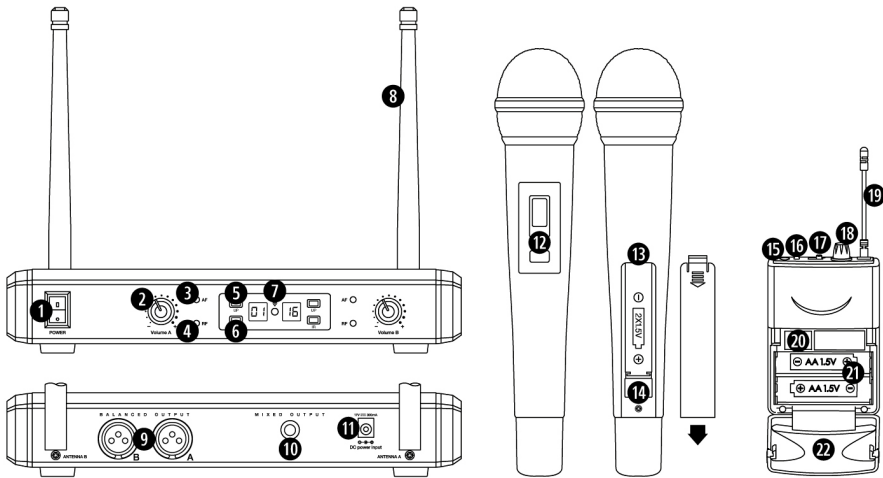
R&TTE Directive (1999/5/EU), EMC Directive (2004/108/EU), Low Voltage Directive (2006/95/EU).

The declarations are available on application from [certification@lambpalc.com](mailto:certification@lambpalc.com)

Before putting device into operation, please observe the respective country-specific regulations.

**Kam KWM1940 V2 systems** use 16 UHF frequencies from 863.0 to 865.0 MHz.

Systems are available with handheld microphones or bodypack kits (including headset mic, lavalier/lapel mic and guitar/instrument lead). If you have purchased the optional **Kam BP1940 V2 Kit**, you will also need a Kam KWM1940 V2 receiver (not included in the BP1940 V2 Kit) to operate and receive signals from your bodypack.



#### Receiver front panel

1. Power On/Off switch
2. Channel volume control knob
3. AF LED (audio frequency indicator)
4. RF LED (radio frequency indicator)
5. Channel selection button
6. IR connect button
7. Infrared connect window / LED indicator
8. Adjustable antenna

#### Receiver rear panel

9. Balanced XLR sockets for audio output
10. Unbalanced 6.35mm jack socket for mixed audio output from both channels
11. DC power supply input socket

#### Handheld microphone transmitter

12. Mic power On/Off switch / indicator LED
13. Compartment for 2 x AA 1.5V batteries
14. Infrared connect window

#### Bodypack transmitter (optional kit)

15. Mic/guitar/instrument input socket
16. Battery status indicator
17. Bodypack transmitter power On/Off switch
18. Volume control
19. Flexible transmitter antenna
20. Infrared connect window
21. Compartment for 2 x AA 1.5V batteries
22. Battery compartment flip-out cover

#### Operation

Before operating the system ensure that you have installed fresh new batteries in the mic or bodypack transmitters.

#### Receiver operation

1. Connect audio outputs for channel A and B to your mixer/amplifier/PA speaker system, either two balanced XLR cables for dual output or a single unbalanced 6.35mm jack cable for mixed output of both channels.
2. Turn down the receiver channel volume control knobs (2.) before wirelessly connecting your transmitters.
3. Connect the DC power supply to the receiver and plug into an appropriate power outlet.

#### Automatic transmitter connection to receiver (ACT)

1. Ensure that the microphone/bodypack is turned OFF and the receiver is turned ON.
2. Decide which of the 16 frequencies you wish channel A to operate on. In this example we will choose the first frequency (863MHz). On the receiver unit, press and hold the channel selection button (5.) until the channel number LEDs start flashing. Press the button again to move up through the frequencies until you reach your chosen frequency (e.g. 1). Wait until the channel number LEDs stop flashing, this is now your selected frequency.

3. Slide off the battery compartment cover on the rear of your mic (by pushing downwards towards the base) or open the bodypack battery compartment.
4. **Now turn ON your mic/bodypack transmitter.**
5. Ensure that there is a short and direct line-of-sight between the transmitter infrared connect window (14. on the mic or 20. on the bodypack) and the receiver's infrared connect window (7.). In other words, point the **open** battery compartment of the mic or bodypack towards the middle of the receiver's front window.
6. Press and hold the IR connect button on the receiver (6.), the infrared connect window's LED indicator will flash momentarily and then the RF LED indicator (4.) will light up green. The receiver and mic or bodypack are now connected (channel A = frequency 1 / 863MHz). To test the connection, speak into the mic, the AF LED indicator should light up orange to indicate that the unit is receiving an audio signal. To test the bodypack, attach one of the mics or an instrument to the bodypack input socket (15.), turn up the volume control (18.) and speak or play, the AF LED indicator should light up orange to indicate that the unit is receiving an audio signal.

Whenever the mic/bodypack transmitter or system are turned off and then turned on again, the ACT connection should remain in place until you change the channel frequency on the receiver. This allows the mic/bodypack to be turned on and off during performance. If for any reason the connection is lost, simply repeat from step 1.

To connect the second microphone/bodypack to Channel B, repeat the above procedure from step 1. (but choose a different frequency in step 2.). **To avoid interference between the two channels**, ensure that your chosen frequencies are not too close to each other (e.g. 1+2), instead choose two separated frequencies e.g. 1+14 or 5+15.

When both channels have transmitters connected, turn up the channel volume controls on the receiver and the volume controls on your connected mixer/amplifier/PA speaker system, you should hear the signal coming through and you can adjust the volumes to suit your performance.

**VERY IMPORTANT** - if you wish to run 2 receivers and 4 transmitters together and to avoid interference between the two systems, it is recommended you use the following setup:

**Unit 1** - set **channel A** to frequency **1** and set **channel B** to frequency **14**.

**Unit 2** - set **channel A** to frequency **5** and set **channel B** to frequency **15**.

### Troubleshooting

If you are having trouble connecting the mic/bodypack transmitters to the receiver, first check whether you have fresh working batteries correctly installed. Weak or dead batteries will NOT be able to make a connection. If you still fail to connect the two, start by turning both units OFF for 5 seconds, then turning the receiver only back on and starting the connection procedure from step 1.

### Technical specifications

#### UHF receiver

16 UHF frequencies from 863.0 to 865.0 MHz  
 Balanced output sockets (3-pin XLR)  
 Unbalanced 6.3mm jack for mixed audio output  
 Twin adjustable antenna system  
 Automatically calibrated frequency stabilisation  
 Dynamic range: >90dB  
 Total harmonic distortion: <0.4%  
 Frequency response: 40Hz-15KHz  $\pm 3$ dB  
 S/N ratio: >95dB  
 Image and spurious rejection: >80dB  
 Border upon channel rejection: >80dB  
 Receiving sensitivity: -95dBuV  
 De-emphasis: 75uS  
 Receiver power supply DC 17V 300mA  
 Power consumption: <4W  
 Dimensions: 270 x 175 x 50mm (WxDxH)  
 Weight: 783g

#### Handheld microphone transmitters

Steel metal grille  
 Transmitter power: 10mW  
 Modulation type: FM  
 Max deviation:  $\pm 20$ KHz  
 Spurious emission: >50dB  
 Mic battery voltage: 3V (2 x 1.5V AA batteries)  
 Continuous usage: 5 hours  
 Dimensions: 48 x 48 x 230mm (WxDxH)  
 Weight: 240g

#### Bodypack transmitters

Easy access on/off switch / belt clip / battery indicator  
 Adjustable gain control (for guitar/instrument levels)  
 Mic battery voltage: 3V (2 x 1.5V AA batteries)  
 Continuous usage: 5 hours  
 Dimensions: 60 x 28 x 97mm (WxDxH) not inc aerial  
 Weight: 80g